

Parts & Accessories



Printed in the U.K.

SPITFIRE



SPITFIRE Mk IV & 1500



MZCP307





Rebuild PROGRAMME



The Moss Rebuild Programme

Our revised Rebuild Programme is available to customers who are undertaking a major rebuild or a reshell.

Its purpose is two-fold - firstly it is designed to save you money on parts, accessories, and secondly you will receive expert technical advice from our nominated Moss technical advisor.

To qualify, all you need to do is spend £950. You instantly receive a 10% discount on the initial order (excluding bodyshells) and all future orders of any value for the duration of the rebuild (up to a maximum of two years). Shipping costs excluded.

To get the ball rolling you only need to contact your local branch or write to us at: **Customer Services Dept, Moss Europe Ltd, Hampton Farm Industrial Estate, Hanworth, Middx TW13 6DB. U.K.**

Alternatively, fax or E-Mail us (see the Back Cover for contact details).

We pioneered the Rebuild Programme many years ago and have enabled 1000's of enthusiasts to put their cars back on the road.

Save 10% on all parts (excluding bodyshells) during the rebuild period. A rebuild cost of £10,000 means you will save £1000!

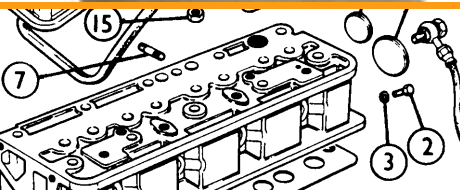
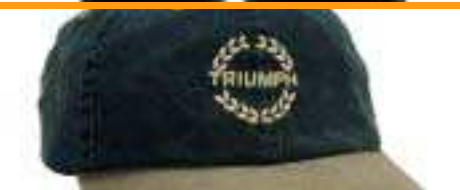
Expert technical advice a phone call away.

Unrivalled parts & accessories availability.

Next day delivery available if necessary.

10% OFF TERMS





02-05 | Interior

Moto-Lita & Mountney Steering Wheels, MOMO, Alloy, Wooden & Leather Gear Knobs, Seat Belts & Harnesses, Smiths Instruments, Walnut Veneer Trim, Badges & Stickers...

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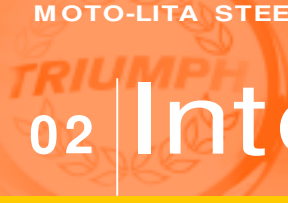
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02 Interior

Moto-Lita, Leather | 01



Moto-Lita, Wood | 02



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Mountney, Leather | 04



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MOMO, Race | 07



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Moto-Lita Steering Wheels

Moto-Lita are among the finest replacement steering wheels available. Designed to enhance the appearance of the cockpit and provide an improved feel for the driver. Available in a variety of styles, as listed below, to suit your personal requirements. We recommend the use of a flat wheel to provide maximum arm reach and comfort.

Moto-Lita W heels;

	Flat	Dished
(01) 13" Leather (Polished Spokes)	MLW 1111-13	MLW 1113-13
14" Leather (Polished Spokes)	MLW 1111-14	MLW 1113-14
15" Leather (Polished Spokes)	MLW 1111-15	MLW 1113-15
(02) 13" Wood-rimmed (Polished Spokes)	MLW 1115-13	MLW 1116-13
14" Wood-rimmed (Polished Spokes)	MLW 1115-14	MLW 1116-14
15" Wood-rimmed (Polished Spokes)	MLW 1115-15	MLW 1116-15
(03) 13" Leather (Black Spokes)	MLW 1112-13	MLW 1114-13
14" Leather (Black Spokes)	MLW 1112-14	MLW 1114-14
15" Leather (Black Spokes)	MLW 1112-15	MLW 1114-15

Adaptor Bosses (All Moto-Lita wheels);

Spitfire Mkl to early 1500 (1961-1977)	MLW 1117B20
Spitfire 1500 (1977 on)	MLW 1117B45
Herald, Vitesse GT6 (1961-1973)	MLW 1117B20

Technical Tip

The original pencil brush horn contact (where fitted) must be retained when fitting a Moto-Lita or Mountney steering wheel.

Mountney Steering Wheels

Mountney steering wheels are renowned for their affordable quality. Available in a range of styles as detailed below.

Leather Steering W heels;

(04) 12" Flat/Polished Spokes	MSW 009
13" Flat/Polished Spokes	MSW 008
14" Flat/Polished Spokes	GAC9101X
13" Flat/Black Spokes	MSW 008B
14" Flat/Black Spokes	GAC9101XB

Wood-rimmed Steering Wheels;

(05) 13" Dished/Polished Spokes	MDW 007
13" Flat/Polished Spokes	GAC9111X

Adaptor Bosses (Mountney);

Spitfire Mkl to early 1500 (1961-1977)	GAC9122X
Spitfire (1977 on)	GAC9121X



MOMO Accessories

For over 30 years MOMO has been developing and producing automotive products to the very highest quality. Whichever MOMO steering wheel or gear knob you choose, they will compliment your classic interior.

Momo Steering Wheels;

(06) 'Champion' (Leather)	MOM O1043
'Corse' (Leather)	MOM O1044
(07) 'Race' (Leather)	MOM O1045
(08) 'Power' (Leather)	MOM O1046
(09) 'Daytona' (Carbon)	MOM O1047
'Competition' (Leather)	MOM O1048
'Racing Line' (Leather)	MOM O1049
'Millenium' (Leather)	MOM O1700
'Olympic' (Wood/Leather)	MOM O1071
(10) 'Fighter' (Wood/Leather)	MOM O1072
(11) 'Fashion' (Wood/Leather)	MOM O1073

Adaptor Boss (All models);

Spitfire/Herald/GT6/Vitesse	GAC6011X
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Momo Gear Lever Knobs;

(12) 'Anatomic' (Hide)	MOM O1050
(13) 'Anatomic' (Wood)	MOM O1051
'Shadow' (Carbon)	MOM O1052
(14) 'Competition' (Aluminium)	MOM O1053
(15) 'Sport' (Aluminium)	MOM O1054
'Race' (Aluminium)	MOM O1055
(16) 'Race Air' (Leather)	MOM O1057
'Race Air' (Leather/Alloy)	MOM O1060
(17) 'Phantom' (Carbon)	MOM O1059
'Action' (Wood/Adjustable)	MOM O1061
(18) 'Action' (Carbon/Adjustable)	MOM O1062
'Action' (Leather/Adjustable)	MOM O1063
'Sphere' (Black Leather/Aluminium)	MOM O1064
'Sphere' (Aluminium/Chrome)	MOM O1065
(19) 'Sphere' (Legno) (Wood)	MOM O1066
'Sphere' (Chrome/Wood)	MOM O1067





Alloy & Carbon Gear Lever Knobs

A range of Gear Lever Knobs to add some sizzle to the interior of your classic. Available in, Anodised, Polished Aluminium or Carbon Fibre effect to suit your individual taste. With the 'Apollo' you can even 'mix & match' the colours as we supply the lower fitting kits separately.

Type	Red	Blue	Polished	Black
'Racer' (Alloy)	GAC8476X	GAC8477X		
(20) 'Apollo' (Alloy)	GAC8472X	GAC8473X		
'Apollo Fitting Kit'	GAC8481X	GAC8482X	GAC8480X	
(21) 'F1' (Carbon)				GAC8475X
'F1 Fitting Kit'				GAC8483X

Wood & Leather Gear Lever Knobs

Whether you choose Polished Varnished Wood, or Comfortable Leather, both are available bearing emblems. Available with either a nylon self threading insert to allow easy fitting or, with a with fine machined alloy insert providing a more stable fitting.

with Self Threading Plastic Insert	Wood	Leather
'Triumph Shield' logo	(22) GAC6050X	GAC6051X
with Metal Threaded Insert	Wood	Leather
'Triumph TR' logo	GAC6042X	(23) GAC6043X

High Security Steering Wheel Immobiliser

Shorty is revolutionary secure and compact steering lock designed for maximum security and ease of use. It clamps onto the steering wheel and is quickly locked into position, making it impossible to sit in the drivers seat and turn the wheel. Just look at the features:

- Highly visible deterrent
- 25,000 individual key combinations
- Drill and Pick proof
- Fits in seconds
- Compact design for easy storage
- Case hardened structure
- Unique wheel rim protection
- Life-long guarantee

(24) Shorty' anti-theft device

TT7963

Seat Belts & Harnesses

All our seat belts/harnesses are manufactured in the U.K. to exacting standards. The replacement belts come with fittings and are sold individually.

Static Belt;

30cm (Standard) length stalk	SBS300/30
45cm length stalk	SBS300/45

Inertia Reel Belt;

(25) 30cm (Standard) length stalk	SBS500/30
45cm length stalk	SBS500/45

Inertia Reel Belt (Angle Adjustable);

30cm (Standard) length stalk	SBS514/30
45cm length stalk	SBS514/45

These adjustable reel belts attach to the original 3 mounting points but feature angle-adjustable reel, eliminating pivot/guide on top of wheel arch. Offers a solution to problems encountered where mounting points may be unsuitable because of non-standard seats or a Aley roll-bar.

Reinforcing Plates (Pair)	TT7968
Bolts & Spacers (Car set)	TT7969

Race Harness & Mountings

Please see page 24 for our '4 point' harness kits.

Footwell Carpets & Mats

Two types of mat are available; moulded rubber or hard wearing carpet. Our mats are shaped to fit neatly within the confines of the footwell and, they provide excellent protection for your carpets.

Rubber Floor Mats

Moulded rubber floor mats, so popular with owners who wish to prolong the life of their footwell carpets. This high quality, injection moulded, product will keep carpet wear to a minimum and is easily cleaned by using soap and water.

Carpet Over-mats

Specifically made for Spitfires (with Triumph 'Laurel Wreath' logo), these nylon footwell over-mats are mud and water resistant and include an anti-slip backing. They are supplied as a pair, with rubber heel mats sewn onto both to allow fitment to RHD & LHD models.

(26) Rubber Floor Mats

AM 6820-2

(27) Carpet Over Mats

MAT4



04 Interior

Tachometer Gauge | 01



Oil/Water Gauge | 05



Door Threshold Plates | 08



Clock | 06



Replacement Dash Tops | 09



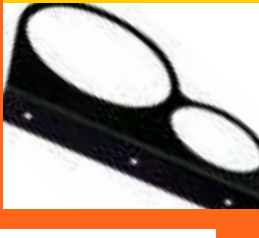
Oil Pressure Gauge | 02



Water Temp | 04



Mounting Plinth | 07



Engine Comp. Liner | 12



Instruments

As well as original units, we also supply a range of quality ancillary instruments & gauges that will not only enhance your classic, but will also help you to keep an eye on what's happening under the bonnet - or not, as the case may be!

Tachometer - Electric (80mm);

- (01) with 'Black' face GAE125X
- with 'Magnolia' face GAE130M

Oil Pressure Gauge (2");
Complete with connections.

- (02) with 'Black' face GAE123X
- with 'Magnolia' face GAE123M

Oil Temperature Gauge (2");
Complete with capillary connections.

- (03) with 'Magnolia' face GAE129M

Water Temperature Gauge (2");
Complete with connections.

- (04) with 'Black' face GAE124X
- with 'Magnolia' face GAE124M

Oil Pressure/Water Temperature Gauge (2");

- (05) with 'Black' face (Lbs/F°) GAE127X
- Complete with connections.
- with 'Black' face (Lbs/C°) *LUSJB100
- Less connections, *see Fittings.

Ammeter (Dynamo) (2");
(30-0-30 amps) LUSIB300

Battery Condition Indicator (2") GAE122

- Clock (2");
- (06) with 'Black' face GAE128X
- with 'Magnolia' face GAE128M

Mounting Plinth (Single);
for 80mm gauge GAC8460X
for 2" gauge GAC8468X

Mounting Plinth (Twin);
(07) for one 80mm & one 2" gauge GAC8461X
for two 2" gauges GAC8469X



| 03

Fittings (for oil pressure gauge/switch);

- Adaptor ('T') LUSIB748
- Pipe (nylon) LUSIB703
- Adaptor (male/male) CAM6431
- Washer (Leather) 2K4936

Fittings (for water temperature gauge/bulb);

- Adaptor (male/male) 11K2846X
- Adaptor (male/female) 11K2846

Door Threshold Plates

Protect your paint from scuffs & scratches.

Our highly polished Stainless Steel door step threshold plates (supplied in pairs), can be fitted by screws, rivets, glue, or double sided tape. Our brushed Aluminium treadplates can only be screw fixed to the car. (Fittings not included).

Door Threshold Plates;

- (08) Stainless Steel (Laurel leaf) (each) TT7346
- Aluminium (Ribbed) (pair) GAC6066X

Classic Radios

These fully restored/overhauled Classic Radios come with a 12 month warranty,

Motorola Classic Radios;

- 5 button lw/mw RADIO/M
- 5 button AM/FM RADIO/MC

RadioMobile Classic Radios;

- 5 button lw/mw RADIO/R
- 5 button AM/FM RADIO/RC

Replacement Dash Top

This area of the car can also suffer greatly from the effects of exposure to the elements, the vinyl can become brittle, leading to unsightly cracks.

Dash Tops;

- Spitfire M kI-III 714482Z
- (09) Spitfire M kIV & 1500 815281Z

Leather Key Fobs

Manufactured in England, they have a stitched leather fob and a high quality enamelled badge.

Key Fobs;

- (10) 'Union Jack' GAC4042
- Triumph 'Spitfire' GAC6052X
- 'TR' (Red & White) GAC6054X
- (11) 'TR' (Blue & White) GAC6053X



Key Fobs | 10-11



BMC Rosette | 15



Tax Disc Holder | 20



Aluminium Tax Disc Holders | 21



BMC Special Tuning | 17



Heatshield Insulation | 13

Leyland Special Tuning | 18

Ignition Key Blanks

These key blanks must be cut locally. Order by the series number of your original lock.

(19) FA Series	GAC1050X
FS Series	GAC1051X
FP Series	GAC1052X



Tax Disc Holder

Licence Holders;

(20) 'Triumph Shield'	CRLH413
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Aluminium Tax Disc Holders

These high quality (self adhesive) tax disc holders are not only easy to put on, they look really good too.

No more fiddling, no more guessing.

(21) Aluminium Tax Disc Holders;	
Blue	GAC4152X
Red	GAC4151X
Silver	GAC4150X

'Smart Screen'

The Modern Wiper Control System for Triumph

Our 'SmartScreen Wiper' kit allows you to have an intermittent wiper delay of between three & thirty seconds. The system is programmed by using your existing wiper switch, so, no extra switches or visible change to the interior.

The 'SmartScreen Wash/Wiper' kit (for all negative earth vehicles from 1967), allows you to have automatic wiper system when using your electric screenwash.

All kits are easy to fit & come with full instructions.

SmartScreen Wiper System - Models to 1967;

with Positive Earth	GAC9222X
converted to Negative Earth	GAC9224X

Models from 1967;

with Negative Earth	GAC9221X
---------------------	----------

SmartScreen Wash/Wipe System - Models from 1967 only;

with Negative Earth	GAC9225X
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Lexol Upholstery Care

The leather cleaner removes dulling grime from your seats, while the conditioner helps keep the leather soft & new. Vinylex is an all-in-one cleaner/protector for all vinyl & plastic surfaces.

(22) Vinylex	220-185
Lexol Leather Conditioner	220-195
Lexol Leather Cleaner	220-190
Lexol Conditioner (Refill)	220-200



Engine Compartment Liner

When applied to the inside surface of your engine compartment this 3/4" thick absorbent material will greatly reduce engine noise, and the heat reflective surface will help to protect your paintwork. Easy to cut, it is supplied in 4'x3' rolled sheets. Use with our 'Heatshield Insulation' for maximum benefit.

(12) Engine Compartment Liner	GAC9976X
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'Space Age' Heatshield Insulation

This foil covered felt not only provides excellent sound deadening qualities, it also insulates against 'hot & cold' and provides protection against fire. Ideal for bulkheads, transmission tunnel and floor pans. Easy to cut, it is supplied in 4'x6' rolled sheets.

(13) 'Space Age' heatshield insulation	GAC9853X
--	----------

Adhesive & Tape;

Aluminium Foil Tape	GAC9909X
(14) Adhesive (all material)	GAC9908X



Body & Screen Stickers

Here we have a range of transfers from the past to the present. See also Indoors/Outdoors for our range of embroidered badges & logos.

Body Stickers;

(15) 'BMC Rosette' (Red/white/blue)	CRTR208
(16) 'Overseas Visitor'	CRST241
(17) 'BMC Special Tuning' (Rosette)	CRTR207
'BL Special Tuning Abingdon' (Green)	CRST153
(18) 'Leyland Special Tuning' (Blue/silver)	CRST110
<i>(This item is usually displayed on the rocker cover)</i>	
'British Leyland' (Blue wing badge)	CRST126

Screen Stickers;

'BMC Rosette' (Red/white/blue)	CRTR204
'University Motors' (window transfer)	CRST397
'BMC Special Tuning' (Rosette)	CRTR207A



06 Exterior



Boot Rack | 01



| 06



Rubber Bonnet Hook | 09



England | 12



Boot Rack | 02

Bonnet Straps | 08

Triumph Badge | 10

BMC Drivers Club | 13

Monza Fuel Cap | 03

Aston Fuel Cap | 04

Fuel Cap | 05



RAC | 11

BRSCC | 14



Boot Racks

Boot racks are an extremely useful accessory, particularly when touring, providing invaluable extra luggage space. These clip-on boot racks are available in a range of styles to suit individual taste. Choose between Stainless Steel or Alloy, with Wood or Metal slats. Ideal for occasional use.

Clip-on racks (90 x34cm);

- | | |
|---------------------------|-----------|
| (01) Alloy/Alloy slats | GAC4001 |
| (02) Alloy/Wood slats | GAC4005X |
| Stainless/Stainless slats | GAC4004SS |
| Stainless/Wood slats | GAC4005SS |

Locking Fuel Caps

These elegantly styled (locking) fuel filler caps will give your classic that real finishing touch, whichever one you choose. (Note; please check whether you need a vented or non-vented fuel cap)

Locking Fuel Caps (Vented);

- | | |
|-------------------------------------|----------|
| (03) 'Monza' style - Polished Alloy | GAC4121X |
| 'Monza' style - Chrome | GAC4122X |
| (04) 'Aston' style - Polished Alloy | GAC4123X |
| 'Aston' style - Chrome | GAC4124X |

Locking Fuel Caps (Non Vented);

- | | |
|--------------------------------|----------|
| 'Aston' style - Polished Alloy | GAC4126X |
|--------------------------------|----------|

Original Flip-Up Fuel Caps;

- | | |
|---|----------|
| Round (Chrome) (Locking) | 571086 |
| (05) 'Lozenge' shape (Chrome) (Locking) | GAC6001X |
| Round (Chrome) (Non-Locking) | 613506 |
- (Fuel cap 613506 is non-vented)*

Bonnet Locks

These TriumphTune bonnet locks are fitted in front of the bonnet catch & lever with the inner chrome section to lock the bonnet when down. The pair of locks offer greater security for valuable under bonnet components.

- | | |
|-------------------|--------|
| (06) Bonnet Locks | TT7364 |
|-------------------|--------|

Bonnet Straps & Hooks

Essential for competition use, they are designed for universal fitting, so some body modifications may be required.

Bonnet Straps (Leather);

- | | |
|---------------------------------|-----------|
| (07) Black (pair) | GAC8422X |
| (08) Brown 'Works' Style (each) | GAC8423X |
| (09) Rubber Bonnet Hook, pair | HMP190136 |

Badges

A range of quality badges for your British classic. Suitable for both Grille & Badge Bar mounting.

See also 'Indoors/Outdoors' for our range of embroidered badges & logos.

Toothed' Badges (solid baked enamel)

- | | |
|---------------------------|------------|
| (10) 'Triumph' | MM 408-587 |
| (11) 'RAC' | GAC8045X |
| (12) 'England/Union Jack' | GAC8043X |
| 'Stars & Stripes' (USA) | GAC8044X |
| Clip (badges to bar) | GAC8041X |

Replica' Badges

- | | |
|---|----------|
| (13) 'BMC Drivers Club' | GAC9967X |
| (14) 'BRSCC' (British Racing & Sports Car Club) | GAC9969X |
| (15) 'St Christopher' | GAC9970X |
| (16) 'Queen Elizabeth' | GAC9968X |
| 'RAC' | |
| (17) 'Cloisonné' (Black, green & white) | GAC1028X |
| (18) 'Original' Blue background | GAC9971X |
| (19) Vintage Healey' | 408-460 |

B.A.R.C.' ('British Automobile Racing Club');

- | | |
|--|----------|
| (20) 'Brooklands' | GAC9966X |
| (21) 'Coat of Arms' | GAC9965X |
| (22) 'Lucas' (King of the road emblem) | GAC9972X |
| Clip (badges to bar) | GAC8041X |



| 07



'GB' Letter Set

'Bullet' Style Mirrors

Go on, be proud and fly the 'flag'.
Choose from stud mounted or self adhesive letters.

'GB' Letter set;

- (23) Stud Mounted (Stainless) (83mm high) M RD1034
- Self Adhesive (Stainless) (83mm high) M RD1034SA

Door Mirrors

These door mounted mirrors give excellent rear vision and are designed to be fitted in the original position.

Door Mirror (Chrome) (early style);

- (24) Right hand fitting YKC2960
- Left hand fitting YKC2959

Door Mirror (Leyland/Triumph style);

- (25) Stainless Steel (RH) GAM 258X
- Stainless Steel (LH) GAM 259X
- (26) Black finish (RH) GAM 261X
- Black finish (LH) GAM 262X

Door Mirror (TR5 O.E. style);

- Chrome (RH & LH) 622352

Wing Mirrors

Whether you fit the early Lucas type (round) mirrors or the later Leyland (rectangular) style, these period accessories will add that finishing touch.

Early (Lucas) Long Arm style (fixed type);

- (27) Flat Glass, (RH) WM 1906
- Flat Glass, (LH) WM 1907
- Convex Glass, (RH) WM 1904
- Convex Glass, (LH) WM 1905

Late (Leyland) style (spring-back type);

- (28) Flat Glass (RH & LH) GAM 118
- Convex Glass, (RH & LH) GAM 117



| 28

These mirrors can be used for door or wing mounting.

Bullet Racing Mirror (Chrome);

- Flat Glass (2.25" long base, 1" bolt centre) GAM 105X
- (29) Flat Glass (3.75" long base, 2" bolt centre) GAM 105
- Flat Glass (4.75" long base, 3.75" bolt centre) GAM 105A
- Convex Glass (3.75" long base, 2" bolt centre) GAM 105C

'Bullet' Racing Mirror (Aluminium)

Manufactured from lightweight aluminium, these superb reproduction mirrors have a 'brushed' original finish, so they not only look good - they are good.

Bullet 'Racing' Mirror (Aluminium);

- (30) Flat Glass (RH & LH) 222-355

Period Style' Pressed Number Plates

These number plates are a true replica of those used on cars in the 40's, 50's & 60's. Supplied in pairs (to special order only), you can have up to seven letters/numbers of your choice.

Please contact your local Moss branch for details.

(Note; Legal only for vehicles registered before and up to July 31st 1973)

- (31) Pressed Number Plate (Pair) NP1

'Union Flag' Badges

- Self Adhesive (Pr) (44x74mm) CRST186
- 'Cloisonné' style Enamel (31x50mm);
- (32) Single badge GAC4100
- Pair of badges GAC4101
- Magnetic (Single) (74x128mm) MM 215-330

'Cloisonné' style Enamel Badges

These badges use the Japanese method of filling in areas with different coloured enamels.



08 Exterior

Wire Wheels (Centre Lock/Splined)

An essential part of a British Classic Sportscar's styling was the fitment of Wire Wheels. Whether they were fitted as standard or not, a set of Chrome Wire Wheels will not only enhance the appearance of your car, but also the value.

Our wire wheels have Stainless Steel nipples & spokes and are available in Chrome or Paint.

(Don't forget that we also supply a full range of Spinners, Tools, Inner Tubes, Rim Bands & Tyre Wall Trims).

Wire Wheels;

	Chrome	Paint
(01) Standard (60 spoke, 13" x 4.5")	WWC466	WWP466
Competition (60 spoke, 13" x 5.5")	WWC5729	

(Important: Before fitting your tyre choice, please ensure there is adequate clearance between tyres and wheelarches). Competition wheels are Centre Laced.

Centre Lock (Splined) Hub Conversion Kit

Convert your conventional steel wheel rear & front hubs to accept splined hubs, enabling the fitting of wire wheels.

Our kits contain everything you need to convert to centre lock wheels, including full instructions, splined hubs and all the necessary hardware, chrome spinners and a Copper Hide mallet.

Note; Our hub conversion kits do not contain road wheels. Check local regulations for 'eared spinners'.

Centre Lock Hub Conversion Kit

(Important; Wheel studs will require shortening for all models)

(02) '2 Eared'	GAC7047X
'Octagonal'	GAC7048X

Offset Splined Hub Kit

If you have ever wanted to fit larger diameter or wider wire wheels to your Spitfire/Herald, but were always told you couldn't, well think again, because Moss Europe can now supply (a set of 4) easy to fit bolt-on splined hubs that fit directly onto your existing (front disc brake type) hub flange utilising the original wheel studs. Simple.

(Note; Suitable for custom built cars using Spitfire running gear.)

Because these splined hubs have an ingenious off-set, they allow you the choice of fitting 14/15" diameter (centre lock) alloy or wire wheels – and, a choice of different rim widths.

So now you really can make your classic not only look good, but you can make it a real head turner. (Please call for full range of wheels)

'Off-set' Splined Hub Kit	GAC7051X
Nuts (replace standard wheel nuts)	144504

(Note; unless you already have 'standard' bolt-on centre lock/splined hubs already fitted, you will also need to order 16 nuts, 144504)

Centre Lock Spinners

All our Centre Lock Spinners are made from the highest quality materials and are precision engineered to ensure an accurate fit.

We have three styles of spinner to choose from - octagonal, two or, three eared. Two and three eared spinners can be fitted with a hammer or spanner, octagonal spinners require a spanner. See Wire Wheel Tools & Accessories. Check local regulations for 'eared spinners'.

See also Road Wheels in the Restoration section.

Wheel Spinners - Plain

(03) '2 eared' RH	AHA7373
'2 eared' LH	AHA7374
(04) '3 eared' RH	107948/3
'3 eared' LH	107949/3
'Octagonal' RH	88G606
'Octagonal' LH	88G607

Centre Lock Wire Wheel | 01

**Wire Wheel Essentials**

Creating an air tight seal on a wire wheel can be somewhat difficult, making the use of Inner Tubes necessary and, to prevent the Inner Tube chaffing against the spoke nipples, the fitting of a Rim Band is highly recommended.

(05) Inner Tube, 13" x 145/155 tyre	452-725
Rim Band (13")	452-730

Wire Wheel Tools & Accessories

The use of a soft-faced hammer is essential if you do not want to damage Chrome plated spinners when removing or fitting centre lock wheels. We have a choice of three soft hammers. Extra long spanners are also available, providing much greater leverage for spinners and therefore easier fitting. We also supply a special lubricant to help keep the splines in good condition.

(06) Spoke Adjusting Spanner	M M 385-800
(07) 'Octagonal' Spanner (Short)	AHH5839
Octagonal' Spanner (Long)	M M 386-120
'2-Eared' Spanner (Long)	M M 386-125
'2 Eared' Wrench	AHH5839W
<i>This unique double ended 'knock-off' wrench (made from plywood) slips over the spinners, protecting them from hammer blows.</i>	
Wire Wheel Cleaning Brush	GAC4089
Lubricant (for splines)	GGL9030X
Tyre Levers (1 pr)	AJJ281K
<i>(These levers are a very close match to the original items.)</i>	
(08) Copper & Hide Hammer	C27290
(09) Zinc Alloy Hammer	88G329
(10) Copper Faced Hammer	11B5166

Wheel Spacers

These spacers will allow small adjustments to be made to the offset (to ensure wheel & tyre clearance) when fitting bolt-on alloy (or steel) wheels. They can also be used if you don't wish to shorten your wheel studs when fitting alternative road wheels.

Spacer Set (pair);	
3mm Spacer set (1pr)	TT6901
6mm Spacer set (1pr)	TT6902

Tree Lock Hub Conversion | 02



Inner Tube | 05



Copper & Hide Hammer | 08



Alloy Sport Wheel | 11



Tyre Wall Trims | 13



2 Eared Spinner | 03



Spoke Spanner | 06



Zinc Alloy Hammer | 09



Wheel Trims | 15



3 Eared Spinner | 04



Octagonal Spanner | 07



Copper Hammer | 10



Alloy Wheels (4 Stud)

These eight spoke (MiniLite style) 'Bolt-on' alloy wheels are a timeless classic design, adding a period charm to your Classic. They are manufactured using the latest techniques and testing procedures to ensure the highest quality and reliability. All wheels are sold individually with grey centre caps.

As these wheels have a 60° chamfer seat for the wheel nuts, the standard wheel nuts must not be used

Alloy Wheel

- | | |
|-----------------------------------|-----------|
| (11) All Models (Silver 13" x 5") | GAC8223X |
| All Models (Silver 13" x 6") | GAC8313X |
| Centre Cap (for alloy wheels) | GAC8201XP |

Wheel Nut (for alloy wheels);

- | | |
|-----------------|-----------|
| Chrome | AHA8785 |
| Stainless Steel | AHA8785SS |

(Important: Before fitting your tyre choice, please ensure there is adequate clearance between tyres and wheelarches).

Standard Wheel Nuts

(for Standard Steel wheels only)

The finishing touch for your standard wheels.

- | | |
|-----------------|----------|
| Chrome | 155751 |
| Stainless Steel | 155751SS |

Tyre Wall Trims

A popular accessory in past years were White Wall Tyres, unfortunately they are not available today. However, we are able to supply a rubber ring which fits neatly between the wheel rim and tyre wall recreating the look of White Wall Tyres.

White Tyre Wall (Set of 4);

- | | | |
|---------------------|-------------|----|
| (13) for 13" Wheels | GLZ225W WX4 | 14 |
|---------------------|-------------|----|

Valve Caps

These Valve Caps with the classic Triumph TR shield, are a must for any true enthusiast.

- | | |
|------------------------------|-----------|
| (14) Valve Cap Set 'Triumph' | HMP190129 |
|------------------------------|-----------|



Wheel Trims

Another popular accessory from days past were Wheel Embellishers. Fitted in seconds and suitable for all models, these polished stainless steel trims instantly improve the appearance of steel wheels - without breaking the bank.

- | | |
|--|----------|
| (15) 13" Wheel Embellisher Trim; Singles | GLZ225Z |
| 13" Wheel Embellisher Trim; Set of 4 | GAC2254X |

Mud Flaps

These universal mud flaps will help protect your classics bodywork. You know they make sense.

- | | |
|--|----------|
| (16) 'Triumph' logo (Pair, includes clips) | GAC6002X |
| Plain (Pair, includes clips) | GAC646 |



Add period sporting style to your classic!

Locking Wheel Nuts

At the time of going to press, we supply 2 types of locking wheel nuts. (These Locking nuts are not suitable for original steel wheels, use only with replacement Alloy wheels)

TriLock System:

This system uses a socket with 3 pins that are uniquely matched to the locking nuts.

SupaLock System:

This system uses 8 offset grooves cut into the nut head that uniquely match the SupaLock socket.

- | | |
|------------------------------------|-----------|
| (12) TriLock Wheel Nuts (Set of 4) | MLN007 |
| SupaLock Wheel Nuts (Set of 4) | GAC4111X1 |





10 Exterior



'H4' Halogen Head Lamp Conversion Kits

Fitting modern halogen head lamps is one of the most worthwhile safety improvements you can make to your classic car. Powerful halogen bulbs coupled with improved lens design, result in a far superior light beam & pattern. Although Spitfire models have separate side light/flasher units, we have listed our full range of Halogen conversion kits, allowing you to choose between Wipac (convex lens) and Lucas (flat lens). Our kits include 2 light units with (standard H4) 60/55w bulbs.

Halogen Conversion Kit (Wipac);

(01) Wipac 'QuadOptic' (RHD-no pilot light)	GAC4022
Wipac 'QuadOptic' (LHD-no pilot light)	MGE203
Wipac 'QuadOptic' (RHD-with pilot light)	GAC4023Z
Wipac 'QuadOptic' (LHD-with pilot light)	WPS4699
Lucas 'H4' (RHD-with pilot light)	GAC4032
Lucas 'H4' (LHD-with pilot light)	LULUB802

H4 Replacement Bulbs (60/55W) (Each);

You can fit standard H4 bulbs, or replace them with Blue Tinted, or Super White Xenon. Super white xenon are approx. 30% brighter.

Standard	GLB472
'Blue Tinted'	GLB472BLU
'Yellow'	GLB476
(02) 'Super White Xenon'	GLB472X
100/80W clear (check regulations)	GLB484



'Period' Style Lamps

These outstanding reproductions of the Lucas units are available in two styles; a 'fluted' fog lamp or a 'clear' driving lamp. Both come with either vertical (base) or horizontal (back) mountings. These 5" diameter units are supplied with bulbs.

Spot Lamp;

(03) Base Mounting Type	MM 162-700
Back Mounting Type	57H5322

Fog Lamp;

(04) Base Mounting Type	MM 162-800
Back Mounting Type	BHA4399

Replacement Lens;

'Clear' (Spot)	57H5015
'Fluted' (Fog)	ACG5179
Replacement Bulb; for spot lamp	GLB185
Replacement Bulb; for fog lamp	GLB323

Wipac 'H3' Spot Lamp

These superb base mounting 5.5" clear lens driving lamps also come plastic lens covers. Supplied in pairs.

(05) Wipac 5.5" Lamps	WPS6007
H3 Replacement Bulb	GLB453

Cibie Spot & Fog Lamps

Cibie are one of the most respected names in vehicle lighting, with an established pedigree and many years experience in motor sport.

Cibie 'Type 35'

Probably the most popular and widely used lamp there is, with over 18 million units supplied to car owners & manufacturers.

(06) Cibie 'Type 35' Large Spot Lamp	CB067570
(07) Cibie 'Type 35' Small Fog Lamp	CB067566

Cibie 'Oscar'

This large round spot lamp is legendary, hailed throughout the world of motor sport as one the very best night driving lamps. (6.75" x4.65" deep).

(08) Cibie Oscar Spot Lamp	CB067681
----------------------------	----------

Cibie 'Tango'

A smaller (round) lamp than the 'Oscar', but with up to a 40% greater light output than its nearest rival. With its compact & slim design, this lamp will complement any vehicle. (5.25" x2.4" deep)

(09) Cibie Tango Spot Lamp	CB068738
(10) Cibie Tango Fog Lamp	CB068730

Replacement Bulbs;

H1 Halogen Bulb	GLB448
H1 Xenon Bulb (30% brighter)	GLB448X
H2 Halogen Bulb	GLB479

Headlamp Stone Guards | 12



Relay Kit | 13



Electric Aerial | 14



Twin Air Horns | 15



Headlamp Relay Kits | 11



Lucas Style Horns | 16



Headlamp Relay Kits

Early electrical systems did not include relays in the headlamp dip or main beam circuits. The omission of relays from these circuits means that the high electrical currents required to power the lamps runs through the switch-gear when the lamps are used.

This is contributory to the burning and subsequent failure of light & dip switch contact points. This situation is aggravated if the original equipment headlamps are uprated to a higher wattage or supplemented with additional lights, as this increases the current load on the existing circuit. Another benefit to the installation of operating relays is that of brighter headlamps without uprating their wattage.

All models easily lend themselves to the installation of relays to control headlamp operating power without having to do any butchery to the wiring loom that is non reversible. It also pays back by not involuntarily melting the dip, flash or main lighting switch. The additional wiring and relays can be easily tucked out of sight so as not to inflame the wrath of the purists. Kits include relays & fittings.

Headlamp Relay Kit;

with 2 (Lucas) relays	GAC40252
(11) with 4 (Lucas) relays	GAC40254
with 2 (Aftermarket) relays	GAC40262
with 4 (Aftermarket) relays	GAC40264

Head Lamp Stone Guards

Stone guards were originally developed for rallying, but are ideal for general road use.

(12) External nut type (Single)	000011
Clip-on type (Pair);	
Standard mesh	GAC8000X
Heavy duty mesh	HSG001

Alloy Head Lamp Rims

Give your classic that individual look with these superb alloy rims, available in anodised silver or gold.

Yes, we know they won't fit Spitfires, Heralds, GT6 or Vitesse, but they make excellent presents.

(13) Head lamp Rim (each);	
Silver	500929Alloy
Gold	500929Gold

Aerials

We supply a wing mounted manual aerial, a fully retractable electric aerial, and a roof mounted one.

Manual Aerial	AJM1112
(14) Electric Aerial	AJM1112X
Roof Mounted	EPP11

(Yes we know, not everybody has a hard-top fitted, but you could fit one to your other car!)

Twin Air Horns

Our twin air horn set includes two tuned horns, heavy duty die cast compressor, air hose, mounting hardware and installation instructions.

(15) Twin Air Horns	GAC9978X
---------------------	----------

'Lucas-Style' Windtone Horns

These superb replica horns were originally fitted to MG TD & TF models, so why not your Spitfire. (Supplied as a pair).

(16) Wind Tone Horns	1B9007/8
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12 Exterior

(01) Car Covers

Should I invest in a car cover?

Whether your car is outside exposed to the elements, or kept in the garage - where those little annoying mishaps can occur - a car cover will help to extend the life of your classic paint, hood, trim etc. Consider the cost to replace even one of those items and a car cover seems a very smart investment. Depending on your requirements, we have a cover to help protect your classic.

Indoor Storage Covers

(loose fitting)

Our 'Indoor' car storage covers are made from a soft (non-scratch) blue poly-cotton/polyester mix material that is 'Scotchguarded', making it 'damp & drip proof'. The hems are elasticated front & rear and, to help prevent paintwork marks, the door access areas have zips.

All Spitfire/GT6 models GAC9501

Indoor Dust Cover

(Semi-Tailored)

Our (Moss made) 'Indoor' car dust covers are ideal for 'throwing-over' the car when its in the garage. These natural (off-white) Calico covers are ideal for protecting your classic in dry conditions.

All Spitfire/GT6 models GAC6063X

Indoor/Outdoor Covers

(Covered) (Universal)

This cover is also ideal if you store your car outside under a car porch or similar. Features include sewn-in elastic around the base for a snug fit.

All Spitfire/GT6 models GAC9532X

Outdoor 'Shower Proof' Covers

(Universal) (Casual)

Our non-abrasive polypropylene 'Showerproof' outdoor covers are ideal for casual use. There is built-in air vent that allows air flow, and all the seams are Ultra-Sonically welded.

All Spitfire/GT6 models GAC9531X

Outdoor Storage Covers

(Tailored) (Short term)

these tailored waterproof covers are ideal for short term outdoor storage (though they can be used indoors). They are fully breathable with double stitched seams. The front & rear hems are elasticated, and have scratchproof grommets that allow you to tie the cover down.

All Spitfire/GT6 models 237-510

Heavy Duty' Outdoor Storage Covers

(Loose fit) (Medium/Long term)

The 'Waterproof' Outdoor cover that we supply is suitable for medium to long term storage. Manufactured from (Frost & UV resistant) Grey vinyl, with a soft cotton inner lining. Welded seams eliminate water penetration whilst a fitted air vent minimises moisture build-up between cover & body. Front & rear hems are elasticated and there are rubber 'bungies' for attaching to the wheels.

Comes in a zipped handled bag.

All Spitfire/GT6 models GAC9504

(02) Car Cover Stowage Bag GAC2013X
Cable Lock (with 2 keys) GAC2022X



Moss Hoods & Tonneau Covers

Moss Europe are committed to an intense programme of product development and re-manufacturing – some of those products are Hoods & tonneau covers.

Investing for the future by preserving traditional crafts, methods & skills. The only way to ensure that a part is right for the job, is to manufacture it by the best possible means to the highest standards and, although modern production techniques have transformed the classic car industry, sometimes, the only way to do it is the traditional way.

The People

Any product is only as good as the people who make it. At our own manufacturing plant in Shropshire, we have a hand picked team of craftsmen & women, who are all dedicated enthusiasts of vintage & classic cars. With a combined total of nearly 100 years experience, they produce hoods and tonneaux to the highest standards (some served their apprenticeship in the manufacturers trim shops - such as Austin Healey, MG & Triumph, whilst many served their apprenticeship with traditional independent coach trimmers).

The Very Best Materials

Modern materials assist the craftsman to produce the best possible hood, but they must look right. Modern materials (due to their inherent strength) greatly assist traditional manufacturing methods by allowing the craftsman to fully use his or her skills to ensure that every section of a hood is cut to a precise pattern – every time. This assists the skilled machinists to ensure that every seam is perfectly formed and finished. No matter how well the product is made, it must look & feel right, as well as being durable. To this end, we source our material from two of the worlds leading fabric manufacturers. Sometimes you can't cut corners.

Design & Development

Modern sports cars can sometimes benefit from their predecessors. As well as hoods (& tonneau covers) for classic sports cars, we also produce them for modern sports cars such as the MG-F and Mazda MX5. Our aim is to produce the best hoods by using our in-house skills and experience.

Moss Hood | 03



Tonneau Cover | 04



Moss Hoods & Tonneau Covers cont...

Quality Control

Every hood is checked for fit by using 'Trim Bucks'. Not only do we fit every hood (& tonneau) to a 'Trim Buck' (A perfectly engineered OE specification test rig that checks fit), we also monitor each and every stage of production, from first cutting to final stitching.

"When you buy a Moss hood or tonneau cover, you can be sure that you have the finest product available, produced by craftsmen."

Comprehensive Service

To fit or not to fit

Although our hoods can be fitted by a competent home mechanic, there are occasions when it is more convenient to have it fitted for you. For full details of the different options we can offer please contact your local Moss branch.

(03) Moss Hoods for Spitfire

The material used to produce original Triumph hoods is unfortunately no longer available. Our XKC1781 original style vinyl hoods are manufactured from the nearest possible equivalent material to that which Triumph cars were fitted with when new.

Sufficient plastic 'durable dot' sockets (for fitting the original plastic studs on the car body) are supplied loose with each hood.

When Spitfires were still in production the stud spacing on the body varied slightly from car to car. The spacing problem has obviously been accentuated over the years by cars undergoing varying degrees of repair or renovation, so the safest policy is to allow our customers to fit the sockets to their new hoods.

For details of fittings supplied with each XKC1781 hood please turn to page 153 in Restoration section.

It is advisable that the correct tools should be used to attach the loose durable dots, see Pages 153 & 154 in the Restoration section.

Moss Hoods;

- OE type Vinyl* Hood (Black) XKC1781*
(with zip out rear window)
- *Other colours available to special order.
- Double Duck Hood (Black) XKC1781DD
- Mohair* Hood (Black) XKC1781MH*
- *Other colours available to special order.



| 05

Happich Hoods for Spitfire

Happich, a superior Black (Mohair type fabric) hood is also available, again complete with all fittings. The material, chosen as original equipment by Jaguar and Lotus, comprises a spin died outer skin woven from polyester, and poly-acrylic fibres, a middle layer of synthetic rubber, and an abrasive resistant inner layer of cotton.

Characteristics include resistance to creasing and colour loss. Stroll into your local Jaguar dealer and have a look!

Happich Hood (Black) XKC1781H
zip out rear window

(04) Tonneau Covers

	RHD	LHD
Tonneau without head rest pouches (Black)	822451	822461
Tonneau with head rest pouches (Black)	822491	822501

(05) Hood Stowage Cover

There are two specific types of hood stowage covers, one for non hard-top cars, and the other for when a factory hardtop is fitted (and the hood is left folded in the car). The two types don't interchange, as the latter is shaped to match the inside ledge of the hardtop.

The original style hood cover includes wire hooks to fasten the cover to the hood frame. Reproduction covers use durable dots on elastic straps.

	Black	Beige
Original Style Hood Stowage Cover	822401	822404
Aftermarket Style Hood Stowage Cover	822401B	822404B
Original Style Hood Stowage Cover - (For use with hardtop)	822431	822434

See Page 59 for our full range of Renovo Hood Care Products.



14 Performance & Tuning

“What can I do to make my Spitfire go faster?”

There really isn't a simple answer to this question.

For instance: Do you want higher speeds on the motorway or do you want more mid-range torque? Do you drive your car fairly hard on a daily basis, or just use it on weekends? Would you like that little bit more power, or do you want maximum BHP? Or, do you just want the car to be quicker through bends?

Then we could ask, have you, or are you going to, upgrade the brakes? Are your suspension and/or steering bushes/components ok? Will your transmission & drive train handle more power/speed? Is your car standard, or has it been previously overhauled/uprated?

On the following pages, you will find a range of quality components that will improve engine performance, braking, steering and the handling of your classic and, if you want to make it a real head turner, complete the transformation by fitting a set of wide section Alloy wheels.

Please Don't Forget, before increasing the power output and speed of any vehicle, you should ensure that your brakes, steering, chassis etc can cope with the modifications, and, a 'Roll Bar' is a very sensible investment... for all open top sports cars.

IMPORTANT (Descriptions & Dimensions)

As we have no control over installations/modifications (whether previous or current), it is the sole responsibility of the user to ensure safe & correct fitment, tolerances and clearances. Manufacturers/suppliers descriptions and dimensions are given in good faith at the time of publication. Errors & Omissions Excepted.

Body Panels

We supply a range of replacement fibre-glass panels. For full details please refer to page 25.

Cooling

The standard Spitfire radiator - even when new, is only just adequate in cooling the 1500 engine in traffic, so we strongly recommend you fit our uprated (wider) performance radiator - part number RKC2117.

The fitting of a Kenlowe Electric Fan has been found to be very worthwhile on the Spitfire range, not only to improve cooling but unlike the standard fan it does not absorb energy (approx. 3bhp) from the engine.

The later 1500 models use a 'Viscose' coupling fan unit which is quite good, but when it gives problems we have found that the Kenlowe electric fan is a very worthwhile investment.

(Note: The wide radiator which was fitted to the very early 'Spitfire 4' and Herald range, is of no benefit to the cooling of the Spitfire range.

Engine Oil Cooling

For all models it is worthwhile for an oil cooler to be used, as the temperature can easily exceed 100 degrees for even standard vehicles on medium distance motorway work. The kits are listed in various styles to suit all needs, all kits are supplied with ready assembled hoses and mounting brackets. The installation kit can be supplied with a 'Thermostatic' controlled adaptor plate for road cars which can give you the best control of the oil temperature.

For the Spitfire/Herald range, the oil radiator is mounted in front of the water radiator and, upside down, so that the inlets are underneath the oil radiator.

We also now list a conversion which enables an oil filter to be fitted which will stop the early morning 'bearing rattle', but this can only be incorporated when fitting an oil cooler system. To simplify the options we have listed this conversion for Thermostatic.

For owners who already have one of our oil coolers fitted, then we can supply the special conversion adaptor and filter only, this may not fit other manufacturers adaptor blocks.

Ignition System

Electronic Ignition

If you are tired of setting the points, then electronic ignition is the answer, refer to page 27 for full details of the different ignition systems we supply.



Ignition System continued...

AC Delco Distributors

These are fitted to all Spitfire models prior to the 1500. The unit itself cannot be repaired or rebuilt as an exchange item to any degree of reliability.

We do have some spares available such as base plates, spindles and some vacuum units, for DIY repairs. The MK III '3122' distributor has the best advance curve for a modified engine, but these are difficult to obtain. All the other units now available produce too much advance & must be 'tweaked' to suit the engine. At present we are unable to offer any sensible alternative as the Tachometer must also be driven from this unit.

Lucas Distributors

The 1500 models all use this type of unit (with electric tachometer) which for a road car can be made to produce good results with only minor tweaks to the springs (use spring pack TT1903). We also list two alternative units which have a reduced curve for with models equipped with SU carb's (with vacuum advance) or for Weber's (without vacuum advance).

Advance Springs (Lucas)

For Lucas distributors, we are able to supply a set of five advance springs, (part number TT1903) so that the advance curve can be tailored to suit your own requirements. These are used to restrict the low speed advance curve to reduce the 'pinking' problem.

Mallory Distributors

If your vehicle was originally fitted with a Lucas distributor, then you can fit the track proven 'Twin Point' Mallory distributor.

Performance HT Ignition Leads

Whether you fit high performance Silicone or Competition plug leads, they are essential. If you have fitted a sports coil, uprated distributor & NGK spark plugs.



Brake System

This is a very important area that must be attended to when carrying out any conversion work. We will continue on the assumption that the braking system is in a working condition and that the brake discs are not 'worn out' or badly 'scored', both of which will affect the possible braking efficiency. We supply uprated brake pads that can be used with standard calipers & disc as well as complete uprated brake kits.

Spitfire Models

For road use the standard parts can be retained with the improvement of the linings being uprated to restrict the 'fade' at high speed. For further improvement the GT6 system is recommended as the larger disc will give better braking. To install this, the Vertical link and caliper mount is changed to suit the larger disc and caliper, as well as the stub axle and wheel hub to suit the larger bearings. The Brake master cylinder will need to be increased in size as well as the use of smaller wheel cylinders or the fitting of the larger GT6 rear brakes complete.

GT6 & Vitesse models

For a road car uprated brake pads will help to reduce brake fade. For the cars which need much better braking we would recommend the use of the Ventilated brake disc kit. When installing this kit, some calipers may need modifications to clear the inside of the road wheel.

Brake Servo

This is recommended for all cars with single braking system. This uses a remote servo unit which is 'plumbed' into the brake line and inlet manifold. The increase in braking efficiency is well worth the cost of this item for a road car and in some instances can be used for racing applications as well. (This cannot be used where the car is fitted with dual line braking circuit as there is not enough room to install the special dual line servo system, which is an integral servo & master cylinder).

Brake System

General Brake Information

When fitting new harder linings it is essential that they are bedded in correctly for them to work efficiently and give the best results. Remember, some, but not all brake pads (and linings) are still made from asbestos; for personal safety do not use a brush or air line to remove brake dust, but instead use a vacuum cleaner or a damp cloth together with a can of brake cleaner. Make sure the dust and/or cloths are disposed of properly. (Don't use hard pads with cool running discs)

Brake discs also need bedding in on low speed gentle braking for about 10 miles; gradually raise the speeds, but maintain the gentle braking application. Then make 2 to 3 heavy braking applications, which should complete the bedding in.

We also recommend the fitting of Stainless Steel braided hoses, that give a firmer brake pedal and less pressure drop through hose expansion. Complete brake pipe sets are also available and are supplied complete, ready assembled with unions for easy installation.

Steering

It goes without saying that all steering components/bushes must be thoroughly inspected and replaced as a matter of course if suspect.

We also supply 'Quick Racks' that have a high ratio pinion giving you lock-to-lock in only 2.5 turns (compared to the standard 3.5).

Suspension

When rebuilding or modifying the suspension make sure you check all components for wear (trunnions for worn nylon bushes, or wear to the vertical link & bushes).

The order of priority for suspension tuning is;

- Front Springs & Shock Absorbers
- Rear Springs & Shock Absorbers
- Front Anti-Roll Bar (larger)
- Rear Anti-Roll Bar

For competition cars, if regulations allow, use GT6 suspension components which will allow the larger disc & brake pads, plus larger wheel bearings. You will also need to increase rear brake diameter for balanced competition braking.

Anti-Roll Bar

The fitting of the front and rear anti roll bars together has proved to be very worthwhile in obtaining a more 'neutral' steering car which is much more stable through the bends and is also more forgiving in driver error (i.e. nowhere near so much directional change if you stop accelerating while cornering).

The front bar uses the standard end fittings and the '1500' centre clamps.

Spitfire I, II III, & Heralds

Fit both front and rear bars together to obtain a balanced car using the 7/8" front bar.

Spitfire MkIV & 1500

Again fit both bars together but use the larger 1.00" bar at the front.

GT6 & Vitesse (All models)

These models use the 7/8" bar at the front with the relevant rear bar to suit the type of suspension fitted to the car. The 1" bar can be used but is only recommended for competition use.

(For competition we can also offer the nylatron bushes for the inner wishbone position which will give a superior control.)



16 Performance & TUNING

Suspension continued...

Shock Absorbers

It goes without saying that when proposing to increase the performance of any car, uprated dampers must be fitted. For full details please refer to pages 33 to 37

Front Springs

To improve stability and road holding, it is essential to strengthen the front spring rate and to lower the ride height. This can be achieved with a change in springs and if required, the use of adjusting spacers to correct the ride height to suit your own use.

One car can vary considerably from the next; it may be found that on some cars the road springs do not reduce the height, because the originals have sagged to a lower ride height through old age or damage.

The relationship between the new spring's fitted length and the resulting ride height is a ratio of approximately 5:8;

i.e. if the spring's fitted length is 5 units shorter, the reduction in ride height will be 8 units - the amount increasing because the lower wishbones do not sit horizontally on the car. (Note, in the specific suspension tuning section we have given the fitted length of all springs so you can determine the correct type for your car/application)

Rear Suspension

For full details of the different types of rear suspension layout, please refer to page 36.

Wheels & Tyres

These can obviously alter the overall gearing considerably, so it is an important feature of any intended conversion. Again some applied thought before you start may save you time and money later on.

Clutch

Clutch (6 1/2") (See page 20 for notes on flywheels)

This is fitted to all models prior to the 1500. The supply of the spares for this size is now difficult, especially when looking for uprated specifications. Use new standard parts for an uprated road car and for racing, please contact us, where we may be able to assist by using the larger type clutch.

Clutch (7 1/4") (See page 20 for notes on flywheels)

For a 1500cc road car the standard clutch is adequate although for hard driving/competition the unit can be uprated.

The standard plate is recessed into the flywheel, this recess must be machined away for a flat faced type of clutch to be used, we are able to supply which is capable of covering up to 125 bhp.

Gearbox (Close Ratio)

'3 Rail' type Gearbox

(Reverse is next to 1st Gear)

There are a few variations on this range and some gears cannot be interchanged from model to model.

The GT6/Vitesse set of gears are the basis for the close ratio gear set for the Spitfire range. The gears are a straight fit but the input shaft must be modified to suit the new application.

(Close ratio gearboxes are available on an exchange basis)

'Single Rail' type Gearbox

(Reverse is next to 3rd Gear)

Again the close ratio gear set is based on the GT6 gears and exchange gearboxes can be built to order, with standard or competition size bearings to the laygear and input shaft. This range use the 1.00" x 23 spline clutch



Gearbox (Close Ratio) Cont'

Gear Ratios are as follows;

	1st	2nd	3rd	4th
Spitfire	3.50	2.16	1.39	1.00
GT6 & Vitesse	2.65	1.78	1.25	1.00

Overdrive (Uprated)

We may be able to uprate your own overdrive if the unit is in good condition. (note; this may not be possible with the 'D' type overdrives)

Axle Ratios

The easiest way of altering the acceleration or cruising speed, is to change the axle ratio, either as a unit or crown wheel and pinion. Due to the many production variations on the same model range some of these ratios cannot be fitted directly.

The higher the numeric value of the ratio - the lower the gearing; IE. lower top speed for the same RPM.)

The chart here covers the range of ratios that have been available to suit the models shown.

When changing the diff' ratio, please think of the overall effect to your cars performance, including the selection of the road wheel & tyres (especially regarding 50/55/60 aspect tyres), and the ability of your engine to 'pull' maximum rev's is also an important factor.

Diff' Ratio	2A	2B	2C
3.27:1			X
3.63:1		X	
3.89:1	X	X	X
4.1:1	X	X	X

2A = Spitfire M kl, II & III
 2B = Spitfire M kIV & 1500
 2C = GT6 & Vitesse



Engine Variations

On any engine conversion, it is essential to consider very carefully the suspension & braking systems.

We list here some of the sensible and possible engine transplant conversions. There are many more combinations which will depend on your own ingenuity and engineering capabilities.

Purists are warned not to read this section, it may be bad for your health.

Spitfire Models

Any large engine swap also requires substantial improvements to the handling and brakes as they will not be up to scratch, even for the standard car.

1300 to 1500 Engine

This can be easily carried out without too many problems, only requiring care as to the gearbox and clutch parts used, especially when working with the 1500 single rail gearbox.

1500 with three rail gearbox (early type)

Use the 1500 flywheel & clutch cover with the 7.25" X 10 spline clutch plate.

1500 with single rail gearbox (late type)

Late type (single rail gearbox) to early engines,

there is a problem here with the clutch plate, requiring a 6.5" x 23 spline plate (which is not available) and also the rear crankshaft bush for the input shaft (which is available). It is possible to use the Dolomite 1300/1500 flywheel, change the ring gear (to fit the old starter) and then use the 1500 (7.25" x 23 spline) clutch complete.

6 Cylinder Engine Swaps

No major problems, but you must change the gearbox to the Vitesse/GT6 type at the same time. You will also require a GT6 radiator, bonnet and the interior to be corrected, and, the GT6 brakes to help stop the car.

The GT6/Vitesse gearbox is a close ratio unit against the standard Spitfire unit. One problem though is that the input shaft is incorrect in length and would require to be re-machined. We offer this in the close ratio gearbox unit supplied on exchange. The unit is also fitted with larger input & layshaft bearings for longer life.

Engine Variations continued...

GT6/Vitesse (& 2000 Saloons) to 2.5 Litre

Converting to the 2.5 litre is the easiest to carry out.

1. On engines after 1972, a change of crankshaft and pistons is all that is required.

On GT6 models the sump must be retained and modified to clear Con-rod numbers 1 & 2.

2. On engines prior to 1972, it is best to obtain a complete 2.5 unit and install, as the cylinder head will not accept the increased stroke.

For both of the above, it is necessary for the rear engine plate and flywheel to come from the same source as the gearbox. If on GT6/Vitesse the fuel injection is being used then a pre 'engaged' type starter motor must be used. See page 29 for our range of Pre-engaged (geared) High-Torque starter motors.

The TR7 8/16 valve 2 Litre engines can be installed but would require a special hand made exhaust manifold to clear the chassis frame. Gearbox would be standard GT6 with Dolomite 1850 bellhousing, although this would require some adaptation as to position of the assembly in the body/chassis.

Please Don't Forget, before increasing the power output and speed of any vehicle, you should ensure that your brakes, steering, chassis etc can cope with the modifications, and, a 'Roll Bar' is a very sensible investment ... for all open top sports cars.

Engine Balancing

With all Triumph engines this is very worthwhile both in general rebuild or competition use. The 'rotating' components are all balanced to reduce any engine vibrations in two operations. The crankshaft, front pulley/extension, flywheel, and clutch cover are all bolted together and 'spun-up' to find, and remove, the in-balance point. The con-rods are balanced end-to-end and the pistons are then balanced to each other.

The end result is that the vibration point usually felt at 2800-3500 rpm is removed or reduced to insignificant levels. This vibration point could also reappear at the 5600 - 6500 rpm range, so it is important to remove the problem and therefore improve the engines reliability.

Engine Tuning

All the Triumph 'Small' 4 cylinder engines produce reasonable power with flexibility and reliability.

The correct order for engine performance improvement is as follows on the following page - which is not the same for all other engine designs.

Later in the performance section we have laid out the order of our 'PlusPac' conversion suggestions that give you 'value for money' steps, they are all designed for installation as a bolt on kit to an otherwise standard engine in good condition.

'PlusPacs' are not mandatory steps, but they are the most logical way of obtaining improved performance without wasting money. The order can be amended as to your final stage required, as long as you are prepared to accept varying degrees of improvement if the whole conversion is not being fitted at one time.



Continued on Next page

18 Performance

& TUNING

Engine Tuning continued...

A: Sports Air Filters, Extractor manifold and Silencer system.

B: Carburation enlarged or changed, as model requires.

C: Modified Cylinder head, to improve the gas flow efficiency and economy through the engine.

D: Performance profile camshaft to allow the engine to produce improved power at higher RPM.

If you prefer to install the camshaft or cylinder head in a different order, then the power increase will be altered and the full potential of the component may not be realised until it's associated component is installed.

On some models the installation of Weber or Dellorto carburettors at an early stage can be very worthwhile if you are contemplating carrying out a full conversion later. We list the recommended sizes to be used for each model, there is not normally any benefit in going larger than this unless the car is used for outright competition use where the top-end power can be improved with the obvious loss of low speed tractability.

The engine can be improved easily, but do not forget to also look at the rest of the car to make sure that the road holding/braking is going to be adequate to cope with the new performance.

Exhaust System

Sports Exhaust Manifold

The fitting of an extractor manifold is the first step to improve power output. They improve exhaust gas flow allowing the engine to breathe far more efficiently. Our large bore 4-2-1 design tubular manifolds are produced using mandrill bending equipment to give full diameter pipe bends.

Sports Exhaust System

All our TriumphTune exhaust systems are of the straight through design for the efficient extraction of gases with optimum back pressure for maximum performance. All systems are supplied with clips and mountings but when being used with the standard down pipe an adaptor is required.

Twin GT 'Oval Box' System

This very efficient exhaust system has two 'oval' silencers (and 1.75" diameter chrome tailpipes) that give a real sporty exhaust note, but is within the UK noise regulations.

Twin GT 'Round Box' System

Although this sports system with its twin 'round' silencers & large bore acoustic chrome tail pipes has a quieter exhaust note - especially useful on long journeys, it is still a very effective performance exhaust system.

K&N Sports Air Filters

K&N filters - with their advanced filtration system, are acknowledged as being one of the most efficient air filters in production, and are essential for fast road & competition work. They use the suspended oil system of filtering that allows the engine to breathe properly.

The elements must be cleaned and re-oiled (normally after approx. 12 to 15000 miles) using the correct fluids or they will 'clog up' impairing breathing.

SU Carburettors

If maximum power from SU's is required, there have been a number of articles (see Books & Manuals) about how to 'flow' these Carburettors and, if followed carefully, will allow them to perform much better at high RPM.

For road use, it is beneficial to replace the 'butterfly' with the plain type, these are available from stock.

In some cases the fitting of 0.100 jets & needles to HS4 carburettors can improve petrol/air mixture for maximum performance, this is usually only required when used for racing.



SU Carburettors continued...

948/1147cc

These engines were fitted with twin HS2 carburettors (except Herald models which had Solex). These can be retained, although for improved mid and top end power the increase to HS4 1½" carbs, as fitted to all later Spitfire 1500 models, is worthwhile, but the inlet manifold must be changed for the TT1358A - which will also suit Stromberg 150CD's.

1300cc HS2 (1.25")

The twin HS2 Carburettors are adequate (just) for 1300 engines, but if good performance is required then use the HS4 Carburettors. The HS2 can be usable up to 'PlusPac B' (see Stage Tuning) but would be the limiting factor after that stage. For some race regulations it is necessary for these to be retained, if so, there must be a lot of work carried out to the internals to achieve maximum power and air flow.

1500cc HS4 (1.50")

The HS4 when fitted to the 1500 cars can handle more power up to the 'PlusPac C' (see Stage Tuning) conversion adequately and be reliable (but not with the Waxstat jets), without there being any major loss in torque/power. Check the carburettor build number carefully before ordering any parts. See also Fuel System in the Restoration section.

Needles

For use of alternative needles please refer to Page 41 in this tuning section

Grose Jets (Part Number GAC9201X)

Grose-Jets (with their modern technology) don't stick open like the old 'needle & valve' units. (Jets are sold individually)

Waxstat Jets

These jets can give problems on late 1500 models in hot weather/town use as they tend to 'weaken off' the mixture too much when hot and don't allow a good idle, this can be corrected in two ways; new waxstat jets or, our conversion kit (TT1459) to normal fixed jets that will cure the problem.



Weber/Dellorto Carburetors & Linkage

Carburetors

A single DCOE/DHLA carburettor arrangement is for customers who require a substantial performance increase without the drawbacks of a twin carburettor set up. It is ideal for a road car, where a power increase would be appreciated but absolute maximum power output is not necessary.

1300 models should use the '40' carburettor for all applications. For 1500 models used for road/sprint work you can use a single '40' or '45' depending on performance required, for twin fitment use '40's. Racing 1500's can use a pair of '45s' but you will lose low speed torque.

LINKAGE KITS

We supply two main types of throttle linkage for Weber/Dellorto carb's;

'Standard' Linkage

This direct acting linkage uses the standard throttle cable and comes with new brackets that bolt on to the carburettor. (see pages 42/43)

'High Flow' Linkage

These are ready assembled Quadrant kits which can be used with single or twin carbs accelerator cable. (see page 43)
(An extra water pipe will also be required to reconnect the inlet manifold water hoses)

Manifolds for Weber/Dellorto

FOR SINGLE CARBURETTOR INSTALLATION

Parallel Manifold (see pages 42/43)

This standard type single carburettor manifold allows a deeper filter to be used, but is not very efficient in distributing the gases to obtain maximum flow. Supplied complete with linkage as a ready to fit kit.

Cross-Over Manifold (see pages 42/43)

The cross-over manifold is our own proven TriumphTune design that produces much better distribution of gases for good road work.

Manifolds for Weber/Dellorto continued...

FOR TWIN CARBURETTOR INSTALLATION

Long Tract Manifold (see page 43)

The twin manifolds are preferable as they produce better mid/top end power. The overall length is 9.5" (including the carburettor/manifold, but not the filter). These are designed for 40's but for full race 1500's, the 45's can give better maximum power.

Short Tract Manifold (see page 43)

This was designed to fit the Dolomite 1300/1500 and Toledo range (when servo brakes are fitted) as they have a restriction on the length available, overall length is 6.5" (carburettor/manifold).

Engine Preparation (4 cylinder Engines)

When carrying out any engine rebuild, it is very important to use an accurate workshop manual, this should be a genuine version as these tend to give the various model changes and the correct torque settings. When building any engine, the only correct way is to make sure that the area being used for assembly is clean (not to mention the components themselves prior to assembly), so that there is no chance of unwanted 'bits' getting into the engine.

Full engine preparation will include some or all of the following modifications, depending on your own requirements.

Here we shown some formulae which are useful when modifying an engine.

Swept Volume = $\pi r^2 h = 3.142 \times (\frac{1}{2} \text{ bore diameter})^2 \times \text{stroke}$

Cubic Capacity = swept volume x no. of cylinders

Compression Ratio = $\frac{\text{swept volume} + \text{chamber volume}}{\text{chamber volume}}$ where chamber volume includes gasket, piston (if dished) and amount of deck height as well.

All dimensions should be in centimetres, though of course inches are a more popular measurement in the USA.

Cylinder Block & Components

The block must be cleaned thoroughly before any machining work is carried out and then again afterwards. The cleaning should cover the oilways and waterways to make sure that the fluids will flow correctly.

Oilways

The cleaning of the oilways will require the removal of the 'screwed plugs' in the engine block and when re-assembling use a suitable thread sealant. The machining left-overs or fazes, need to be removed whilst this work is carried out.

Waterways

Make sure that all deposits are removed to ensure adequate water flow, this is essential if larger capacity is being used.

Cylinder Bores

When carrying out re-boring work make sure that the piston supplier's recommendations are complied with. For competition use, the clearances may be increased up to 0.005", depending on the piston manufacturers recommendations.

Thrust Washers

To ensure that the rearmost washers cannot revolve or move during arduous applications, they can either be 'Doweled' into position, one on each side of the block, or, machine the rear of the block and rear bearing cap to take a full thrust ring (like the 4 cylinder TR's use)



20 Performance

& TUNING

Cylinder Block & Components cont...

Main Bearing Caps

The standard cap does not normally require any change although the 'smoothing' of the surface will tend to strengthen the unit.

Polish, smooth and shot-peen the caps to relieve surface stress and reshape to give a uniform cross section.

For hard road/racing use, fit 1/4" longer high tensile bolts (6 of BH607241X reqd.) to the centre main cap and bottom-tap the holes to ensure they do not 'bottom-out'. Remove the top three threads from the 'centre main' by counter boring to put the load deeper into block. Remove all excess 'flashings' from inside the cylinder block but do NOT grind any machined areas.

Steel centre main caps can be used, but are not normally required.

It is possible - especially for racing use, to increase the oil supply to the centre main as this in turn supplies the con-rods. Drill out the feed hole to 5/16", entry is made from oil gallery end. The distributor bush will also require removal. Ensure all oil ways are clear not only of deposits, but also of excess swarf from production machining.

Oil Pump

Always use a new oil pump (the later angled pump gives improved pick-up) and preferably improve it's capacity - especially for competition work, by carrying out the following;

Reduce the end float of the spindle/base plate, this will then restrict pressure loss.

Make sure that the rotor clearances are as small as possible, as again this will improve the pumps performance.

Always check that the rotor edges are smooth to reduce the chances of them picking up on the top or bottom plates.

Check that the new pump outlet aligns with the cylinder block inlet aperture, amend as necessary.

Oil Pressure Relief Valve

The valve itself is recommended to be 'seated' into the block, so that the oil will not leak past easily. The pressure spring can be increased to improve the overall oil pressure, especially when an oil cooler is being used. If the TriumphTune (uprated) spring is fitted make sure that there are no extra (packing) washers also installed.

Crankshaft

If you are re-using your old crankshaft it is recommended for the oilways to be cleaned out properly - a pipe cleaner is very good for this. If the plugs are removed use a thread sealant when refitting. Tuftride hardening of the crankshaft is highly recommended to improve the life of the unit at a reasonable cost, this can be for road or competition use. When Tuftriding is carried out, the crankshaft must then be re-machined or polished back to the correct journal size. Normally the journals are micro polished to give a good oil surface.

1147

The standard crankshaft really should be looked after for all road/modified cars by Balancing and Tuftriding, or use a 'Billeted' crank for competition use.

1300

There are two types of bearing journal diameters available. Spitfire MkII's use a smaller diameter 1.625" - MkIV and later have 1.875" diameter.

1500

For fast road use, the standard bearings are okay. For Racing applications, use the MGB bearings (AEB4512 at +0.010" size) which then require a crankshaft regrind to 1.8665 - 1.867" diameter. These bearings are easily fitted into the journal and only require the edge of the tag 'filing' to locate into the con-rod properly, use a radiused edge on the crankshaft grind.

The rotating assembly must be balanced and the use of 'Tuftride' hardening is also recommended. For racing use, the crank' can be micro polished an extra 0.001" under-size for more clearance to assist in extra oil supply to surfaces.



Cylinder Block & Components cont...

The main bearing oil supply holes can be 'tear drop' shaped in the direction of rotation, again to assist oil supply, really only needed for sprint/race engines.

Flywheel

Lightening of the flywheel (to reduce the rotating weight) will enable the engine to pick up and 'rev' easier which is highly recommended for all fast road cars. This work is usually carried out to your own unit at the same time as balancing.

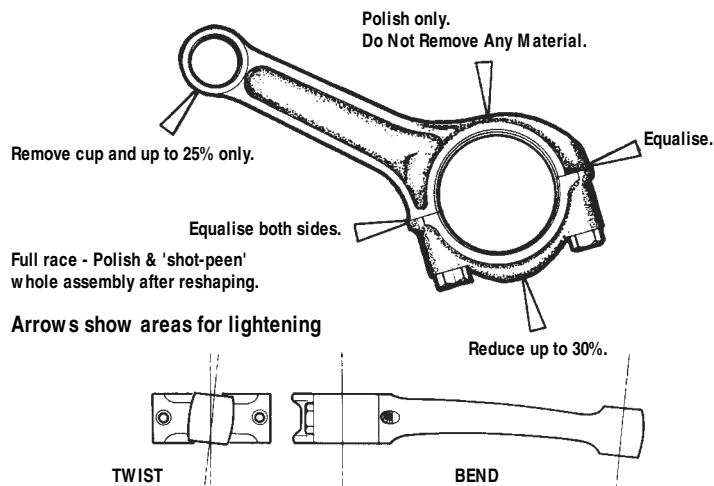
Alternatively (for 1500 engines), fit one of our brand new Lightweight Steel flywheels (part number TKC1840X), that only weigh approx. 4Kg (9lbs). This serious reduction in reciprocating mass being accelerated/decelerated is probably equivalent to 10-20 bhp depending on state of engine tune.

Con Rods

For normal use, the standard con-rods are maintained, although they can be lightened to improve the strength (as illustrated). Unfortunately, the cost of us carrying out this modification is prohibitive as a service because of the labour time required.

Alternatively, fit a set of Steel Billet type (part number 146454X)

When rebuilding an engine always use new con rod bolts, replace the little end bushes and ream to size.





Cylinder Block & Components cont...

(Con Rods continued ..)

A; Check the con rods for twist & bend defects, and also the big end for an 'out-of-round' condition, replace any that are faulty.

B; Check the overall length to make sure they are all equal.

C; Check the little end bushes and replace, line bore to size.

D; Fit as Matched sets for optimum performance and reliability.

Pistons

For racing use, there are a number of different sizes on some models, which require special treatment of the block and clearances, check carefully before re-boring.

Pistons can be 'radiused' on the lower edges to assist in reducing bore problems, also the whole unit can be polished after ensuring that the heights have been equalised.

For a road car the standard piston is perfectly okay as long as a solid skirt type is used. We would not recommend the use of a 'race' piston for road use, unless it was originally designed for both applications.

1147

Be careful when rebuilding as some models were fitted with either press fit or circlip type gudgeon pins.

1300

Use standard type of oversize pistons (up to +0.060 available). If '4 ring' type has to be fitted, use only the top three rings

1500

For any competition or fast road engine, only use a solid skirt three ring piston. Unfortunately, Hepolite Pow ermax pistons are no longer available, but we can supply Forged Pistons (see page 48).

Alternatively, you can use TR6 pistons which are +0.040 as standard, or 0.060 @ + 20". This piston is very sturdy and quite light in weight as they are shorter in 'pin to deck' height. It is necessary to machine the block to suit (approx. 0.0165") these pistons, this will then give you zero piston height, then counter-bore the cylinder block as original, if the later type of head is gasket is being used.

Counter-bore details are 3.175" x 0.030" deep. Pistons will require 0.020" removed above the top ring and radiused to the piston top so as to give clearance with the Head Gasket. For full details please refer to the specific '1500 Engine Cylinder Block Modifications' on page 48.

Cylinder Block & Components cont...

Piston Rings

Before final installation check that the width of ring is correct for your piston. Modify the ring ends after the 'gaps' have been set, so that the edges do not dig into the bores. (End gaps should be .015-.025")

Oil Seals

The standard oil seals, front & rear, should be replaced at any rebuild. The rear unit should be centralised carefully to stop oil leaks at high engine speeds.

Push Rods

The standard push rod is adequate for road use, however, we would recommend using tubular type for sprint/racing, they are also stronger and are 0.050" shorter than standard to suit high compression cylinder heads. Also essential if using roller rockers.

Cam Followers

When changing the camshaft, you must fit new cam followers, otherwise your new cam will not last very long. The amount of weight that the camshaft has to lift each time restricts the 'revving' capabilities of the engine, therefore the use of the lighter cam followers (with oil drain hole) is recommended. The lighter variety will also reduce loading on the camshaft lobes for extended life.

Special Note for 1147 models

These were always the 'small' diameter type, it is therefore necessary when modifying this engine for these to be changed to the later type by boring the block to suit.

Bore the block to 0.8002 > 0.8009" for the follower which is 0.799 > 0.800".

The block bores are angled slightly, so please notify the machine shop when arranging the work.

Timing Chain & Gears (Crankshaft & Camshaft)

If a performance camshaft profile is being used, we recommend that you fit the Duplex timing chain & gear set.

'Vernier' Cam Gear

This adjustable cam gear allows easier correct 'timing' of the (non-standard) camshaft for maximum performance. Only available as a duplex gear, the gear is made in two halves, which allows the adjustment to be made to suit your particular camshaft requirements.

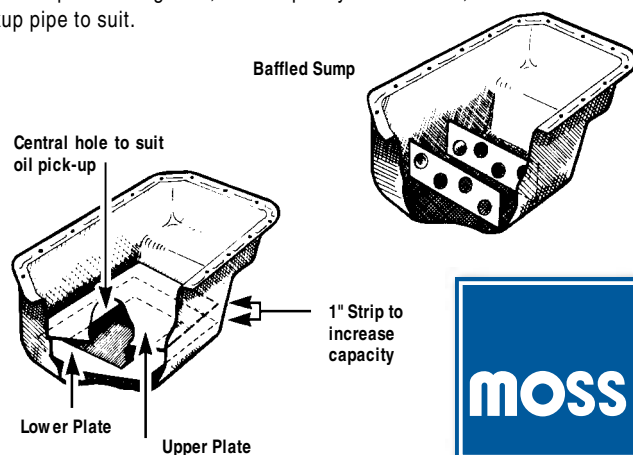
Tensioner

The standard tensioner needs to be replaced if a new chain or gear set is being fitted.

Sump

For a road car it is not essential to carry out any changes, but for competition use the sump must be 'Baffled' to stop the oil surging away from the oil pump when cornering.

Details as per the diagrams, if the capacity is increased, then extend the oil pickup pipe to suit.



22 Performance & TUNING

Cylinder Head & Components

On all Triumph engines, the cylinder head must be gas flowed properly to maximise the performance & efficiency from the engine.

Special note for 948/1147 Cylinder Heads:

The cylinder head on the (948/1147) 6 port engines has been fitted with a number of different size valves during the production run. The Herald models were always fitted with a larger valve than the Spitfire models, although these were also of the 'slide in' type of valve cap (not recommended). All the modifications are based using the largest valves and to the 'flow rig designed' chamber/ports profile. Our heads are supplied ready assembled with new valves, TT springs and new guides.

Work on the cylinder head centres around making the best diameter of the inlet port to suit and give maximum power potential. We have found that increasing the size of the Inlet Valve to 1.475" and very careful flowing of chamber/valve throat area will produce good torque and allow top-end breathing for sprint/racing use. The increase in exhaust valve size (competition use only) improves the flow of the port for maximum power. All heads are supplied ready assembled with new valve springs & guides.

The cylinder head modifications have been designed using a flow-rig to obtain the maximum from the head casting.

Valve springs fitted to all our cylinder heads are the best uprated road specification. They are designed to allow the maximum lift from our performance camshaft profiles without excessive loads on the cam-lobes. Spring retainers must be checked - especially the two part version for cracks. Alloy types are available to save weight whilst still being strong enough for all applications.

Valves, these are recommended to be gas flowed in the slim design, as this will improve the efficiency of the modified cylinder head substantially.

Rocker Gear (General)

For a road car the standard rocker gear only requires minor alterations. For competition use or maximum power then the use of the roller rockers will be a major benefit.

By reducing the weight of the moving components in the rocker gear, followers, valves, caps etc. and also the 'resistance of the rockers', the rev range can be improved without increasing the loading on the camshaft.

Valves

TriumphTune reshaped valves are manufactured in the very hard wearing stainless steel EN214 material.

Valve Guides (Bronze)

Our 'bronze alloy' valve guides are for improved reliability and longer life, especially when being used under duress. Highly recommended for all heads and especially for any competition engine. Specially reshaped for 'improved' flow.

Valve Springs

It is essential to check the springs for 'coil binding' or being solid at maximum lift. Our TriumphTune valve springs are specially made for our high-lift cams. Remove lower spring collars if TriumphTune springs are used, as they are no longer required.

Valve Spring Caps (Alloy)

Standard caps are adequate in strength for all applications, but our TriumphTune 'Light alloy' caps reduce valve loading and therefore wear on cam lobes. Weight saving is approximately 25%.



Rocker Arm Action

The rocker arm is designed to move across the valve tip in a wiping motion, this leaves a witness mark on the stem top. To be certain your engine geometry is correct, remove the rocker arm and apply some 'Engineers Blue' to the valve tip and rotate the engine through one revolution with the rockers correctly adjusted and the engine in its final specification. Remove the rockers and the valve tip will show the offset of the rocker geometry.

Centre'

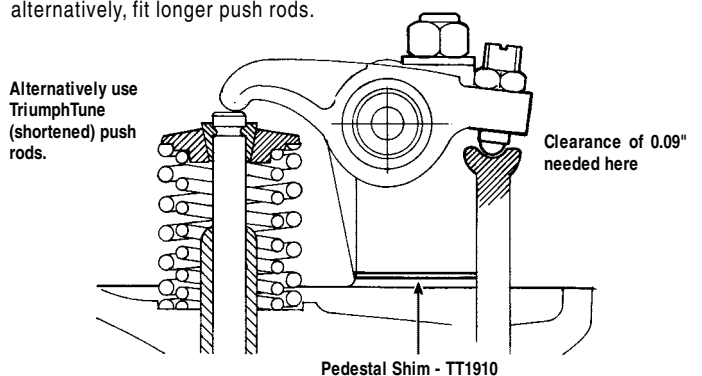
This is correct equally offset, so no excessive wear on either side of the guide will be found.

Manifold Side'

If the mark is predominantly on this side, then the push rods and/or the pedestals must be shortened to correct this. (With the wear on this side there will be excessive loading on the valve guide that will cause premature failure)

Rocker Side'

If it is to this side slightly, then this is no problem. But, if it is a long way off, then you can fit a pedestal spacer shim (TT1910) to compensate, or alternatively, fit longer push rods.



Note: Do Not use lower spring collars with the inner springs when fitting TriumphTune valve springs.



Rocker Arm Action cont...

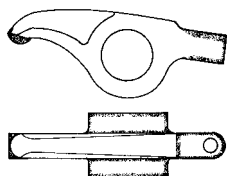
Rocker (Pedestal) Shims (TT1910)

These are available at a set depth to allow for a nominal skim of the cylinder head. The shim is specially designed to allow for the oil supply to the rear rocker pedestal.

Rocker Arm (Lightening)

For race engines, these can be reshaped as illustrated to improve the strength and reduce the weight. As this work is very 'labour intensive' we would suggest that you carry out these alterations yourself.

Remove the shaded areas to lighten standard rockers, its also useful to polish them.



Rocker Shaft

Although the standard rocker shaft is strong enough for most applications, the Tuftride hardening process will provide improved reliability as well as being less resistant to wear.

Before fitting any shaft check that the end-plugs are in position, otherwise the shaft will not last long.

Rocker Arm Spacers

These Solid spacers replace the side tension springs and allow the rocker arms to rotate easier, thereby reducing the loading, whilst also keeping the arms more centrally in position.

Rocker Arm Action cont...

Roller Rocker' Conversion

This specially manufactured assembly is designed to operate valves with less resistance and with more efficiency. The power increase with the use of these rockers is approximately an extra 10 bhp, and the power band can also be extended.

We have found it preferable to maintain 108 > 110° peak to peak centres on cam profiles.

The steel rockers are made with needle roller inserts and have solid spacers already fitted. The end roller tips are specially made in high quality steel for long life. The Roller rockers are also designed to give a higher lift ratio of 1.65:1 against the standard of 1.5:1. The design is also specially strengthened so as not to deflect at any time through the operating sequence.

This conversion will benefit from the use of our high pressure external rocker oil feed kit (part number TT1226).

When fitting this conversion it is essential for the valve lift to be checked carefully, to ensure that there is at least a total of 0.040" clearance between the valve spring coils, at full lift.

1. On installation Check Maximum Valve Lift to ensure adequate clearance of valve springs.
2. Before starting the engine, the clearance of the rocker cover must also be checked.
3. Check the push-rods for flexing and replace with tubular type if necessary.

High Pressure (External) Rocker Oil Feed Kit (TT1226)

The cause of most failures in the rocker gear is the lack of oil, this kit will overcome the problem for all cars, road or race.

This specially designed 'high pressure' external rocker oil feed kit improves oil pressure at the rocker shaft by giving a constant oil supply directly from the cylinder head oil passage.

This kit is essential if Roller Rockers are fitted.



24 Performance & Tuning

Aero Roll Bar | 01

National Roll Bar | 02

Race Harness | 03



'Performance & Tuning'

On the following pages, you will find a range of quality components that will generally improve the performance & handling of your classic. Please Don't Forget, before increasing the power output & speed of any vehicle, you should ensure that your brakes, steering, chassis etc can cope with the modifications.

Roll Bars (Road use only)

Roll bars not only look good, they are a vital piece of safety equipment for all Convertibles. Our high quality roll bars come with all necessary fittings and full installation/fitting instructions. Choose between the 'Aero' or 'National' style bars.

'Aero' Style Roll Bar (Road use only)

The Aero style roll bar is manufactured from high quality tubular steel and is vinyl covered for that luxurious appearance.

- Spitfire Mkl & MkII (wide fitting) TT7451
- Spitfire MkIII (hinged) TT7351
- (Hinged to accommodate MkIII folding frame)
- Spitfire MkIV & 1500 (*narrow fitting) TT7452
- (01) Spitfire MkIV & 1500 (wide fitting) TT7451
- Herald/Vitesse (Convertibles only) TT7651

*Note;
Narrow fitting bars restrict rearward seat movement by approx. 2.5" (50mm).

'National' Style Roll Bar (Road use only)

Our National style roll bar is of the single hoop design with twin back-stays. Manufactured from high quality tubular steel, they are painted black to give that true sports car look.

- Spitfire Mkl & MkII (wide fitting) TT7450A
- Spitfire MkIII (hinged) TT7350
- (Hinged to accommodate MkIII folding frame)
- Spitfire MkIV & 1500 (*narrow fitting) TT7450
- (02) Spitfire MkIV & 1500 (wide fitting) TT7450A
- GT6 (all models) TT7750
- Herald/Vitesse (Convertibles only) TT7650

*Note;
Narrow fitting bars restrict rearward seat movement by approx. 2.5" (50mm).

Roll Bar/Cage 'Competition'

(Not Suitable for Road use)
These high quality bars are 'Jig' built in 1.5" CDS ('Cold Drawn Seamless') tubular steel, they are made to MSA/FIA specification. Finished in Black, they are supplied with the necessary fittings. Rear bars utilise the strongest mounting positions, with the diagonal to the upper RH side for maximum protection. Bars for LHD vehicles are available to special order. The front cage is provided with clamps that enable it to be clamped to the top of the rear bar.

Spitfire (all models);

- Front Cage TT7455
- Rear Bar TT7453

GT6 (all models) (Rear Bar)

TT7753

Herald/Vitesse (Rear Bar);

- Convertibles only TT7653

Door Bars

We also supply door bars (for extra protection), that also link the front cage & rear bar at low level.

- Door Bars (cut to fit) ADB112
- Door Bars (Universal) TMG70756

Seat Harnesses

Our seat belts/harnesses are manufactured in the U.K. to exacting standards. Our high quality Securon '4 point' harness kits do not include crotch, shoulder strap pads, or eye bolts (4 bolts per harness), all these items must be ordered separately.

Race Harness & Mountings;

- (03) '4 Point' Harness Kit TT7965
- Crotch Strap TT7966
- (04) Shoulder Strap Pad (Pr) TT7970
- Eye Bolts (Pair) TT7967
- Reinforcing Plates (Pair) TT7968

Red

Black

TT79702





Lightened Body Panels

Jim Clark was probably the quickest Grand Prix driver of the early 1960s. Allegedly a shy person, on the rare occasions he was interviewed, everyone listened. When asked how he drove so quickly, one word was adequate ... concentration. His boss, Colin Chapman might have hoped it was something to do with his Lotus F1 cars. He is one of several people credited with saying a variation on the 'add lightness' theme. He certainly did that.

The harder any vehicle is driven, the faster parts wear out. A reduction in all-up weight will slow this process. Let's start the lightening though, where it doesn't cost anything, by emptying the car of all unnecessary bric-a-brac, back onto the garage shelves. Lightweight outer body panels will give you an appreciable saving in weight, and they don't have to be fitted in pairs or sets, merely as required. By the time the panel(s) are fitted and painted the material cost is not significant.

Spitfire MkI, II, III & GT6 MkI & II (GRP) Fibreglass Body Panels

This range of products are made from good quality fire retardant fibreglass to original patterns. The stocked range is all in 'Road' weight specification. 'Race' weight panels may be available to special order.

Bonnet Assembly;

Complete with inner wheel arches as standard, utilises standard bonnet irons.

(05) Spitfire MkI, II (as GT6 MkI)	TT7307
Spitfire III	TT73071
GT6 MkI	TT7307
GT6 MkII	TT7707

Front Lower Valance (all models) TT7302

(complete with mounting brackets)

Front Spoiler (Full Width) RGS30

Sill Panel (Full Length);

Right Hand TT7309

Left Hand TT7308

Rear Wing (All models);

Right Hand TT7311

Left Hand TT7310

Boot Lid Assembly (Spitfire) TT7313

(including Frame)

Spitfire MkIV, 1500 & GT6 MkII (GRP) Fibreglass Body Panels

This range of products are made from good quality fire retardant fibreglass to original patterns. The stocked range is all in 'Road' weight specification. 'Race' weight panels can be made to special order.

Bonnet Assembly;

Complete with inner wheel arches as standard, utilises standard bonnet irons.

(06) Spitfire MkIV/1500	TT74071
GT6 MkIII (Can be used for Spitfire)	TT7407

Front Lower 1/4 Valance (all models);

(Twin skinned as standard c/w captive nuts)

Right Hand TT7407

Left Hand TT7403

Front Spoiler (All Models);

ABS GLZ608

Fibreglass GLZ608FG

Sill Panel (Full Length) (All Models);

Right Hand TT7309

Left Hand TT7308

Rear Wing (All models);

Right Hand TT7411

Left Hand TT7410

Boot Lid Assembly (Spitfire);

with Inner Frame TT7413

Shell (Less frame) TT7413A

Fire Extinguisher

(Fights A, B & C Fires) Better to be safe than sorry. Keep one of these compact fire extinguishers in the garage, or even in the cockpit, it may just save your car, or a life. It has a easy to read pressure gauge and comes with mounting bracket.

(07) Chrome Finish (1Kg)	MXV9002
Carbon Effect Finish (600gm)	MXV9001



07 |



26 Performance & TUNING

Manifold & Exhaust Insulation Wrap

Thermo-Tec Exhaust Insulation Wrap

This easy to fit insulation product can help increase power & economy, and can reduce engine compartment temperatures by up to 70% - which will help prolong the life of electrical components & cables. It also protects against burns when you are doing engine maintenance.

By insulating the exhaust manifold & pipe work, a higher temperature is maintained internally, promoting a faster exit velocity of exhaust gases which increases Negative pressure (Scavenging). This increases the flow of incoming air resulting in cooler fuel being inducted into the engine.

Every 10 degree drop in intake temperature increases horsepower by approx. 1% - resulting in more power per litre.

This Race proven product from Thermo-Tec is manufactured from Silica based yarns, is unaffected by oil or water, will withstand temperatures of up to 1000 degree Celsius, and does not contain asbestos.

Hycote Paint

The extra resins & binders in this product will help to protect & preserve your insulation wrap.

Snap-Straps

Unless you want to skin your knuckles & use clips to retain the insulation material, we suggest you use our Snap-Strap fasteners. They are quicker to fit and, they cost less!

Thermo-Tec Exhaust Insulation Wrap;

(to ensure total insulation of a 2" diameter pipe using 2" wide wrap, a 50' roll will cover approx. 13 ft of pipe)

1" x 15' Roll (Natural)	GAC150
1" x 15' Roll (Black)	GAC151
2" x 15' Roll (Natural)	GAC152
2" x 15' Roll (Black)	GAC153
1" x 50' Roll (Natural)	GAC154
1" x 50' Roll (Black)	GAC155
2" x 50' Roll (Natural)	GAC156
2" x 50' Roll (Black)	GAC157
Hy-Cote Paint (400ml Aerosol);	
Natural	GAC160
Black	GAC161
Snap-Strap Kit;	
5' Roll (5 clips)	GAC158
25' Roll (25 clips)	GAC159

Moss TriumphTune 'Extractor' Sports Manifolds

Tubular exhaust manifolds are the first step to improve power output. They improve exhaust gas flow by allowing the engine to breathe far more efficiently.

Moss TriumphTune 'extractor' sports manifolds are designed to be fitted with Moss TriumphTune GT Performance exhaust systems, but can be used with standard system by using adaptor pipe.

Extractor Manifolds;	Mild Steel	Stainless
For Moss TriumphTune Performance exhaust systems;		
Spitfire Mkl & II (2 part manifold-Main branch & 'Y' piece)	TT1300	
(01) Spitfire MkIII/MkIV & 1500 (3 part manifold-Main branches & 'Y' piece)	TT1400	FS1400
(Replacement) 'Y' Piece (Manifold to sports system)	TT14001	

Adaptor Pipe (Sports Manifold to standard System);

(These adaptor pipes are 'sleeved down' to allow for different exhaust pipe diameters.

Spitfire Mkl & MkII	Not required	
Spitfire MkIII, MkIV & 1500		TT5911SS
Herald (1200 & 12/50)	Not required	
Herald (13/60)		TT5911SS

Moss TriumphTune 'Performance' Exhaust Systems

These Performance Silencer systems are specifically designed for each model, and they have polished 45mm tail pipes. These systems are designed to fit with our range of extractor sports manifolds, but can be used with standard system by using adaptor pipe. Systems include mild or stainless steel centre pipe (depending on model) and come complete with fitting kit.



GT Twin Pipe Systems;	Mild Steel	Stainless
For Moss TriumphTune Performance manifolds		
(02) Spitfire (Mkl to 1500)	TT5420	**FS5412
System TT5420 has twin Oval silencers that give a sporty exhaust note.		
Spitfire (Mkl to 1500)	TT5412	**FS5412
System TT5412 has twin Round silencers & give a quieter exhaust note.		
GT6 (all models) (Mild Steel)	+TT5412	
TT5412 has twin Round silencers to give a quieter exhaust note.		
Herald/Vitesse models (Mild Steel)	TT5620	
TT5620 has twin Oval silencers that give a sporty exhaust note.		
**S/S systems have Twin Round silencers that give a quieter exhaust note.		
Adaptor Pipe (Sports Systems to standard Manifold)		
(adaptor pipes are 'sleeved down' to allow for different pipe diameters.		
Spitfire Mkl & MkII	TT5917	
Spitfire MkIII, MkIV & 1500		TT5913SS
Herald (1200 & 12/50)	TT5916	
Herald (13/60)		TT5913SS

Rear Sports 'GT' Silencer

These high quality Rear Sports 'GT' silencers are designed to replace the standard rear silencer boxes. Each silencer has large bore tail pipe(s) and the inlet pipe size is matched to each models standard system.

Rear Sports 'GT' Silencer;	
Spitfire Mkl & MkII (Mild steel)	S1460
Spitfire MkIII (Mild steel)	TT5325
(03) Spitfire MkIV & 1500 (Stainless steel)	*FS5417
(*Twin tail Pipes)	

'Falcon' Stainless Steel Exhaust System

Spitfire Mkl (inc. downpipe)	FSSP1
Spitfire MkII (to std fabricated manifold)	FSSP2
Spitfire MkIII	FSSP3
Spitfire MkIV (single downpipe)	FSSP4
(04) Spitfire 1500 (twin downpipe)	FSSP5



Exhaust Fitting Kits

These exhaust fitting kits are for Falcon stainless steel (and standard mild steel) systems.

Spitfire MkIV	GFK6630X
Spitfire 1500	GFK6640X



Extractor Sports Manifold | 01



Lumenition Ignition | 05



Lumenition Magnetronic | 07



Rear Sports GT Silencer | 03



Lumenition Adaptor Kit | 06



Newtronic Ignition | 08

'Lumenition' Ignition

Lumenition Electronic Ignition Kits are well known as being among the finest after-market electronic ignition systems available.

This system basically replaces both the contact points & condenser with an Optical switch and Power module. The power module is an electronic device that receives a pulse from the optical trigger which switches the coil. The trigger eliminates contact bounce, arcing, mechanical wear and spark splatter, reducing maintenance and increasing reliability. With minimal wiring & modifications this kit is very discreet. Note; Installation of a power module requires a Distributor Fitting Kit.

A 'Performance Ignition kit' is available (it includes a power module & a high output coil). The 'Microcircuit' control of the coil current gives optimum performance across high engine speed ensuring maximum spark energy at the coil. A fitting kit, to suit the distributor application, is also required. Positive earth wiring instructions are available from your branch.

Please check your distributor type before ordering the fitting kit as many cars have non-original distributors fitted. The identification number is cast on the distributor body.

Performance Ignition Kit

Kit includes Power Module & Coil. Distributor fitting kit required.

(05) All models CEK150

Power Modules

Distributor fitting kit required.

All models PMA50

Mounting bracket (power module) MK006

(Optional item, tidies up installation.)

AC Delco Distributor Fitting Kits

Spitfire & GT6 (for D202/204) LCK317

Note; Due to peculiarities of the AC Delco distributors (D202/204) (4 & 6 cylinder engines) the installation kit is supplied complete with a power module and fitting kit.

Lucas Distributor Fitting Kits

(06) Spitfire 1500 LFK117
(for 43D/44D/45D/48D/49D (4/6 Cyl))

Performance Ignition Coil

Replacement unit, output matched to Power Module.
All models LMS4

'Lumenition Magnetronic' System

A budget electronic ignition conversion for owners who prefer to keep the 'look' original, as the parts are neatly contained in the distributor.

This system utilises the proven 'Hall Effect' magnetic pick-up with a unique triggering device.

Magnetronic Ignition Kit;

(07) for Lucas 43/45D distributors MTK007
Instruction sheet MTK106

Performance Ignition Coil

Replacement unit, output matched to Magnetronic system.
All models LMS3

'Newtronic' Ignition

Newtronic (formerly Piranha) offers all the benefits of a full electronic ignition system utilising an optical trigger pick-up, operated via a scanning disc mounted on the distributor shaft. Kits include power pack, switch, and adaptor kit. For Fast Road/Competition, use the Gold Switch unit and adaptor kit with a 12v sports coil.

Please check distributor type before ordering as your car may have a non-original distributor fitted.

(Note: The sports coil requires a full 12V supply. On Mk IV's up to (c) FH50000, the coil ballast resistor must be disconnected. On Mk IV's from (c) FH50001 and all 1500's, some rewiring may be necessary because the ballast resistor is a wire that is integral in the wiring harness of the car)

Lucas Distributors

(08) Spitfire 1500
(for 43D/44D/45D/48D type)

Conversion Kits

TT2971

Adaptor Kits

TT2980-09

AC Delco Distributors

Spitfire MkI to MkIV & GT6 Models
(for D202/D204)

Conversion Kits

TT2972

Adaptor Kits

TT2980-51

Power Packs (for Adaptor kits);

Standard (for Negative earth) TT2977
Standard Pack (for Positive earth) TT2977P
Gold (Sports) (for Negative earth) TT2978
Gold (Sports) (for Positive earth) TT2978P



28 Performance & TUNING

'SmoothCut Rev' Limiter

Perhaps you don't use your car flat out, but this could save an expensive bill by avoiding over-revving .

The road use rev limiter comes preset for four cylinder cars to 6000rpm. It allows use of full throttle up to the limit, at which point power is gradually reduced. This unit can be preset to the customer's specification; please ask for details. The competition unit is fully adjustable and works by progressively mis-timing the spark - preventing an increase in engine speed, and reducing the possibility of damage to your engine (& wallet!). It is suitable for 4, 6 or 8 cylinder engines,

	Rev Limiter (Road use)	TT2987
(01)	Rev Limiter (Competition use)	RL5

Lucas 'Sports' Coils

Lucas Sports coils are designed to improve ignition performance. They give more reliable starting power and greater performance at high rev's thanks to the 40,000 volt output.

Don't forget to renew the plugs & leads to optimise the power.

Note; your HT Lead will need to be 'Push-in' type.

(02)	12 volt Sports Coil	TT2981
	6 volt Sports Coil (ballast resistor type)	TT29812
	'Push-in' Connector (each)	GCL1110

Note: ignition systems using low voltage (ballast) coils must have the resistor by-passed.

NGK Spark Plugs

You've fitted a Sports coil, Performance leads, now change the plugs

NGK Spark Plugs;

(03)	Spitfire & Herald (1147cc);	
	Standard	BP6HS
	Fast road	BP7HS
	Spitfire & Herald (1300);	
	Standard	BP6ES
	Fast road	BP7ES
	Competition	BP7ECS
	Spitfire & Herald (1500);	
	Standard	BP6EV
	Fast road	BP7EV
	Competition	BP7EVX
	6 Cylinder Models (1.6 Litre);	
	Standard	BP6ES
	Fast road/	BP7ES
	Competition	BP7ECS
	6 Cylinder Models (2 Litre +);	
	Standard	BP6EV
	Fast road	BP7EV
	Competition	BP7EVX

Standard & High Performance Ignition Leads

Get the spark from your Sports Coil with Silicone Leads. Designed to perform.

We stock 2 grades of H.T. Lead; Standard & High Performance Silicone. The Silicone Leads transmit greater energy to the spark plug creating a stronger spark and, the silicone insulation is able to withstand much higher temperatures, improving reliability.

	HT Lead Set (Lucas/AC Delco)	Standard	Silicone
(04)	Spitfire & Herald	GHT152	TT1472
	GT6 & Vitesse	GHT144	TT1272



Rev Limiter | 01



NGK Spark Plugs | 03



Sports Coil | 02



Competition Leads | 04

'Bumble Bee' Competition Ignition Lead

If you want performance leads, but want to keep the period look, then these are for you. The leads are Yellow with a Black trace.

(05)	Competition Lead (Sold per metre)	TT2982M
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(Use with waterproof (NGK) Plug Caps)

Plug Caps (NGK) (Each);

	Straight	NSB5
(06)	60 Degree	NYB5
	90 Degree	NLB5

Lucas Distributors

Lucas Distributors for standard 1500 engines

The 1500 models all use this type of unit (with electric tachometer) which, for a road car can be made to produce good results with only minor 'tweaks' to the springs with our advance spring set (TT1903).

It may be necessary to change your spark plugs for ones with a different heat range.

Distributor (Standard);

(07)	New	RKC5044
	Exchange	RKC5044E
	Advance Spring Set (Modified)	TT1903

Lucas Distributors for Modified 1500 engines

These Lucas (rebuilt) units have a reduced advance curve; designed for fast road & racing applications with SU or Weber carburettors.

(New Lucas units may now be available, please contact your local Moss branch for latest information)

Distributor (exchange);

	for SU Carbs	
	(with Vac' advance)	TT1471
	for Webers	
	(No Vac' advance)	TT1471A
	(Note; competition units do not have tach drive)	

10 |





Bumble Bee Leads | 05



NGK 60° Plug Cap | 06



| 07



Mallory Distributor | 08



Geared Starter Motor | 09

'Mallory' Twin Point Distributors

All engines (especially tuned/modified units) benefit from a strong spark being delivered at the right time. When you fit a Mallory Twin Point High Performance distributor, that is exactly what you will get. Mallory distributors allow you to fine tune the ignition timing, especially when used with the optional Advance Curve kit. All our Mallory distributors are only suitable replacements for vehicles specified with Lucas distributors. Units do not come with Tachometer drive.

'Mallory' Twin Point Distributor (Negative Earth vehicles Only)

(08) Mallory Distributor	MM 143-180
Distributor Cap	MM 143-175
Contact Points (2 reqd)	MM 143-185
Rotor Arm	MM 143-190
Condenser	MM 143-195
Advance Curve Spring Kit	MM 143-235

*Selection of advance springs of various weights that allow you to finally tune the Mallory distributor.
Comes complete with detailed instructions and advance curve diagrams.*

Pre-Engaged (Geared) High Torque' Starter Motors

These brand new (non-exchange) powerful, lightweight starter motors are High Torque, meaning they will not suffer the same fate as the original 'Inertia' type, especially on high compression engines and, they are a direct replacement. No more costly motor rebuilds or excessive battery drain.

High Torque Starter Motors;

(09) Spitfire (All)	GXE9405XS
Herald (All)	GXE9405XS
GT6 & Vitesse (All)	GXE9405X

'Non-Leak' 12 volt Battery

This battery is suitable for most 12 volt applications. Because this sealed battery will not leak acid - even when split, it really is a must for all users, especially when the car is used at speed or for competition. Its unique safe design also means that it can be shipped by mail-order.

(10) 12 volt Non-Leak Battery	MXV1129X
<i>(20cm x 20cm x 13cm.)</i>	

Battery Isolator Switches

Obligatory on competition cars, battery cut-out switches are a good idea for all cars. Fitting one to the main battery cable (between the battery and the starter solenoid) enables you to quickly isolate the battery and immobilise the car. Ideal when working on the electrical and/or fuel system, especially if you intend to put your car into storage.

Battery Isolator/Cut-out Switch;

Removable Key type switch	BCS201
RAC Period style switch	1B2804
(11) 'FIA Competition spec' (Removable key type)	TT7962
Cable (for TT7962)	TT79621
Spare key (for BCS201 & TT7962)	TT79641



Battery Isolator Terminals;

Ring terminals (each)	LUCWB600
Rubber Cap, terminal (each)	8G548

Battery 'Quick Bolts'

These 'Quick Bolts' have a camming system to clamp down on the battery posts. Simply replace the bolts in your cable ends with 'Quick Bolts' and you can connect or remove the cables without tools. Battery 'Quick Bolt' (Pair) M M 900-015

Battery Cable (General use/Heavy Duty);

Black (sold per foot)	CQB301
Red (sold per foot)	CQB304



30 Performance & TUNING

Up-rated Radiator | 01



Kenlowe Cooling Fan Kit | 02



Filter Adaptor | 03



Rocker Oil Feed Kit | 05



Non-Drain Conversion | 04



Oil Pump | 07



Up-rated Radiator

This performance radiator will improve the cooling, especially at low speeds. Suitable for all Spitfire UK/European models.

(01) Up-rated Radiator (New) RKC2117

'Kenlowe' Electric Cooling Fan

Kenlowe electric fans are a replacement for the standard mechanical fan. Fitting a Kenlowe fan will reduce the engine warm up time, prevent excessive cooling and allow the engine to operate closer to its optimum running temperature. Removal of the standard fan will help to reduce engine noise, and will help improve power/mpg.

A manual over-ride switch is available separately, allowing the fan to be operated at any time giving maximum control of the engine's temperature. Kit includes fan, motor, thermostatic switch, wiring, mounting hardware & instructions.

Kenlowe Fan Kit & Switches;

(02) Spitfire (all models) (12" fan) TT29442
 GT6 (all models) (12" fan) TT29442
 Vitesse (12" fan) TT29412
 Thermostatic Switch (Capillary) TT2952
 Manual Over-ride Switch TT2948
 Hose Seal (for thermostatic switch) TT2947
 (Seal tends to degrade if used more than twice)

'Kenlowe' Hotstart Kit

Kenlowe manufacture a 'Hotstart' kit that enables you to pre-heat the water system from the domestic electricity supply eliminating cold engine starts.

Very useful in cold spells and for short journeys as it helps to prevent engine wear.

Not to mention keeping your feet warm!

Kenlowe Hotstart kit KLH1000X

'Spin-on' Oil Filter Adaptor

6 Cylinder Models Only

This adaptor makes changing the filter so much easier - and cleaner.

(03) Adaptor (no oil cooler) TT1286
 Adaptor (with oil cooler) TT1286A
 Oil Filter Cartridge GFE180

'Non-Drain Filter Conversion

1500 Models only

This uses a special adaptor bolt to allow a 3/4" UNF type oil filter to be fitted. This filter has a internal stack pipe and non return valve, enabling oil to be retained in the filter to supply immediate lubrication of the engine when restarted. (RHD only). Use only when fitting an oil Cooler Installation Kit.

(04) Adaptor Bolt TT9401
 Oil Filter Cartridge GFE227

Adaptor (Oil Temperature Gauge)

If you want to fit an Oil Temperature gauge, then use our In-line oil temperature adaptor.

Adaptor;

with 1/2" 'push-on' connections TT2969
 with 1/2" 'screw-in' connections TT29691
 with 5/8" 'push-on' connections TT29692
 with 5/8" 'screw-in' connections TT29693

Rocker 'Oil Feed Kit'

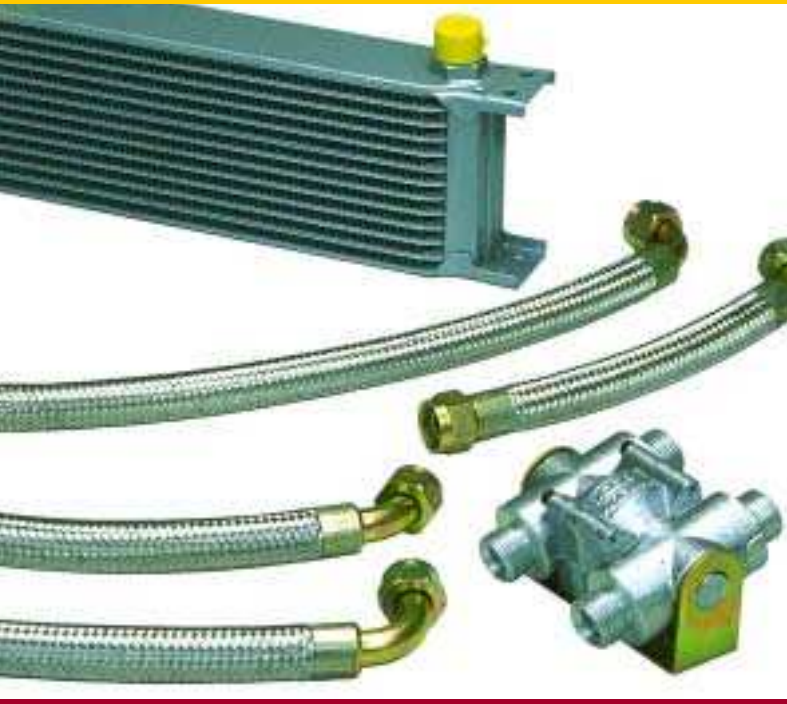
This Stainless Steel braided hose supplies much needed oil direct to the rocker assembly and minimises wear & damage.

The adaptor fits neatly in-line with the oil pressure switch, and the banjo connects to an existing hole in the rear of the cylinder head.

Rocker Oil Feed Kit;

(05) All Models TT1226

Oil Cooler Installation Kits & Hoses



Upated Oil Pressure Switch

This upated (20lb) oil pressure switch will give you early warning of impending damage through lack of oil pressure. Direct replacement for standard switch as used on later cars.

- (06) Oil Pressure Switch TT2998
- Oil Pressure Valve (Piston) 132107
- Oil Pressure Valve Spring (Upated) TT1229



When an oil cooler is fitted, an upated relief spring may be used for improved pressure. When carrying out any rebuild, in the interests of safety, always replace the valve and spring.

Oil Pump

This is the later type of oil pump (with a more efficient angled pick-up), which will produce sufficient oil pressure for all requirements.

(For competition use, it is recommended that the new pump is checked to ensure that the tolerances & clearances are kept to the lower end of the scale).

- (07) Oil Pump GLP118

Oil Cooler Installation Kits

In modern traffic conditions, especially on long motorway journeys, engines tend to run at high speeds for long periods, causing the oil to thin and a reduction in pressure may occur. The fitting of an oil cooler will help prevent the thinning of the oil and prevent possible engine damage.

Our oil cooler Installation kits are available separately (allowing you to choose your oil cooler radiator, depending upon requirements), and include rubber or braided stainless steel ready assembled hoses.

Standard (Non-Thermostatic) Kits;

These Installation kits include mounting brackets & unions with a choice of rubber or Stainless Steel Braided hoses.

- with Rubber Hoses TT10765
- with Stainless Steel Braided Hoses TT10765S

Oil Cooler Installation Kits cont...

Thermostatic Kits

We also supply thermostatic installation/conversion kits that use a 'full flow' thermostat which prevents 'cold start oil' from going through the oil cooler until the engine oil has reached its optimum operating temperature, giving the engine a much quicker warm-up period.

These kits include mounting brackets, unions, thermostatic oil filter adaptor (spin-on oil filter adaptor where appropriate), with a choice of rubber or Stainless Steel Braided hoses where appropriate. (Note oil filters must be ordered separately).

Model	Rubber Hoses	Braided Hoses
Spitfire & Herald, Non-Thermostatic	TT1365	TT1367
Spitfire & Herald, Thermostatic	TT1369	TT1369S
GT6 & Vitesse, Non-Thermostatic	*TT1768	*TT1768S
GT6 & Vitesse, Thermostatic	*TT1778	*TT1778S

* Requires Spin-on filter GFE180

Oil Cooler Radiators

It is wise when modifying engines to allow for extra cooling, the oil should not be allowed to run too cool or too hot as this can lead to rapid engine wear.

A 10 row radiator is suitable for road use, a 13 row for Fast Road/Sport, a 16 row for Sport/Sprints, and a 19 row for Competition/Race.

Installation kits are available separately (allowing you the choice of cooler depending upon your application), and include ready assembled hoses.

Oil Cooler Radiator (for 1/2" hoses);

- 10 row (Road) ARO9807
- (08) 13 row (Fast Road) ARA221
- 16 row (Competition) ARO9875
- 19 row (Competition) ARO9888



Oil Cooler Radiator (for 5/8" hoses);

- 13 row (Race) TT29631
- 16 row (Race) TT29641
- 19 row (Race) TT29651

Thermostats (Oil Cooler)

Use these thermostats if you already have an oil cooler fitted.

Oil Thermostat (Standard)

TT2960

This oil thermostat has easy push fit connections for original rubber hoses and is supplied with hose clips. Its function is to seal off the radiator completely from oil flow until 74°C is reached.

Oil Thermostat (Full Flow);

This system allows oil to pressurise the oil radiator at all times, but restricts the oil to by-pass through the thermostat until 74°C is reached.

- (09) with 1/2" 'screw-in' connections TT29602
- with 5/8" 'push-on' connections TT29604
- with 5/8" 'screw-in' connections TT29603



Screw Unions (Pairs);

(for hose connection to Full Flow thermostat)

- 1/2" Straight TT9961
- 5/8" Straight TT99611
- 1/2" 45° degree TT9962
- 5/8" 45° degree TT99621
- 1/2" 90c degree TT9960
- 5/8" 90° degree TT99601



32 Performance & TUNING

Updated Brake Pads

(For standard 2-pot calipers)

Updating the braking system must be the single most important improvement on any classic car, especially if you have, or are going to, increase the engine power/speed.

We stock replacement brake pads in a variety of materials including Mintex M1144 and Kevlar.

Kevlar pads have a very wide heat range that gives exceptional 'cold bite', they also have the added bonus of producing less brake dust than with other materials.

Brake Pads (car set/Updated);

(Updated pads can be used with standard discs.)

Spitfire (MkIII, MkIV & 1500);

Road (Kevlar)	TT3450KV
(01) Fast Road/Sport (Kevlar green stuff)	TT3450G
(02) Fast Road/Competition (M1144)	TT34501
Full Race (4003)	TT3450AF

GT6 & Vitesse (to '72) (1/4" pins);

Road (Kevlar)	TT31501KV
Fast Road/Competition (M1144)	TT31501

GT6 & Vitesse ('73 on) (3/16"-4mm pins);

Road (Kevlar)	TT32501KV
Fast Road/Sport (Kevlar green stuff)	TT32501G
Fast Road/Competition (M1144)	TT32501

Updated X-Drilled Brake Discs

(For standard 2-pot calipers)

Heavy braking can tax even disc brakes and, if they are proving inadequate, for some models we supply grooved & cross-drilled discs that run considerably cooler than standard, ideal for really hard driving or competition use. (Don't use hard pads with cool running discs)

X-Drilled Brake Discs for Spitfire MkIV & 1500;

(03) Pair of Discs (RH & LH)	DBD106
Single Disc (RH) (each)	DBD106RH
Single Disc (LH) (each)	DBD106LH

'4-pot' Caliper Brake Conversion Kit with Vented Discs

These 4-pot calipers with vented discs will keep things cool - helping to avoid brake fade.

Kit includes, discs, calipers, pads, fittings & instructions. (Brake pads supplied with this kit are RD1311 (asbestos free, fast road).

Please contact your local Moss branch for full details.

Vented Brake Conversion Kit;

(04) Spitfire MkIII, MkIV & 1500	SPB3452
GT6 & Vitesse	SPB3252

Replacement Brake Pads (for 4-pot calipers);

(Start with 'soft' pads and work upwards to find pads to suit your driving)

'Cold Stopper' (Soft)	RD150-3668
Fast Road (Mid range material)	RD1311
Fast Road/Competition (M1144)	TM G307494
Competition (Hard)	RD1313
Full Race	RD1306

Brake Servo

For those of us who find the brake pedal rather hard after driving modern vehicles, this remote mounted Lockheed servo kit (complete with all mountings & fittings) will greatly reduce the pedal effort and also help to bring your Spitfires brakes upto modern standards.

Brake Servo Conversion Kit;

(05) All Models (with Single line brakes)	TT3949
---	--------

Updated Brake Pads | 01



Updated Brake Pads | 02



Updated X-Drilled Brake Discs | 03



'Updated' Brake Hoses (Stainless Steel Braided)

These steel braided hoses not only look great, but because they don't swell under pressure, they give a much firmer feel to the pedal. Front brake hoses are supplied in pairs

Model	Front Brake	Rear Brake
(06) Spitfire MkI-IV (to '72)	TT3340	TT3342
Spitfire MkIV-1500cc	TT3340	TT3442
GT6 MkI	TT3240	TT3342
GT6 MkII-III (Roto-flex)	TT3240	TT3742
GT6 MkIII (swing spring)	TT3240	TT3442
Vitesse MkII	TT3240	TT3742

'Adjustable' Brake Pressure Balance Valve

Competition cars quite often need to finely adjust - from inside the car, the braking bias between front & rear brakes.

Here we offer an adjustable brake pressure valve which reduces the supply to the rear brakes after attaining a preset pressure, this may prove necessary when updated rear shoes are fitted to avoid premature locking of the rear wheels but, will depend upon the choice of front pads and the wheel/tyre combination.

Note: this valve has metric connections.

Adjustable Brake Pressure Valve;

All Suitable Models	TT3954
---------------------	--------

'Anti-Squeal' Brake Pad Strips

These strips fit between the pad & piston to help eliminate vibrations that cause brake squeal.

Anti-Squeal Strips

GBP240ASK

(Supplied in a set of four)



Hot Caliper Conversion Kit | 04



Quick rack | 07



Upated Front Suspension Bush Kit | 09



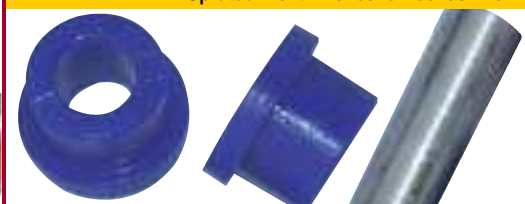
ake Servo Conversion Kit | 05



Upated Front Anti-Roll Bar | 08



Upated Front Wishbone Bushes | 10



Upated Front Shock Absorber Bushes | 11



Steering 'Quick' Rack

Our Quick Rack has a high ratio pinion giving you lock-to-lock in only 2.5 turns (compared to the standard 3.5). Developed initially for competition use, these racks have a stronger outer casing with a higher grade of steel rack for increased durability. The kit also includes solid alloy mounts to reduce the amount of steering rack float. (Track rod ends not included).

Quick Rack;

(Not suitable for GT6 models)

- | | |
|---------------------------------------|---------|
| (07) Spitfire, Vitesse & Herald (RHD) | 305932X |
| Spitfire, Vitesse & Herald (LHD) | 305931X |

Upated Front Anti-Roll Bars

The standard front anti-roll bar will need uprating when the engine & suspension are modified.

The front anti-roll bar is supplied separately, we suggest you also replace the fittings and bushes.

We have found the best improvements are when they are combined with a rear roll bar

Anti-Roll Bar only;

- | | |
|---|--------|
| Spitfire M kI, II, III & Herald -
0.875" dia bar | TT3484 |
| (08) Spitfire M kIV & 1500 -
1" dia bar | TT3485 |
| GT6 M kI & all Roto-Flex cars -
0.875" dia bar | TT3484 |
| GT6 M kIII & Non Roto-Flex cars -
1" dia bar | TT3485 |

Bushes (Anti-Roll bar);

- | | |
|--|---------|
| for (0.875" dia) Bars -
Hard Rubber | 155310 |
| Polyurethane | 155310P |
| for (1" dia.) Bars | TT3464 |

Upated Front Suspension Bush Kit

Ideal for fast road use, these stiffer bushes suffer less from the inherent flexing problems of the softer originals, and allow much tighter and more precise suspension and steering.

The kit includes 8 front inner bushes, 4 rear radius arm bushes, 4 upper shock absorber bushes and 2 front lower shock absorber bushes.

If you require further information, please contact your local Moss branch for fitting details.

- | | |
|----------------------|---------|
| (09) Upated Bush Kit | TTK3310 |
|----------------------|---------|

Upated Front Wishbone Bushes

These upated bushes will help to improve suspension & steering control. The Nylatron (Competition) bush kit is supplied as a set for each arm, 2 sets required per car. If you require further information, please contact your local Moss branch for fitting details.

Front Wishbone Bushes;

- | | |
|---|--------|
| (10) Polyurethane (Fast Road) (16 required) | TT3362 |
| Nylatron (Competition) (Set of 8) | TT3460 |

Upated Front Shock Absorber Bushes

These upated bushes will help to improve suspension & steering control. If you require further information, please contact your local Moss branch for fitting details.

Front Shock Absorber UPPER Bush;

- | | |
|-----------------------|---------|
| (11) Polyurethane (4) | 517985P |
|-----------------------|---------|

Front Shock Absorber LOWER Bush;

- | | |
|---------------------|--------|
| Rubber (Upated) (2) | TT3360 |
| Polyurethane (2) | TT3364 |



34 Performance & TUNING



Front Springs | 01

Spring & Damper Kit | 02

Spax Shock Absorbers | 03

Front Springs

4 cylinder Models

These models require the front to be lowered to induce less 'positive' camber and allow the wider wheels (if fitted) to work properly. The TT4301 springs will lower the car suitably for general road use, whereas the TT4302 springs will give you the lowest ride for maximum road holding, as long as the tyres are not the smallest (145x13). The weight of the car will also affect the fitted length so if a Fibre-glass bonnet is installed, the fitted length will be increased by about 1/2".

Front Springs cont...

6 cylinder Models

This range requires the spring to be strengthened, and lowered, to stop the front end float which is the major problem for a road car. The road spring TT4701 is designed for GT6 models, Vitesse models may require the short spacers as well.

For competition use the TT4407 springs are ideal for 'sprint' use and, for full circuit racing, the TT4707 springs are essential. With the TT4407's you may require either spacers or the adjustable dampers to obtain the correct ride height.

(01)

Front Road Springs

Apart from fitting a uprated anti roll bar & dampers, the next stage of tuning your suspension is to lower the ride height and increasing the spring rate.

4 Cylinder Models	Spring Details	Colour Code	Spring Rate lbs/in	Fitted Length	Part Number	
Standard Springs						
Spitfire III		M	150	7.50"	214144	
Spitfire MkIV/1500		MW	180	8.00"	TKC1884	
TriumphTune Springs						
Road	Std height/mild increase	PW	210		TT40117	
Fast Road	Recommended road spring	R	330	7.25"	TT4301	
Fast Road, Lowered	Low fitted height - road spring	RW	330	6.875"	TT4302	
Race/Competition	Race rate - low ride height	PR	480	7.00"	TT4407	
6 Cylinder Models						
Standard Springs						
GT6 range Mkl, II, III			220		GT6	
Vitesse (models)			210	8.20"	212425 209009	
TriumphTune Springs						
Fast Road, Lowered	Slightly lower & uprated	WGW	330	7.50"	7.70"	TT4701
Sprint	Comp. rate - low ride height	PR	480	6.35"	6.50"	TT4407
Race/Competition	Full race specification		650		6.60"	TT4707

*Note: Vitesse models must also use 2 spring spacers (TT4404) for improved height.

Spring Spacers (Front Coil Springs)

Use these spring spacers to adjust the spring height. (Spacers are sold individually)

Spring Spacers;
Short (above spring 0.375")
TT4404

Medium (below spring 0.875")
TT4405

Long (below spring 1.25")
TT4406

Koni Shock Absorbers | 04

Gaz Shock Absorbers | 05



Upated Spring & Damper Kits

Developed after years of research and development, these Spring & Damper Kits will upgrade your car's suspension for fast road use, tightening the overall feel of the car.

Fast Road Spring & Damper Kit

Spitfire MkI, II & III

These kits contain uprated/lowered front springs, a new rear leaf spring, with either Spax or Koni adjustable shock absorbers.

- with 'Spax' Shock absorbers TTK3330S
- with 'Koni' Shock absorbers TTK3330K

Spitfire MkIV-1500

These kits contain uprated/lowered front springs, a new rear leaf spring, with either Spax, Koni or Gaz adjustable shock absorbers.

- (02) with 'Spax' Shock absorbers TTK3430S
- with 'Koni' Shock absorbers TTK3430K
- with 'Gaz' Shock absorbers TTK3430G

(03) / (04) / (05) Spax, Koni & Gaz Replacement Shock Absorbers

Important: Uprated dampers should initially be fitted in pairs.

Models	Spax Front	Spax Rear	Koni Front	Koni Rear	Gaz Front	Gaz Rear
Spitfire	TT3301	TT3311	TT3302	TT3312	TT3303	TT3313
Spitfire (height adj)	TT3306					
GT6 & Vitesse (Non-Rotoflex Models);						
GT6/Vitesse	TT3301	TT3311	TT3302	TT3312	TT3303	TT3313
GT6/Vitesse (height adj)	TT3306					
GT6 & Vitesse (Rotoflex Models);						
Vitesse MkII	TT3301	TT3311*	TT3302	TT3312	TT3303	TT3713
Vitesse MkII (height adj)	TT3306					
GT6	TT3301	TT3711**	TT3302	TT3312	TT3303	TT3713
GT6 (height adj)	TT3306					

*These shock absorbers/models need a rear telescopic conversion bracket kit TT3618.

**To fit lower Height Spax dampers to Rotoflex GT6 models you will need the conversion bracket kit TT3618.

Rear Telescopic 'Bracket' Conversion Kit Vitesse & GT6

To enable the fitting of the Spax, Koni or Gaz shock absorbers to the models highlighted*, you will need to use the bracket kit listed here.

Bracket Kit (Type 4);

- Vitesse (& *GT6) Rotoflex TT3618

Shock Absorber (Spax) - Vitesse (& *GT6);

- Adjustable (Lowered Height) TT3611

These specifically designed extension brackets mount the rear dampers to the chassis while clearing the Rotoflex couplings.

They also allow full suspension travel when combined with the shortened damper units (TT3611) for vehicles with lowered suspension. If you have converted your car to Rotoflex then these will fit

*When fitted to GT6 models this bracket kit alters the damper angle which gives improved handling, especially when used with a negative camber spring.

'Spax' Shock Absorbers

(Front & Rear Rate Adjustable)

The gas adjustable units from SPAX will give excellent service on these models, plus, they have the ability for the adjustments to be made on the car. The initial setting to be 6-8 for fast road use.

All Spax units come with a 2 year warranty. Supplied individually but should be fitted in pairs.

'Spax' Shock Absorbers

(Front only - 'Height & Rate' Adjustable)

These units (TT3306) use a larger dampening piston for more arduous applications. The spring seat position is also adjustable from standard minus 1.5" to plus 1.0" which allows the cars ride height to be further adjusted for maximum benefit. All Spax units come with a 3 year warranty. Supplied individually but should be fitted in pairs.

'Koni' Shock Absorbers

(Front & Rear 'Rate' Adjustable)

Koni adjustable shock absorbers are renowned for their reliability and greater range of damping, which makes them suitable for road or competition applications.

The adjustment must be made with the unit off the car. Initial setting for fast road use plus two half turns.

All Koni units come with a 3 year guarantee.

Supplied individually but should be fitted in pairs.

'Gaz' Shock Absorbers

(Front & Rear 'Rate' Adjustable)

'Gaz' shock absorbers come with a 3 year warranty, and are specifically designed for fast road/sport applications. Features include, on-car adjustment, Double Lip piston seals and Zinc plated bodies. These advanced adjustable dampers are supplied individually but should be fitted in pairs.

Rear Spring

To try and simplify the listings for all the different springs we supply, for all the different models, with all the different rear suspension/drive shaft layouts, we have split them into 3 sections to help you identify your spring type.

When fitting any new spring make sure that the 'leaves' are well greased, so as to improve spring action and its working life. On the GT6 models the standard spring is specially made with a thicker lower leaf to cover the extra loading capabilities of the car.

(Continued on next page)

36 Performance & TUNING

Type A Rear Suspension: Rear Spring

Plain Transverse Spring.

For Spitfire M kI, II & III, GT6 M kI and Vitesse 1600 & 2 Litre M kI

Rear Spring

For the best road holding it is necessary for the camber to be set in 'Negative', i.e. the top of the wheels pointing in towards the centre of the car.

In standard condition the spring is set to give 'Positive' camber which makes for carrying full loads easily, but this is not the average running condition. We therefore set the spring so that it gives slight negative camber for the average running condition, which will therefore give you much improved road holding with the only restriction being that when fully loaded the car will be even lower.

On some models there have been recommendations by some 'experts' that the Herald/Vitesse spring is changed for the MK IV spring. This can be fitted but it does not allow the carrying of any sensible loads, due to the spring leaves/rating not being designed for the extra body weight.

On most models when the spring is 'worn out' the car attains negative camber, but the spring does not have any strength so therefore you are normally running on the shocker bump stops, which does not help the road holding. For this reason we offer an exchange service where the unit is repaired, re-tensioned and set to either standard height or to negative at 1 - 3° for a road car or 3 - 4° negative for race use.

We carry out this exchange service on the spring type fitted to the car, so that the standard carrying capacity is still retained, although this will be lower.

There are a few different build specifications of the leaf spring.

These include;

Spitfire M kI to III = 7 standard leaves

GT6 M kI = 8 thick leaves

Herald/Vitesse saloons = 11 standard leaves

Herald estates = 8 thick leaves

Type B Rear Suspension: Rear Spring

'Swing' type Transverse Spring.

For Spitfire M kIV & 1500 and GT6 M kIII

Rear Spring

It is not essential to replace the spring for improved road holding. Normally it is required to be replaced as the unit is 'too low' or 'weak'. Replace with new standard spring or reconditioned on exchange, as follows;

Standard height

giving 0-1° negative for normal use.

Fast Road

giving 2-4° negative, this still allows passenger and luggage to be carried, albeit at a lower setting.

Race

special spring setting at 3-4° negative. This is for driver and occasional extra loads and is not recommended for the average car.

Type C Rear Suspension: Rear Spring

Plain Transverse Spring with RotoFlex Drive Shaft

For GT6 M kII & M kIII and Vitesse 2 Litre M kII

Rear Spring

It is not essential to modify this unit for road holding improvement, although the resetting and repairing of the spring is quite common. If the car is just a road car that is used for carrying only two people and occasional luggage the use of the negative spring can be worthwhile.

Type A Negative Rear Spring | 01



Rear Road Springs

Apart from fitting anti roll bars & dampers, you must also ensure that the rear spring doesn't spoil all your hard work at the front.

Our rebuilt leaf springs are supplied with new eye bushes, reset to either standard or negative camber. Negative camber is for improved road holding and gives a lower ride height.

Model	Suspension Type	Standard Spring	Negative Spring
(01) Spitfire M kI, II, III	Type A	TT4310	TT4313N
Spitfire M kIV, 1500	Type B	TT4410	TT4413N
GT6 M kI	Type A	TT4710	TT4713N
GT6 M kII, III	Type C	TT4710A	TT4713AN
GT6 M kIII (Late type)	Type B	TT4410A	TT4413A
Vitesse 1600 & 2L M kI	Type A	TT4610	TT4613
Vitesse 2L M kII	Type C	TT4610A	TT4613A
Herald (saloon models)	Type A	TT4610	TT4613

Rear Anti-Roll Bar Kit

A rear anti-roll bar will improve the stability of your classic when used in conjunction with an uprated front bar & dampers along with an uprated rear spring & dampers.

Our rear anti-roll bar kits come complete with fittings.

Model	Suspension Type	Kit Part No
Spitfire M kI, II, III	Type A	TT3387
Spitfire M kIV	Type B	TT3387
(swing spring narrow track pre 1973)		
(02) Spitfire M kIV, 1500	Type B	TT3487
(swing spring wide track all late models)		
GT 6 M kI	Type A	TT3387
GT 6 M kII, III	Type C	TT3787
GT 6 M kIII (Late type)	Type B	TT3487
Vitesse 1600, 2 Litre M kI	Type A	TT3387
Vitesse 2 Litre M kII	Type C	TT3787
Herald (saloon models)	Type A	TT3387



Rear Anti-Roll Bar

To try and simplify the listings for the different rear Anti-roll bar kits we supply, for all the different models, with all the different rear suspension/drive shaft layouts, we have split them into 3 sections to help you identify your spring type.

Type A Rear Suspension: Rear Anti-Roll Bar Plain Transverse Spring.

For Spitfire M kI, II & III, GT6 M kI and Vitesse 1600 & 2 Litre M kI

We have found that this works very well when the front springs/roll bar have also been improved, to give you a more neutral handling car, this also improves spring tension slightly. The bar attaches to the vertical link at the outer points and is mounted to the chassis in the centre.

Type B Rear Suspension: Rear Anti-Roll Bar 'Swing' type Transverse Spring.

For Spitfire M kIV & 1500 and GT6 M kIII

When fitted with the larger front bar, this really makes a marked improvement in roadholding. Giving the car more neutral handling which substantially improves stability in cornering and braking, also, especially when having to brake and steer at the same time.

For competition use, you can use harder bushes 517985P or TT3996 to induce more tension for fine tuning.

Type C Rear Suspension: Rear Anti-Roll Bar Plain Transverse Spring with RotoFlex Drive Shaft

For GT6 M kII & M kIII and Vitesse 2 Litre M kII

On this range of vehicles the rear bar is essential to obtain good roadholding, normally after first using the larger front roll bar. The use of the rear bar will restrict the natural under-steer tendencies that this car has. The bar's tension rates can again be fine tuned with bushes 517985P or TT3996.

Updated Centre Mountings

For the owners requiring the best from the rear roll bar then we can offer these nylon (hard 5/8") centre mount sets which will improve the set up considerably for competition work.

If you require further information, please contact your local Moss branch for fitting details.

(03) Centre Mounts (Rear Anti-roll bar) TT3969

Updated Outer End Bushes

Use updated end bushes for increased transfer of loading when used in competition, supplied individually as different installations use varying quantities.

If you require further information, please contact your local Moss branch for fitting details.

Outer End Bushes (Rear Anti-Roll Bar);

Polyurethane (approx. +15% tension) 517985P

(04) Nylatron (Solid) (+25% tension) TT3996

Updated Radius Arm Bushes

Specially updated bushes to reduce the amount of deflection for fast road or competition use. (All bushes can be supplied individually). If you require further information, please contact your local Moss branch for fitting details.

Radius Arm Bush (updated) TT3760

(Use where 1.00 (119450) bush is fitted as standard)

(05) Radius Arm Conversion Kit TT3760

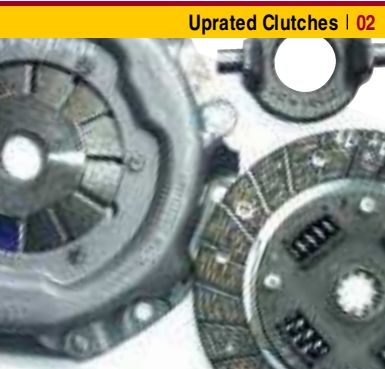
This conversion kit is for GT6 models when the larger diameter 1.875" bush is fitted. This kit uses bush TT3360 and a conversion adaptor, for easy fitment.



38 Performance & TUNING



Close Ratio Gearbox | 01



Upated Clutches | 02



Limited Slip Differential | 03



Interrupter Fuel Pump | 04



Pressure Regulator | 06



Filter/ Regulator | 07



'Close Ratio' Gearbox

Close ratio gears cure the problem of the car coming 'off cam' by losing engine speed during a gear change.

If you need close ratio gears, but you are unsure as to the integrity of your own gearbox, then our-exchange gearbox with helical gears is the answer. For full specifications please contact your local Moss branch. GT6 owners please enquire.

'Close Ratio Gearbox';

- | | |
|---------------------|---------|
| (01) 3-Rail Gearbox | TT2321 |
| Single Rail Gearbox | TT24211 |

Upated Flywheels & Clutches (Spitfire 1500)

Special upated clutches are available for the 1500 models and are suitable for up to 125bhp, but the flywheel needs to be modified to suit the flat type clutch plate.

For full details & specifications of all our upated clutch systems please contact your local Moss branch. (GT6 owners please enquire).

(02) Fast Road/Competition Clutch;

- | | |
|---------------------------------|---------|
| Clutch Cover | TT24011 |
| Clutch Plate | TT2402 |
| Release Bearing | GRB207 |
| Flywheel (modified & lightened) | TT24121 |

Customers own unit, call for details

- | | |
|------------------------------|----------|
| Flywheel (Lightweight Steel) | TKC1840X |
|------------------------------|----------|

Fit one of our brand new Lightweight Steel flywheels - that only weigh approx. 4Kg (9lbs). save weight and help release the power.

And There's More ...

As well as our 'off-the-shelf' tuning products, we also offer a full balancing service for Crankshafts, Con Rods & Flywheels, and Tuftriding for Cranks' Please phone your nearest branch for details.

'Quaife' Limited Slip Differentials

Limited slip differentials allow maximum drive to the wheels giving more grip under hard acceleration & cornering.

'Quaife' Limited Slip Differential;

- | | |
|--|--------|
| (03) Spitfire MkIV & 1500 | TT2420 |
| (Suitable for 3.63:1 or 3.89:1 ratios) | |

High Capacity Fuel Pumps, Filters & Regulator

The standard fuel pump may not be able to maintain adequate fuel pressure at higher engine speeds.

The range of Facet high pressure electric fuel pumps however, suit all modified applications, the position in the car where the pump is mounted will determine which model is used.

The cylindrical 'Interrupter' pumps can be fitted to the front or rear of the car and can pull fuel up to 18 inches from the bottom of the fuel tank.

The Cuboid 'Solid State' pumps must be mounted close to the tank and below the fuel level (the installation instructions must be adhered to). They can pull fuel up to 12" from the bottom of the fuel tank and the filter union must be fitted to the suction side of the pump.

Both types of pump are supplied in negative earth only, they come complete with mounting bobbins and unions, you will have to re-plumb the fuel system around the new pump using a combination of standard pipes and hoses.

Fine-tuning of the fuel pressure can be easily achieved by installing a pressure regulator, we can supply either a simple regulator or a filter regulator with a replaceable filter. We have the road competition version with 1/4" & 5/16" connections and the larger competition version with all 5/16" connections.

With safety in mind, we also supply a 'Inertia' fuel cut off switch, so that in the event of an accident, fuel delivery is cut-off.

'Interrupter' Fuel Pump Kit

These pumps can be mounted at the front or rear of the car. Unless stated otherwise, pumps are Negative earth.

- | | |
|--|-----------|
| (04) for Road use | TM G2930K |
| (18gal/per Hr flow rate, 4.0 psi. Up to 150 Bhp) | |
| for Road use (Positive earth) | TM G2930P |
| (18gal/per Hr flow rate, 4.0 psi. Up to 150 Bhp) | |
| for Fast Road use | MGS2930K |
| (25gal/per Hr flow rate, 5.0 psi. Up to 180 Bhp) | |
| for Competition use | TT2930 |
| (38gal/per Hr flow rate, 6.5-7.0 psi. 190+ Bhp) | |
- Note:** Competition pumps require extra unions, please state size & connector type required.



K&N Sports Air Filters

K&N Air Filters are renowned as being one of the most efficient air filtration systems available.

Their reinforced cotton weave is impregnated with a specially formulated oil to retain airborne particles. Offering much improved air-flow over standard paper elements, they are essential for fast road and competition applications. K&N performance filters are designed to be used with either stub stacks or ram pipes. K&N Sports filters (which are sold individually) are available for models equipped with SU's or Weber carburettors. For tw in carb's (such as SU's) you will need to order 2 filters.

*Note Weber/Dellortos, please check for clearance before ordering

K&N Sports Filters**;

Spitfire M kIV (1 1/4" SU HS2);

(08) Centre M ounting (1.75" deep)	KN56-9121
Offset M ounting (1.75" deep)	KN56-1630A

Spitfire 1500 (1 1/2" SU HS4);

Centre M ounting (1.75" deep)	KN56-1390A
Centre M ounting (3.25" deep)	KN56-9095

(Check for clearance)

Offset M ounting (1.75" deep)	KN56-9128
-------------------------------	-----------

GT6 & Vitesse (1 1/2" Stromberg CD150);

Centre M ounting (1.75" deep)	KN56-1610A
-------------------------------	------------

Stud Kit

KN56STUDKIT

K&N Engine Crankcase Filters;

Crankcase Filter*	KN62-1010
-------------------	-----------

*Suitable for engines with Positive Crankcase Breathing, or when replacing Emission System, filter has a 0.05" external inlet pipe.

K&N for Weber/Dellorto Carbs**;

These K & N filters are designed to fit Weber DCOE/Dellorto DHLA.

We suggest that ram pipes are fitted to aid air flow.

Filter Size	Depth	
180mm x 120mm (Not suitable for ram pipes)	45mm	KN56-1270
(09) 180mm x 120mm	45mm	KN56-9106
180mm x 120mm	63mm	KN56-9104
180mm x 120mm	83mm	KN56-9265
228mm x 135mm	63mm	KN56-9110
228mm x 135mm	45mm	KN56-9115
190mm x 160mm	51mm	KN56-9332
190mm x 160mm	54mm	KN56-9233

(10) K&N Service Items;

Cleaning Fluid Solution, 1 litre KN99-0621

Filter Lubricating Oil;

Aerosol (400ml)	KN99-0516
Bottle (250cc)	KN99-0533
Sachet (57cc)	KN99-11312

Stub Stacks & Ram Pipes

(For K&N Sports Filters)

Stub stacks/Ram pipes, are essential to improve air flow into the carburettor when a sports air filter has been installed. They feature full radiused mouths that help reduce turbulence at the mouth of the carburettor allowing a much smoother air flow and, they produce a measurable improvement in performance. The length slightly changes the engine speed at which power is developed - the shorter the pipe, the higher the speed.

For K&N Sports air filters, Stub Stacks are used on SU carburettors & Ram Pipes are for Webers/Dellortos.

Stub stacks/Ram pipes are sold individually.

Stub Stacks for SU Carb's**;

HS2's	KN85-5038
HS4's	KN85-5039

Ram Pipes for Carbs Weber/Dellorto**;

For use with K&N filters.	40's	45's
(11) 16mm long	KNSS1640	KNSS1645
26mm long	KNSS2640	KNSS2645
39mm long	KNSS3940	KNSS3945

**Please see notes: 'IM PORTANT (Descriptions & Dimensions)' on Page 14.

'Solid State' Fuel Pump Kit

Pumps must be mounted close to the tank & below the fuel level. Unless stated otherwise, pumps are Negative earth.

(05) for Road use	TM G2931K
(18gal/per Hr flow rate, 4.0-5.5 psi. Up to 150 Bhp)	
for Fast Road/Competition	M GS2931
(25gal/per Hr flow rate, 6.0-7.0 psi. Up to 180 Bhp)	

We recommend you fit an in-line auxiliary

Fuel Pressure Regulator/Filter* for precise fuel flow.

Pressure Regulator;

(06) Road/Competition (1/4" unions)	PRO53
Competition (5/16" unions)	PRO54

Filter/Regulator (5/16" unions);

(07) Road/Competition (67mm)	TT2927
Competition (85mm)	TT2928

Fuel Inertia Switch

C41220A



Fuel Pump & Filter Unions

Fuel Pump Unions

For use with high capacity fuel pumps; check size of pump thread & pipe size used on the car. 'JIC' are for use with Aeroquip pipe sets.

Union Thread Size	Straight		90 Degree	
	1/8" NPT	1/4" NPT	1/8" NPT	1/4" NPT
1/4" - 6mm pipe size	FPA903B			
5/16" - 8mm pipe size	MOC1604		MOC1841	* FPA902A
3/8" - 10mm pipe size	FPA904			* FPA902B
-6 JIC Aeroquip thread	special order	MOC0726	special order	MOC0725

* These unions are supplied in pairs.

Fuel Filter Unions

Filter/union & outlet union (1Pr)	TT2932A
(1/8" NPT with 1/4" fuel pipes)	

Blanking Plate

If you are replacing your block mounted mechanical pump with a high pressure electric unit, then you will need this blanking plate.

Blanking Plate	2A265
Gasket (plate to block)	2A113

40 Performance

& TUNING

RamAir Filer Assembly | 01



Polymer Treatment | 03



RamAir Air Sock | 02



RamAir Performance Filters

The RamAir foam (multiple layer) construction ensures efficient filtering properties with minimal air restriction. The polymer coating filters up to 8 times more particles than standard paper filters. Re-treat with polymer compound every 20,000 miles.

RamAir Filter assemblies

- | | |
|-------------------------|-----------|
| (01) for HS4 SU's | RS2202402 |
| for Weber/Dellorto 45's | RS2237402 |

RamAir 'Air Socks';

- | | |
|---|--------|
| for Weber/Dellorto 45 (single trumpet) -
(88mm dia x 115mm long) | CS101 |
| for Weber/Dellorto 40's/45's -
(188mm dia x 70mm deep) | CS102 |
| (02) Cleaning Fluid Solution, 1 litre | FCPRC3 |
| (03) Polymer replacement (bottle) | FTDRP6 |



An Introduction to HS4 Carburettors

There have been a number of articles written about how to improve air/fuel flow through SU carburettors to gain maximum power; if the process is carried out carefully, they should perform much better at high RPM.

For a road use 1500 engine, it is beneficial to replace the throttle discs with the type 'not fitted' with a sprung valve.

HS4 carburation can be reliable without any major loss in torque or power (though not if the carburettors retain Waxstat jets).

Make a note of the carburettor number and always quote it when ordering any replacement parts. (See 'Books & Manuals' on page 50)

SU HS4 Jet Conversion Kit

(Replaces Waxstat type jets)

Waxstat jets can give major problems on later cars in warm weather & heavy traffic use, as they tend to weaken the mixture too much when hot and will not allow smooth idling.

This problem can be cured in two ways; either new Waxstat jets may be fitted, or a conversion to conventional fixed jets can be made.

Our conversion kit contains a pair of jets and a set of choke linkages.

For further details please contact your local Moss branch.

- | | |
|--------------------|--------|
| Jet Conversion Kit | TT1459 |
|--------------------|--------|

'Grose-Jets'

For Precision Fuel Flow

Your carburettors may be reconditioned, but they can still leak fuel - filling the cockpit with fumes when you lift your foot off the throttle.

Grose-Jets (with their modern technology) don't stick open like the old 'needle & valve' units. (Jets are sold individually).

- | | |
|------------------|----------|
| (04) 'Grose-Jet' | GAC9201X |
|------------------|----------|

Inlet Manifolds for SU Carb's

Cast aluminium inlet manifold with water heated pipe; supplied complete with studs and nuts to mount a pair of SU carbs.

For further details please contact your local Moss branch.

Inlet Manifold;

- | | |
|--------------|---------|
| for Twin HS2 | TT1358A |
| for Twin HS4 | TT1458 |

HS4 Carburettor Replacement Parts

(for SU Carb's)

For all other replacement parts, please refer to the restoration section of this catalogue, if you need any help or further details, please contact your local Moss branch.

SU HS4 replacement plain throttle discs for improved air flow and performance, supplied as a kit (per carburettor) with screws.

- | | |
|----------------|---------|
| Throttle Discs | WZX1323 |
|----------------|---------|

Damper Springs

Damper springs should be changed for a stronger 8oz type if K&N filters are used;

- | | |
|---|---------|
| (Small diameter spring) | AUC1167 |
| Small diameter spring is for carburettors with tag nos. AUD665 & FZX1258. | |
| (Large diameter spring) | AUD4398 |
| Large diameter (2.25") spring for carb's with tag nos. FZX1122 & FZX1327. | |



Progression of Needles for HS2 SU Carb's

This table gives you a rough guide to the needle type you may require, but needle choice will depend on range of engine modifications. The range of alternative needles given below should cover most needs and are all available from stock. If you are unsure, please contact your local Moss branch.

Needle (Biased) Suggestion	Needle ID No	Part Number
Standard	AAU	CUD1018
With K&N filters & Sports Exhaust	AAQ	CUD1014
With K&N filters & Sports Exhaust (Lean)	AAT	CUD1017
as above + Modified head	ABT	CUD1041
Needle chart (Gives full range of needles & their dimensions)		ALT9001

Progression of Needles for HS4 SU Carb's

This table gives you a rough guide to the needle type you may require, but needle choice will depend on engine modifications. The range of alternative needles given below should cover most needs and are all available from stock. If you are unsure, please contact your local Moss branch.

Needle Suggestion	Needle ID No	Part Number
Standard (early)	ABT	CUD1041
Standard (late)	ADT	NZX4013
With K&N filters & Sports Exhaust	AAQ	CUD1014
With K&N filters & Sports Exhaust (Lean)	AAT	CUD1017
as above + Modified head	AAM	CUD1011
as above + Modified head (Lean)	AAB	CUD1001
as above + (camshaft); with Road 83 camshaft	AAB	CUD1001
with Fast Road 83 camshaft	AAL	CUD1010
Needle chart (Gives full range of needles & their dimensions)		ALT9001

SU Carb Dash Pot Covers

A set of these polished or anodised aluminium dash pot covers are an easy way to smarten and personalise the engine bay of your car. Covers are sold individually.

Dash Pot Covers	HS2 Carbs;	HS4 Carbs;
(05) Chrome		SFR150
Polished	SFR22	SFR23
Anodised Red	SFR22R	SFR23R
Anodised Blue	SFR22B	SFR23B

'Period Style' Ram Pipes

Not only do they look good ... they really do work.

Period style Ram Pipes for SU carb's;

HS2, short	SFR1
HS2, long	SFR4
(06) HS4, short	SFR2
(07) HS4, long	SFR8

Anodised Ram Pipes & Stub Stacks

Not only do these stub stacks & ram pipes improve air flow into the carburettor by reducing turbulence - thanks to their full radiused mouths (especially when a sports air filter has been fitted), they also look good. Our stub stacks/ram pipes (which are sold individually) are 30mm deep, please check depth of filter. If unsure please contact your local Moss branch. Ram pipes can be used on their own or with a filter - providing there is sufficient clearance from the end of the ram pipe to the case.

Stub Stacks**

Polished & Anodised for HS2 SU's;	
Silver (polished) (30mm)	SFR230
Red (anodised) (30mm)	SFR230R
Blue (anodised) (30mm)	SFR230B
(08) Polished & Anodised for HS4 SU's;	
Silver (polished) (30mm)	SFR430
Red (anodised) (30mm)	SFR430R
Blue (anodised) (30mm)	SFR430B

Ram Pipes**

for Weber/Dellorto 40's Carbs; (Not for use with K & N filters)	
Silver (30mm)	SFRW 4030
Red (30mm)	SFRW 4030R
Blue (30mm)	SFRW 4030B
(09) for Weber/Dellorto 45's Carbs; (Not for use with K & N filters)	
Silver (30mm)	SFRW 4530
Red (30mm)	SFRW 4530R
Blue (30mm)	SFRW 4530B

**Please see notes: 'IMPORTANT (Descriptions & Dimensions)' on Page 14.

42 Performance & Tuning

'Side Draught' Carburettor Conversion Kits

A twin choke side-draught carburettor greatly increases power in the mid to upper rev range. This can be improved further when the breathing through the engine has been enhanced by camshaft and cylinder head modifications. These conversions greatly improve throttle response for fast road or competition cars. For further details please contact your local Moss branch. Carburettors can be jetted to your requirements.

Single Weber Carb' Conversion Kit

This kit fulfils the requirement for a single carburettor in any application; in road use this set up has proved to be very worthwhile. The Weber carburettor gives good power throughout the rev range once it has been properly adjusted to suit the customer's own installation. The kit consists of the carburettor (ready jetted for a standard car with sports exhaust), inlet manifold and linkage.

Single Weber 40 DCOE (fast road jetting) TTK1459

Twin Weber Carb' Conversion Kit

For maximum power and performance, twin side-draught carburettors are the best option. The improvement in 'mid to top end' breathing is considerable and very noticeable, even on an otherwise standard engine. The jetting may need some adjustment, depending on the customer's own engine specification. The following kits are supplied with TT1350 inlet manifolds, two carburettors (with size 28 chokes jetted for road use) and the necessary linkage.

Twin Weber 40 DCOE TTK10959

Single Fitting Dellorto DHLA & Weber DCOE Carburettors

The single carburettor arrangement is for customers who require a substantial performance increase without the drawbacks of a twin carburettor set up. It is ideal for a road car, where a power increase would be appreciated but absolute maximum power output is not necessary.

Here is a choice of carburettors available for a single carburettor system. They are ready jetted to suit the applications listed. For further details please contact your local Moss branch. Carburettors can be jetted to your requirements.

40 DHLA Dellorto (as required.)

1147/1300 Standard road	TT295730
1147/1300 Fast road	TT295733
1500 Standard road	TT295733
1500 Fast road	TT295833

40 DCOE Weber (as required.)

1147/1300 Standard road	TT2934303
1147/1300 Fast road	TT2934333
(01) 1500 Standard road	TT2934333
1500 Fast road	TT2934304

Linkage & Accelerator Cable

(for Single Fitting 'Twin Choke' Dellorto DHLA & Weber DCOE Carburettor)

Standard Linkage Kit;

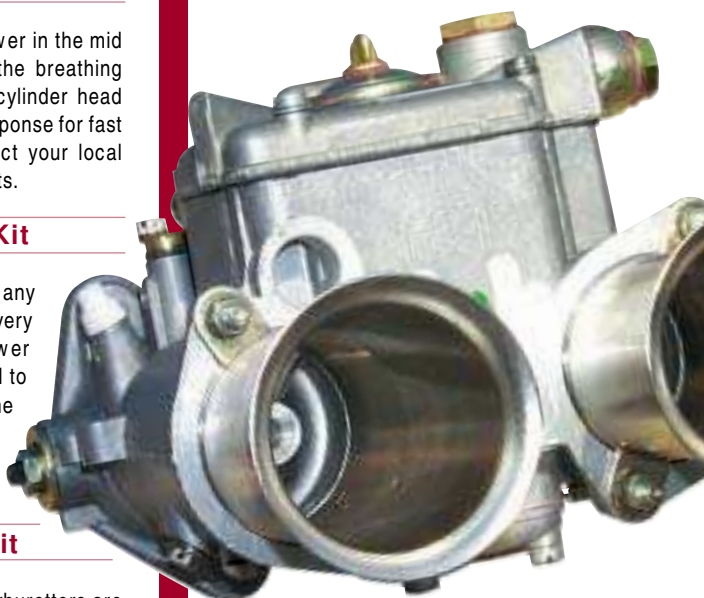
This direct acting linkage uses the standard throttle cable with new brackets to make the connections. (Use with 'Cross Over' manifold).

Standard Linkage Kit (for UK RHD only)	TT1452
Standard Linkage Kit (for LHD only)	TT1453

Accelerator Cable (for Weber/Dellorto);

(02) 'Universal' type	LP4000X
'Competition' type	CAHT85

Weber DCOE Carburettor | 01



Manifolds

(for Single Fitting Dellorto DHLA & Weber DCOE Carburettor)

The single carburettor arrangement is for customers who require a substantial performance increase without the drawbacks of a twin carburettor set up. It is ideal for a road car, where a power increase would be appreciated but absolute maximum power output is not necessary.

here we list the 2 types of inlet manifold for a single Weber carburettor.

For further details please contact your local Moss branch.

Single Carburettor 'Cross Over' Manifold

This TriumphTune designed 15cm long cross over manifold will produce a better distribution of gases, resulting in improved mid range power and a more tractable road vehicle.

This single inlet manifold must use a slim K & N filter (either KN56-1270 or KN56-9106). The recommended carburettor size is a 45, although a 40 may be used. The manifold is supplied complete with studs, nuts and sealing plates.

(03) Cross Over' Manifold TT10549
(Uses Linkage kits TT1452 / TT1453)

Single Carburettor 'Parallel' Manifold

This 'standard' 12cm long manifold allows a deeper K & N filter (KN56-9104) to be used, but is not overly efficient in distributing the gases and providing maximum flow; it will, however, provide much improved upper range power. It is supplied as a kit, including the necessary linkages, and is ready to fit to the car.

(04) Parallel' Manifold TWM0088

Weber Carburettor jet Settings: 1147

Note: The setting given here are a basis from which to work, they may/will need adjustment to suit your application, and this can only be carried with your car on a rolling road.

	40' DCOE Road	40' DCOE Fast Road	40' DCOE Fast Road/Sprint
Choke	28	30	33
Auxiliary Venturi	4.5	4.5	4.5
Main Jet	115	115	125
Emulsion Tube	F16	F16	F16
Air Jet	150	155	160
Pump	35	35	35
Idle Jet	45F8	45F8	45F9
Back Bleed	0	0	0
Weber Carb Part No	TT2934283	TT3934304	TT3934333



Linkage & Accelerator Cable

Quadrant Linkage Kit;

(for Two 'Twin Choke' Dellorto DHLA & Weber DCOE Carburettors)
The High Flow assembly bolts to one of the carburettors and operates the butterflies by a quadrant system operating through a ball joint linkage.

For further details please contact your local Moss branch.

Single cable/twin for Weber carb's	LP4241
Twin cable/twin for Weber carb's	TT2905
Single cable/twin for Dellorto carb's	LP4301
Twin cable/twin for Dellorto carb's	LP4303

Accelerator Cable;

'Universal' type	LP4000X
'Competition' type	CAHT85

Manifolds for Twin Weber/Dellorto (DCOE/DHLA) Carburettor Fitment

Twin carburettor manifolds are preferable as they produce better 'mid & top end' power. Here we list the 2 types of inlet manifold for a Twin Weber/Dellorto carburettor installation.

For further details please contact your local Moss branch.

'Long Tract' Manifold

The overall length of the set up is 9.5" (with carburettors fitted, but without air filters). Primarily designed for a pair of 'twin choke 40' carburettors, these manifolds can be used with 45's on full race 1500 engines to provide maximum power. K & N filters (KN56-1270 or KN56-9106) together with 16mm ram pipes should be fitted. The manifolds are supplied as a pair, together with studs, nuts, washers & sealing plates.

(05) 'Long Tract' Manifold	TT1350
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'Short Tract' Manifold

This pair of manifolds was designed for either space restricted applications or for permitting the fitment of deep air filters; the overall length is 6.5" (with carburettors fitted, but without air filters). K & N filters of type KN56-9265 may be fitted (space allowing), along with 26mm ram pipes. This set up produces a wider usable power range. The manifolds are supplied as a pair, together with studs, nuts, washers & sealing plates.

'Short Tract' Manifold	TT1450
------------------------	--------

Twin Fitting Dellorto DHLA & Weber DCOE Carburettors

1300 & 1500 Engines

The twin carburettor arrangement is for customers who require a substantial performance increase. Whether you intend to use your car for road work or for Sprints, we have a Weber carburettor to suit your needs. They are ready jetted to suit the applications listed.

For further details please contact your local Moss branch.

Carburettors can be jetted to your requirements.

40 DHLA Dellorto (2 required)

Standard road	TT295728
Fast road	TT295730
Fast road/Sprint	TT295733

40 DCOE Weber (2 required)

Standard road	TT2934283
Fast road	TT2934304
Fast road/Sprint	TT2934333

Twin Fitting 45 DCOE Weber (2 reqd.)

Full Race Specification	TT2935344
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Note; it is recommended for full race applications using twin 45's that the carbs be jetted 'under load' on a rolling road. With this carb/engine spec low speed torque will be non-existent.

Weber Carburettor jet Settings: 1300/1500

Note: The setting given here are a basis from which to work, they may/will need adjustment to suit your application, and this can only be carried with your car on a rolling road.

	40 DCOE Road	40 DCOE Fast Road	40 DCOE Fast Road/Sprint	45 DCOE Race Spec'
Choke	28	30	33	33
Auxiliary Venturi	4.5	4.5	4.5	4.5
Main Jet	115	115	125	190
Emulsion Tube	F16	F16	F16	F9
Air Jet	165	155	165	175
Pump	35	35	35	40
Idle Jet	45F8	45F8	45F9	45F9
Back Bleed	0	0	0	
Weber Carb Part No	TT2934283	TT3934304	TT3934333	TT3935344

AeroQuip' Braided Fuel Pipe & Water Pipe

(for Two 'Twin Choke' Dellorto DHLA & Weber DCOE Carburettors)

The Aeroquip stainless braided 18" fuel inlet pipe assembly (for safer fuel delivery to the carburettors & improved appearance), is supplied ready to fit twin carburettor installations.

For further details please contact your local Moss branch.

(Pipe assemblies for single carburettor installations are available to special order only)

Braided Fuel Pipe & Water Pipe;

Braided Fuel Pipe (Weber/Dellorto)	
for Weber carbs	TT1455
for Dellorto carbs	TT14551

Water Pipe (Weber/Dellorto)	TT9923
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(Use with high flow linkage for heater pipe connections)

44 Performance & TUNING

Tuning the Triumph engine

The order of priority when tuning the 1300/1500 engine is to first improve gas flow through the engine before altering the camshaft profile.

The engine can be made to produce reasonable power with reliability if the cooling is improved and the unit modified to run safely at higher revs. An oil cooler is essential for all engines.

With regard to improving performance (on UK & European cars) the first modification is the fitment of K&N filters, which when combined with the sports exhaust becomes the first stage of tuning; this will produce an increase of approximately 10bhp at the wheels.

Breathing improvements are always most important on this engine, so the next item is a gas flow ed cylinder head, followed by a change of camshaft profile. When carrying out any of the latter modifications, the bottom end (crankshaft etc) must be checked to ensure its condition is sound. If renovating the bottom end of the engine, the crankshaft may be reground and balanced; together with careful re-assembly of the unit, a good, powerful engine with reliability may be obtained.

And There's More ...

As well as lightened flywheels & other products, we also offer a full balancing service for Crankshafts, Con Rods and Flywheels, and Tuftriding for Cranks'

Please phone your nearest branch for details.

Performance Camshafts

Camshafts are available as reprofiled/exchange units or New, please state preference when ordering.

IMPORTANT; Camshaft Journal Diameters

On Spitfire models there are two types of camshafts fitted.

SMALL CAMSHAFT JOURNAL:

for engines with replaceable camshaft bearings (VPC978) are fitted into the cylinder block, as fitted to 1147 & 1286cc engines to engine number FH25000E.

LARGE CAMSHAFT JOURNAL:

For all other models, where the camshaft runs directly in the cylinder block.

To assist in selecting a suitable camshaft we have prepared a table (opposite page) showing their various characteristics, these will change from engine to engine and with other modifications such as carburettor(s), cylinder head, valve gear or valve size.

Care must be taken to ensure that installation is carried out correctly and that all components work together or you will not get the expected power output or reliability. It is essential that the new cam is fitted with new followers as they mate with the lobe that they run on and should never be used on another lobe.

Lightened & Tuftrided followers wear more slowly and put less load on high lift cam lobes; they also feature a drainage hole.

Another essential is the special lubricant that must be used with all new cams, it provides vital lubrication during initial starting and protects your cam from extreme wear in its first minute of use.

And Finally ...

Don't forget the cam timing degree disc (TT2929), you will need this to set your cam timing.



Camshafts Explained

Remember that with a standard capacity engine the power band will be effective higher up the rev range than would be the case with an enlarged capacity unit. All camshaft profiles must use TT valve springs, and we strongly recommend you fit a Duplex Chain Kit.

Be aware that 'road' & 'race' cams mean just that. Road cams will not produce any results whatsoever on the race track - rainy days excepted!

Blueprint

Ideal for standard class competition

Road 83 & 89

These are a very good stage 1 camshaft suitable for road cars equipped with SU HS4 carburettors.

Fast Road 83

For owners who, as a result of a fair amount of town driving, require a very good all round profile for use with either SU or Weber carburettors.

Fast Road

Best used with Webers, recommended more for open road driving, where the engine may be used more at high revs.

Fast Road 89

A new profile for open road use with Weber carburettors giving more mid to top end power.

Sprint 83 & 90

Although these cams can be used with modified road engines, they are primarily intended for track work.

All Race Cams

Suitable only for full race engines where maximum power - not tractability, is required.

For full details please contact your local Moss branch.

‘TriumphTune’ Camshafts										
Camshaft Type	Journal Size (Camshaft)	Part No	Valve Springs	Inlet	Exhaust	Duration Inl - Exh	Cam Lift	Hi Ratio Rockers ?	Install* Setting	Power Range
(Factory Standard) Blueprint (1500cc)	Large Journal	TT1483	A	(18/58)	(58/18)	256°	(0.240")	(Yes)	110°	(1500-5500)
Road 83	Large Journal	TT10504	A	30/56	74/28	266°	0.288"	Yes	103°	2200-5200
Road 89	Small Journal	TT13041	A	22/70	62/26	272°	0.276"	Yes	112°	2200-5200
Road 89	Large Journal	TT14041	A	22/70	62/26	272°	0.276"	Yes	112°	2200-5200
Fast Road	Small Journal	TT1305	A	30/70	70/30	280°	0.270"	Yes	108°	2500-5500
Fast Road	Large Journal	TT1405	A	30/70	70/30	280°	0.270"	Yes	108°	2500-5500
Fast Road 83	Large Journal	TT10505	A	37/63	74/28	280°	0.288"	Yes	103°	2500-5500
Fast Road 89	Small Journal	TT13051	A	34/76	58/34	290°	0.293"	Yes	108°	2750-6250
Fast Road 89	Large Journal	TT14051	A	34/76	58/34	290°	0.293"	Yes	108°	2750-6250
Sprint 83	Small Journal	TT1305A	A	34/74	74/34	288°	0.275"	Yes	110°	2700-5750
Sprint 83	Large Journal	TT10506	A	34/74	74/34	288°	0.275"	Yes	110°	2700-5750
Sprint 90	Large Journal	TM G10506	B	39/71	81/29	290°	0.302"	No	110°	3000-6000
Race	Small Journal	TT1306	C	42/80	74/48	302°	0.280"	No		3500-6000
Race 83	Large Journal	TT10906	C	42/68	78/32	295°	0.302"	No	103°	3300-6500
Race 96	Large Journal	TT14062N	C	49/81	81/49	310°	0.340"	No	106°	3500-6500
Race 97	Large Journal	TT14063N	C	49/77	77/49	320°	0.347"	No	106°	3500-6500

‘Piper’ Camshafts										
Camshaft Type	Journal Size (Camshaft)	Part No	Valve Springs	Inlet	Exhaust	Duration Inl - Exh	Cam Lift	Hi Ratio Rockers ?	Install* Setting	Power Range
Fast Road	Large Journal	THR270E	A	26/62	60/22	268°	0.284"	Yes	106°	
Race	Large Journal	THR300E	C	54/86	86/54	290°	0.290"	No	104°	

* Install settings/Full Lift;
 When No1 Inlet valve is fully open ATDC (After Top Dead Centre).

Spring Type	Valve Springs Installed (When using Standard Rocker Shaft)	Height
A	Use TT1307 double springs, without any lower collars or spacers	33 < 34mm
B	Use TT1307 or TT1308 depending on application or intended use	33 < 34mm
C	Use TT1408 double springs, without any lower collars or spacers	32 < 34mm

Duplex Timing Chain

Duplex just means it features a double row timing chain which is much stronger (and therefore more reliable) than the single row chain system fitted as standard.

Kit includes a timing disc which allows precise fitment of camshaft. Always replace the cam followers when changing the camshaft. The amount of weight that the camshaft has to lift each time restricts the revving capabilities of the engine, therefore the use of lighter, Tuftride hardened, cam followers is recommended. The lighter variety reduce loading (and thus increase the life) of the camshaft lobes.

Duplex Conversion Kit; (includes gears, chain & tensioner)
 All Models prior to 1971 TT1328
 1300 from 1971 & 1500 TT1428

Duplex Vernier Conversion Kit
 (The Vernier gear kit allows precise timing & easy installation of high performance camshafts)
 All Models prior to 1971 TT1328X
 1300 from 1971 & 1500 TT14281

Vernier Cam Gear only (All) TT1225
 (with hexagon key & timing plate)

Cam Followers;
 (Lightened & Tuftrided)
 Individual (replacement) TT1209

Camshaft Lubricant, Sealant & Stud Lock

These few items will make all the difference when re-building your standard and/or modified engine. Especially important is the Kent camshaft Build-up lubricant.

- | | | |
|------|--------------------------------------|----------|
| | Cam Timing Degree Disc | TT2929 |
| (01) | Camshaft Lubricant (Kent) (250ml) | KEN2 |
| (02) | Thread Lube (1.69fl oz) | ARPL99 |
| (03) | Loctite 'Stud Lock' (10ml) | GAC100 |
| | Loctite 'Stud Lock' (3ml) | GAC100/3 |
| (04) | Wellseal 'Jointing Compound' (100ml) | 600569A |
| (05) | Hylomar 'Jointing Compound' (100gm) | GGC102 |
| (06) | Graphogen 'Engine Building Lube' | GGL9122X |



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Roller Rocker Set | 02

Modified Cylinder Heads

Work on the cylinder head centres around obtaining the optimum size of inlet port to suit the application thus giving maximum power potential. We have found that increasing the size of the inlet valve combined with very careful flowing of the chamber & valve throat area will produce a reasonable amount of torque and allow top end breathing for sprint and racing use. An increase in exhaust valve size improves the flow of the port for maximum power. All heads are supplied ready assembled with new valve springs and guides.

The stage 2 head, using standard diameter reshaped valves, is ideal for a mildly modified engine (with either a standard or fast road cam). Anything beyond this type of modification would require the large inlet valve stage 3 head, with its improved flow using TriumphTune valves and further modifications to the chamber design.

For competition use the stage 4 head, with large inlet and large exhaust valves and special shaping of the chambers, is essential.

All our heads are built with bronze alloy valve guides.

For full competition engines, heads can also be supplied with 'formed' or triple cut valve seats, as used in all full racing engines - to special order only. Normally 'stock' heads are finished with a compression ratio of 9.65:1, though the ratio can be altered to the customer's own specification.

If a full competition engine is being produced with pop up pistons etc., cylinder head modifications can be made to obtain the required compression ratio. We will need to know details of your cyl bore size, piston & camshaft type, to enable us to arrive at the correct compression ratio.

NOTE: If there is a shortage of original heads, it may require that the work is carried out on your own unit.

All exchange cylinder heads must be 'Like for Like'. Heads can be modified to a higher specification, please contact us for full details.

Cylinder Heads

Stage 2 (Fast Road) Lead Free;

Fully worked ports & reshaped chambers; standard size valves, reshaped to improve flow with new guides and TriumphTune updated valve springs.

1147cc (6 port head)	TT10602UL
1300cc (Std chamber capacity)	TT1302UL
1300cc (No heater outlet)	TT1312UL
1500cc (No heater outlet)	TT1402UL

Stage 3 (Fast Road/Sport), Lead Free;

Ports reshaped, chambers enlarged, new TriumphTune valves with reshaped ports to suit; Bronze valve guides, TriumphTune updated valve springs and alloy valve caps ready assembled.

(01) 1147cc (6 port head)	TT10603UL
1300cc (Std chamber capacity)	TT1303UL
1300cc (No heater outlet)	TT1313UL
1500cc (No heater outlet)	TT1403UL

Stage 4 (Race) Lead Free;

Competition based heads with extensive modifications to ports, valve seats & chambers, obtaining the maximum flow possible. Supplied with large inlet & exhaust valves, bronze guides, alloy valve caps and TriumphTune updated valve springs. (To special order only).

Note; We will also need to know details of your cyl bore size, piston & camshaft type, to enable us to arrive at the correct compression ratio when working on this head.

1300cc (Std chamber capacity)	TT1324B
1300cc (No heater outlet)	TT13241B
1500cc (No heater outlet)	TT1424B



'Lead Free' 1500 Full Engines

This really is the easiest way to give your Spitfire extra performance. As well as standard units, we offer 'Standard Balanced' units as well as 'Stage 2 Balanced' Engines.

All our 'Lead Free' 1500cc Full Engines are rebuilt by a major UK engine re-conditioner.

Note; All work is carried out to customers own unit. Balancing also includes Clutch & Flywheel. Price quoted excludes external ancillaries. Please contact your local Moss branch for full details.

FULL ENGINE (1500), recon/exchange;

Standard unit (not balanced)	GSE2459E
Standard unit (Balanced)	GSE2459BFC
'Stage 2' (Fully Balanced)	GSE2459ST2

Updated Rocker Gear & Cam Followers

All cars can benefit from a replacement tufrided rocker shaft, they will resist wear and breakage especially when using high revs. (Note; the Tufrided hardened shaft must be thoroughly purged of the salts used in the hardening process, before it is fitted to the engine. Before fitting any rocker shaft it is essential to make sure that the end plugs are in position.) The friction and the rocker side loads normally associated with the standard rocker gear can be reduced and the location made more positive, by fitting the three piece steel spacer set instead of the standard shaft springs. Pedestal Shims are for use with standard rockers in conjunction with a higher compression cylinder head, enabling the correct rocker angles to be obtained. They have a nominal thickness of 0.040" and are supplied individually.

Roller Rockers are designed to operate the valves with less resistance and more efficiency. The power increase with the use of these rockers is approximately an extra 10 bhp; the power band can also be extended. It is preferable to maintain 108° to 110° peak to peak centres on cam profiles if these rockers are fitted.

The steel rockers are made with needle roller inserts and have solid spacers ready fitted; the end roller tips are made in high quality steel for long life. The Roller rockers are also designed to give a higher lift ratio (1.65:1 against the standard ratio of 1.5:1). The design is also specially strengthened against deflection at any time in the operating sequence. TT1408 valve springs must be used with this rocker assembly.

Important Note for 1147 & 1300cc models;

Roller rockers are not suitable for 1147cc engines and, on 1300 models valve to piston clearances must be checked when using high lift profiles.

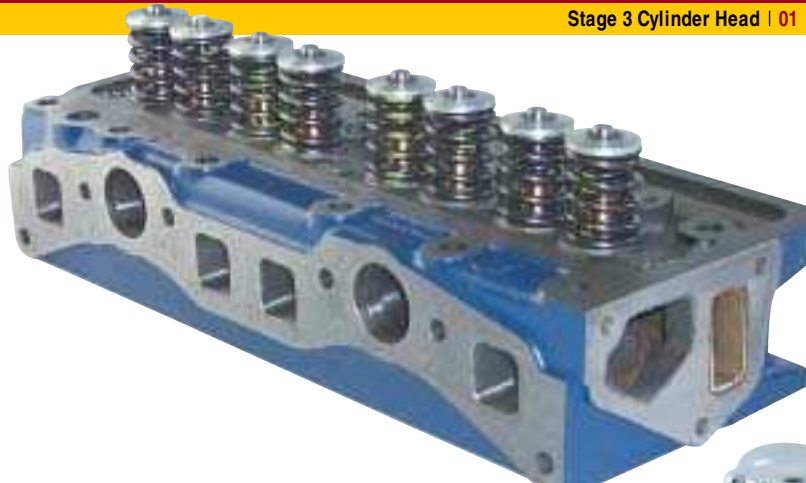
Rocker Shaft (Tufrided)	TT1317
Spacer Set (Steel)	TT1318
Pedestal Shims	TT1910
(02) Roller Rocker Set;1.65:1	TT1448

Valve Springs-Double (set of 8) (Springs are large diameter)	TT1408
Rocker Oil Feed Kit	TT1226

(This Oil Feed kit must be used when fitting Roller Rockers)

Cam follower (Lightened & Tufrided)	TT1209
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(Cam followers are supplied individually, 8 required)



Stage 3 Cylinder Head | 01



Valve Caps & Double Valve Springs | 04/05



Gas-Flowed Valves | 07



Tubular Pushrods | 03



| 08



Black Valve Cover | 09

Upgraded Valve Springs & Pushrods

The standard type of push rod is adequate for road use. The tubular type is recommended for racing as they are stronger and are supplied shorter to suit a high compression cylinder head. They are also essential if using roller rockers.

It is essential to check the valve springs for 'coil binding' (being solid at maximum lift) when using higher valve lifts; TriumphTune springs are designed for high lift cams. Remove lower spring collars if the 'TT' springs are used - they are not required. The TT1307 springs are for road and sprint use; for greater lift and full competition use TT1308 springs can be used. The large diameter set TT1408 should be used with the high lift rocker kit. Upgraded valve springs are designed for TriumphTune and are suitable for all performance profile camshafts using the standard rocker ratio. Our competition springs are available in 2 specifications; Standard diameter are an interference fit; allowing up to 9000 rpm and a maximum of 0.490" valve lift.

Larger diameter springs allow better control of the valve for high lift and high rev. applications

Standard valve caps are strong enough for all applications; however TriumphTune light-weight alloy caps also reduce valve loading and therefore wear on cam lobes (weight saving approximately 25%).

Our Bronze alloy valve guides reduce friction and improve reliability, especially when the engine is under heavy load. They are highly recommended for all heads, especially on competition engines. They are reshaped for improved flow; the inlet guides are bullet nosed and the exhaust guides square ended to suit the head design.

Moss TriumphTune competition valves are specially reshaped and gas flowed to give maximum flow once the seats and throats in the heads have been shaped to suit. All valves are made in EN21/4N stainless steel, for long life and maximum reliability, and are sold individually.

Push Rod (Fit in Sets of 8);

(03) Tubular Push Rod (Individual) TT1433

Valve Springs-Double (Set of 8 pairs);

Upgraded (Fast Road) TT1307

(04) Competition;

Standard Diameter TT1308

Large Diameter TT1408

Valve Caps & Competition Valves

(05) Valve Caps (Alloy) (Fit in Sets of 8);

for Std Diameter valve springs TT1216

for Large Diameter valve springs TT1116

(06) Valve Guides-Bronze (set of 8)

Valve Guide (Bronze) (Individual); TT1419

Inlet TT1319A

Exhaust TT1219A

(07) Competition Valves;

Inlet Valve (supplied individually); 1.475" (each) TT1434

Exhaust Valve (supplied individually); 1.17" (Standard size) TT1315

1.30" TT1435

(Note; Standard inlet valves are 1.32"/1.37", standard exh valves are 1.17")



Alloy Rocker Covers & Fittings

For Spitfires

An Alloy Rocker Cover will not only brighten up your engine bay, but will also help muffle valve noise. Triumph Rocker Covers (available in 2 styles) are supplied with a Chrome oil filler cap. Note: always fit a new gasket when replacing your rocker cover, and do not over tighten rocker nuts.

Rocker Cover;

Plain Polished GAC4067

with Centre Cap TT1437

with 'TT' logo (08) TT1427 (09) TT1420

Oil Filler Cap (Chrome/Vented);

for Cover GAC4067 8G612CP

for All Other Covers TT9920

Gasket (Rocker Cover) GUG5036VC

Studs (Long) (2) 105125

(For late 1500 models from 1978)

Domed Nuts (Chrome) (2) 14B2685



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1500 Engine Cylinder Block Modifications

Engine Block

All work must be carried out in clean conditions if reliability is to be expected. Specialist work that may be required includes polishing and smoothing main bearing caps, plus shot 'peening' to relieve surface stress; they can then be reshaped to give a uniform cross section. For racing use, fit 1/4" longer high tensile bolts to the centre main cap (bottom tap the holes to ensure the bolts do not bottom out). Remove the top three threads from the centre main by counter boring, to spread the load deeper into the block. Remove excess casting flash from inside the block; do not grind any machined areas. Steel centre main caps can be supplied, but are not normally required (it is possible for racing to increase oil supply to the centre main, as this in turn supplies the connecting rods. Drill out the feed hole to 5/16"; entry is made from the oil gallery end. The distributor bush will also require removal. Ensure all oil ways are clear, not only of deposits, but also of swarf from production machining.

Pistons

For any competition or fast road engine, use only solid skirt three ring pistons. Moss can offer standard production pistons (plus over sizes), or alternatively Triumph TR6 pistons (standard TR6 pistons may be used in a +.040" bore 1500 block, +0.020" in a +0.060" over bored block). The TR6 piston is very sturdy and quite light, as it is shorter in pin to deck height. It is necessary to machine the block (approx. 0.0165") to suit these pistons; this then gives zero piston height. Then counter bore the block as original (if the later type of head gasket is being used). Counter bore dimensions are 3.175" x 0.030" deep. Each piston will require 0.020" to be removed above the top ring and then radiused to the piston top to give clearance with the head gasket (if using zero deck height).

Crankshaft

In engines for fast road use, standard bearings are adequate. For racing use MGB bearings (part no. AEB4512, +0.010" oversize) which necessitates regrinding the crank to 1.8665" - 1.867" diameter. These bearings easily fit the journals and only require the edge of the tags to be filed to locate in the con rod properly; use a radiused edge on the crankshaft grind. The rotating assembly must be balanced; Tuffride hardening is also recommended. For racing, the crank can be micro polished an extra 0.001" under size for clearance, thereby assisting in oil supply to the surfaces. The main bearing oil supply holes can be 'tear drop' shaped in the direction of rotation, again to assist oil supply; this is only really needed for sprint and race engines.

Connecting Rods

Always rebuild an engine using new con rod bolts (preferably higher grade material) and renew little end bushes, reaming to size.

Replacement Engine Parts for 1500's

Valve, Inlet	UKC2460	Front oil seal	UKC1110
Valve, Exhaust	144965	Rear oil seal	143456
Valve Guide, Inlet	58923	Bolt (Uprated - Main bearing cap)	BH607241X
Valve Guide, Exhaust	111869	Main bearing shells -	
Stud, cylinder head;		short (8 required)	AEM 3385STD
short (8 required)	105121	long (2 required)	(oversize bearings also available)
long (2 required)	121217	Con rod bearings	AEB4511STD
Nut, cylinder head;		Standard	(oversize bearings also available)
Standard	110748	Uprated	51K1193B
Uprated	51K1193B	Rocker Shaft	144962
Rocker Shaft	144962	Cam follower	143552
Cam follower	143552	Crankshaft gear	119389
Crankshaft gear	119389	Camshaft gear	35960
Camshaft gear	35960	Timing Chain (Simplex)	105131
Timing Chain (Simplex)	105131	Chain Tensioner (Smpx)	42425
Chain Tensioner (Smpx)	42425	Gasket set (top end)	AJM 1209
Gasket set (top end)	AJM 1209	Gasket set (bottom end)	AJM 279
Gasket set (bottom end)	AJM 279	Piston assembly	AE20139STD
		(Pistons supplied with rings and gudgeon pin) (oversize pistons are also available)	
		Piston ring set	RA28656STD
		(oversize ring sets also available)	

'Stage' Tuning

To explain - and simplify, the different 'stages' of engine tuning in this section, we have shown (in each 'PlusPac' category), the parts you will need to start, and follow, the recommended route for tuning:

Our 'PlusPacs' are more than a rough guide, they represent many years experience of 'hands-on' tuning and modifying 4 cylinder Triumph sports cars.

There are many other ways to improve engine power and performance, such as; Weber Carburettors, lightened flywheels, balanced/tuffrided crankshafts, matched/balanced sets of con rods, or by fitting oversize pistons to increase engine capacity. But, no matter how far you want to go, our PlusPacs will put you on the right road. If you wish to take things further, please contact your local Moss branch.

Please Don't Forget, before increasing the power output and speed of any vehicle, you should ensure that your brakes, steering, chassis etc can cope with the modifications, and, a 'Aley Roll Bar' is a very sensible investment for all open top sports cars.

'PlusPacs' for 1300 engines

PlusPac 'A' Performance Parts (1300 Engines only)

This is for the basic improvement - especially in the mid range (2000 to 4500 rpm). The Free flow exhaust allows the engine to breathe better and can give you up to 12 bhp increase, whilst still giving good economy figures.

Components for PlusPac 'A'

Extractor Manifold	TT1400
(Stainless steel alternative FS1400)	
GT Exhaust System	spec as required
(See 'Sports Exhausts' for alternatives)	
K&N Air Filters (2)	KN56-9121
Carb' Needles (2)	CUD1014
Carb' Damper Springs (2)	AUC1167

PlusPac 'B' Performance Parts (1300 Engines only)

With the addition of the Modified cylinder head the overall power is improved by up to 18 bhp, again in the mid power range.

This will also allow the engine to rev higher.

Components for PlusPac 'B'

As well as PlusPac 'A' parts;

Stage 3 Cyl Head	spec as required
Rocker pedestal shims (4)	TT1910
Spark plugs (4)	BP7ES
Carb' Needles (2)	CUD1041

Note; This conversion can also use the Road 83 camshaft to further increase the mid-top end power.

PlusPac 'C' Performance Parts (1300 Engines only)

The use of the larger Weber carburettor will give a good increase in the mid top end power. The carburettor does work better once the rest of the engine has been allowed to breathe better. Twin Side Draught carburettors can also be used as an alternative.

Components for PlusPac 'C'

As well as PlusPacs 'A' & 'B' parts;

Road 89 or Fast Road camshaft	spec as required
Cam followers (Lightened) (8)	TT1209
Twin Choke Carb' conversion parts (see page 42 for details);	
Inlet manifold (Cross Over)	TT10549
Single 40 Weber/Dellorto (1)	spec as required
Linkage kit (Cable type)	spec as required
K&N Air Filter	KN56-9106

'PlusPacs' for 1300 engines cont...

PlusPac 'D' Performance Parts (1300 Engines only)

This is for the serious owner requiring the maximum power for a 'Road' car. We would suggest using the Fast Road 89 or Sprint 83 camshaft, and the Twin 40 Weber/Dellorto carburettor set-up. The total power here can be in excess of 100 bhp from a properly assembled engine that is usable for an open road car.

Components for PlusPac 'D'

As well as PlusPacs 'A', 'B' & 'C' parts;

Twin Choke Carb' conversion parts (see page 43 for details);

Inlet manifold (Long Tract)	TT1350
Twin 40 Weber/Dellorto (2)	spec as required
Linkage kit (Cable type)	spec as required
K&N Air Filter	KN56-9106

Don't Forget to Fit New Gaskets & Oil Seals

Whether you are fitting a tubular exhaust manifold or a stage 3 cylinder head, you should always use new gaskets & oils seals where applicable.

Is Your Engine Standard ?

Before you start installing modified engine parts please take a few moments and check to see if your engine unit is standard. It may be that the cylinder head has been skimmed and/or the cyl block has been bored-out. This is especially important when fitting any modified cylinder head, as the compression ratio has to be matched to the engine specification.

If in doubt please call us.

Are You Considering fitting our High Lift 'Roller' Rocker Conversion

Before fitting the High Lift Rocker conversion, you will need to verify the profile of your camshaft & valve springs. The higher the lift of the camshaft, the less likely you will need to fit this conversion, without further advice.

If in doubt, please call your local Moss branch.



'PlusPacs' for 1500 engines

PlusPac 'A' Performance Parts (1500 Engines only)

For improved mid range performance (2000 - 4000rpm) this conversion will allow the engine to breathe better and more efficiently. Up to 15 bhp can be attained.

Components for PlusPac 'A'

Extractor Manifold	TT1400
(Stainless steel manifolds also available)	
GT Exhaust System	FS5412
K&N Air Filters (2)	KN56-1390
Carb' Needles (2)	CUD1014
Carb' Damper Springs (2)	AUC1167

Tuning Kit (PlusPac 'A')

Because this is the most popular performance conversion for Spitfire 1500's, we offer these parts as complete kit, which also includes a manifold gasket along with complimentary decals.

Tuning Kit	TTK1420S
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PlusPac 'B' Performance Parts (1500 Engines only)

The addition of the gas flowed cylinder head will further improve the breathing within the standard camshaft power range, although this will be extended slightly. The power increase can be up to 25 bhp at the rear wheels.

Components for PlusPac 'B'

As well as PlusPac 'A' parts;

Stage 3 Cyl Head	TT1403UL
Rocker pedestal shims (4)	TT1910
Spark plugs (4)	BP7EV
Carb' Needles (2)	CUD1011

Note; This conversion can also use the Road 83 camshaft to further increase the mid-top end power.

'PlusPacs' for 1500 engines cont...

PlusPac 'C' Performance Parts (1500 Engines only)

With addition of the uprated camshaft profile the power can be increased to approx. 105 bhp, and still be tractable for town use. The power band is in the region of 2500 to 5500 rpm which, with the correct gearing of the 1500 Spitfire, makes the car much more suitable for modern motorway traffic.

Components for PlusPac 'C'

As well as PlusPacs 'A' & 'B' parts;

Fast Road 83 camshaft	TT10505
Cam followers (Lightened) (8)	TT1209
Carb' Needles (2)	CUD1010

Note; This conversion is suitable for both single (or twin fitting) Weber/Dellorto carburettors, see pages 42 & 43 for options. (The twin conversion will give an increase of approx. 10 bhp)

PlusPac 'D' Performance Parts (1500 Engines only)

The full road conversion must be used with 2 'twin choke' carburettors, the Sprint 83 camshaft as well as the high ratio roller rocker kit. This conversion will give approx. 115+ bhp on a properly assembled engine which can still be used on the road, albeit a little lumpy around town.

Components for PlusPac 'D'

As well as PlusPacs 'A', 'B' & 'C' parts;

Fast Road 83 camshaft	TT10505
High Ratio Roller Rocker Kit	TT1448
Valve Spring Set (for Roller Rockers)	TT1408
Twin Choke Carb' conversion parts (see page 43 for details);	
Inlet manifold (Long Tract)	TT1350
Twin 40 Weber/Dellorto (2)	spec as required
Linkage kit (Cable type)	spec as required

50 Books & MANUALS

Spitfire Manuals

'Workshop Manuals'

Reprints of genuine factory workshop manuals packed with essential information for all aspects of vehicle maintenance and repairs.

Workshop Manuals;

Spitfire Mk I-III	511243	TR4 & 4A	540322
Spitfire Mk IV	545254HC	TR5 (Supplement)	545053
(01) Spitfire 1500	AKM 4329	TR5/6	545277HBS
GT6	512947	TR6	545277SC
TR2-3A (hard back)	502602	TR7	AKM 3079B
TR2-3A (soft back)	502602SC		

'Haynes Workshop Manuals'

Probably the most commonly found Workshop manual in any home garage, the Haynes range provide useful information on stripping and rebuilding anything from a master cylinder to a complete differential assembly.

(02) Spitfire (all models)	M GL6214X
GT6 & Vitesse (all models)	M GL6213X

'Owners Handbooks'

Originally available (& supplied) when the car was new, these reprints are essential for day-to-day maintenance of your classic.

Owners Handbooks;

Spitfire Mk III	545017	TR4	510326
Spitfire Mk IV	545220	TR250	545033
(03) Spitfire 1500	545189	TR6 (to 1973)	545078
Spitfire 1500 (USA)	AKM 4544	TR6 (from 1974)	545078A
GT6 Mk I	512944	TR6 (USA 1972)	545111/73
GT6 Mk II	545057	TR6 (USA 1975)	545111/75
GT6 Mk III	545186	TR7 (USA 1976)	RTC9209
Vitesse Mk II	545070	TR7 Coupe	AKM 4332
TR2	501528/1	TR8 (USA)	AKM 4779
TR3-3A	501528/3	Dolomite Sprint	545601

Haynes Glovebox Workshop Manuals'

Handy, compact versions of the genuine manuals, a must for the glove box.

Glove Box Manuals

Spitfire	M GL0229
TR5-6	545277HBS

'Original Parts Catalogues'

These books (which are reprints of original publications) are an essential source of reference.

Parts Catalogues;

Spitfire Mk III	516282	TR250	516914
(04) Spitfire 1500	RTC9819CB	TR6 (1969-1973)	517785A
Herald 13/60	517056	TR6 (CR/CF)	RTC9093A
Vitesse (Mk II)	517786	TR7 (1975-78)	RTC9814CA
TR2-3A	501653HC	TR7 (1979 on)	RTC9828CC
TR4	5100978	TR7/TR8	RTC9020B
TR4A	514837	Stag	519579
TR5	516915		

'Original Triumph Competition Preparation Manuals'

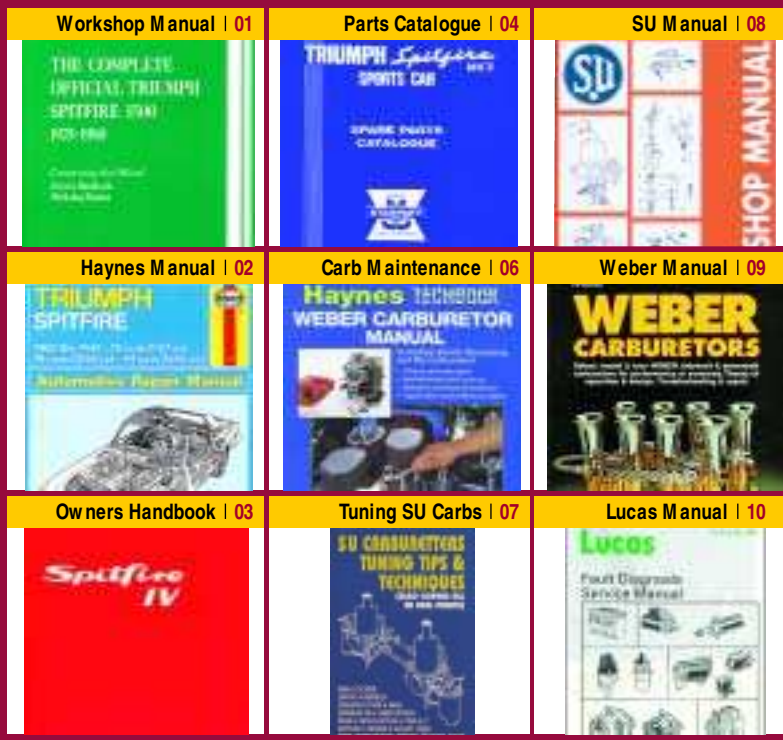
These original booklets not only explain what you need to do, they are an absolute must for the collector of Triumph memorabilia. As originally published by; Standard Triumph, Triumph, British Leyland, and, Kas Kastner (who was head of the Standard Triumph Competition Department in the USA).

Competition Preparation Manual;

(05) Spitfire Mk IV	M GL6711
Spitfire 1500	M GL6811
GT6 and 2000 (2nd edition)	M GL6511
GT6+ (2nd edition)	M GL6611
TR3 & TR4	M GL6111
TR250/TR6	M GL6311



05



Spitfire Reference Library

'Carburettor Maintenance'

Haynes Publication

This carburettor manual covers SU, Stromberg, Weber and Dellorto assemblies, giving an insight into the way they operate, how to maintain and tune them, plus detailed overhaul procedures.

(06) Carburettor Maintenance M GL0279

'Tuning SU Carburetors'

This book looks into the basic design of the SU carb'. It covers many areas including overhaul, tuning mixtures, jet and needle identifications. Hundreds of line illustrations of different types of carbs models as used on Triumph (& MG) models. 187 pages.

(07) Tuning SU Carburetors M GL0070

'SU Workshop Manual'

Factory workshop manual for SU carburetors and fuel pumps.

(08) SU Workshop Manual GAC1044X

Weber Carburetors

By Par Braden

Shows you how to select and tune Weber sidedraft & downdraft carburetors. Includes theory of operation and design as well as troubleshooting. 300 pages.

(09) Weber Carburetors GAC1032X

'Lucas Fault/Diagnosis Manual'

This service guide presents a logical sequence of tests that may be carried out on starters, generators, regulators, ignition and lighting systems. Written for technicians, this book can be very easily understood by the non-professional. 46 pages.

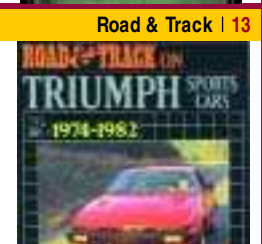
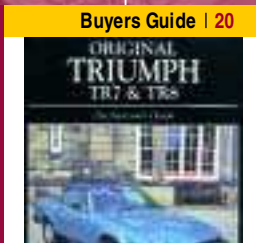
(10) Lucas Manual GAC1029X

Triumph Sports Cars

By William Krause.

Triumph Sports Cars' recounts Triumphs colourful history of development, disappointments, success, and the ultimate decline under British Leyland. 96 pages.

(11) Triumph Sports Cars GAC1047X



Spitfire Reference Library

The Triumph Spitfire

By Michael L Cook.

This book may be small in size, but is packed with detailed information. The 'Triumph Spitfire' gives the total story of the Spitfire from its birth through its colourful history to its final model, the Spitfire 1500. A5 size, 144 pages

(16) The Triumph Spitfire M GL6712

'Triumph Buyers Guide'

By Richard Newton.

This book examines all the Triumph variations from Pre War saloons and sportscars, to the GT6 and Stag. With over 200 (mono) photographs, this book is a treasure trove of details, specifications and period reviews. 176 pages.

(17) Triumph Buyers Guide M GL0218

Triumph Cars - The Complete Story

By Graham Robson & Richard Langworth.

Includes technical specifications, production details, clubs and much more. 352 pages, 510 illustrations.

(18) Triumph Cars the complete Story GAC1046X



'Triumph TR's - The Complete Story'

By Graham Robson.

A superb book and very likely the most complete documentation available on the 1952 through to 1981 Triumph sports car. Includes many never before published drawings and photos, as well as comparison specification charts and obscure bits of factory data. 208 pages.

(19) Triumph TRs Robson-TR2

'Original Triumph TR7 & TR8'

By Bill Piggot.

Written by Bill Piggot (one of the most respected authors on Triumph Sports Cars), this book covers the history of the TR7 & TR8 in great detail. packed with information, and with over 200 colour photographs, this book really is the TR7 & TR8 restorer's guide.

(20) Original Triumph TR7 & TR8 M GL6023

'Enthusiasts Restoration Manuals'

By Roger Williams.

These 'How to Restore' publications are an absolute 'must have' for all TR owners. The books cover every aspect of Classic Car Restoration, from creating a restoration plan to welding techniques, and steering conversions. They also guide you through the hazards of choosing & buying. 192 pages, over 450 illustrations.

How to Restore;

TR2/3A M GL6024
TR4/4A M GL6025
(21) TR5/TR250/TR6 M GL6026



21 |

Spitfire Reference Library

'Gold Portfolio'

By Brooklands Books.

Contains many examples of motoring press coverage.

Similar content to the Brooklands and 'Road & Track reprints', but contains more in-depth reviews, and many more examples of motoring press coverage.

Gold Portfolios;

(12) Spitfire M GL6012X
GT6 M GL6017X
TR2/3 M GL0270
TR4/5 & TR250 M GL6006X
TR6 M GL6007X

'Road & Track Tests' Triumph Sports Cars

By Brooklands Books.

Official reprints of original articles taken from America's most popular motoring magazines. With a similar content to the gold portfolios these books offer an interesting insight on the American's opinion of British sportscars.

Triumph Sports cars;

1953 to 1967 M GL6010X
1967 to 1974 M GL6011X
(13) 1974 to 1982 M GL6014X

Triumph Spitfire & GT6 The Complete Story

By James Taylor.

Illustrated with more than 100 archived photographs and 8 pages of colour, this model history offers a brief company background, full design & development history for both models. 176 pages.

(14) Triumph Spitfire & GT6 story 211-495

'Purchase & Restoration Guide' Series

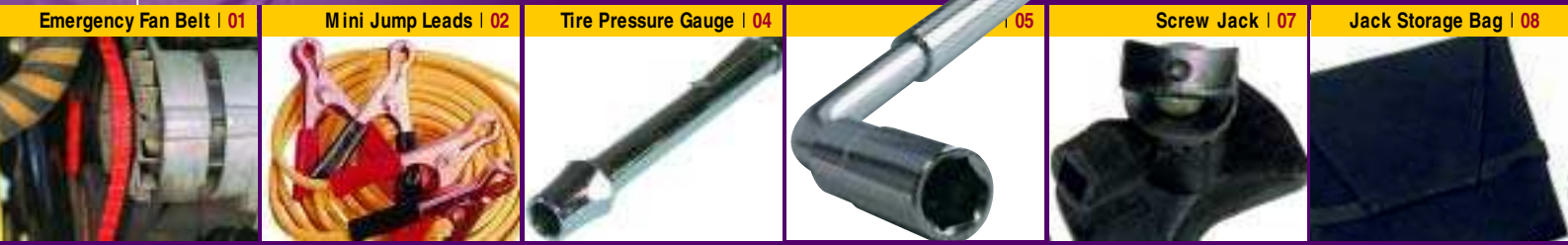
By Lindsay Porter

Regarded by many as the authority on purchasing and maintaining a Triumph. With clear and easy to follow instructions and photographs, there are also handy tips on what to look out for and how to approach certain jobs.

(15) Spitfire/GT6/Herald/Vitesse M GL0216

Workshop Tools

& FLUIDS



Emergency Tools & Accessories for Touring

See also 'Exterior' section for wire wheel tools & accessories.

Emergency Fan Belt

Easily adjusted to any length, this belt really can get you out of trouble. Just thread the open belt over the pulleys, remove the extra links & snap the ends together, and you are back on the road.

(01) Emergency Fan Belt GAC9979X

Battery Jump Leads

Keep a set in the boot, you never know! These 8ft long high quality leads are manufactured from heavy duty copper core cable, with copper plated steel crocodile clips and rubber grips.

(02) Jump Leads DMR22413

Mini Jumper Leads

Keep a set in the glovebox! These ten foot long leads are more than adequate for occasional or emergency use. Supplied with nylon carry case.

(03) Mini Jumper Leads 900-060

Tyre Pressure Gauge

Properly inflated tyres help road safety - and fuel economy.

(04) Tyre Pressure Gauge (Bar & PSI) GAC8049X

Reflective Safety Jacket

Let them know you are there
Safety Jacket

GAC2999

02 |



Emergency Tools & Accessories for Touring

Wheel Nut w rench

Extendable wheel nut wrench with a detachable socket end, enabling any size to be fitted, but is supplied with 19mm and 21mm sockets. Extends up to 21" long.

(05) Wheel Wrench DMR19152

General Tool Bag

Ideal for keeping your 'bits & pieces' in.

Tool Bag AHA5506

(Boot) Tool Organiser

No more loose items in the boot. Made from heavy duty vinyl with a velcro covered spanner section + a zipped pouch.

(06) Tool Organiser GAC9974X

Jacks

Our 'Vintage' type screw jacks are identical to the original and, are an ideal piece of 'period' equipment for your 'T' Type (& MGA, Healey etc.) They are also ideal for keeping the garage door open!

Our jack storage bag (carefully tailored with the original type vinyl covered burlap) is an accurate reproduction of the originals as supplied with all MGA's.

The very handy 'envelope' tool bag matches our jack storage bag. Whilst our tool roll 'straps' will secure it to the rear bulkhead.

Our tool roll (originally for TC/TF models) is a terrific reproduction of the original. Constructed from heavy duty original type tan canvas, it will keep your tools where they should be.

Safety Note; Once the car has been jacked-up, it is advisable to support the vehicle properly before you start working beneath it.

(07) Vintage Screw Jack AHH5124K

(08) Storage Bag (Screw Jack) AAA3447

(09) Tool Roll (Original for TC, TD & TF) 385-910

(10) Tool Roll (Period style) ACG5247

Strap (for Tool Roll) (2 req.) AAA4528

(11) Tyre Lever Set (pair) AJJ281K

(12) Scissor Jack & Handle (General Use) 212677Z

Workshop Tools | 53

& FLUIDS



Engine Analysis

Even if you don't need to work on your own car, these tools make ideal presents.

Gunsons Exhaust Gas Analyser

Go on, do your bit for the environment.

Checks your cars exhaust for emissions. This unit could save you an aborted trip to the MOT station.

(13) 'Gunsons' Exhaust Gas Analyser MRD1207

Gunson 'Colortune 500'

Colortune is basically a glass topped spark plug that allows you to see the colour of combustion in the cylinders, taking the guesswork out of the mixture setting/adjustment.

Comes complete with angled viewing system for awkward places, tuning procedures and trouble shooting guide.

(14) Gunsons 'Colortune 500' MRD1005

Gunson 'Flash Test'

Gunsons Flash test checks the condition of your car's ignition high-tension circuit by measuring the strength of the voltage at the spark plug.

(15) Gunsons 'Flash Test' MM386-875

Digital Analyser

This Digital Analyser is an essential piece of equipment to help keep a classic in good order.

Packed with features including DC measurement, voltage, current, resistance and dwell angle. Supplied complete with leads, battery and case.

(16) Digital Analyser DM R50024

Spark Tester

This tester can be safely placed in the H.T. circuit to establish if a high tension spark is present.

By far the safest method of testing the spark strength.

(17) Spark Tester DM R38898

Battery Care

Every battery sometimes needs a little help.

See also 'Performance & Tuning' for battery Isolator switches & cables.

Multi XS 3600 Battery Conditioner/Charger

Automatically recharge used battery cells. Suitable for all vehicle types; cars, motor bikes etc. LED monitoring display - battery status display. Permanent un-supervised use. No need to disconnect the battery. Polarity warning signal. Charges every 12V battery up to 14.7V maximum.

Weight: 500g. 12 Month guarantee. Thermal cut off fuse. Safe on sealed gel batteries. Requires 240V supply.

- Careful rapid charging of all lead-acid batteries.
- Safe to use with sensitive electronics.
- Maintenance charging with pulses.
- Reverse polarity protected.
- Low current & Winter modes.
- Outdoor use.

(18) Battery Charger GBY9998
Connector Kit GAC9983

This connector kit gives you the choice of using 'quick connectors rather than using crocodile clips.

'PriorityStart'

PriorityStart 'automatic starting protector' monitors battery voltage. If while the car is parked there is a drain from the battery, at a pre-determined level, it automatically disconnects the battery, preserving enough power to start the car. The unit senses the ignition key in the 'on' position, and again, automatically reconnects.

(19) PriorityStart MM459-350

Battery Acid Neutralising Mat

Made from special acid absorbent material that neutralises acids. Easily cut with scissors to match the shape of any battery or battery tray.

Ideal for use when your battery is out of the car to prevent contamination.

(20) Battery Acid Mat GAC2029X





Specialist Tools & Equipment

Keep these items in your general tool bag or tool pouch.

- | | |
|--------------------------------------|----------|
| (01) Clutch Alignment Tool; | |
| 10 Spline | GAC5053A |
| 20 Spline | GAC5053B |
| Points Gap Tool & Screwdriver | 500905 |
| Timing Degree Plate | TT2929 |
| Hood Fastener (durable dot) Tool Set | GAC5060X |
| Hood Sail Eylet Tool | GAC5062X |

Tools for SU Carburettors;

Here we list a range of tools that make life so much easier when overhauling and re-tuning your SU carburettors.

- | | |
|-------------------------------|------------|
| (02) Carburettor Synchroniser | MM 386-200 |
| (03) Jet Centering Tool | GAC6101X |
| Carburettor Needle Chart | ALT9501 |
| (04) Jet Adjustment Spanner | AUD2693 |
| (05) Carburettor Reamer | 386-385 |

(This special reamer is designed to open up worn 5/16" throttle shaft bushings to accept 0.010" oversize throttle shafts.

'Click-Adjust' Tappet Adjusting Tool

Adjusting tappets is never a pleasant chore. This tool takes much of the effort out of this necessary job. Requires a 1/2" drive socket to fit tappet adjustment nut.

- | | |
|------------------------------|---------|
| (06) ClickAdjust Tappet Tool | MRD1299 |
|------------------------------|---------|

Tool Pouch;

These small tool pouches will hold a selection of handy tools.

- | | |
|------------|--------|
| (07) Black | 715091 |
| Red | 715092 |
| Red | 715092 |



03 |

General Garage Equipment

'Oberg' Tilt & Lift Engine Hoist

Tilting an engine, to clear obstructions such as the bulkhead, when removing can be difficult. This handy device allows the engine to tilt and clear obstacles. Heavy duty construction will hold up to 2000 pounds and can tilt to 90°.

- | | |
|-------------------|----------|
| (08) Engine Hoist | GAC9130X |
|-------------------|----------|

'Rhino' Car Ramps

These light, but heavy duty ramps (manufactured from strong high density plastic) have a gentle 17 degree incline, making them perfect for all cars, especially if you have lowered suspension and/or low profile wheels & tyres.

- | | |
|-----------------------|---------|
| (09) Rhino Ramps (Pr) | 400-800 |
|-----------------------|---------|

Wheel Chocks

Manufactured from a very tough high density plastic, with rubber feet for a safe grip. Ideal for preventing your car from rolling when using axle stands or wheel ramps.

- | | |
|------------------------|------------|
| (10) Wheel Chocks (Pr) | MM 900-150 |
|------------------------|------------|

'Fold-Away' Axle Stands

These fold-away axle stands can support 2000Kg. Height range is 235mm to 365mm.

- | | |
|---------------------------|-----------|
| (11) Axle Stands (1 pair) | DM R36524 |
|---------------------------|-----------|

Rolling Floor Jack

Just slide the jack assembly under a wheel, press down on the pedal until the tyre clears the ground. Heavy duty castors allow easy movement of the car in confined spaces. Ideal when working on the car in your garage if space is limited.

- | | |
|---|---------|
| (12) Rolling Floor Jack (sold in pairs) | 900-162 |
|---|---------|

Wheel Dolly Set

These non-height adjustable units are just the thing to help you move your car about easily in confined spaces, simply roll your car onto the dolly.

- | | |
|----------------------|---------|
| (13) Wheel Dolly Set | 900-161 |
|----------------------|---------|

Workshop Tools & FLUIDS 55



General Garage Equipment

Mechanics Wing Covers

Our high quality wing covers (with logo) are padded with foam rubber backing to protect your paintwork from those little accidents.

Yes, we know these won't fit Spitfire/Herald/Vitesse or GT6 - but what about your other car?

Wing Covers (Pr);

(14) with 'Triumph' logos GAC9975X

'Park Smart' Parking Mats

No more guessing when putting your car in the garage. The flat tongue uses the car's weight to keep the mat from moving. Sold in singles.

(15) Park Smart Mat 200-600

Workshop Apron (with TR logo)

With logos, these are ideal for those quick, messy jobs, having adjustable straps and three large pockets

(16) Workshop Apron GAC9938X

Disposable Mechanics Gloves

Bio-degradable natural latex gloves are ideal for any messy job. These gloves provide natural grip & feel and, fit either right or left hand.

(100 gloves per box).

(17) Disposable Latex Gloves 228-690

Mechanics Safety Gloves

Now you can avoid those painful nicks, cuts & burns when working on your classic. These gloves offer protection from sharp edges and hot surfaces, yet still allow a sensitive touch. Used by professional mechanics, the gloves are machine washable.

Gloves with 'Triumph' logo;

(18) Medium GAC9855X
Large GAC9856X
Extra Large GAC9857X

Glove Sizing

Place your hand on a flat ruler with your index finger next to the zero line.

3 1/2" - Size 9 (Medium)
4" - Size 10 (Large)
4 1/2" - Size 11 (X-large)

General Garage Equipment

Magnetic Tray

Ideal for placing (& keeping safe) small items such as; nuts, screws, washers etc. This 145mm diameter tray is made from shatter proof plastic and, with its strong (rubber coated) magnetic base, it holds securely to body panels.

(19) Magnetic Tray DM R35384

Lever Action Grease Gun

Easy to use lever operated grease gun delivers a pressure of over 4000psi and has a cubic capacity of 130cc.

(20) Lever Action Grease Gun DM R12681

Classic Pump Action Grease Gun

An alternative to the modern lever action grease gun, especially if you want to keep that true classic feel.

(21) Pump Action Grease Gun BHA4576

Tool Caddy

This must be the handiest item in any garage. The tool caddy is a flat trolley (with lipped edges) that keeps your tools within arms reach.

(22) Tool Caddy MM 384-895

Compression Tester

A compression test is the most accurate way to gauge and check the condition of the engine. This tester features a 300mm flexible hose with threaded adaptors to suit 14mm spark plugs and a pressure release valve.

(23) Compression Tester DM R37442

Oil Spill Mat

Keep working area surfaces clean when carrying out oil changes, when working under the car, or just as a precaution.

(24) Oil Spill Mat GAC2028X



Brake Fluids

When did you last change your Brake fluid?

If you have never replaced your brake fluid, we strongly recommend you inspect all seals & hoses and replace as necessary.

Brake/Clutch Fluid

Most modern day cars use DOT 4 clutch & brake hydraulic fluid - which is the minimum recommended specification.

Brake/Clutch Fluid (DOT4) ;

(01)	500ml	GBF4102
	1 Litre	GBF4103
	5 Litre	GBF4104

Silicone Brake/Clutch Fluid (DOT5 'ABF')

This high performance fluid is 'Non-Hygroscopic', so it doesn't promote rust problems in the hydraulic system and won't damage your paint work. When silicone is in use it will provide years of trouble free braking.

Silicone Brake/Clutch Fluid;

(02)	500ml	ABF3
	1 Litre	ABF4

Racing Brake/Clutch Fluid (DOT5 'ABF')

Racing fluid (DOT 5 'GBF5') really is the ultimate in brake fluid. Its anti-boil properties mean that even when the brakes get hot the fluid will remain efficient, rather than boiling locally into useless vapour - such as in the calipers.

Due to its high 'Hygroscopic' nature, Racing fluid should be replaced annually otherwise the integrity and effectiveness will be drastically reduced.

Racing Brake/Clutch Fluid;

500ml	GBF5102
1 Litre	GBF5103

Brake System Tools

When bleeding the brakes on any car it is very important to have the correct tools. We supply some very useful items as an alternative to a piece of rubber hose and a pair of pliers.

Eezibleed Kit

Eezibleed is an excellent way to take away the fuss and mess from bleeding hydraulic systems. Fed by air pressure from the spare wheel, it provides 1/4 lb of pressure to the fluid container.

(03)	Eezibleed Kit	MRD1001
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Visibleed One Man Bleed Tool

This 'one man' bleed tool is a must. Using a one way valve, the fluid is allowed through the valve but the air is prevented from returning back into the system.

(04)	Visibleed' One Man Bleed Tool	GAC9378X
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Mityvac Hydraulic Systems Tool

This popular (and proven) system is perfect for bleeding hydraulic systems. Our kit includes: vacuum/pressure pump, vacuum gauge, 1/4" tubing, automotive & brake bleeding adaptor packages, reservoir jar and manual. Detailed instructions include ideas for additional uses.

Mityvac Kit	386-215
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Brake Hose Clamp

The brake hose clamp is chrome plated and has a knurled securing nut. *Note; these clamps should not be used on stainless steel braided hoses.*

(05)	Brake Hose Clamp	GAC8050X
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Brake Cleaner (Safety first)

Keep your braking system up to scratch with this special cleaner.

Brake Cleaner Aerosol (400ml)	MRD1090
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Brake/Clutch Fluid | 01



Eezibleed Kit | 03



One Man Bleed Tool | 04



Silicone Brake Fluid | 02



Hose Clamp | 05



Cooling System

"Preserve and Maintain Your Cooling System"

Water is a most efficient liquid for cooling engines, but it has two distinctive drawbacks. Firstly it freezes in winter, and secondly it does nothing to stop corrosion.

Classic cars can feature large amounts of aluminium, copper, brass and bronze, so it is imperative that a corrosion inhibitor be used to protect the engine's cooling system. There are four types of corrosion; **DEPOSITS;** Calcium carbonates that form hard deposits and adhere to radiator tubes etc.

OXIDATION; The combining of oxygen and iron to form rust.

ELECTROLYSIS; A chemical reaction between dissimilar metals which react with one another via water thus conducting electricity and deposits on the negative (cathode to anode) area.

EROSION; A mechanical problem caused by water turbulence and flow.

Redline 'Water Wetter'

Another magic potion from the USA, this additive for the cooling system improves efficiency in three ways.

Firstly, it improves the specific heat capacity of water (the amount of energy required to raise temperature) meaning the water in the system takes more heat away from the metal parts of the engine. When the water reaches the radiator it is able to transfer more heat energy to the metal radiator core and then to the cooler air flowing through it.

Secondly, it reduces the surface tension of water allowing it to flow more freely through the system and make better contact with the metal parts: (i.e. engine & radiator).

Finally, it has a lubricant quality which prolongs the life of the water pump main seal.

(06)	Redline 'Water Wetter'	M M 220-115
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Anti-Freeze (& Summer Coolant)

It's not just during the winter that you need protection for your engine and radiator. The inclusion of a glycol based Anti Freeze not only stops the water from freezing during the winter, it also acts as an extra coolant during the summer by removing heat more efficiently from the block & dispersing it even in the worst traffic jam. It also helps to protect from corrosion.

Anti-Freeze (Unipart);

(07)	1 Litre	GEC2001
	2 Litre	GEC1002
	5 Litre	GEC2005

Sealers & Inhibitors

Here we have listed items that we all know about, but sometimes forget!

(08)	Corrosion Inhibitor (Penrite)	GGL9041X
(09)	'Bars' Seal (Pellet)	GAC6073
(10)	'Bars' Leak (135ml)	M RD1031
(11)	'Bars' Flush (100gm)	M RD1032

Workshop Tools & FLUIDS | 57



General Consumables

A selection of very useful garage consumables that should be on the shelf (and in the car) that no enthusiast should be without.

- | | | |
|------|-------------------------------------|----------|
| (12) | Carburettor Cleaner Aerosol (400ml) | MRD1023 |
| (13) | Brake Cleaner Aerosol (400ml) | MRD1090 |
| | Graphite Grease (Sachet) | AKF1457 |
| | Graphogen (Engine Assembly Lube) | GGL9122X |
| | Anti-Seize Compound (10oz) | 153317 |

...no enthusiast should be without...

WD40;

- | | | |
|------|--------------------------------------|----------|
| | Small (200ml) | GAC110 |
| (14) | Large (400ml) | GAC111 |
| | 5 Litre can & Spray Applicator | GAC381 |
| | Exhaust Assembly Paste (Tin) | GAC2054 |
| | Exhaust Assembly Paste (Tube) | GAC6080 |
| | Instant Gasket (RTV silicone) | GAC8000 |
| (15) | 'Wellseal' Jointing Compound (100ml) | 600569A |
| | 'Hylomar' Jointing Compound (100gm) | GGC102 |
| | Gasket Remover Aerosol (400ml) | GEM317 |
| (16) | Loctite 'Stud-Loc' (10ml) | GAC100 |
| | Loctite 'Stud-Loc' (3ml) | GAC100/3 |
| | White Grease Aerosol (400ml) | GEM361 |
| | 'Hammerite' Rust Remover (1 litre) | MQC1003 |
| (17) | Trim Adhesive Aerosol (200ml) | UBS203 |
| | Trim Adhesive (1 litre) | UBS110 |

General Consumables cont...

Rain*X

When you have treated your windscreen with Rain-X, you can drive in the rain without using your wipers. Will not smear or damage your wipers. Rain-X interior Anti-Fog treats windows, mirrors - and even goggles.

- | | | |
|------|------------------------------------|----------|
| (18) | Rain-X (Exterior) (200ml) | GAC9995X |
| (19) | Rain-X (Anti-Fog Interior) (200ml) | GAC9992X |

Dashpot Oil

(For all SU/Zenith Carb's)

Specifically designed for both SU and Zenith carburettors, this oil will ensure your carb's are working as they should be.

- | | | |
|------|-------------|----------|
| (20) | Dashpot Oil | GGL9035X |
|------|-------------|----------|

Moss Hydraulic Shock Absorber Oil

Custom Blended specifically for all Girling & Armstrong lever arm shock absorbers.

Convenient flip-open pouring spout helps to minimise spills. (16 fluid oz).

- | | | |
|------|--------------------|---------|
| (21) | Shock Absorber Oil | AAA149M |
|------|--------------------|---------|

Fuel Tank 'First + Aid' (Cleaner, Etcher & Sealer)

Use these products to either protect & extend the life of your fuel tank (especially useful if you wish to retain the original tank, or use on your new tank prior to fitting).

The (industrial) cleaner allows you to clean (to professional standards) your original tank. If you are planning to seal it, then you will need to use the 'Etching Agent' to ensure maximum bond. The Sealing (Slushing) compound puts a highly protective film on the inside of the tank that will prevent rust - it will even seal minor leaks/seals.

Fuel Tank 'First + Aid';

- | | | |
|------|------------------------|----------|
| (22) | Cleaner (1 US gallon) | GAC9858X |
| | Etching Liquid (16 oz) | GAC9859X |
| | Sealer (US Quart) | 608591A |



58 Car Care & PAINTS



'Waxoyl'

Waxoyl has long been the classic car owners best defence against creeping rust. Once applied, it forms a thick waxy coating that immediately stabilises existing rust and prevents any future corrosion. To protect your car simply apply Waxoyl liberally to (inside & outside) all box sections, chassis rails etc. Our starter kit contains everything you need for initial protection, including a 2.5 litre can of Waxoyl, pump and sprayer.

- | | | |
|------|----------------------------|-------|
| (01) | Waxoyl Starter Kit | WO105 |
| (02) | Waxoyl Aerosol, 400ml | WO101 |
| (03) | 5 Litre Can | WO104 |
| | 2.5 Litre Can | WO102 |
| | 2.5 Litre Cartridge | WO103 |
| (04) | Spray Gun (Jumbo Trigger) | WO107 |
| (05) | Spray Gun (High Pressure) | WO108 |
| | Extension Probe (1 metre) | WO109 |
| | 'Underbody' Seal (1 litre) | WO113 |
| (06) | 'Underbody' Seal (500ml) | WO114 |

'Gunk' Cleaning Fluid

Gunk, the No1 degreaser.

Engine Cleaner;

- | | | |
|------|----------------------------|---------|
| | Brush-on (1 Litre) | MRD1040 |
| (07) | Spray-on (400ml aerosol) | MRD1187 |
| (08) | Concrete Cleaner (1 litre) | MRD1257 |

'Hammerite' - Rust Remover

When any hardware and/or mechanical parts are immersed (as instructed), this product will remove and kill rust. Ideal for special nuts/bolts. (To ensure long-life, items must be properly degreased prior to being immersed).

- | | | |
|------|---------|---------|
| (09) | 1 Litre | MQC1003 |
| | 5 Litre | MQC1002 |



'Hammerite' - Underbody Seal & Smoothrite

Long proven products, that are easy to apply to those awkward corners. Helps to protect the underbody of your classic and give that quality professional finish.

- | | |
|-----------------------------------|--------------------------------|
| 'Hammerite' Underbody Seal; | |
| (10) | Aerosol Sealer (600ml) MRD1109 |
| 'Hammerite' Underbody Smoothrite; | |
| | Aerosol Black (400ml) MRD1216 |
| (11) | Can (250ml) MRD1202 |

Classic Car Colours

Here is a selection of the general paints we stock. For specific car colour paints please contact your nearest branch. Aerosol paints are supplied in 400ml, the brush-on is 500ml & the touch-in paint is supplied in 125ml tin, with a brush in the lid.

	Engine Paint	Aerosol	Brush On
(12)	Maroon	CCEP1	CCEP1BR
(13)	Metallic Green	CCEP2	CCEP2BR
	Green	CCEP3	CCEP3BR
	Engine Black	CCEP4	CCEP4BR
(14)	Gold	CCEP6	CCEP6BR
(15)	Yellow	CCEP11	CCEP11BR
	Bright Red	CCEP10	n/a
	Other Paints	Aerosol	Brush On
	Wheel Silver	CCWP1	CCWP1TU
(16)	'Crackle Black' Paint	MRD1048A	n/a
	Super Gloss Black	CCSB1	CCSB1TU*
	Satin Black	CCSB2	CCSB2TU*
	Matt Black	CCMB1	n/a
	Chassis Black	CCCB1	CCCB1BR

*These paints are supplied in 125ml touch-in tins.

Dry Cleaner | 17



Super Resin Polish | 21



Bumper Renovator | 24



Soft Top Liquid Cleaner | 18



Gliptone Leather Care | 26



Soft Top Reviver | 19



Leather Care Cream | 23



Novus Plastic Polish | 27



'Renovo' Hood Care Products



We are very pleased to offer this unique & well proven range of Hood Care products from Renovo. If your hood or tonneau cover is looking a little tired, then these products will clean, re-colour, restore and protect. The Soft Top Reviver is for canvas hood covers, not vinyl.

Renovo Hood Care Range;

- (17) 'Dry Cleaner' Shampoo (Aerosol) GAC9020
(For fabric hoods).
- (18) 'Liquid Cleaner' (500ml) GAC9025
(For vinyl hoods).

Soft Top Reviver (for Canvas hoods);

- (19) Black (500ml) GAC9022
- Black (1 litre) GAC9021
- Blue (500ml) GAC9022BLU
- Blue (1 litre) GAC9021BLU
- Brown (500ml) GAC9022BRN
- Brown (1 litre) GAC9021BRN

'Ultra Proofer' (for Canvas Hoods);

- 500ml GAC9024
- 1 Litre GAC9023

'Ultra Proofer' (for Vinyl Hoods);

- 500ml GAC9026

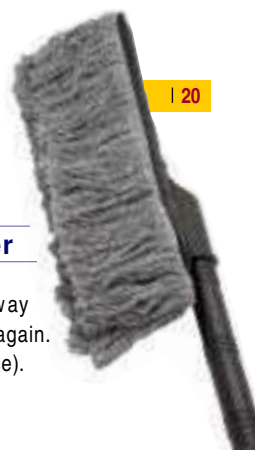
Window Polish (for plastic windows);

- 30ml Bottle GAC9028
- 100ml Bottle GAC9027

Professional Car Duster

This 100% cotton dusting mop is treated with special way to trap dust. Simply shake it out and it's ready for use again. Ideal for show days. (20" long, supplied with carry case).

- (20) Professional Car Duster 231-670



| 20

'AutoGlym'



AutoGlym car shampoo and polish are renowned for being the best all round car care products for body, bumpers, wheels and interior.

- (21) Super Resin Polish AG001
- Car Exterior Shampoo AG002
- Car Interior Shampoo AG003
- Glass Polish AG004
- (22) Chrome & Metal Polish AG005
- Vinyl & Rubber Cream AG006
- Wheel Cleaner AG007
- (23) Leather Care Cream AG008
- Engine Cleaner AG009
- Cutting Polish AG010
- Extra Gloss Polish AG011
- Plastic Restorer & Protector AG012
- (Fabric) Hood Maintenance Kit AG013
- (24) Bumper Renovator (Black) AG014
- Silicone Spray (450ml) AG015
- Silicone 'Free' Spray (450ml) AG016
- 'Perfect' Polishing Cloth AG017
- (25) 'Hydro' Flexi-blade Screen Cleaner AG018



'Gliptone' - Leather Care

Leather will last indefinitely if it is properly cared for, especially if you use Gliptone Leather Care. In order to keep leather upholstery flexible and in original condition it must be fed with moisturising oils and waxes. Using only natural vegetable ingredients, Gliptone Liquid Leather has a unique formula which penetrates the leather's brittle fibres providing new youth while re-instating that original, wonderful leather aroma. Formulated from Ph neutral ingredients.

- (26) Leather Conditioner (250ml) GAC2058X
- Neutral Leather Cleaner (250ml) GAC2059X

'Novus' Plastic Polish

Bottle No1 cleans and polishes plastics. Bottle No2 restores the original appearance of plastics. Bottle No3 removes heavy scratches and abrasions from acrylic surfaces. Final finishing requires Novus No2.

- (27) No1 Polish (8oz) 220-605
- No2 Polish (8oz) 220-610
- No3 Polish (8oz) 220-615

28



'Kozak' Dry Wash Cloth

Kozak's specially treated 'long cotton' fibres are woven into a thick plush Nap which draws the dust up and away from the paintwork. Kozak keeps your car clean without water.

- (28) Kozak Dry Wash Cloth 231-620



60 Penrite Oils



PENRITE OIL

Penrite offers a complete range of high performance, quality oils and lubricants, specifically formulated for veteran, vintage and classic cars.

Founded in 1926, Penrite has a wealth of experience behind its products. Indeed, the company was lubricating many of today's vintage and classic cars, when they were new!

Modern engine lubricants do not necessarily suit older vehicles, the oils are often too thin and, the additive 'packages' chosen suit today's advanced engineering and materials, not those employed in the design and manufacture of the vehicles of earlier years.

Penrite engine oils are blended from high quality base stocks, combined with selected compatible additives to give the best possible performance, increased engine protection, high oil pressure and, reduced oil consumption. These oils also help reduce 'gumming' and sludge deposits.

The Penrite philosophy of meeting (and exceeding) original requirements using modern technology extends across a wide range of lubricants - from engine oils for vehicles of all ages, transmission and steering box oils, to specially formulated chassis greases for veterans. Penrite lubricants provide complete mechanical protection and help you care for your vehicle.

Penrite Engine Oils

Running-in Oil

Penrite Running-in oil is designed to promote and control the bedding-in process of newly built engines. It should be used for the first 300 miles and then replaced with the appropriate grade of HPR oil.

- | | | |
|------|---------|----------|
| (01) | 1 litre | GGL9015X |
| | 5 litre | GGL9014X |

HPR 15W/60

A high viscosity semi-synthetic multigrade engine oil, specifically developed for multi-valve, multi-cam high performance engines requiring a 15W engine oil. This oil offers good all round protection, including good pumpability when cold, excellent viscosity characteristics when hot.

Penrite Engine Oils cont..

It contains the necessary additives to combat wear, and bearing corrosion. HPR 15W/60 meets API SJ/CD requirements and is suitable for turbo and diesel fuelled vehicles.

- | | | |
|------|---------|----------|
| (02) | 1 litre | GGL9083X |
| | 5 litre | GGL9082X |

CLASSIC 20W/50

Designed specifically for vehicles from the 1960's and '70's, this 20W/50 multi-grade meets the highest API SH/CD standards. Like the original 20W/50's of the 1960's, Classic 20W/50 is a full-bodied, hard-wearing oil giving excellent film strength under the heaviest loads.

- | | | |
|------|---------|----------|
| (03) | 5 litre | GGL9044X |
|------|---------|----------|

HPR 20W/60

Replaces SAE 30 and 20W/50. Formulated for most post-war classics, particularly high performance vehicles such as MG, Porsche, Jaguar and Triumph. Suitable for cars running six volt electric systems, where starter motor cranking speeds require an engine to turn over with minimal drag.

- | | | |
|------|---------|----------|
| | 1 litre | GGL9005X |
| (04) | 5 litre | GGL9004X |

Penrite Gearbox Oils

For use where oils of EP80, EP90 plus 30 and 40 SAE rating were originally recommended. Suitable for older boxes of either straight cut, synchromesh, epicyclic design, or for overdrives (such as Laycock), both oils contains no EP additives which can cause serious damage to gearboxes containing yellow metals, or friction modifiers which can cause slipping in overdrives and pre-selector gearboxes.

Gearbox Oil 30

Replaces EP 80, SAE 30 and 20W/50.

- | | | |
|------|---------|----------|
| (05) | 1 litre | GGL9019X |
| | 5 litre | GGL9018X |

Penrite Oils | 61

Penrite Gearbox Oils cont...

Gearbox Oil 40

Replaces EP 90 and SAE 40.

1 litre	GGL9021X
5 litre	GGL9020X

Penrite Axle Oils

Hypoid Oils

The crown wheel and pinion teeth in a hypoid axle slide as well as rotate against each other, which requires the use of extreme pressure additives. Penrite hypoid oils are formulated to meet the specific requirements of older vehicles.

Hypoid 80W/90

Replacing EP 80, this oil exceeds GL5 specifications, and is suitable for most post-1960 hypoid and spiral bevel gears.

(06) 1 litre	GGL9024X
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Hypoid 85W/140

Replacing EP 90, this oil is primarily for post-1960 cars requiring a higher viscosity than Hypoid 80W/90, & commercial vehicles. Exceeds GL5 specifications.

(07) 1 litre	GGL9023X
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Limslip 85W/140

Formulated especially for vehicles where high off-set hypoid gear sets are used in combination with limited slip or spin resistant devices. Ideal for cars fitted with Salisbury and similar limited slip differentials including Jaguar and Aston Martin.

(08) 1 litre	GGL9025X
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Mild EP

A SAE 140 grade oil suitable for use in bevel, worm and pre-1960 hypoid gears. Rated GL4, this gear oil does not possess the additive package found in later GL5 gear oils.

(Note; GL5 oils should not be used in veteran or vintage vehicles as the additive packages in these oils attack metals such as bronze, brass and copper).

(09) 1 Litre	GGL9017X
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Penrite General Products

Storage Protection Supplement

When added to either engine, gearbox and rear axle oils, it protects internals from acidic corrosion and seizure during long storage periods.

(10) 0.5 Litre	GGL9043X
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Graphite Grease

Suitable for general lubrication work, being highly water resistant. Recommended for shackle and spring leaf lubrication.

(11) 500grm	GGL9030X
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High Melt Bearing Grease

Calcium complex base grease especially suitable for classic and vintage wheel bearings where exposure to water spray and therefore grease wash-out was a problem.

(12) 500grm	GGL9040X
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Penrite General Products cont...

Cam Assembly Lube

For lubricating engine components during assembly - not for use on pistons or in the ring area.



(13) 40grm	GGL9031X
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Pouring Jugs

These handy jugs are designed to fit in with the feel of a classic garage, also making pouring a cleaner process. Available in black and bearing the Penrite logo they are essential garage equipment.

(14) Pouring Jug, 1 litre	GAC8066X
Pouring Jug, 0.5 litre	GAC8065X

Cooling System Corrosion Inhibitor

Protects metals in the cooling system from corrosion. Can be used to enhance the anti-corrosion properties of anti-freeze.

(15) 1 litre	GGL9041X
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Shock Absorber Oil

Use this Penrite oil if you want to tinker with your lever arm shock absorber damping rates. No1 Light is for most single & double acting dampers including lever arm. Ideal for Jackall systems. No 2 (which is ideal for competition purposes) is a heavier grade that increases the damping rate, also suitable for non-piston type dampers.

(16) No 1, Light (500ml)	GGL9038X
No 2, Heavy (500ml)	GGL9039X

Steering Box Lube

A self levelling, high viscosity lubricant containing non-corrosive extreme pressure additives. Ideal for veteran & vintage steering boxes. Not suitable for steering racks.

(17) Steering Box Lube (500ml)	GGL9028X
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Water Pump Grease

Specially formulated for water pumps that require regular greasing.

Water Pump Grease (100gm)	GGL9034X
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Carb' Damper Oil

Specifically formulated for SU carburettors (both damped & non damped) of all ages and, some Strombergs.

(18) Carb' Damper Oil (125ml)	GGL9035X
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Lead Substitute

We stock a Lead Substitute (endorsed by the 'Federation of Historic Vehicle Clubs') that enables unleaded fuel to be safely used in engines originally designed for Leaded fuel.

(19) Superblend (500ml)	GAC806
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Full Penrite Lubricant Range Stocked

There are many other Penrite oils & lubricants that we stock but have not listed here - such as lubricants for Veteran, Vintage and/or modern high performance engines/transmissions.

If you require a specific oil/lubricant for your vehicle that we have not shown, please call your local Moss branch who will only be too pleased to help you.



62 Indoor

OUTDOOR



Triumph Marque Lapel Pins

These colourful, attractive enamel & chrome Logo pins will look great on hat or jacket.

- | | |
|--|----------|
| (01) Triumph - Lapel Pin/Badge | |
| 'Shield' | 229-265 |
| 'Globe' | GAC9948X |
| 'TR6 & Union Jack' | GAC9950X |
| (02) Spitfire (car) - Lapel Pin/Badge | |
| Red/Chrome | LPB106R |
| White/Chrome | LPB106W |
| Blue/Chrome | LPB106B |
| Yellow/Chrome | LPB106Y |

Factory Dealer & Service Signs

These Multi-coloured (screen printed) signs are a perfect replica of the originals.

- | | |
|--|----------|
| Triumph(Shield) Service (12"x16") | GAC9932X |
| (03) Triumph Authorised Service (12"x48") | 214-220 |
| And for those who have other classics. | |
| Austin-MG Authorised Service (12"x48") | 214-210 |
| (04) BMC Genuine Parts (18"x27") | 214-230 |
| BMC Authorised Dealer (18"x27") | GAC9929X |
| Austin Healey Service (6"x24") | 214-310 |
| MG Service (12"x16") | 214-320 |

'Triumph only' Parking Sign

Protect your Triumph parking space with these American style metal restriction sign. (height 305mm - width 228mm)

- (05) Parking Signs;**
with 'Triumph Shield'
with 'Triumph Laurel'



GAC8030X
GAC8031X

Computer Mouse Mat

And why not!

- (06) Mouse Mat - TR6** HMP122001

'50 Years of Triumph' poster

This striking 25"x38" colour poster (illustrated by the renowned artist Ken Dallison), highlights Triumphs most popular models from 1925 to 1975.

- (07) '50 Years of Triumph'** M GL6003X

Vintage 'Lucas' Poster

Reproduction of a circa 1930 Lucas advertising poster. Lithographed in full colour on good quality poster stock. (16" x24")

- (08) Vintage 'Lucas' Poster** HMP990006

Advertising Posters

We stock an ever changing range of advertising posters created by the marketing departments of MG, BMC, BL, Standard Triumph, etc.

Printed in colour, they are accurate facsimiles of the originals seen in magazine and on billboards around the World. There are so many different types available we are unable to show or even list them all here. Suffice to say that it is worth browsing through the poster collection next time you pop into one of our branches.

One of the most popular posters we sell is the American limited edition, reprint of a 1975 US poster promoting the Triumph TR6 and Triumph Spitfire 1500.

USA Advertising Poster;

- (09) 'British Racing Green'** M GL6001X

Commemorative Limited Edition Print

This specially commissioned Limited Edition Print commemorates the 21st Anniversary of the TR Register.

The picture is complemented by a pictorial mount depicting some of the more modern competition TR's. Ken Richardson - then head of the Standard Triumph Competitions Department, signed each numbered print together with the artist, Lawrence Bold-de-Haughton.

The full colour 24" x 36" print has been produced to the highest standards as specified by the Fine Arts Guild and is strictly limited to 850 prints worldwide.

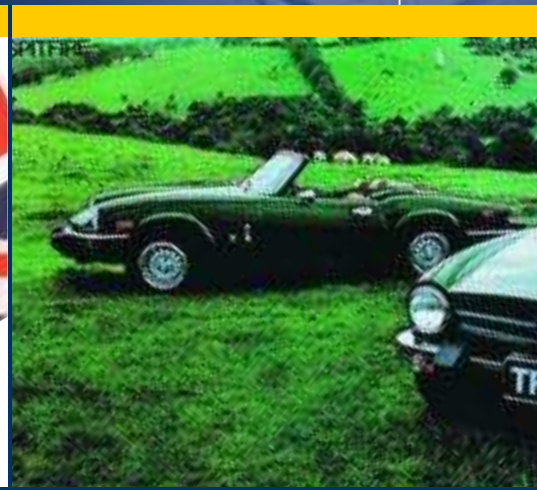
- (10) TR Print** M RD9999



Dart Board | 12



Union Jack Flag | 15



Embroidered Patches | 14



Peak Cap | 16



Peak Cap | 17



Picnic Blanket | 19

Bar Stool (with Logos)

Ideal when you're having a well earned respite during those long discussions in the garage whilst having a coffee.

14" easy clean vinyl seats with chrome plated legs (30" high).

(11) 'Triumph' Bar Stool 231-805

You could always cover the logo's!

'Austin Healey' Bar Stool 231-810

'MG' Bar Stool 231-800

The 'MG Car Company' Official Dart Board

The Perfect gift for either MG darts enthusiasts - or for Triumph owners, depending on your point of view!

This 18" board is made to World Dart Federation regulations, and features "The MG Car Company Ltd" across the bottom as well as "safety fast" logo at the top.

(12) MG Dart Board GAC9962X

'Triumph' Logo Earrings

Enamelled miniature marque logo earrings.

(13) 'Triumph' logo earrings GAC9941X



13

(14) Embroidered Patches

Add that splash of colour to your jacket, sweater etc - and show your loyalty.

'Triumph' (Rectangular) GAC9956X

'British Leyland' (Rectangular) GAC9960X

'Triumph TR' (Rectangular) GAC9955X

'Union Jack' 229-510

'BMC' (Round) GAC9961X

Union Flag ('Jack')

Made from light-weight polyester, complete with metal grommets on the hoist.

(15) 'Union Jack' flag GAC9939X

Embroidered Peak Cap - with Triumph Logo

This quality embroidered (stone washed) Spruce/Khaki hat will keep your hair in place & the sun from your eyes.

(16) Peak Cap with 'Triumph' Laurel GAC9945X

(17) Peak Cap with 'Triumph' Shield 219-826

Coffee Mugs

A very essential workshop item for all serious classic car owners.

Coffee Mug;

Spitfire GAC8020X

(18) TR7 GAC8019X

TR2/3 GAC8014X

TR4/5 GAC8015X



18

Outdoor Essentials

These items are ideal for storing in the boot while out for a Sunday drive. The Picnic Rug has a waterproof base, which folds-away neatly and features handy carry-straps.

Shooting Stick/Umbrella, well, what can we say? It has all the usual features of an umbrella - with a handy seat, (not too useful if you don't have another umbrella!)

(19) Picnic Blanket GAC8025X

(20) Shooting Stick/Umbrella (Triumph logo) GAC8024X



| 20



Restoration Parts

Spitfire



U.K. Ordering

We accept orders by mail, telephone, e-mail or fax. If you have the opportunity, we invite you to visit one of our branches. Remember, supplying details of your car, (i.e. engine, commission or Vehicle Identification Number (VIN) LHD or RHD, year of manufacture and any modifications) saves time and helps us to help you. Please inform us of your Customer Number, this is to speed up the order processing process.

Overseas Ordering

As with the U.K. we accept orders by mail, telephone, e-mail or fax. If you visit the U.K. we would be delighted if you visited one of our branches. When ordering, please ensure that you enclose full details of your name, address and Customer Number, plus details of your car (i.e. engine, commission or Vehicle Identification Number (VIN) LHD or RHD, year of manufacture and any modifications). Please note, overseas orders are often subject to local import duties, taxes and Customs clearance, which will need to be paid for at the point of entry. These charges are NOT included in the price of the goods or delivery prices. All relevant Customs forms and documentation needed to ensure the order arrives with the minimum of delay will be included with your shipment. If you have any special requirements, please contact us to discuss them. Please remember that delivery charges are dependent upon the size and weight of the shipment. If a quotation is required prior to placing an order, please contact the export department at your chosen branch and they will be pleased to supply a full quotation to you.

Parts Back-Order System

A back-order system is used when a part is not in stock at the time of ordering. If the item is expected to become available within a reasonable timeframe, then it will be put on back-order, unless the customer instructs us otherwise. When we have the parts in stock, the back-order will be processed automatically and the item will be dispatched to the customer. If the particular part becomes No Longer Available (NLA) or is likely to be unavailable for some time, then the customer will be advised and asked if the order is to be cancelled.

Shipping & Despatch Methods

Orders for delivery in the UK may be dispatched by regular post (for small/ lightweight items), or through a Next Day courier, or alternatively a 2-3 Day Courier service. Please speak to our sales staff to choose the best delivery option for your parts order. We are constantly striving to improve the service we offer, so please contact your local branch for the latest shipping prices. For delivery outside the UK we offer the following services:

Parcels up to 30Kg;	Europe 1-3 days. Europe by road 2 to 5 days. World-wide 1 to 3 days
Shipments up to 500Kg;	Europe by road 2 to 5 days World-wide by air 2 to 7 days to destination airport for collection or delivered direct to customers address. (Sea freight is now regarded as too slow for most retail parts orders)

For these services, please ask for prices when you place your order. All shipments are now 'trackable', (inc. Internet access for selected carriers). Please speak to one of our sales staff to choose your best parts delivery option. Please remember, all carriage charges are dependant on weight band, volume, destination & delivery time. If a quotation is required prior to placing your order, please contact a member of the sales department at your chosen Moss branch who will be happy to discuss your requirements. If you prefer, you may arrange your own shipping and dispatch.

Quotations & Payment Methods

We will be pleased to provide a full parts quotation detailing price, availability and relevant shipping costs. Payment may be made by cash, personal cheque (to the card guarantee limit), Certified Bank Draft, credit or debit card including: Mastercard, Visa, Switch, Delta and, by Sterling Travellers Cheques. If you intend to make payment by Cheque or Bankers Draft when using our fast mail-order parts service, please confirm parts availability and carriage charges.

Value Added Tax

Value Added Tax (VAT) at the current (U.K.) rate will be levied on all orders being dispatched to all countries within the European Community. VAT is not charged on goods dispatched to countries outside of the EC. However, such orders are often subject to local import duty, taxes and Customs clearance, which MUST be paid by you at the port of entry. Such charges are not included in the cost of the goods or delivery prices.

Bradford
4 Bolton Lane, Canal Road
Bradford, West Yorkshire BD2 1DR
Tel 01274 735 537 Fax 01274 735 595
e-mail bradford@moss-europe.co.uk

Bristol
1-3 Elton Street, Bristol, Avon BS2 9EH
Tel 0117 923 2523 Fax 0117 942 8236
e-mail bristol@moss-europe.co.uk

Derby
850 London Road, Derby DE24 8WA
Tel 01332 756 056 Fax 01332 572 332
e-mail derby@moss-europe.co.uk

Darlington
15 Allington Way, Yarm Road Ind. Est.
Darlington, County Durham DL1 4QB
Tel 01325 281 343 Fax 01325 485 563
e-mail darlington@moss-europe.co.uk

Exchange Units

We are able to offer a full rebuild service on numerous major components in our product range. We offer this service as an alternative to direct replacement parts, or when a brand new item is no longer available. However, the continuity of this exchange scheme needs the understanding and co-operation of our customers in relation to several important points:

It is important to remember that "rebuilt" does not mean "brand new". Rebuilding a unit involves stripping, cleaning, inspecting and re-assembling the unit. During this process, parts showing signs of wear will either be completely replaced or suitably renovated. However, it is not always feasible for major sub-components to be replaced with brand new ones, for example, an exchange engine will not have a new block.

Due to the nature of certain product lines, some items can only be offered on a "one for one" exchange basis. This effectively means that you must offer us a viable unit before we can release a fully rebuilt item from our stock. In some instances we can only carry out reconditioning of your own unit. Our staff will inform you if this is the case. All exchange units are subject to a surcharge. This surcharge serves two purposes; firstly, it acts as an incentive for you to return your old unit, and secondly it provides us with financial cover if your returned unit proves unsuitable for exchange purposes.

Whether or not your returned unit is suitable for exchange purposes cannot be ascertained until it is made available to us for inspection. As a general rule, suitable for exchange basically excludes any items that are beyond reasonable repair (e.g. crankcases ventilated with a connecting rod) or units irrevocably damaged. We are also unable to accept units unless they are returned in whole, complete form (i.e. differential units which are returned partly stripped with no bearings and all the shims missing are not generally accepted), nor do we accept a "box of bits". Surcharges will only be refunded once our core department has passed the item as serviceable. Under no circumstances can any exchange unit be shipped overseas until we receive your original unit. We have predetermined prices for our exchange units based on our experience, what it will cost to repair a gearbox, axle or engine. Occasionally, however, the damage to the unit is so great that we will contact you before beginning work on your unit to advise you of any additional cost that may be incurred during the rebuild of the unit. We can return the unit (at your cost) if this proves unacceptable.

Warranty

All parts are fully warranted against defects in materials and workmanship for a period of twelve (12) months from the date of purchase. In most cases, warranty will not cover labour, failure of a related component, failure resulting from incorrect installation or misuse, nor would liability exceed the cost of the original component. During the warranty period, please contact us immediately at the point of purchase if any problems occur. We will then advise you, before replacing the failed component, as to the best course of action.

WITH ALL CLAIMS, A COPY OF THE PURCHASE INVOICE MUST BE PRODUCED.

Returns

Any Moss parts incorrectly supplied may be returned to any Moss branch for exchanging with the correct part. If you find you have bought parts which you do not require, you can return them to the branch you bought them from within 3 months of purchase for a full credit to be used for the purchase of alternative Moss parts. If a refund of the purchase price is required, then a handling charge of 15% of the value of the goods may be levied. All returned goods must be in a condition suitable for re-sale and in their original undamaged packaging.

Customer Service

We value your custom and wish to ensure that you receive the very best service. Every effort will be made to provide you with Quality Parts and Expertise in a relaxed, helpful and friendly manner. Should you consider the service you receive from us to be unsatisfactory, or you have any problems with the part(s) purchased, please advise a member of the sales team at the originating branch. If the matter is not resolved to your satisfaction, please contact our Customer Services Department at:

Customer Services, Moss Europe Ltd.
Hampton Farm Industrial Estate
Hanworth, Middlesex TW13 6DB England.

We will do our very best to resolve the issue and keep you as a loyal and happy Moss customer.

British Motor Heritage

Moss Europe Ltd. is a British Motor Heritage approved specialist. Our agreement with British Motor Heritage allows us the use of marque logos and some of the artwork contained within this catalogue.



London
Hampton Farm Industrial Estate
Hanworth, Middlesex TW13 6DB
Tel 020 8867 2020 Fax 020 8867 2030
e-mail sales@moss-europe.co.uk

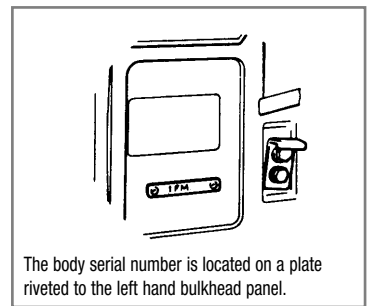
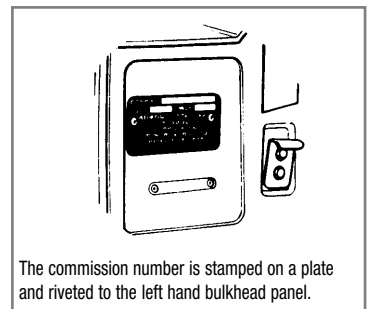
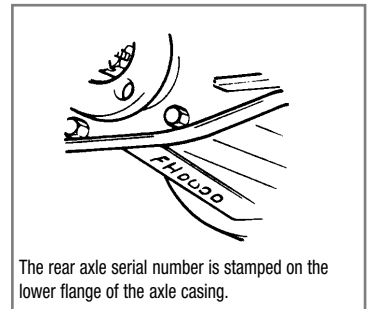
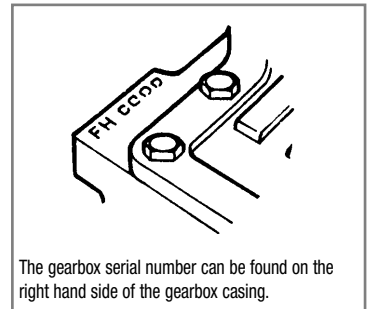
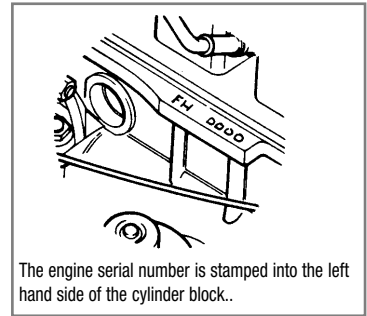
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Location of Serial Numbers



Production Data, Details & General Information

1954. Alick Dick takes over as Managing Director from Sir John Black. He builds up Standard Triumph by purchasing smaller concerns to enable him to produce complete cars with little outside help. The Herald is first new car, followed by the Spitfire project.

Autumn 1960 cash crisis forces the Spitfire development plan to be shelved.

August 1961 Leyland Motors purchase Standard Triumph, Stanley Markland becomes MD. He discovers Spitfire prototype under a dust cover by accident and demands it be put into production.

Spitfire 4 - October 1962 - December 1964

FC1 to FC44656

October 1962 Earls Court Motor Show. Spitfire '4' announced, competing against the BMC Sprites and Midgets. The car is an instant success, and outsells the 'Spridgets' in every year of production bar one (due to a strike in 1969).

The number '4' denotes the number of cylinders. The Vitesse has already gone on sale in the USA as the Sports 6 and so the Spitfire 4 follows suit to fit in with the prevailing marketing strategy - an important selling point since 50% of Triumph Spitfires are to be exported to the USA!

Spitfire 4 Mk II - December 1964 to January 1967

FC50001 to FC88904

Spitfire Mk III - January 1967 to December 1970

FD1 to FD15306, FD20000 to FD51967,

FD75000 to FD92803 (Oct 1969 on)

In 1967 Leyland Motors take over Rover-Alvis. In 1968 they take control of BMC/Jaguar. The British Leyland Motor Corporation is formed making stable mates of Triumph and MG.

Spitfire Mk IV - November 1970 to December 1974

	UK	USA
1971 model year	FH3	FK1
1972 model year	FH25001	FK25001 to FK28000
1973 model year	FH50001	FM1*
1974 model year	FH60001 to FH64995	FM10001* to FM28000*

*denotes USA 1500cc models

Spitfire 1500 - December 1974 to August 1980

	UK	USA
1975 model year	FH75001	FM28001
1976 model year	FH80001	FM40001
1977 model year	FH100020	FM60006
1978 model year	FH105734	FM70001
1979 model year	FH130001	FM95001
1980 model year	FH133501	FM110001

The export market nose dives during the late 1970's and coupled with British Leyland's appalling financial, management and labour problems, the company is unable to invest in a replacement sports car for the Spitfire. The Triumph name is eventually lost in the early 1980's after being used as a 'badge' for the new Acclaim - a CKD car imported from new partners Honda.

Engine Development and the Triumph Spitfire

Introduced in 1951 as an 803cc unit for the Standard 8 the 'SC' (Small Car) engine was later developed for use in the Triumph Herald and Spitfire 4. It underwent various stages of development from 1147cc & 1296cc before the introduction of the environmentally friendly 1500cc version, first in the USA, and later elsewhere.

Unable to bore the engine out any more from the 1296cc version, Triumph engineers increased the capacity by altering the crankshaft to produce a longer stroking engine. Cylinder block depth remained the same as did the con rods. There were no changes to the head and only minor detail changes to the block.

The 'PE150', a slanting four cylinder engine developed by Triumph, was tested alongside a partially developed 1500cc 'SC' engine at MIRA in 1966. Results were outstanding but squeezing the 'Slant-4' engine into the Spitfire shell proved too costly to allow production. The unit went on to be used in the Saab 99 and the TR7.

Chassis Number Prefix and Suffix Codes

Prefix	FH	All markets, save USA & Sweden	Suffix	C	USA (California legislation)
	FK	USA (1300cc models)		U	USA (Federal legislation)
	FM	USA (1500cc models)		L	Left Hand Drive
	FL	Sweden only		O	Overdrive

Vehicle Identification Numbers (VIN)

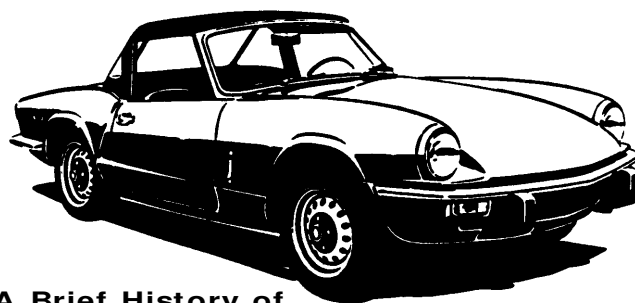
VIN numbers replaced commission numbers in October 1979, commencing at VIN000001 with an 8 digit prefix.

TFADW1AT= manual, RHD

TFADW2AT= manual, LHD, Europe

TFADW5AT= manual, overdrive, RHD

TFADW6AT= manual, overdrive, LHD, Europe



A Brief History of the Triumph Spitfire Development

1951. Standard Eight introduced incorporating newly developed 803cc 'SC' (small car) engine.

1957. Triumph Herald (code name Zobo) begins to develop under the guidance of Alick Dick, Harry Webster (chief designer) and Martin Tustin (General Manager). Original design concept incorporated a monocoque body shell. Eventually the realities of financial constraint led them to use a chassis and separate body shell. This chassis was to be the 'jig' foundation for a whole range of vehicles. Body designed by Giovanni Michelotti. Went on sale April 1959.

1960-1962 saw the development of 'Bomb' a new sports car utilising the SC engine unit (1147cc) and Herald chassis. 'Bomb' became known as the Spitfire 4, with the body again designed by Michelotti. The car utilised much of the Herald running gear including engine, gearbox, suspension - the prototype even incorporated the same instrument gear and, the car almost went into production without a rev counter! High compression engine (9-0:1), twin SU carburettors and a high lift cam provided 63 bhp. Rear suspension consisted of a transverse mounted fixed leaf spring, radius arms & telescopic shock absorbers. Disc brakes fitted at the front. The steering gave the car a smaller turning circle than a London Taxi. Overdrive was optional. The Spitfire 4 was launched at the Earls Court Motor Show in 1962.

Spitfire chassis. Cut & shut Herald chassis but without the outriggers to support centre of car. The sills supplied strength and were (and still are) vital to the structure and safety of the vehicle.

Early production of the body shell at the Forward Radiator Works, Bordesley Green, Birmingham used low quality tooling, which was uprated once the Spitfire 4 became a success. Hardtop introduced as an option in late 1963.

1963. Spitfire GT project begins to develop using fastback hardtop and 1598cc Vitesse engine. The Vitesse engine was developed from the 1959 Vanguard 6 unit; this was essentially a 'small car' four cylinder unit with two extra cylinders tacked on.

December 1964. Spitfire 4 Mk II introduced. Engine power increased during production of Mk II to 67 bhp. Trim revised.

October 1966. GT6 (formerly the Spitfire GT), revealed with fixed fastback body shell and 1998cc engine.

January 1967. Spitfire Mk III introduced with long stroke 1296cc engine of 75 bhp. The '4' tag became redundant. First of the Spitfire range to incorporate negative earth electrical systems. Trim revised, external changes consisted of raised bumpers to conform with new regulations. Reverse lights installed. Fold down hood replaced detachable type.

July 1968. GT6 Mk II begins production introducing revised and much improved rear suspension. October 1970. GT6 Mk III released which incorporated radically restyled front and rear end by Michelotti to fit in with the current Triumph range.

Spitfire Mk IV November 1970 to December 1972 (USA) and to December 1974 (all markets). The Michelotti restyled front and rear ends matched the lines of the new GT6 Mk III. New angular hardtop designed at Coventry. Rear suspension uprated by replacing the solidly fixed rear spring with a pivoted unit. The 'swing spring' stopped much of the interesting cornering problems of the earlier models. All synchromesh gearbox fitted, and final drive ratio changed from 4.11:1 to 3.89:1 (3.37 in overdrive). Power output restricted by USA environmental regulations to 63 bhp. Interior modified and became similar in appearance to the GT6 Mk III. Dashboard modified so instruments were in front of driver rather than in centre of the dash panel, as found on all previous models.

July 1973. USA models received 1500cc engine, due to lost sales caused by bhp reduction. In the same year all models had rear suspension track increased by 2". 'D' type overdrive replaced in August by 'J' type.

GT6 Mk III ceases production in December 1973.

Spitfire 1500 introduced January 1973 (USA) and December 1974 (everywhere else). Bigger 71 bhp, 1493cc engine. New single rail gearbox from Marina with the same specified ratios as the Mk IV. (The Marina gearbox was itself a development from the Vitesse/GT6 unit, but with a new single-rail selector mechanism.) Final drive 3.63:1. Minor styling changes.

1977 saw new seats, trim and TR7 style switch gear

The last Spitfire rolled off the production line in August 1980.

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These pages list only the major items in each area, such as body work, electrical and brake components. In many cases minor fittings, clamps and linkages etc., are not shown.

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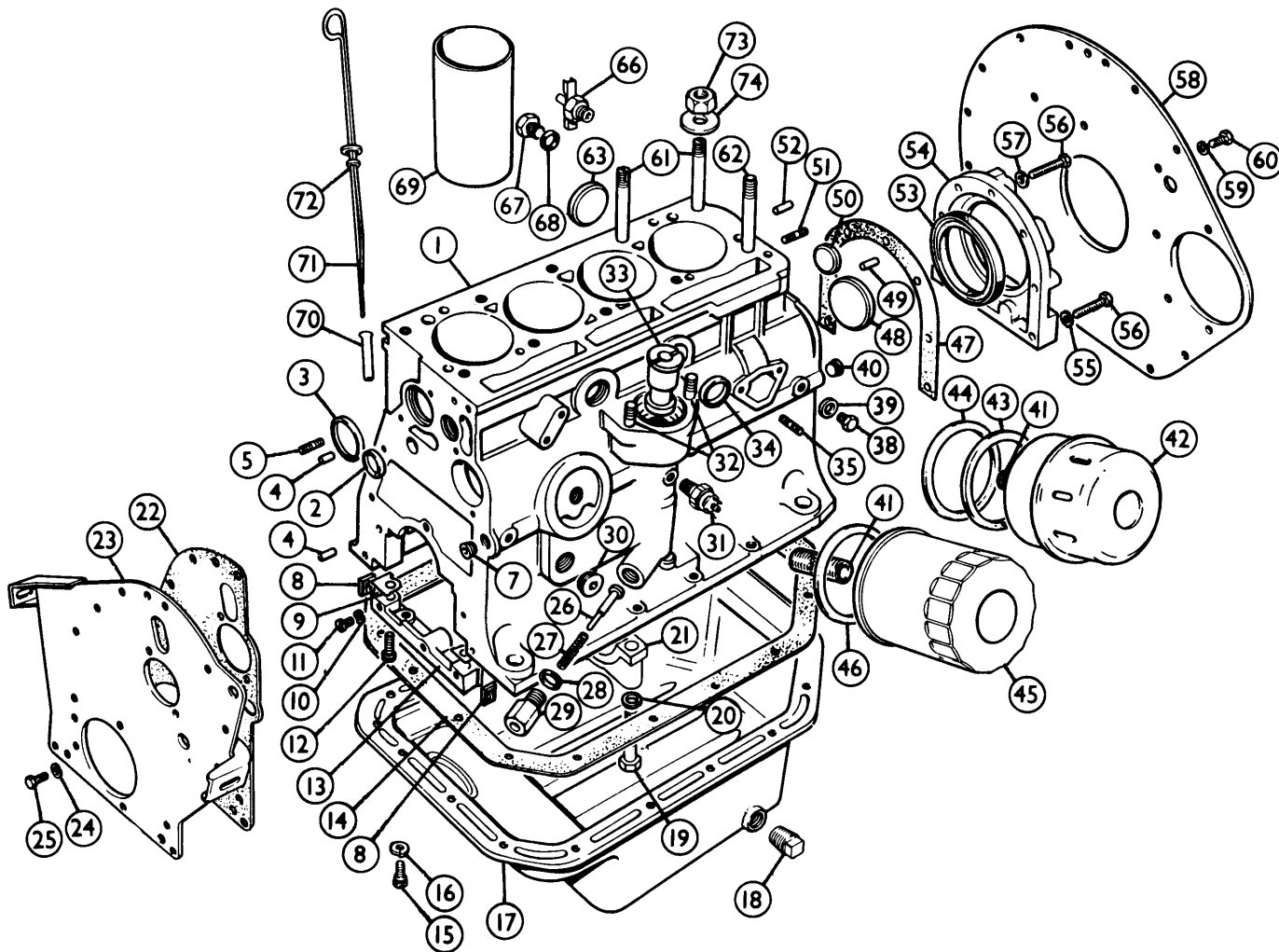
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Wiper Arms		128			
Wiper Blades		128			
Wiper Motor		128			
Wiper Parking Switch		128			
Wiper Rack Assembly		128			
Wire Wheel Spinners	Accessories				
Wire Wheel Tech Tips		105			
Wiring Connectors		127			
Wiring Looms		126			
Wishbone Arm, upper					



Ill. No	Part Number	Description	Qty. Req.	Details
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External Engine

The Spitfire 1300 & 1500 Engines

Triumph reduced the power of the 1296cc Mk III Spitfire unit from 75 bhp to 63 bhp with the introduction of the Mk IV Spitfire in November 1970. The problem was that US legislation had commenced its power erosion process which was to bottom out on Californian versions of the Mk IV at 48 bhp, in the quest for pollution reduction.

Luckily, the solution was at hand; the cylinder block was modified and fitted with a longer throw crankshaft which increased the capacity to 1493 cc. Thus the Spitfire reached the end of its engine development when the 1500 was introduced in December 1974. At the same time, the final drive ratio was changed from 3.89 to 3.63:1 to take full advantage of the extra torque now available, though the power only rose to 71 bhp. The 1500 took its final bow in August 1980 in this form. UK and European versions had remained largely unaffected by Federal anti-pollution laws.

British and European factory supported competition cars used only the 1147 cc unit (competing in the up to 1200cc production sports class) and the Competition department closed down in 1966. Despite this however, North American Spitfires achieved amazing successes with 1147, 1296 and 1493 variations right up to 1980.

Cylinder Blocks - use of correct head gasket

A cylinder block can be identified by the inclusion or absence of counter bore recesses cut into its top face around each cylinder bore. Blocks without these counter bores are pre engine number FH25000 and must use the gasket set AJM1149. Cylinder blocks with the counter bore recesses will be engine number FH25001 onwards for 1300 cars and FM28001 onwards for the 1500 version. Failure to observe these differences and the subsequent use of the incorrect gasket set will result in the head gasket not sealing.

Gasket Sets

We supply two types of gasket sets for the Spitfire engine. The Conversion (bottom end) set is suitable for both the 1300 & 1500 models and includes all gaskets necessary to re-build the engine below the cylinder head gasket. The head gasket set comes in three forms depending on engine no. (as mentioned in the preceding paragraph) and contains the gaskets required to service the cylinder head. The two major crank oil seals are not included in any of the gasket sets and should be purchased separately.

Ill. No	Part Number	Description	Qty. Req.	Details
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NI	AJM279	CONVERSION SET	1	
NI	AJM1149	HEAD GASKET SET	1	1300 to (e) FH25000E
NI	AJM1209	HEAD GASKET SET	1	1300 from (e) FH25001E
NI	AJM1195	HEAD GASKET SET	1	1500 from (e) FM28001E
NI	GAC7201X	CORE PLUG SET	1	inc. items 2, 3, 34, 48, 50, 63
NI	600569A	JOINTING COMPOUND, 'Wellseal'	a/r	100ml tube

Short Engines (Reconditioned)

Our short engines are rebuilt by a major engine re-conditioner.

Note: All work is carried out to customers own unit. Price quoted excludes external ancillaries.

Please contact your local Moss branch for full details.

Comprising reground crankshaft and camshaft, re-bored cylinder block, new bearings, oil pump, timing chain, seals and gaskets. The unit is fully assembled up to the head face.

ENG1350	SHORT ENGINE (1300), recon/exchange	1	
ENG1450	SHORT ENGINE (1500), recon/exchange	1	
ENG1451	SHORT ENGINE (1580), recon/exchange	1	Bored out to 1580cc

'Lead Free' 1500 Full Engines (Reconditioned)

Our 'Lead Free' 1500cc Full Engines are rebuilt by a major engine re-conditioner.

Note: All work is carried out to customers own unit. Price quoted excludes external ancillaries.

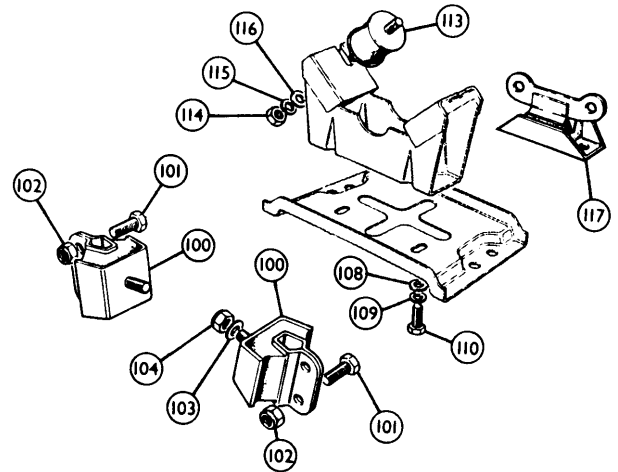
Please contact your local Moss branch for full details.

See also Accessories for 'Performance & Tuning' Components.

GSE2459E	FULL ENGINE (1500), recon/exchange	1	Standard
GSE2459BFC	FULL ENGINE (1500), recon/exchange	1	Standard, Balanced unit (clutch & flywheel balanced)
GSE2459ST2	FULL ENGINE (1500), recon/exchange	1	Stage 2, Balanced unit (clutch & flywheel balanced)

1	520245	CYLINDER BLOCK, bare	1
2	144687	CORE PLUG	1
3	144688	CORE PLUG	1

Ill. No	Part Number	Description	Qty. Req.	Details
4	DP514	DOWEL	2	
5	TE605105	STUD	1	
7	118632	PLUG, oil gallery	1	
8	036234	FILLER PIECE, wood	2	included in conversion set
9	UKC8321	GASKET, front sealing block	2	
10	GHF332	WASHER, locking	2	
11	SE605061	SCREW, pan head	2	
12	GHF103	SCREW, hexagon head	2	
13	151134	FRONT SEALING BLOCK	1	
14	AJM517	GASKET, sump	1	
15	SH605051	SCREW, short	12	
	SH605061	SCREW, long, rear of sump	4	
16	GHF332	WASHER, locking	16	
17	213863	SUMP	1	
18	114774	DRAIN PLUG, tapered	1	alternatives
	155660	DRAIN PLUG, magnetic	1	
19	BH607241	BOLT, main bearing cap	6	
20	GHF334	WASHER, locking	6	
21		MAIN BEARING CAP	3	
<i>(main bearing cap is part of cylinder block assembly, not available separately)</i>				
22	215350	GASKET, front engine plate	1	
23	215372	FRONT ENGINE PLATE	1	
24	GHF332	WASHER, locking	3	
25	SH605061	SCREW	3	
26	132107	PISTON, oil pressure relief valve	1	
27	131535	SPRING	1	
28	6K433	WASHER, copper, housing	1	
29	107246	HOUSING, oil pressure relief valve	1	
30	116516	PLUG, screwed	1	
31	GPS117	SWITCH, oil pressure warning light	1	
32	TE605105	STUD	2	
33	131786B	SHAFT BUSH, oil pump drive	1	
34	144686	CORE PLUG	2	
35	101962	STUD, fuel pump mounting	2	see also page 94
38	101022	SCREWED PLUG, oil gallery	4	
39	500469	WASHER, copper	4	
40	118632	PLUG, screwed, oil gallery	1	
41	12G2518**	ADAPTOR, oil filter to block	1	
42	156581**	OIL FILTER,	1	Purolator or AC Delco type
43	157414	SEAL, use with Purolator filter	1	
44	132098	O RING, use with AC Delco filter	1	
45	GFE150**	OIL FILTER	1	
46	157409	SEAL RING, use with GFE150	1	
<i>**GFE150 fits all 1300/1500 blocks, but you will need adaptor 12G2518 if this part is missing. The seal is included with the filter.</i>				
Ni	GFE24	OIL FILTER (Micron Filter)	1	High performance
47	105321	GASKET, seal housing to block	1	
48	148353	CORE PLUG	1	
49	DP619	DOWEL	1	cut to length
50	144686	CORE PLUG	1	
51	FHS2513	STUD	3	
52	DP619	DOWEL	1	cut to length
53	143456	OIL SEAL	1	
54	156530	HOUSING, oil seal	1	
55	GHF332	WASHER, locking	6	
56	SH605091	SCREW	7	
57	500469	WASHER, copper	1	
58	201344	REAR ENGINE PLATE	1	
59	GHF332	WASHER, locking	7	
60	SH605061	SCREW	7	
61	121217	STUD (cylinder head)	2	4 3/8" overall length
62	105121	STUD (cylinder head)	8	4 1/4" overall length
63	144688	CORE PLUG	3	
66	602915A	DRAIN TAP	1	alternatives
67	129077	DRAIN PLUG	1	
68	GHF346	WASHER, fibre (when plug fitted)	1	
69	158941	CYLINDER LINER	4	
<i>Cylinder liners were not installed in all engines, specialist knowledge required.</i>				
70	121831	DIPSTICK TUBE	1	
71	134933	DIPSTICK	1	
72	032307	WASHER, felt	1	
73	110748	NUT, cylinder head	10	
	51K1193B	NUT, cylinder head	10	heavy duty, item 74 not reqd
74	GHF302	WASHER, plain	10	



Ill. No	Part Number	Description	Qty. Req.	Details
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Engine Mountings

The following procedure is suggested when removing the engine:

On the side of the engine bay with the steering column in it, undo the mounting from the engine (leaving the mounting and bracket on the car body). On the other side, undo the bracket from the body, (leaving the mounting and bracket on the engine). The result will be;

A) You only undo the bits you can see and get at (have a look and you will understand).

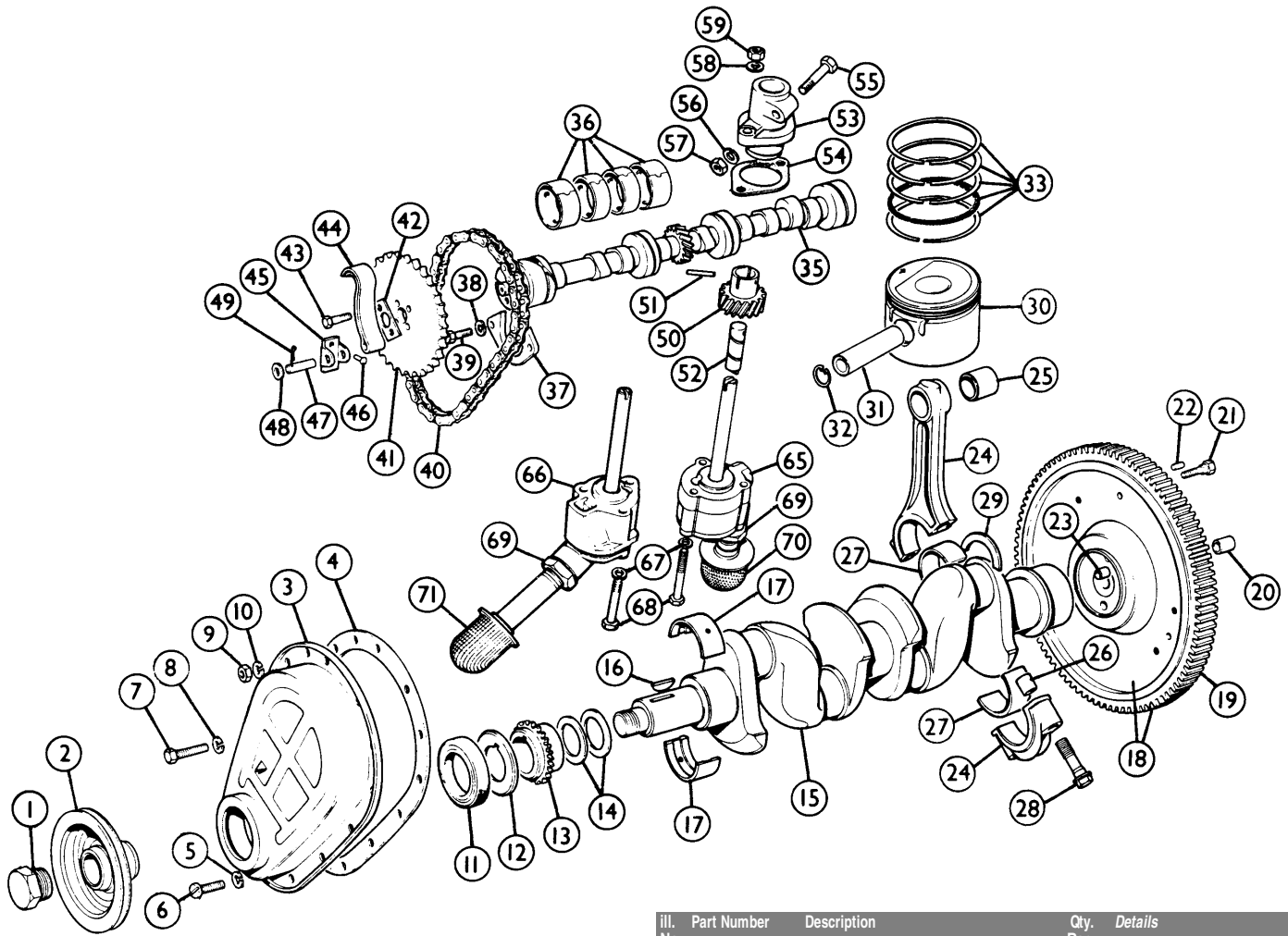
B) Upon re-assembly, you don't tear the thread off the studs on the mountings as you try to jam the engine down into the 'V' cradle formed by the brackets.

Engine Mountings

100	UKC5334	FRONT ENGINE MOUNTING	2	
101	SH606091	SCREW	4	
102	GHF223	NUT, nyloc	4	
103	GHF302	WASHER, plain	2	
104	GHF223	NUT, nyloc	2	
108	GHF301	WASHER, plain	2	
109	GHF332	WASHER, locking	2	
110	SH605051	SCREW	2	
113	CHA615	MOUNTING	2	non-overdrive
114	GHF201	NUT	2	
115	GHF332	WASHER, locking	2	
116	GHF301	WASHER, plain	2	

117	159656	BRACKET & MOUNTING	1	J type overdrive, requires modification to fit D type overdrive
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For Gearbox Mountings see page 80 for 1300 3-Rail, and page 84 for 1500 Single Rail.

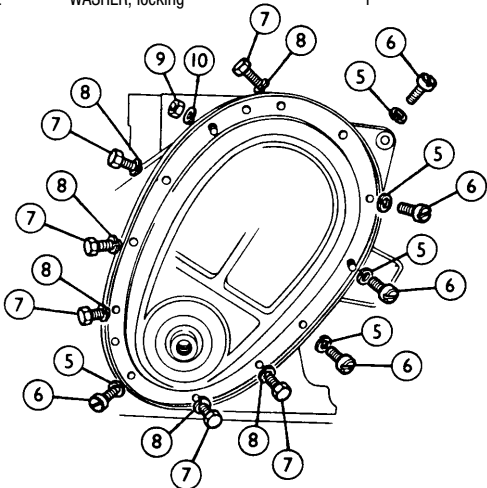


iii. Part Number No	Description	Qty. Req.	Details
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Internal Engine

See also 'Performance & Tuning' in Accessories.

1	155357	NUT, machined, pulley retaining	1
2	217789	PULLEY	1
3	207492	TIMING COVER (illustrated)	1
	217790	TIMING COVER	1
NI	MBK113	SCREW KIT (Timing cover)	1
4	211126	GASKET, timing cover	1
5	GHF332	WASHER, locking	5
6	SE605031	SCREW, pan head	5
7	SH605071	SCREW, hex head	6
8	GHF332	WASHER, locking	6
9	GHF201	NUT	1
10	GHF332	WASHER, locking	1



11	UKC1110	SEAL, timing cover	1	
12	119390	OIL THROWER	1	
13	119389	TIMING GEAR, crankshaft	1	
14	145275	SHIM, crankshaft, 0.004"	a/r	
	145276	SHIM, crankshaft, 0.006"	a/r	
15	308737E	CRANKSHAFT, 1300 engine	1	} includes items 17 & 27
	RKC918E	CRANKSHAFT, 1500 engine	1	
16	105115	WOODRUFF KEY	1	
17	RTC1753	MAIN BEARING SET, standard size	a/r	
	RTC1753/10	MAIN BEARING SET, 0.010" oversize	a/r	
	RTC1753/20	MAIN BEARING SET, 0.020" oversize	a/r	
	RTC1753/30	MAIN BEARING SET, 0.030" oversize	a/r	
	RTC1753/40	MAIN BEARING SET, 0.040" oversize	a/r	
* When the crankshaft has been reground (undersize), an oversize bearing set will be required to suit. Be sure to check this BEFORE ordering bearings. Bearing sets that have been opened and used to "check" the crank size will not be acceptable for exchange as this process invariably damages the precision finished soft face of the bearing. This also applies to big end (con rod) bearings.				
18	141675	FLYWHEEL (standard), 1300 (6 1/2" clutch)	1	} includes ring gear
	TKC1840E	FLYWHEEL (standard), 1500 (7" clutch)	1	
These flywheels are NOT interchangeable.				
	TKC1840X	FLYWHEEL (Lightweight/Steel)	1	(1500 7" clutch)
See pages 20 & 38 in 'Performance & Tuning' for details.				
19	201350	RING GEAR	1	
20	105143	SPIGOT BUSH	1	
21	138526	BOLT, flywheel, 3/8" UNF	4	1300
	UKC4254	BOLT, flywheel, 7/16" UNF	4	1500
22	DP408	DOWEL,	3	in flywheel
23	DP619	DOWEL,	1	in crankshaft
24	146454R	CON ROD, standard/reconditioned	4	
	146454X	CON ROD (Steel Billet type)	4	High performance rods
25	119813	BUSH, gudgeon pin	4	
26	107401	LOCATING TUBE, in con rod	8	
Note: Second hand bolts are supplied with reconditioned con rods, these MUST be replaced by new bolts when assembling engine.				

Ill. No	Part Number	Description	Qty. Req.	Details
27	RTC1754*	CON ROD BRG SET, standard	1	
	RTC1754/10*	CON ROD BRG SET, 0.010" o/size	1	
	RTC1754/20*	CON ROD BRG SET, 0.020" o/size	1	
	RTC1754/30*	CON ROD BRG SET, 0.030" o/size	1	
	RTC1754/40*	CON ROD BRG SET, 0.040" o/size	1	
	RTC1754/60*	CON ROD BRG SET, 0.040" o/size	1	
*See information notes for item 17 relating to bearing sets.				
28	UKC2598	BOLT, connecting rod	8	
Note: Always fit new connecting rod bolts- they are a 'stretch bolt' design & the manufacturers recommend they are only used once.				
29	BHM1366	THRUST WASHER, pair	a/r	standard size
	BHM1366/2	THRUST WASHER, pair	a/r	0.002" oversize
	BHM1366/5	THRUST WASHER, pair	a/r	0.005" oversize
	BHM1366/15	THRUST WASHER, pair	a/r	0.015" oversize
	BHM1366/25	THRUST WASHER, pair	a/r	0.025" oversize
	BHM1366/30	THRUST WASHER, pair	a/r	0.030" oversize
30	155907	PISTON SET, standard	1	1300
	155907/20	PISTON SET, 0.020"	1	
	155907/30	PISTON SET, 0.030"	1	
	155907/40	PISTON SET, 0.040"	1	
	155907/60	PISTON SET, 0.060"	1	
Hepolite pistons are supplied in matched sets and include rings, gudgeon pins & circlips. (Single replacement pistons may also be available, please enquire)				
	155169STD	PISTON SET, standard	1	1500
	155169020	PISTON SET, 0.020"	1	
	155169030	PISTON SET, 0.030"	1	
	155169040	PISTON SET, 0.040"	1	
	155169060	PISTON SET, 0.060"	1	
Hepolite pistons are supplied in matched sets and include rings, gudgeon pins & circlips. (Single replacement pistons may also be available, please enquire)				
Note: It is always advisable to replace pistons in sets, though not compulsory. If the block is to be re-bored it is essential to complete this process before ordering pistons as the bores may not 'clean up' at the next oversize. Where performance is significant however, use the largest size available because even a 0.040" bore oversize will produce a measurable power difference.				
31	146485	GUDGEON PIN	4	
32	508978	CIRCLIP	8	1300 & 1500
33	BHM1175STD	RING SET, standard size	1	engine set
	BHM1175/20	RING SET, 0.020" oversize	1	
	BHM1175/0	RING SET, 0.030" oversize	1	
	BHM1175/40	RING SET, 0.040" oversize	1	
	BHM1175/60	RING SET, 0.060" oversize	1	
35	212164E	CAMSHAFT, exchange (212164E uses bearings item no. 36)	1		1300 to FH25000E
	RKC3305	CAMSHAFT, new (bearings not required)	1	1300 (from FH25001)
	RKC3305E	CAMSHAFT, exchange (bearings not required)	1	& 1500
36	142647	BEARING, camshaft, front & rear	2	1300 to (e) FH25000E
	142648	BEARING, camshaft, intermediate	2	
	VPC978	BEARING SET, camshaft (Includes front, intermediate & rear bearings)	1	1300 to (e) FH25000E
37	105114	RETAINER, camshaft	1	
38	GHF332	WASHER, locking	2	
39	SH605071	SCREW, retainer securing	2	
40	105131	CHAIN, timing (Simplex)	1	
41	035960	GEAR, camshaft	1	
42	036411	LOCK TAB, camshaft	1	
43	100500	BOLT, gear to camshaft	2	
44	042425	TENSIONER, timing chain	1	
45	043752	ANCHOR PLATE, tensioner	1	
46	RR610040	RIVET	2	
47	033214	PIN, tensioner retaining	1	
48	WP18	WASHER, plain	2	
49	PS103121	SPLIT PIN	2	
50	104860	GEAR, driving	1	distributor & oil pump
51	500974	PIN, mills, gear to shaft	1	
52	104861	SHAFT	1	
53	121530	DISTRIBUTOR PEDESTAL	1	
54	104939	WASHER, joint, (0.006")	a/r	
55	HB816	BOLT	1	distributor to pedestal
56	GHF332	WASHER, locking	1	
57	GHF201	NUT	1	
58	GHF332	WASHER, locking	2	
59	GHF201	NUT	2	

Ill. No	Part Number	Description	Qty. Req.	Details
Oil Pump				
(Use pump GLP118 for more efficient oil pick up.)				
65	GLP145	OIL PUMP, vertical pick-up	1	1300, 1500 to (e) FM59898E
66	GLP118	OIL PUMP, angled pick-up	1		1500 (e) FM59899E (alternative)
67	GHF331	WASHER, locking	3	
68	BH604221	BOLT, pump to block	3	
69	155371	NUT, strainer to pump body	1	
70	TKC2006	STRAINER (fits GLP145)	1	
71		STRAINER (fits GLP118)	1	not available separately

Duplex (twin row) Timing Chain Modification for 1500cc engines

Timing chain stretch or tensioner breakage are not unknown on the 'simplex' (single row) chain and gear installation in the 1500 engine. The timing gear set can easily be modified when chain or tensioner renewal becomes necessary, to a more robust 'duplex' design. Duplex timing gear sets include a twin row chain, modified timing gears and wider spring tensioner.

A 1500 engine may be modified only by using all of the components listed here.

Actually, the components are sourced from the 1500 engine's very close (in component design & dimensions) bigger brother, the Triumph 'large car' model PE156 engine, as fitted in the Triumph TR5 Pi & TR6 Pi.

NI	145864	TIMING GEAR, crankshaft, duplex	1
NI	145865	TIMING GEAR, camshaft, duplex	1
NI	2H4286	CHAIN, timing, duplex	1
NI	145866	TENSIONER, timing chain, duplex	1
NI	036411	LOCK TAB, camshaft	1
NI	PS103121	SPLIT PIN	2
NI	211126	GASKET, timing cover	1
NI	UKC1110	SEAL, timing cover	1

The fitting method of duplex timing gears is as per the original installation. The factory workshop manual should be consulted where applicable to ensure the engine valve timing is correctly maintained.

Distributor Drive & Pedestal Clearance

When fitted, a running clearance or end float of 0.003" to 0.007" (0.005" +/- 0.002") is required between the distributor drive spindle and gear and the distributor pedestal housing.

Too much end float and the drive will chatter between the bush in the block and the pedestal housing lower running face. Too little clearance and it may bind and damage its driving gear on the cam shaft. Either of these conditions will result in rapid and excessive wear.

The clearance is adjusted by varying the quantity of gaskets fitted between the base of the pedestal housing and the cylinder block. The gasket, (part number 104939), has a nominal thickness of 0.006". However, the gasket thickness should be checked for each application.

To check the clearance when components have been replaced, the following procedure should be adopted.

1. Install the drive in the cylinder block bush with a washer of known thickness on the shaft between the base of the gear and the bush end face. The washer should be of 1/2" internal diameter to fit the shaft.

2. Fit the pedestal housing over the drive without any gaskets, using nuts to retain it. Measure with feeler gauges all the way round the gap between the pedestal housing and the cylinder block. The measurement should be noted.

3. Disassemble the pedestal housing and extract the drive with the known thickness spacer washer from the cylinder block.

4. Calculate the existing clearance without gaskets by subtracting the dimension of thickness of the spacer washer from the figure obtained with feeler gauges. This figure should be a negative amount. Find the correct quantity of gaskets required to obtain the running clearance of 0.003" to 0.007".

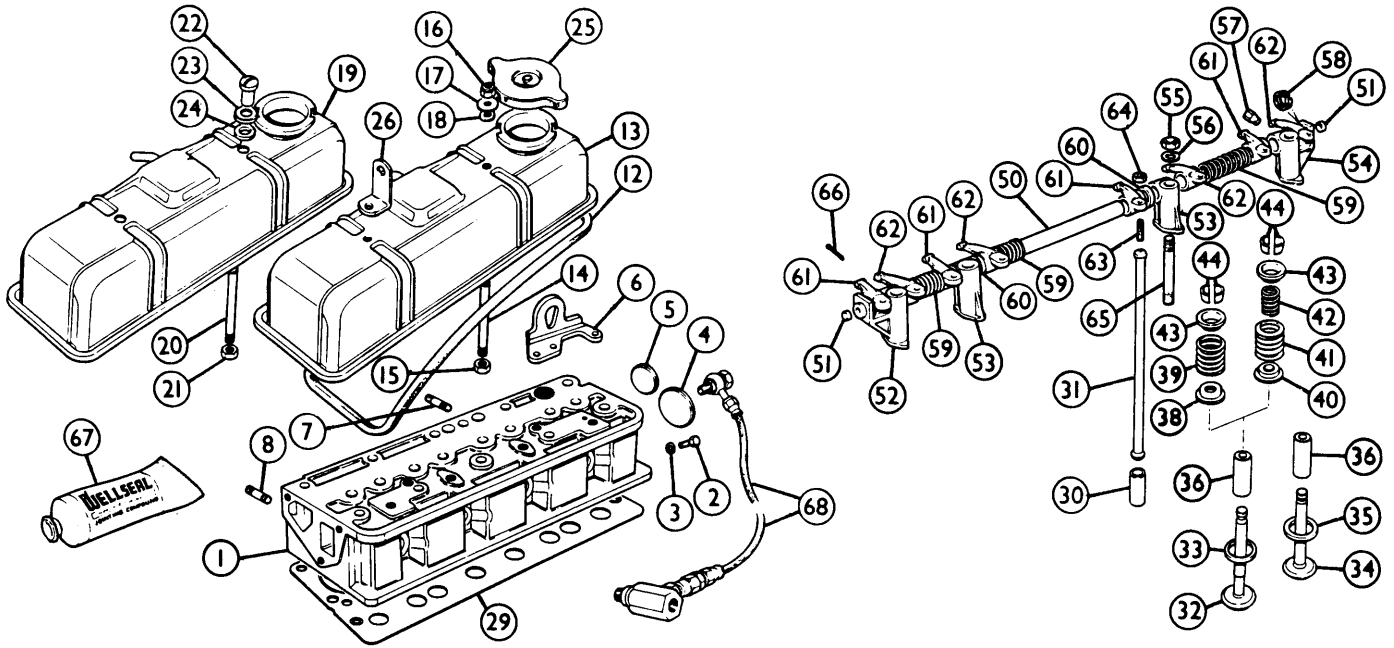
Example;

Washer thickness	= 0.125"
Gap measured with feelers	= 0.142"
Subtract gap dimension from washer thickness	= 0.017"
Add the thickness of gaskets	= 0.024"
Clearance obtained with 4 gaskets	= 0.007"

In the event of the difference between the gap and the known washer thickness being a positive amount in excess of 0.003", remedial action will be required to reduce it. This can be achieved by selective assembly using other drives or pedestal housings. If, even with new components, the correct figure can not be obtained, the bush height in the cylinder block must be adjusted. Remove, inspect for serviceable condition and refit the bush with a suitable thickness shim between its mating face and the cylinder block.

The bush should be either carefully driven out from below using a suitable spigoted drift, or pulled out from above with a bushing extractor. With the bush replaced securely, the above end float checking procedure should be adopted. The method of completing this job by fitting the distributor drive and setting its timing is detailed in the workshop manual.

74 | Cylinder Head



Ill. No	Part Number	Description	Qty. Req.	Details
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Cylinder Head

See also 'Performance & Tuning' in Accessories.

(Note; All old units must be suitable for re-conditioning)

1	516032R	CYLINDER HEAD, exchange	1	1300 to (e) FH25000E
	UKC1427R	CYLINDER HEAD, exchange	1	1300 from (e) FH25001E
	TKC1155	CYLINDER HEAD, bare/new	1	1500
	TKC1155R	CYLINDER HEAD, bare/exchange	1	
	TKC1155LFE	CYLINDER HEAD, Lead Free	1	
		Recon/exchange (with valves, guides & springs)		
	TKC1155XR	CYLINDER HEAD	1	
		Recon/exchange (with valves, guides & springs)		
2	SH605031	SCREW, rear of cylinder head	1	
3	500469	WASHER, copper, 5/16"	1	
4	144648	CORE PLUG	1	
5	144686	CORE PLUG	1	
6	142649	LIFTING EYE	1	
	UKC3653	LIFTING EYE	1	late 1500 alternative
7	105125	STUD, manifolds, long	6	
8	105124	STUD, manifolds, short	2	
12	AJM414	GASKET, rocker cover	1	
13	214814	ROCKER COVER	1	
14	105123	STUD, rocker cover	2	
15	GHF201	NUT, locking stud	2	
16	GHF272	NUT, nyloc, rocker cover	2	1300, 1500
17	GHF301	WASHER, plain	2	to FM80000E
18	WF508	WASHER, fibre	2	
19	TKC3702	ROCKER COVER	1	
20	ULC1578	STUD, rocker cover	2	
21	GHF201	NUT, locking stud	2	1500 from FH80001E
22	147737	RETAINER, rocker cover	2	
23	147738	COVER WASHER	2	
24	148090	WASHER, rubber	2	
25	143393	OIL FILLER CAP	1	1300
	138176	OIL FILLER CAP	1	alternatives
	GZC1400	OIL FILLER CAP	1	1500
26	149348	BRACKET, accelerator cable	1	1300 to
29	AJM374	GASKET, cylinder head	1	FH25000E
	AJM373	GASKET, cyl head, recessed	1	1300 from FH25001E, 1500
30	143552	TAPPET	8	
31	111874	PUSH ROD, short	8	1300 to FH25000E
	157508	PUSH ROD, long	8	1300 from FH25001E, 1500
32	144965	EXHAUST VALVE, standard	4	
	153886*	EXHAUST VALVE, stellite tipped	4	alternative
33	UKC2334	VALVE SEAT INSERT, exhaust	4	
	UKC2644*	VALVE SEAT INSERT, exhaust	4	

*These are designed for running with lead free fuel.

Ill. No	Part Number	Description	Qty. Req.	Details
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Note; These inserts may be used in repairing minor cracks in valve seats provided the crack is no deeper than the seat (0.25").

34	126893	INLET VALVE, 1 1/4"	4	1300 to FH25000E
	145328	INLET VALVE, 1 7/16"	4	1300 from FH25001E
	UKC2460	INLET VALVE, 1 3/8"	4	1500
35	130814	VALVE SEAT INSERT, inlet	4	use with 126893
	146488	VALVE SEAT INSERT, inlet	4	use with 145328
	UKC2645	VALVE SEAT INSERT, inlet	4	use with UKC2460

Note; 126893 was fitted to engine numbers FH25000 in 1972. From 1972 engine number FH25001, 145328 was fitted until the 1500 emerged, when a change was made to UKC2460.

That's the story, but in case the truth in your engine may be otherwise, it would be wise to check the valve head size.

36	058923	GUIDE, valve, standard	8	supplied individually
	TT1419	GUIDE, valve (Bronze)	1	supplied in engine set
38	105118	COLLAR	8	1300 to FH25000E
39	136487	VALVE SPRING, single	8	1300 from FH25001E and 1500
40	157510	SPRING SEAT	8	
41	157229	VALVE SPRING, twin, outer	8	
42	157476	VALVE SPRING, twin, inner	8	
43	111870	VALVE CAP, original	8	standard
	TT1216	VALVE CAP, lightweight	8	Alloy

TT1216 is a Moss replacement part & machined from aluminium. It is recommended that caps are replaced in sets.

44	106663	SPLIT COLLET	16	
50	144962	ROCKER SHAFT	1	
	144962K	ROCKER SHAFT ASSEMBLY	1	
51	137811	END PLUG	2	(for 144962)
52	144973	ROCKER PEDESTAL, front	1	
53	144974	ROCKER PEDESTAL, intermediate	2	
54	144975	ROCKER PEDESTAL, rear	1	
55	110748	NUT, rocker shaft	4	
56	WP184	WASHER, plain	4	
57	104859	SCREW	1	rocker shaft to pedestal
58	105322	SPRING	2	for pedestals 1 and 4
59	105120	SPRING, spacing rockers	3	
60	146914	WASHER, spacer	2	
61	109024	ROCKER, nos. 1, 3, 5, 7	4	
62	109023	ROCKER, nos. 2, 4, 6, 8	4	
63	057109	BALL PIN, rocker arm adjustment	8	1300 to FH25000E
	109495	BALL PIN, rocker arm adjustment	8	1300 from FH25001E & 1500
64	057110	NUT, jam, locking ball pin	8	
65	132495	STUD	4	rocker shaft to cylinder head
66	PC10	SPLIT PIN, front of rocker shaft	1	

Ill. No	Part Number	Description	Qty. Req.	Details
67	600569A	JOINTING COMPOUND (for use practically everywhere except the cylinder head gasket.)	a/r	'Wellseal' 100ml tube
68	TT1226	ROCKER OIL FEED KIT This bolt-on, easy-to-fit kit improves the oil supply to the most distant parts of the engine, so insuring against rocker & shaft wear.	1	

Curing Oil Consumption; (Plus easy Valve Spring Removal)

Excessive rocker shaft wear is a classic complaint about Triumph push rod engines, of which the Midget 1500 unit is one. The rocker feed kit is an effective (and easy to fit) solution to the problem. It works by piping oil directly from a plug hole in the cylinder block main oil gallery up to the cylinder head, thereby maintaining a higher pressure oil supply than standard. No drilling or tapping is required for installation.

If a rocker feed kit is fitted to the engine, an increase in oil consumption may be encountered. The extra amount of lubricating oil flowing through the valve & rocker chamber, as supplied by the feed kit, exaggerates any tendency for oil to be sucked down worn valve guides past worn valve stems.

The best solution is to fit new valves & guides, but this is not always on the top of the repair priority list. To assist in the reduction of oil being sucked down the guides a method of sealing the valve stems is required. The simple rubber rings that are used so successfully on some MG sports cars engines - part number AEK113 (8 are required, one per valve stem), will service an engine. Each seal fits on the valve stem above the valve guide but below the valve spring retaining cap.

Now the clever bit ... how to fit them without removing the cylinder head from the car. Remove the rocker cover, rocker gear and the spark plugs. Cover the holes that the push rods come up through so nothing can be dropped down into the engine. Turn the crankshaft so that number one piston is at Bottom Dead Centre (BDC). Feed a length of clean, pliable rope down the spark plug hole of number one cylinder, leaving a bit hanging out so you can retrieve it. Now carefully turn the crankshaft clockwise by hand; resistance will be felt as the rising piston in number one cylinder compresses the rope against the two valves in that cylinder, holding them against their seats.

The collets and spring caps of the valves in that cylinder can now be removed without the fear of losing the valves down the bore. The valve stem oil seals can be fitted to the two valve stems (perhaps new valve springs as well, while everything is apart). Once the valve stem oil seals, valve spring caps and collets have been refitted to this first pair of valves satisfactorily, simply turn the crank anti-clockwise to BDC, withdraw the rope and repeat the process on the remaining three cylinders and three pairs of valves. Be honest, this tip saves the cost of a head gasket set!

To be sure that the rope has compressed sufficiently against the faces of the valves, attempt to push the valves by hand (as if being acted on by the rockers) before removing the spring caps or collets; this is the fail safe check.

This method can be adopted anywhere as it does not require the use of compressed air, special tools or luck.

1500cc Triumph 'PE94' Engine Colour Schemes

The 1500 engine was always black. The only component of the engine which differed from this rule was the rocker cover, which for anything other than North American markets was always silver (in America, a red rocker cover signified a car built to comply with Californian emissions regulations, whereas light blue indicated compliance with the marginally less severe general or 'Federal' regulations.

Ancillary items on the 1500 engine remained in the colour scheme or finish given to them by their respective manufacturers.

Oil leakage from the Rocker Cover

Do you suffer with a permanent puddle of oil in the recess around the mounting flange of your rocker cover? If so, it is either because you have spilt oil when topping up the engine, or the oil fairy has been around.

This malevolent character is the one that always drips oil onto an area that you have scrupulously cleaned previously. The truth is that the oil is leaking from an unseen joint on your engine (unless you do believe in bad fairies).

The items that create the oil puddle on the rocker cover are the oil filler cap and the sealing washers under the fasteners holding the rocker cover. A quick look at the rocker cover oil filler cap's seal will eliminate one possible cause. If it is in any way perished, torn or otherwise damaged, renew the cap and seal assembly (part no. GZC1400 for the chrome cap, or 138176 for the silver painted item). The seal is important on two counts: it should not leak oil, nor should any air be drawn into the engine past it. This is because the inlet manifold is connected directly to the engine breather on the rocker cover.

The nuts or screws that retain the rocker cover are not quite so easy to attend to, unless of course they are obviously loose or there are no sealing washers present. Over tightening the fasteners will end up distorting the top of the rocker cover rather than curing the leak. The area of rocker cover around the holes where the attachment studs pass should be inspected.

This area should be flat, so that a sealing washer can work effectively on it. If it is not flat, the rocker cover should be removed from the engine, and the area around the stud hole dressed flat with a hammer & block. (A suitable block or dolly to assist in the repair of an original, pressed steel rocker cover would be a length of flat ended one inch round bar held vertically in a vice.) The rocker cover can be placed over the bar with the stud hole concentric to the bar and dressed back to shape with a smooth faced hammer. If care is exercised when hammering, the painted finish of the rocker cover will not be damaged.

The latter repair scheme is only relevant to, as previously stated, original pressed steel rocker covers. If a replacement alloy rocker cover is distorted in this area by over tightening, the cover should be inspected for cracks and if none are present the sealing area could be re-machined. If not, a replacement should be sought.

Ill. No	Part Number	Description	Qty. Req.	Details
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Points to Remember about Oil Coolers

If an oil cooler has just been fitted to a car, check the oil level in the sump and top up as necessary.

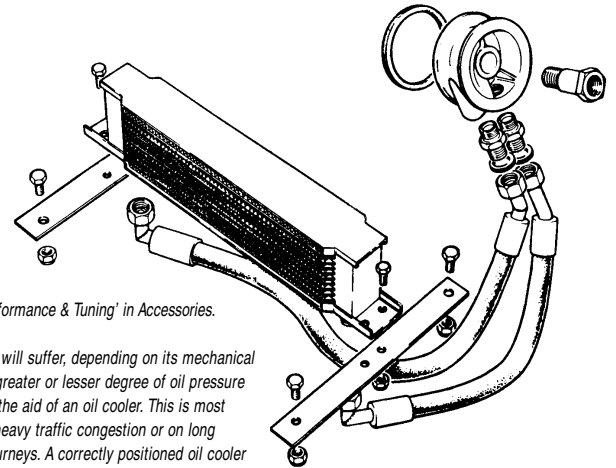
The oil cooler circuit increases the oil capacity of the engine by well over a pint. However, in future when draining the engine to change the oil, note that the old oil will remain in the cooler circuit unless both the radiator and hoses are removed from the car to upturn and empty them. Thus the quantity of oil required to effect an oil change on a car with an oil cooler will still be the same as that for a car without one.

To prevent over cooling of the oil in cold weather, tin foil can be used to temporarily cover the oil radiator, in the same age old manner that it has always been used by people to cover the water radiator.

If an oil thermostat is fitted to the car, there is of course no need to do this.

Remember when undoing a hose from the radiator to use two spanners; one to undo the tube nut on the hose, the other to put on the hexagon of the radiator union to stop it turning with the nut.

It's surprising how easily a union can be twisted out of the radiator, rendering the item scrap.



Oil Cooler

See also 'Performance & Tuning' in Accessories.

A hot engine will suffer, depending on its mechanical condition, a greater or lesser degree of oil pressure loss without the aid of an oil cooler. This is most apparent in heavy traffic congestion or on long motorway journeys. A correctly positioned oil cooler (you can't go wrong - the mounting holes are present in every front valance, whether you previously had an oil cooler fitted or not) maintains lower oil temperatures and thus higher oil viscosity, resulting in higher pressure. This all amounts to longer engine life and freedom from being transfixed by the needle of your oil pressure gauge.

As none of the original Triumph components are available we offer a comprehensive range of alternatives. See Accessories for our full range of oil coolers & fittings (including non-drain filters).

(Illustrated is a ten row oil cooler plus a TT1365 installation kit)

AR09807	OIL COOLER, 10 row	1	} alternatives
ARA221	OIL COOLER, 13 row	1	
TT1365	INSTALLATION KIT (inc. fittings)	1	rubber hoses
TT1367	INSTALLATION KIT (inc. fittings)	1	stainless steel hoses
TT1369	THERMOSTAT CONTROLLED INSTALLATION KIT (inc. fittings)	1	rubber hoses
TT1369S	THERMOSTAT CONTROLLED INSTALLATION KIT (inc. fittings)	1	stainless steel hoses

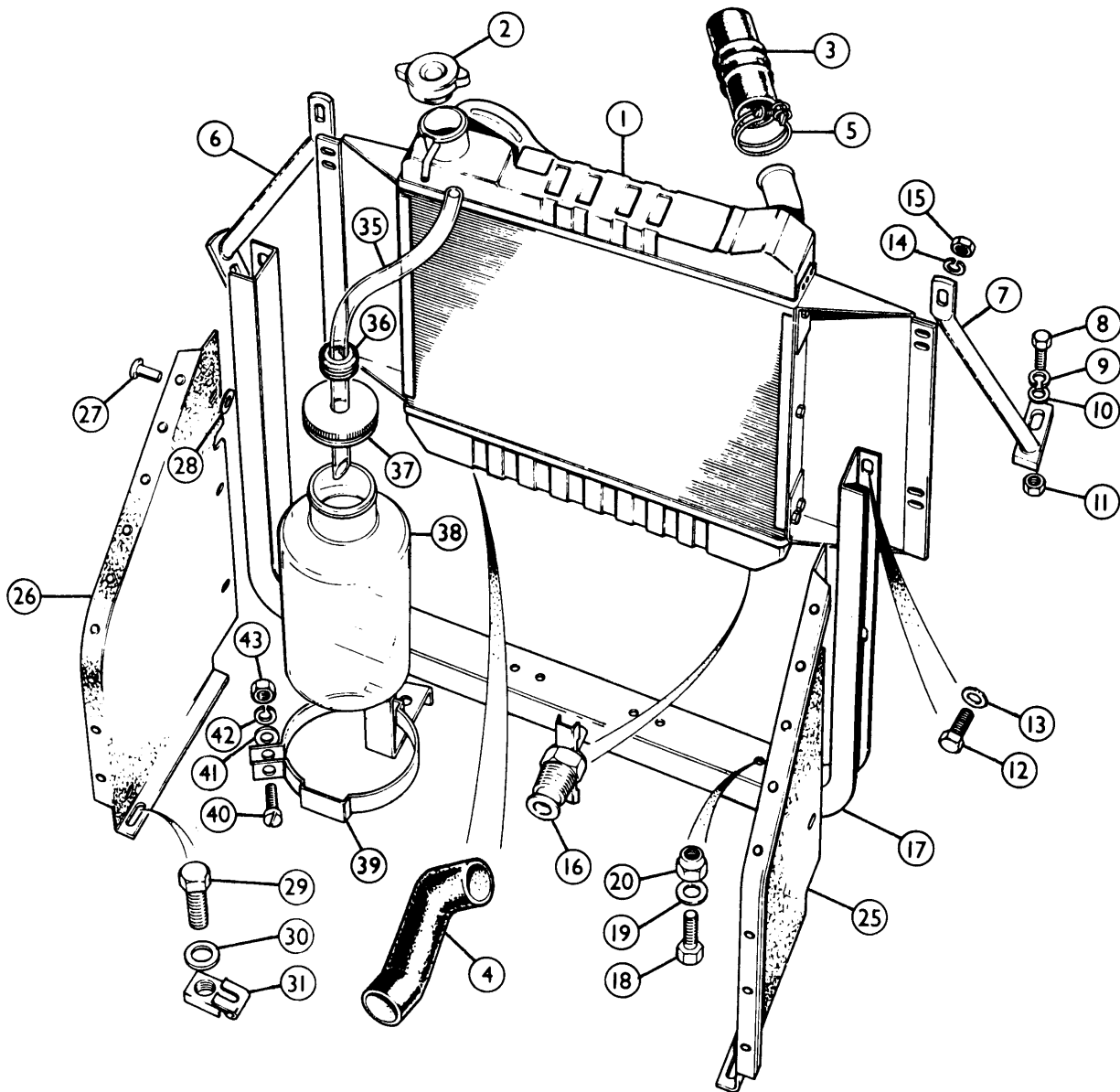
Kangaroo Petrol - or Worse ??

A worried Scandinavian owner rang his UK based parts specialist one day with the complaint that he could not drive his car slowly over the bumpy woodland roads typical of his country without it behaving 'like it was a kangaroo'. He had done everything to his car including fitting stronger front road springs and harder dampers in a vain attempt to relieve the problem.

It was eventually solved by the use of a pair of new carburettor throttle return springs to replace very tired old ones. Every time he had driven over a bump, his foot had pushed down on a very light throttle pedal.

He reacted by lifting his foot, the car slowed down and he instinctively pressed the accelerator down, whereupon the whole disconcerting process began again.

Increasing the pedal pressure of the accelerator by fitting new return springs was just enough, as the car's designers had intended, to damp out the see-saw effect and resolve the owner's 'kangaroo petrol' problem. Incidentally, tired engine mountings which allow the engine to rock sideways excessively under acceleration or braking will cause the throttle cable to tighten or slacken off, resulting in similar staccato progress down the road (although not so marked as that caused by a 'soft pedal').



Ill. No	Part Number	Description	Qty. Req.	Details
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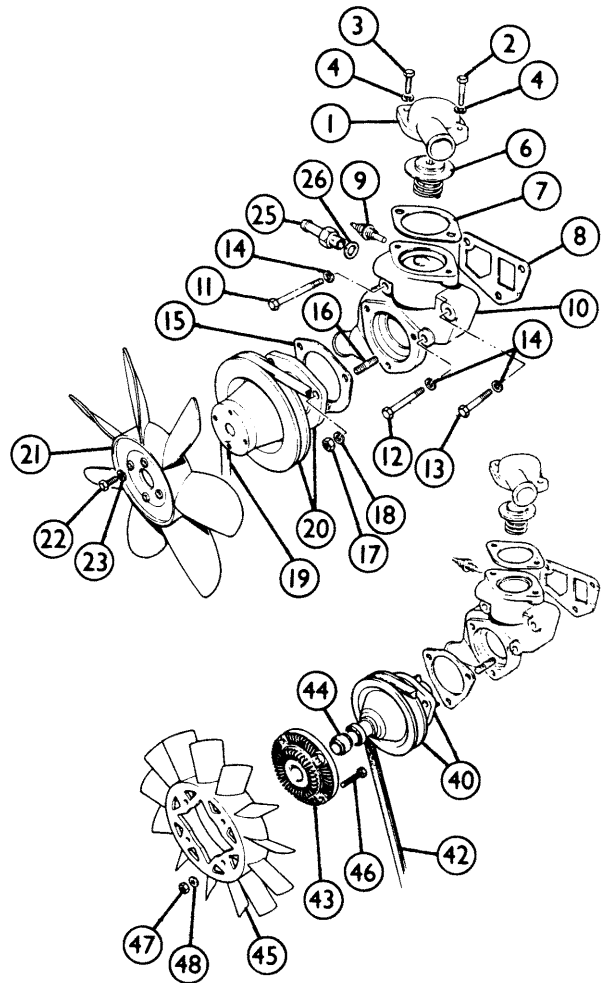
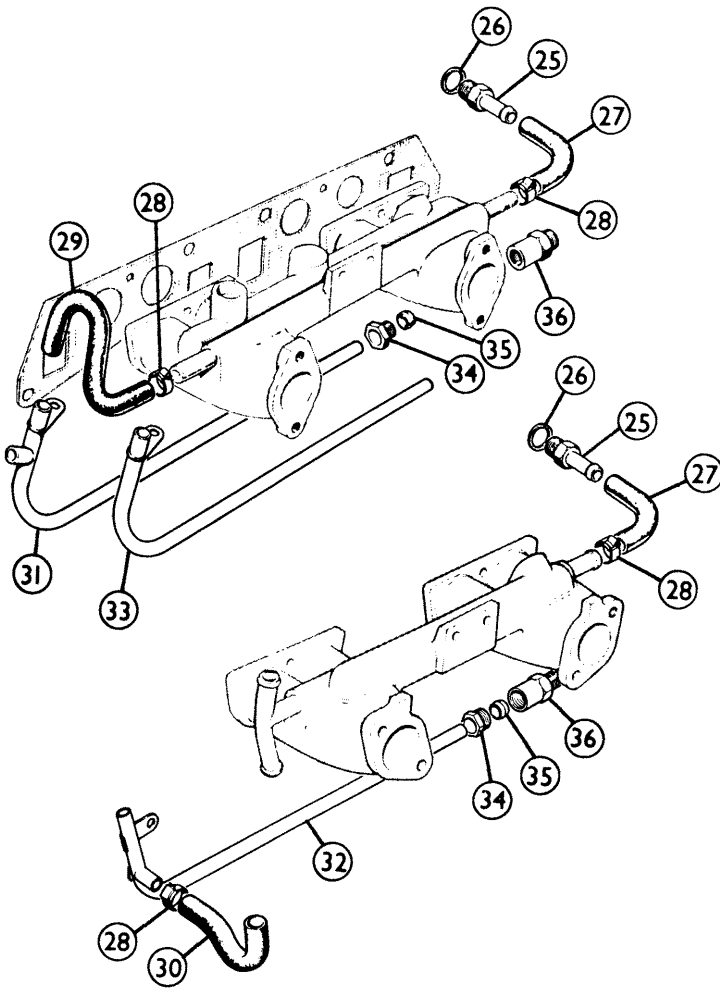
Radiator & Hoses

See also Accessories

1	402823	RADIATOR, new	1	Standard
	402823R	RADIATOR, exchange, recon	1	
	RKC2117	RADIATOR (Uprated/wider)	1		New
NI	GEC2001	ANTI-FREEZE (1 litre)	a/r	
NI	GEC1002	ANTI-FREEZE (2 litre)	a/r	
NI	GEC2005	ANTI-FREEZE (5 litre)	a/r	
2	GRC180	RADIATOR PRESSURE CAP	1	13lbs
3	GRH533	TOP HOSE	1	
4	GRH265	BOTTOM HOSE	1	1300
	GRH532	BOTTOM HOSE	1	1500
5	CS4025	CLAMP, wire type	4	
	GHC1217	CLAMP, band type	4	
6	209750	STAY ROD, RH	1	radiator
7	209749	STAY ROD, LH	1	to chassis
8	GHF105	SCREW	2	
9	GHF333	WASHER, locking,	2	stay rod
10	WM59	WASHER, plain, stay rod to body	2	to body
11	GHF202	NUT, stay rod to body	2	
12	GHF117	SCREW, rod to radiator	4	cradle
13	GHF300	WASHER, plain, cradle	4	& stay rod
14	GHF331	WASHER, locking	4	to radiator
15	GHF200	NUT	4	
16	132565	TAP, radiator drain	1	

Ill. No	Part Number	Description	Qty. Req.	Details
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17	TKC1761	CRADLE, radiator supporting	1	
18	SH605071	SCREW, cradle to chassis	2	
		(also holds the bracket for the overflow bottle to the chassis)		
19	WP17	WASHER, plain	2	
20	GHF222	NUT, nyloc	2	
25	706843	DEFLECTOR BOARD, LH	1	
26	706844	DEFLECTOR BOARD, RH	1	
		These ducts were originally attached with rivets backed up with a plain washer.		
		We list this original fixing system & also a nut, screw & washer system.		
27	562403	RIVET, deflector board to cradle	6	
28	WM54	WASHER, plain, on rivet	6	
	PT505	SCREW	6	alternative attachment method
	PWZ203	WASHER, plain	6	
	GHF220	NUT, nyloc	6	
29	GHF117	SCREW	4	air deflector to chassis
30	GHF300	WASHER, plain	4	
31	518454X	CAGED NUT	4	
35	137742	OVERFLOW TUBING	1	radiator to bottle
	GRH1001M	OVERFLOW TUBING	a/r	per metre
36	12H1060	GROMMET, tubing through lid	1	
37	137743	CAP, overflow bottle	1	
38	137632	OVERFLOW BOTTLE	1	
39	142804	BRACKET, overflow bottle	1	
40	PT507	SCREW, bottle bracket	1	
41	PWZ203	WASHER, plain	1	
42	WL700101	WASHER, locking	1	
43	HN2005	NUT	1	



Ill. No	Part Number	Description	Qty. Req.	Details
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Water Pump, Fan & Hoses

1	156333	ELBOW, water outlet to radiator	1	
2	BH605101	BOLT, elbow to housing	1	
3	GHF103	SCREW, elbow to housing	1	
4	GHF332	WASHER, locking	2	
6	GTS102	THERMOSTAT (hot climate)	1	74°C, 160°F
	GTS104	THERMOSTAT (standard)	1	82°C, 180°F
	GTS106	THERMOSTAT (cold climate)	1	88°C, 195°F
7	115467	GASKET, outlet elbow to housing	1	
8	138702	GASKET, housing to cylinder head	1	
9	GTR108	TEMPERATURE TRANSMITTER	1	
10	144297	HOUSING, w/pump & thermostat	1	
11	BH605221	BOLT, (2 3/4" long)	1	housing to cylinder head
12	BH605191	BOLT, (2 3/8" long)	1	
13	BH605181	BOLT, (2 1/4" long)	1	
14	GHF332	WASHER, locking	3	
15	138701	GASKET, water pump to housing	1	
16	100433	STUD, pump to housing	3	alternatives
	TE605105	STUD, pump to housing	3	
17	GHF201	NUT	3	
18	GHF332	WASHER, locking	3	
19	GCB11088	FAN BELT	1	
20	GWP128	WATER PUMP & PULLEY	1	1300, 1500 to (c)FH105733
21	309141	COOLING FAN, light green	1	alternatives
	311702	COOLING FAN, orange	1	
	RKC2126	COOLING FAN, natural	1	

Note: The natural colour fan is the only one currently in production. It can be used to replace the other two.

22	GHF117	SCREW, fan to water pump pulley	4	
23	GHF331	WASHER, locking	4	
25	138530	ADAPTOR, thermostat to hose	1	
26	AUC2141	WASHER, fibre, adaptor to housing	1	
27	154149	HOSE, water pump housing to inlet manifold	1	1300

Ill. No	Part Number	Description	Qty. Req.	Details
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(27)	GZA2052	HOSE, water pump housing to inlet manifold	1	1500
28	GHC406	CLAMP, hose securing	4	band type
29	152521	HOSE, inlet manifold to return pipe	1	1300 to FH59688E
30	154149	HOSE, inlet manifold to return pipe	1	1300 from FH59688E, 1500
31	212416	TUBE, water return (standard)	1	1300 to FH59688E
	212416SS	TUBE, water return (stainless steel)	1	
32	212935	TUBE, water return (standard)	1	1300 from FH59688E, 1500
	212935SS	TUBE, water return (stainless steel)	1	
33	209776	TUBE, water return	1	when heater not fitted
34	101302	TUBE NUT	1	
35	TL11	OLIVE, sealing tube	1	
36	101343	ADAPTOR	1	return tube to pump housing

1500 Models with Viscous Coupling Fan System

40	UKC774	WATER PUMP & PULLEY	1	1500 from FH105734
42	GCB11088	FAN BELT	1	
43	UKC3532	VISCOUS COUPLING	1	
44	UKC759	TOLERANCE RING	1	viscous coupling to pump pulley
45	RKC92	FAN ASSEMBLY, 13 blade	1	
46	GHF102	BOLT, fan to viscous coupling	4	
47	GHF200	NUT	4	
48	GHF300	WASHER, plain	4	

See Accessories for Money Saving Kenlowe Electric fans

(See next page for 'Cooling System Notes & Tips')

Anti Freeze: Winter Protection and Summer Coolant

Today's anti freezes are of a high quality chemical mix and no longer deteriorate within 6 months and ruin the cooling system of the engine. However, anti freeze should always be used as recommended by the manufacturer and any instructions given should be adhered to.

The hidden benefit of using anti freeze throughout the year is that not only does it protect the cooling system from freezing in cold weather, as the name suggests, but it also increases the boiling point of the water; this is ideal for the hotter conditions of summer driving. Most high grade anti freeze solutions also contain an inhibitor that will reduce or eliminate cooling system corrosion.

That will stop, for example, thermostat housings and other alloy components from disintegrating.

Triumph Cooling Fans - and the 'BOW' Test

In the 1960s Standard Triumph had a series of unexplained blade failures on plastic cooling fans. Their development department was confused by this, as the fans fitted were of a material and construction which made them capable of rotating a whole lot faster than the engines could before they failed.

The cause of blade breakage was traced to shock loading, caused by rain water thrown up from the test track or road when puddles were driven over at speed. Those ever resourceful Triumph chaps at Fletchamstead Highway would have to quickly find a method of viewing the phenomena of fan blade breakage, when the speeding car passed over a puddle. Enter the 'BOW' test.

This very expensive piece of test equipment duplicated the conditions of wet roads, providing visual proof of the occurrence. Armed with the results of the test, plastic technology and air duct design could be amended to completely alleviate the problem.

What was 'BOW'? Simply a 'Bucket Of Water' thrown at the rotating fan from different angles to study the effect.

Why is a Pressure Cap Used On a Radiator?

By sealing the cooling system, pressure up to a certain given value is built up and the boiling point of the water is raised. This enables a smaller quantity of water to be used and rather higher (and therefore more efficient) engine temperatures, without the risk of the water boiling. The system is sealed by the radiator cap. The cap consists of two halves, namely a pressure valve and vacuum valve. The pressure valve is a spring which holds the cap's large seal against the inside surface of the filler neck. It will allow pressure to build up to a given value (usually stamped into the top of the cap) and be maintained in the sealed system. The vacuum valve is a small 'poppet valve' that, as the radiator water cools & contracts admits air and restores pressure to atmospheric.

Throughout its life, the engine passes through countless temperature cycles that will cause pressure increases and decreases in the cooling system. The radiator cap is therefore working constantly.

So when you are seeking solutions to overheating problems ... you might just have a worn out radiator cap, not a blown head gasket and cracked block, as friends cheerfully suggested.

Fan Belt Tension

The question of how tight a fan belt should be is not as easy to answer as would first seem; certainly it should be tight enough to drive the engine ancillaries to which it is attached, but not so tight that the bearings of the ancillaries are overloaded. A fan belt that is fitted too tightly will also absorb extra engine power. Fitted too loosely, the belt will slip when the engine is accelerated or an electrical load is applied to the generating system. Slippage wears out the belt and the pulleys.

The handbooks and service manuals give instructions about belt tension. Maintenance of the belt and its periodic replacement will eradicate one of the most frustrating causes of breakdowns. If the fan belt is replaced before it breaks, the old item could be kept in the boot 'just in case'.

Cooling System 'Leak Stoppers'

The use of proprietary leak stoppers (whether of the fluid type or the stick of material which is designed to be crumbled, stock cube fashion, into the radiator) is often the focus of derision from the motoring enthusiast fraternity.

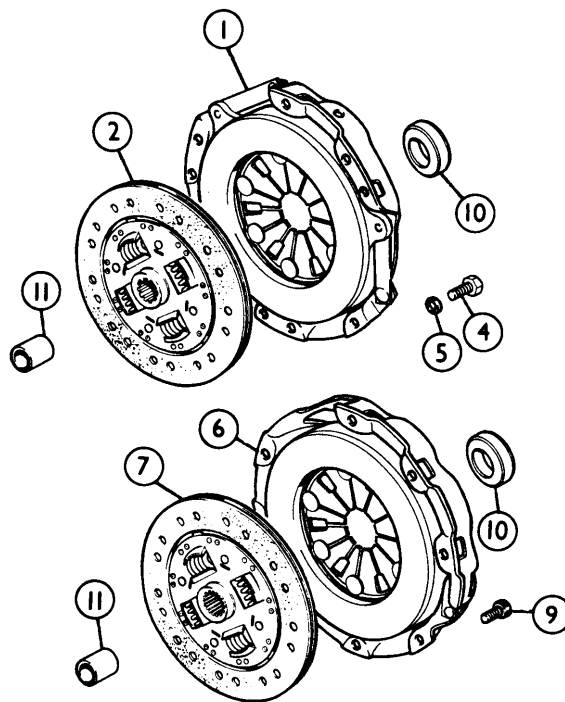
Blocked radiator cores and other maladies are said to result from using leak stopper to 'bodge' a repair on an errant cooling system. Well, read on.

There is a Leyland Cars publication, for internal use, called 'Parts List Schedules or Modifications - AD047 MG 1500'. In the section entitled 'Fuel, Oils & Grease' (you just wouldn't believe the variety of lubricants applied to each car when it was built) is the following statement;

"Bars Seal Leak Stopper (insert cylinder of Bars Seal in top radiator hose).

Routes: All. Modification Date: 27/05/76."

In other words, from that date onwards, every car that came down the line had a stick of leak stopper in it! Presumably this was to guarantee against small weeps from a newly assembled system. Continual use of the product to shore up an ailing cooling system might impede water flow (although in theory this shouldn't take place, since leak stopper will only cure in air - i.e. when it finds a leak out of the sealed system), but the product is acceptable when used in moderation.



iii. No	Part Number	Description	Qty. Req.	Details
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Clutch Drive Components

	GCK272	CLUTCH KIT, (inc. items 1, 2, 10)	1	1300
	GCK160	CLUTCH KIT, (inc. items 6, 7, 10)	1	1500
1	GCC197	CLUTCH COVER	1	1300 (10 spline)
2	GCP190	PLATE (6 1/2")	1	
4	SH605051	SCREW, clutch cover	6	1500
5	GHF332	WASHER, locking	6	
6	GCC196	CLUTCH COVER	1	1500 (20 spline) single rail gearbox
7	GCP230	CLUTCH PLATE (7 1/4")	1	

	GCP103	CLUTCH PLATE (7 1/4")	1	1500 (10 spline) three rail gearbox
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GCP103 is for use between a 1500 engine and three rail gearbox - a non standard combination in the UK & mainland Europe

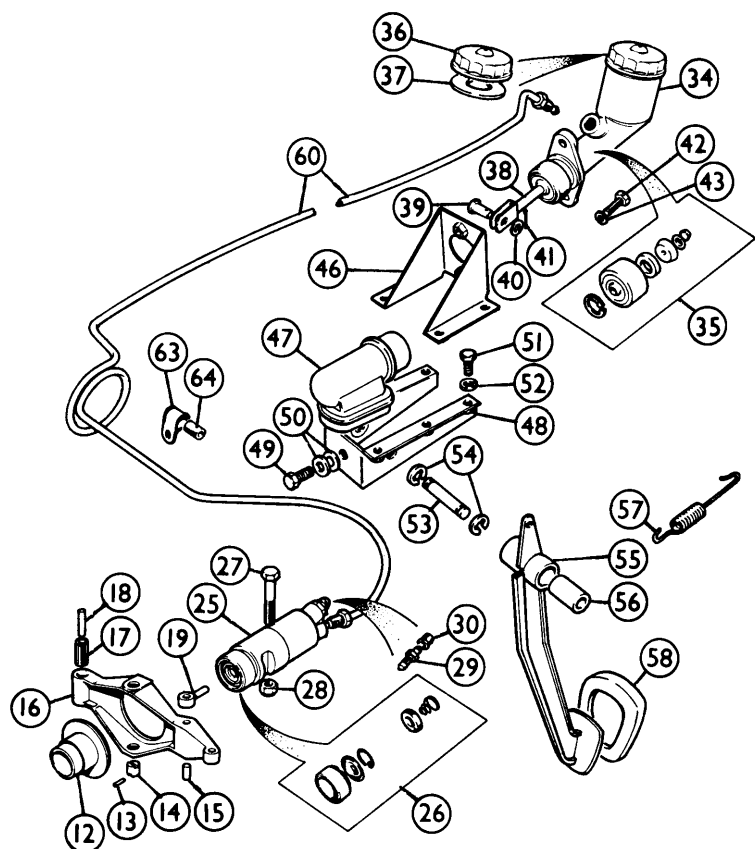
NI	GAC5053B	ALIGNMENT TOOL	1	20 Spline
NI	GAC5053A	ALIGNMENT TOOL	1	10 Spline
9	146176	ALLEN SCREW c/cover to flywheel	6	1500
10	GRB207	RELEASE BEARING	1	
11	105143	SPIGOT BUSH, crankshaft	1	
12	139563	SLEEVE, clutch release bearing	1	
13	DS916	ROLL PIN	1	
14	112509	THRUST PLUG	2	
15	112516	LEVER PIN	1	
16	207887	CLUTCH ARM	1	
17	129412	TOLERANCE RING	1	

The Moss R&D team combined forces with British Motor Heritage to reproduce the tolerance ring which had been unavailable for a long time. During those long dark days when Spitfire owners suffered a deep period of depression and a gnashing of teeth, we learned of many who used the tolerance ring in conjunction with a 5/16" bolt (BH605321), two washers (GHF302) and a nyloc nut (GHF222) to stop the worn tolerance ring from falling out. The alternative was to suffer the pin dropping straight out again during rebuilding, or waiting to drop out while the car was being tested.

Trouble was, tightening the nut up too tight led to the unfortunate 'bodger' splitting the bell housing (hence all that Araldite stuffed in the crack that you have just no doubt discovered).

The moral is clear, don't listen to ex-Spitfire owners who suggest using a nut and bolt to do a bodger job. At less than two quid a shot we expect all Spitfire owners to do the decent thing and liberate this bolt from their clutch and replace the worn tolerance ring with a new item.

18	129410	PIVOT, clutch shaft fork	1	
19	109182	PUSH ROD	1	



Ill. No	Part Number	Description	Qty. Req.	Details
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Clutch Hydraulics & Pedal

25	144716	CLUTCH SLAVE CYL, alloy	1	1300
26	515297	REPAIR KIT for alloy slave cyl	1	
25	GSY103	CLUTCH SLAVE CYL, iron	1	1500
26	GRK4019	REPAIR KIT for iron slave cyl	1	
27	BH605181	BOLT	1	
28	GHF222	NUT, nyloc	1	
29	556508A	NIPPLE, bleed	2	
30	234957A	CAP, bleed nipple	2	
34	GMC205	MASTER CYLINDER, clutch	1	5/8" bore
35	GRK1029	REPAIR KIT, master cylinder	1	
36	500201A	CAP, master cylinder	1	
37	106095	SEAL, rubber	1	
38	122296	PUSH ROD	1	
39	PJ8808	CLEVIS PIN	1	
40	GHF301	WASHER, plain	1	
41	GHF502	SPLIT PIN	1	
42	SH605071	SCREW, cylinder to bracket	2	
43	GHF332	WASHER, locking	2	
46	119583	BRACKET, master cylinder	1	
47	125217	GAITER	1	
48	137842	BRACKET, mounting pedal	1	
49	GHF117	SCREW, pedal adjustment	2	
50	WM57	WASHER, plain	2	
51	GHF117	SCREW	6	
52	GHF331	WASHER, locking	8	
53	119575	SHAFT, pedal	1	
54	506542	CIRCLIP, external	2	
55	TKC4155	CLUTCH PEDAL	1	includes bush
56	105605	BUSH	1	
57	114438	SPRING, return	1	
58	150881	PEDAL RUBBER	1	
60	305937	PIPE, clutch hydraulic	1	RHD
	305936	PIPE, clutch hydraulic	1	LHD
63	AEU1581A	CLIP, pipe to top bell housing stud	1	
64	114178	SLEEVE, rubber	1	

Bleeding the Hydraulic System

The only route to sure-fire success of bleeding the hydraulic system is to use a pressure or vacuum bleeding tool to push or draw, the fluid, displacing the air as it goes. Gunson's Eezibleed is an ingeniously cost effective kit consisting of the basic tools plus a selection of adaptors for different motor cars; it uses air from a spare tyre to propel the fluid under pressure into the system. The only cautionary note is to follow the manufacturer's instructions religiously; seat the adaptors correctly on both the Eezibleed reservoir and the master cylinder, and don't have too high a pressure in the spare tyre.

Another tool, like the hand operated vacuum pump from 'Mityvac', attaches to the bleed nipple on the slave cylinder to draw fluid down the line, collecting waste fluid in its own reservoir. While a little more expensive than Eezibleed, the Mityvac has the added advantage of a host of other uses, for example checking vacuum systems on distributors, brake servos, etc.

For our full range of Workshop Tools & Consumables please refer to the Accessories Section.

Clutch & Brake Fluids

When did you last change your Clutch/Brake fluid?

DOT 3 fluid ought to be completely discarded, DOT 4 ('GBF4') should be installed and replaced every 2 years, as recommended by manufacturers.

An alternative, especially if you are replacing master cylinders, brake calipers and/or wheel cylinders, is to thoroughly flush out the pipes and install Silicone fluid (DOT5 'ABF'), which is 'Non-Hygroscopic', so it doesn't promote rust problems in the hydraulic system. The bonus is that it won't damage paint work. When silicone is in use it will provide years of trouble free braking and an end to the monotonous and expensive pastime of repairing or replacing worn or leaking hydraulic components.

Racing Fluid (DOT 5 'GBF5') really is the ultimate in brake fluid. Its anti-boil properties mean that even when the brakes get hot the fluid will remain efficient, rather than boiling locally (such as in the calipers) into useless vapour. Ideal on the race track or when the brakes are used to their limits.

Due to its high 'Hygroscopic' nature, DOT 5 Racing fluid should be replaced annually otherwise the quality and effectiveness will be drastically reduced.

Brake/Clutch Fluid (DOT 4 Specification);

NI	GBF4102	(500ml)	a/r
NI	GBF4103	(1 Litre)	a/r
NI	GBF4104	(5 Litre)	a/r

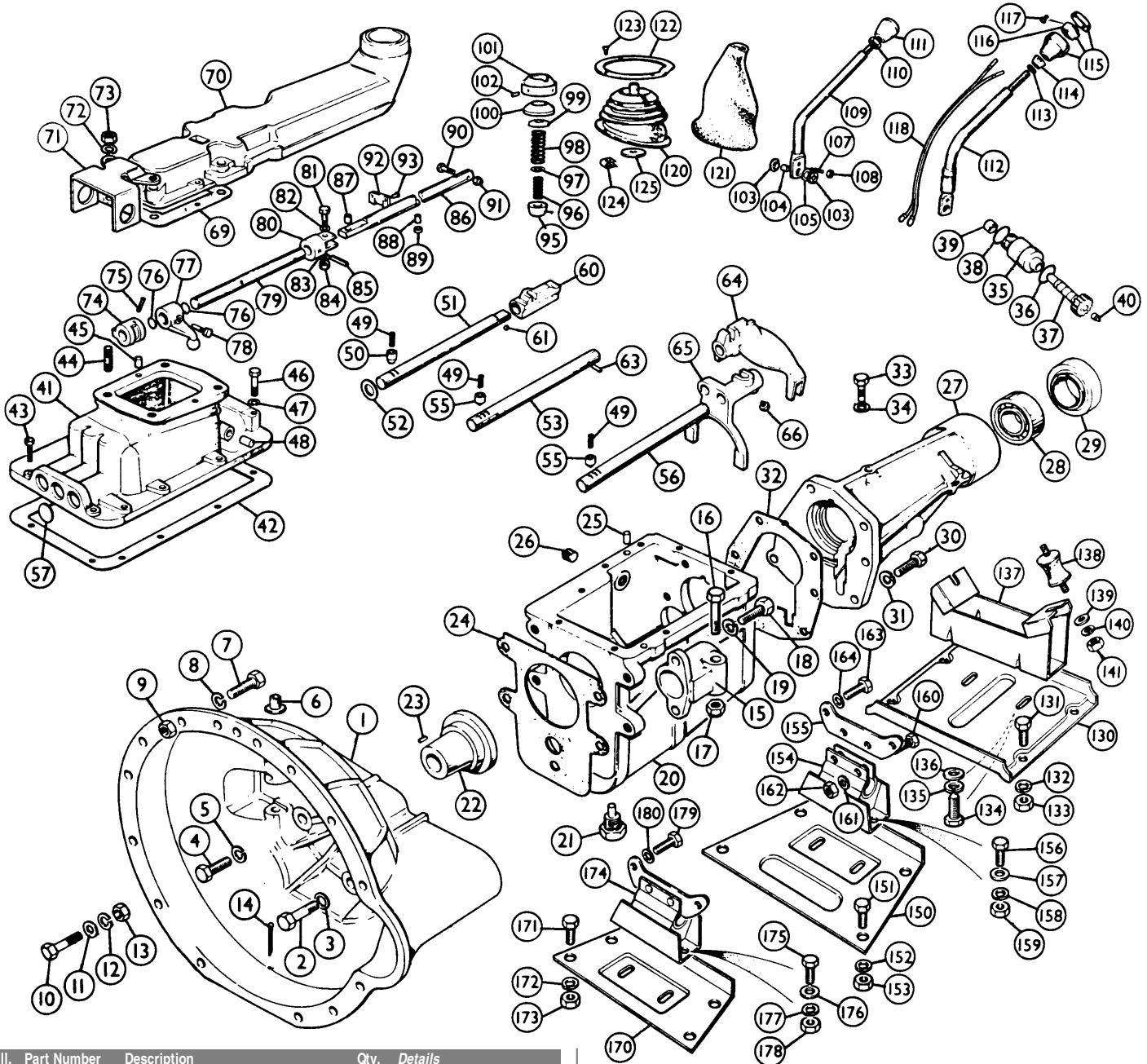
Silicone Brake/Clutch Fluid (DOT 5 Specification);

NI	ABF3	(500ml)	a/r
NI	ABF4	1 Litre)	a/r

Racing Brake/Clutch Fluid (DOT 5 Specification);

NI	GBF5102	(500ml)	a/r
NI	GBF5103	(1 Litre)	a/r

80 | Gearbox/External Components: (1300 - 3 Rail)



iii. No	Part Number	Description	Qty. Req.	Details
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Gearbox Units & External Components (1300 - 3 rail)

From the introduction of the Spitfire Triumph produced gearboxes which did not change much externally but underwent many changes & developments internally to take advantage of power changes and be strong enough to cope with them.

Gearbox Units

520426E	GEARBOX, non-overdrive	1	reconditioned exchange units
520432E	GEARBOX, for D' type overdrive	1	
UKC1959E	GEARBOX, for 'J' type overdrive	1	

Gearboxes are supplied with bell housing, but without top cover extension.

Contact your branch to find out whether you have to remove the bell housing, extension, adaptor plate etc. before handing us your old unit.

You must supply us with a re-buildable 'like for like' old unit. For example, offering us an old non-overdrive box for a rebuilt overdrive item won't do. Also, if you have a non-overdrive gearbox with a square drive flange, it's a Spitfire MkI-III unit and therefore not acceptable as an old unit to exchange for a rebuilt MkIV gearbox.

External Components (All Models)

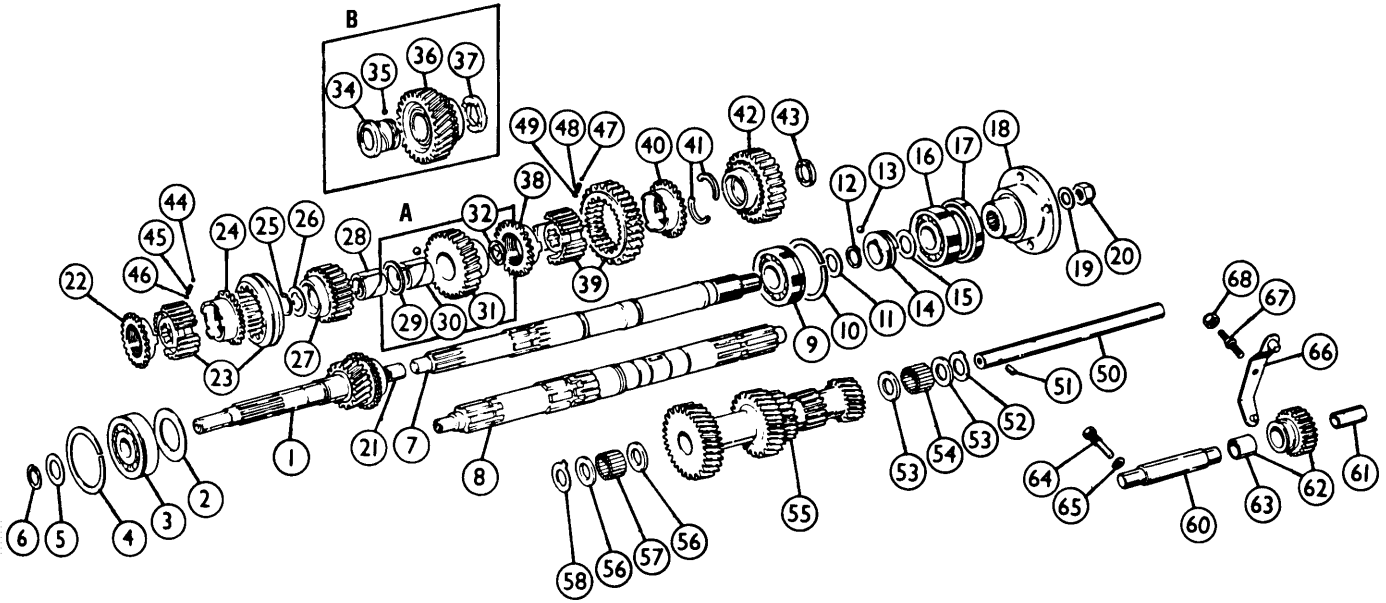
NI 515122	GASKET SET	1	inc. items 24, 32, 42, 69
1 210449	CLUTCH HOUSING	1	
2 156336	BOLT	1	
3 500464	WASHER, copper	1	
4 GHF105	SCREW	4	
5 GHF333	WASHER, locking	4	

iii. No	Part Number	Description	Qty. Req.	Details
6	129358	BUSH, clutch pivot	2	
7	SH605091	SCREW, gearbox to engine	8	
8	GHF332	WASHER, locking	8	
9	GHF201	NUT	8	
10	132872	DOWEL BOLT	1	
11	GHF301	WASHER, plain	1	
12	GHF333	WASHER, locking	1	
13	GHF202	NUT	1	
14	GHF513	SPLIT PIN	1	
15	206175	HOUSING, clutch slave cylinder	1	
16	BH605181	BOLT	1	
17	GHF272	NUT, nyloc	1	
18	SH605071	SCREW, housing	2	
19	GHF332	WASHER, locking	2	
20	149140	CASING	1	
21	155660	DRAIN PLUG, magnetic	1	
22	122566	COVER, front	1	scroll type seal
23	DP205	DOWEL	1	
24	122569	GASKET	1	
25	DP414	DOWEL	2	
26	114774	FILLER PLUG	1	
27	217333	REAR EXTENSION	1	non-overdrive

Ill. No	Part Number	Description	Qty. Req.	Details
28	157732	BEARING, rear	1	
29	22G2353	SEAL, rear	1	
30	SH605071	SCREW	7	
31	GHF332	WASHER, locking	7	
32	106437	GASKET	1	
33	056305	SCREW, locating	1	
34	GHF332	WASHER, locking	1	
35	138092	BEARING, speedo drive	1	includes seals
36	119099	O' RING	1	
37	119100	GEAR, speedo drive	1	
38	119099	O' RING	1	
39	AAU2304A	OIL SEAL	1	
40	119096	BEARING, end thrust	1	
41	154953	TOP COVER	1	to (c) FH31846
	158493	TOP COVER	1	from (c) FH31847
42	106269	GASKET, top cover	1	
43	SH604071	SCREW, top cover to casing	7	
44	106957	STUD, 5/16" UNF	4	to (c) FH31847
	158003	STUD, 5/16" UNF	4	from (c) FH31847
45	DP414	DOWEL	2	
46	HBZ411	BOLT	2	
47	GHF331	WASHER, locking	2	
48	107099	PLUG, interlock hole	2	
49	106489	SPRING, plunger	3	
50	136990	PLUNGER	1	
51	154945	SELECTOR SHAFT, reverse	1	
52	158585	WASHER, spacer	1	
53	146240	SELECTOR SHAFT, 1st & 2nd gear	1	
55	106481	PLUNGER	1	
56	108021	SELECTOR SHAFT, 3rd & 4th gear	1	
57	104449	PLUG, selector shaft holes	6	
60	147394	ACTUATOR, reverse gear	1	
61	BLS110	BALL, interlock	1	
63	106478	PIN, interlock	1	
64	113868	SELECTOR, 1st & 2nd	1	
65	106268	SELECTOR, 3rd & 4th	1	
66	122653	SCREW, tapered	3	selector to shafts
69	120305	GASKET, extension to top cover	1	
70	306152	TOP COVER EXTENSION	1	
71	158002	BRACKET, inhibitor switch	1	
72	GHF332	WASHER, locking	4	
73	GHF201	NUT	4	
74	158072	SWITCH (inhibitor switch)	1	
75	DS1315	ROLL PIN	1	
76	118053	O' RING	2	
77	118040	INTERNAL GEAR LEVER	1	
78	122653	SCREW, tapered	1	lever to shaft
79	127740	SHAFT	1	
80	127741	COUPLING	1	
81	BH604091	BOLT	1	
82	GHF362	WASHER, copper	1	
83	155801	WASHER, nylon	1	
<i>Note: An improved version of the nylon washer (155801) is supplied in the linkage overhaul kit, item 127.</i>				
84	GHF271	NUT, nyloc	1	
85	DS2516	ROLL PIN	1	
86	129120	OPERATING SHAFT	1	
87	119262	BUSH, operating shaft	1	
88	155800	SPACER	1	
89	155799	BUSH	1	
90	125054	LINK BOLT	1	
91	GHF271	NUT, nyloc	1	
92	120307	PLATE, reverse baulk	1	
93	TK4503	SCREW, attaching plate	2	
<i>This plate may be riveted to the top cover extension</i>				
95	138685	BUSH, spherical, nylon	1	
96	119252	SPRING, reverse baulk	1	
97	119263	CIRCLIP, retaining spring on lever	1	
98	119251	SPRING, cap retainer	1	
99	128373	WASHER, dished, inner, nylon	1	
100	119573	WASHER, dished, outer	1	
101	126607	CAP, top cover extension	1	
102	126754	DOWEL, cap to top cover extension	2	
103	156910	BUSH, gear lever	2	
104	129119	SLEEVE, pinch, in lever	1	
105	146303	WASHER	2	
107	118054	SCREW, reverse stop to g/lever	1	
108	NT605041	NUT	1	

Ill. No	Part Number	Description	Qty. Req.	Details
109	134814	GEAR LEVER	1	
110	JN2158	LOCK NUT	1	non-overdrive
111	154985	KNOB, gear lever	1	
	22B19	KNOB, gear lever, round	1	
<i>See Accessories for leather and polished wood gear knobs.</i>				
112	155173	GEAR LEVER	1	
113	C30623	NUT, locking, for knob	1	
114	C30505A	NUT, locking, chrome	1	
115	155030	GEAR KNOB & SWITCH	1	overdrive
116	520999A	SWITCH, overdrive control	1	
117	520999C	SCREW, holding switch	2	
118	153726	EXTENSION HARNESS, pair	1	
120	706919	GAITER	1	
	710820	GAITER, for overdrive models	1	recon alternative
121		GAITER - see carpets on page 140		
122	613607	RING, retaining gaiter	1	
123	AD608053	SCREW, securing ring	4	
124	GHF712	SPIRE NUT	4	
125	611177	WASHER, rubber	1	
	519770	*LINKAGE OVERHAUL KIT,	a/r	gear lever
<i>*inc. items 69, 82 & improved version of 83, 87, 95, 96, 98, 100, 103, 104, 105</i>				
<i>If you can't tell whether the gearbox has selected 1st, 3rd or reverse and don't really care anyway because of the buzzing & rattling emanating through the gaiter, our linkage overhaul kit is the answer to your prayers. This kit replaces the worn bushes with a superior design, and provides all the other parts required to return your Spitfire to the zizzle-free dream car it should be.</i>				
Gearbox Mountings, Non-Overdrive				
130	209018	PLATFORM, rear engine mounting	1	to (c) FH60000
	TKC484	PLATFORM, rear engine mounting	1	from (c) FH60001
131	SH605051	SCREW, platform to chassis	4	
132	GHF332	WASHER, locking	4	
133	GHF201	NUT	4	
134	SH605051	SCREW, bracket to platform	2	
135	GHF332	WASHER, locking	2	
136	GHF201	NUT	2	
137	136890	BRACKET, gearbox mounting	1	to (c) FH60000
	UKC3215	BRACKET, gearbox mounting	1	from (c) FH60001
138	CHA615	MOUNTING	2	
139	GHF301	WASHER, plain	2	
140	GHF332	WASHER, locking	2	
141	GHF201	NUT	2	
Gearbox Mountings, 'D' Type Overdrive				
150	148897	PLATFORM, rear engine mounting	1	
151	SH605051	SCREW, platform to chassis	4	
152	GHF332	WASHER, locking	4	
153	GHF201	NUT	4	
154	159656	BRACKET & MOUNTING	1	
155	147630	BRACKET, mounting to overdrive	1	
<i>Note: Bracket (item 155) forms part of 159656 (item 154) but is illustrated separately to assist in identification, perhaps when the vehicle arrived dismantled or when an overdrive conversion is taking place. Some packing may be required to achieve correct alignment of the transmission.</i>				
156	SH605061	SCREW, bracket to platform	2	
157	GHF301	WASHER, plain	2	
158	GHF332	WASHER, locking	2	
159	GHF201	NUT	2	
160	SH605051	SCREW	2	
161	GHF332	WASHER, locking	2	
162	GHF201	NUT	2	
163	SH605071	SCREW, bracket to o/drive casing	2	
164	GHF331	WASHER, locking	2	
Gearbox Mountings, 'J' Type Overdrive				
170	TKC1407	PLATFORM, rear engine mounting.	1	
171	SH605051	SCREW, platform to chassis	4	
172	GHF332	WASHER, locking	4	
173	GHF201	NUT	4	
174	159656	BRACKET & MOUNTING	1	
175	SH605061	SCREW, mounting to platform	2	
176	GHF301	WASHER, plain	2	
177	GHF332	WASHER, locking	2	
178	GHF201	NUT	2	
179	HU957	SCREW	2	
180	GHF333	WASHER, locking	2	

82 | Internal Gearbox: (1300 - 3 Rail)



Ill. No	Part Number	Description	Qty. Req.	Details
Internal Gearbox (1300 - 3 rail)				
1	216611	CONSTANT PINION SHAFT	1	(1st motion shaft)
2	106365	OIL THROWER	1	
3	104433	BEARING, front main	1	
4	112654	CIRCLIP (snap ring)	1	
5	104438	OUTER WASHER (0.094" thick)	1	
6	129839	CIRCLIP	1	
7	TKC533	MAINSHAFT, non-overdrive	1	
8	TKC923	MAINSHAFT, overdrive type 'D'	1	to FH60000
	TKC899	MAINSHAFT, overdrive type 'J'	1	from FH60001
9	104433	BEARING, rear main	1	
10	112654	CIRCLIP (snap ring)	1	
11	155805	WASHER, 0.120"	a/r	alternatives
	155806	WASHER, 0.123"	a/r	
	155807	WASHER, 0.126"	a/r	
	155808	WASHER, 0.129"	a/r	
<i>These washers are used to maintain correct end float for 1st gear (see workshop manual)</i>				
12	129839	CIRCLIP, speedo. drive gear	1	
13	BLS106	BALL	1	
14	156032	GEAR, speedo drive	1	
15	155756	WASHER, 1/8" thick	1	
16	157732	BEARING, in rear extension	1	non-overdrive
17	22G2353	SEAL, rear	1	
18	155755	FLANGE, to prop shaft	1	
19	WM74	WASHER, plain	1	
20	510618A	NUT, nyloc	1	
21	144782	BEARING, constant pinion	1	
22	150328	BAULK RING, 4th (top) gear	1	
23	156968	SYNCHRO HUB, 3rd/4th	1	
24	150328	BAULK RING, 3rd gear	1	
25	TKC6444	CIRCLIP (SNAP RING), 3rd gear	1	on main shaft
26	159978	THRUST WASHER	1	(with internal lugs)
27	216614	GEAR, 3rd speed	1	
28	147354	BUSH, 3rd gear	1	
29	111422	WASHER, thrust, 2nd/3rd (0.153")	a/r	See Box A in illustration
	131843	WASHER, thrust, 2nd/3rd (0.162")	a/r	
	149963	WASHER, thrust, 2nd/3rd (0.157")	a/r	
	156084	WASHER, thrust, 2nd/3rd (0.166")	a/r	
	UKC769	WASHER, thrust, 2nd/3rd (0.170")	a/r	
30	147354	BUSH, 2nd speed	1	
31	154479	GEAR, 2nd speed	1	
32	160018	WASHER, thrust	1	has 4 radial grooves each side

Ill. No	Part Number	Description	Qty. Req.	Details
34	UKC933	BUSH, 2nd gear	1	see Box B in illustration
35	BLS106	BALL	1	
36	UKC3364	GEAR, 2nd speed	1	
37	UKC934	WASHER, thrust (0.199")	a/r	
	UKC935	WASHER, thrust (0.202")	a/r	
	UKC936	WASHER, thrust (0.205")	a/r	
	UKC937	WASHER, thrust (0.206")	a/r	
<i>Note: Items 28 & 37 are used to adjust the end float of 2nd & 3rd gears.</i>				
38	150328	BAULK RING, 2nd gear	1	
39	156911	SYNCHRO HUB, 1st & 2nd gear	1	(33 teeth)
40	150328	BAULK RING, 1st gear (bottom)	1	
41	137834	SPLIT COLLAR (pair)	1	
42	154821	GEAR, 1st speed	1	
43	137775	WASHER, spacer	1	
44	BLS108	BALL (3rd & 4th synchro hub)	3	
45	104445	SPRING, synchro	3	
46	037948	*SHIM	a/r	
<i>*Note: This shim is selectively fitted under each of the springs and balls in the two synchro hubs in the gearbox. Its use is to equalise the outward pressure of the balls in the hub. Equalising the pressure can only be achieved with special spring balance equipment, so it only remains to be said that if you have to take a hub apart for inspection or cleaning, make sure (by means of scribing identifying marks on non-working surfaces of the gear) that the correct shims go back in their respective holes.</i>				
<i>Along the same lines as the above, use corresponding scribed marks on the hub and outer ring to ensure that the ring is slipped back in place exactly as it was before (and the same way round!).</i>				
47	BLS108	BALL, in 1st & 2nd synchro hub	3	
48	106388	SPRING, in synchro hub	3	
49	037948	SHIM	a/r	
50	144595	LAYSHAFT, genuine	1	alternatives
	144595B	LAYSHAFT, pattern	1	
51	DS1908	ROLL PIN, locating layshaft	1	
52	106270	THRUST WASHER, rear	1	
53	119891	RETAINING RING	2	
54	119893	NEEDLE ROLLER	25	
55	154829	LAYGEAR CLUSTER	1	
56	119891	RETAINING RING	2	
57	119893	NEEDLE BEARING	25	
58	113229	THRUST WASHER, front	1	
60	113071	SPINDLE, reverse gear	1	
61	137687	SPACER	1	
62	144580	REVERSE IDLER GEAR	1	(includes bush 104420)
63	104420	BUSH	1	
64	106477	SCREW, locating	1	
65	GHF332	WASHER, locking	1	
66	106254	LEVER, reverse operating	1	
67	106448	FULCRUM PIN	1	
68	GHF273	NUT, nyloc	1	

Ill. No	Part Number	Description	Qty. Req.	Details
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Assessment for Gearbox Overhaul

Oil in any machinery collects particles from the operating parts that it comes into contact with. Many engineering concerns use lubricating oil analysis at regular intervals to monitor the machinery's condition. In fact, with the oil laboratory's help and the applied knowledge of the mechanical engineer, machinery life expectancy and time period between overhauls can be established. Economically speaking, a piece of machinery can be withdrawn from service for bearing replacement before it actually fails and destroys other more expensive parts within the whole.

This, in the case of an aircraft engine for example, will minimise in-service break downs and unscheduled power plant changes. Some motor car oil manufacturers offer lubricant analysis to users of their product.

Impending failures can be noted by increases of certain deposits in the analysed oil. The oil drained from your gearbox can be viewed in a less scientific manner, but still with an accent towards indicating any potential failure, or to give an idea of which item has failed within the gearbox and how it has failed.

A damaged component such as a synchro ring may prove relatively cheap to replace. The complete collapse of the mainshaft tip bearing or layshaft needle roller bearings is not. The inclusion of a magnetic drain plug in the sump of the gearbox is recommended; it will collect all the metallic particles that otherwise would circulate with the oil and further erode the wearing surfaces of all components.

So what do you look for in your oil when you have drained it into a clean container?

A light brassy coloured oil is nothing to worry about. However, brassy coloured lumps or pieces of yellow coloured metal probably indicates the failure of synchro rings, the plain bushes on the mainshaft or the thrust washers at each end of the laygear countershaft.

A thick grey coloured oil will indicate the start of or the actual failure of steel components such as the laygear bearings, or the mainshaft tip bearing in the first motion shaft. This coloured deposit can be tested with a magnet; steel fragments will of course be attracted to it.

If the reason you have drained your oil is because of a nasty noise from the gearbox when it is driven, this information may assist you in planning the repair route you choose. Once the gearbox is removed from the car, the exterior of the gearbox should be cleaned. It is important that no extra dirt be deposited inside the gearbox while an internal examination is carried out through the removed top cover. Physically moving parts about and checking for excessive play in bearings will give a good indication whether it is cheaper to 'chop the box in' for a reconditioned item, or tackle the repair yourself. Often it is cheaper to tackle the task yourself.

Ill. No	Part Number	Description	Qty. Req.	Details
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As with all things in life - you get what you pay for.

A cheap reconditioned exchange gearbox is not necessarily as good as your own with the same amount spent on replacement parts. This said, if you are expecting to have to renew gear assemblies or sets of gears it may well prove economically more prudent to obtain a quality reconditioned exchange unit. Often, when gear set and shaft replacement is required the sum of the cost of the parts far exceeds the cost of the whole.

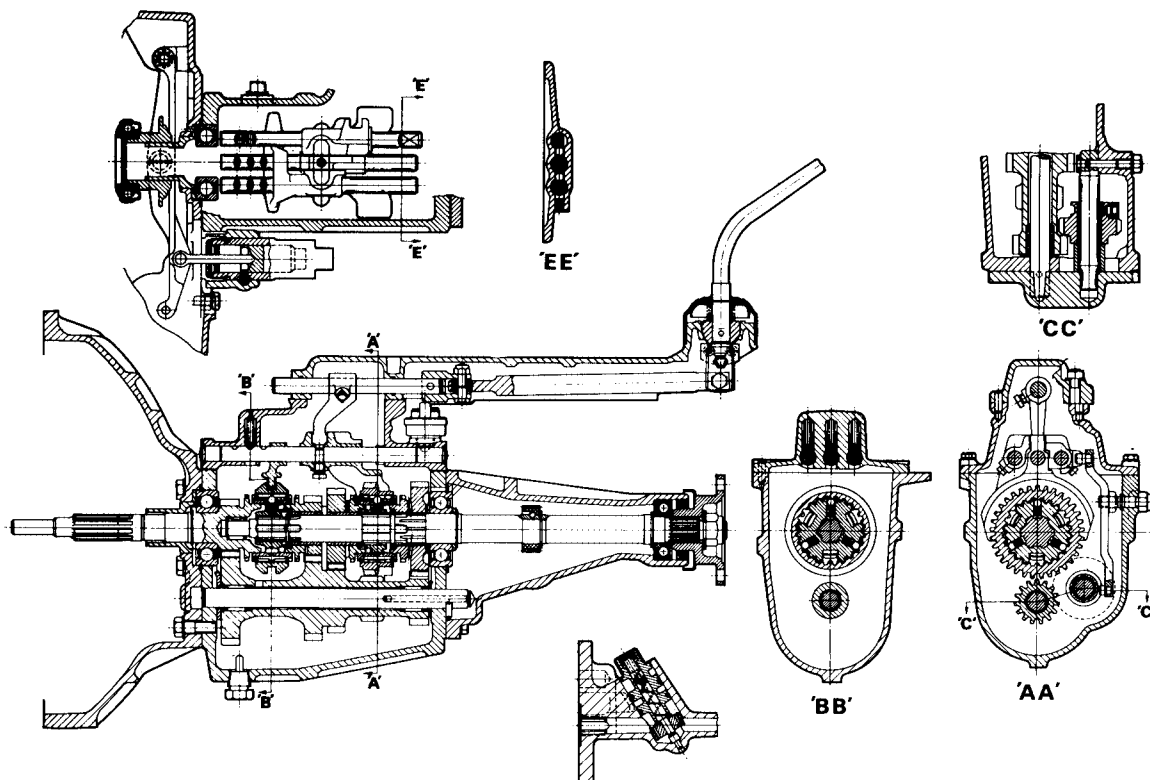
The quality gearbox repairer knows what goes wrong and will replace items regardless of their condition, as he has to guarantee the finished unit. Similarly an experienced re-conditioner will have spares available to himself which are not always obtainable by the public. This is his trade and he will protect it to retain his position in the marketplace.

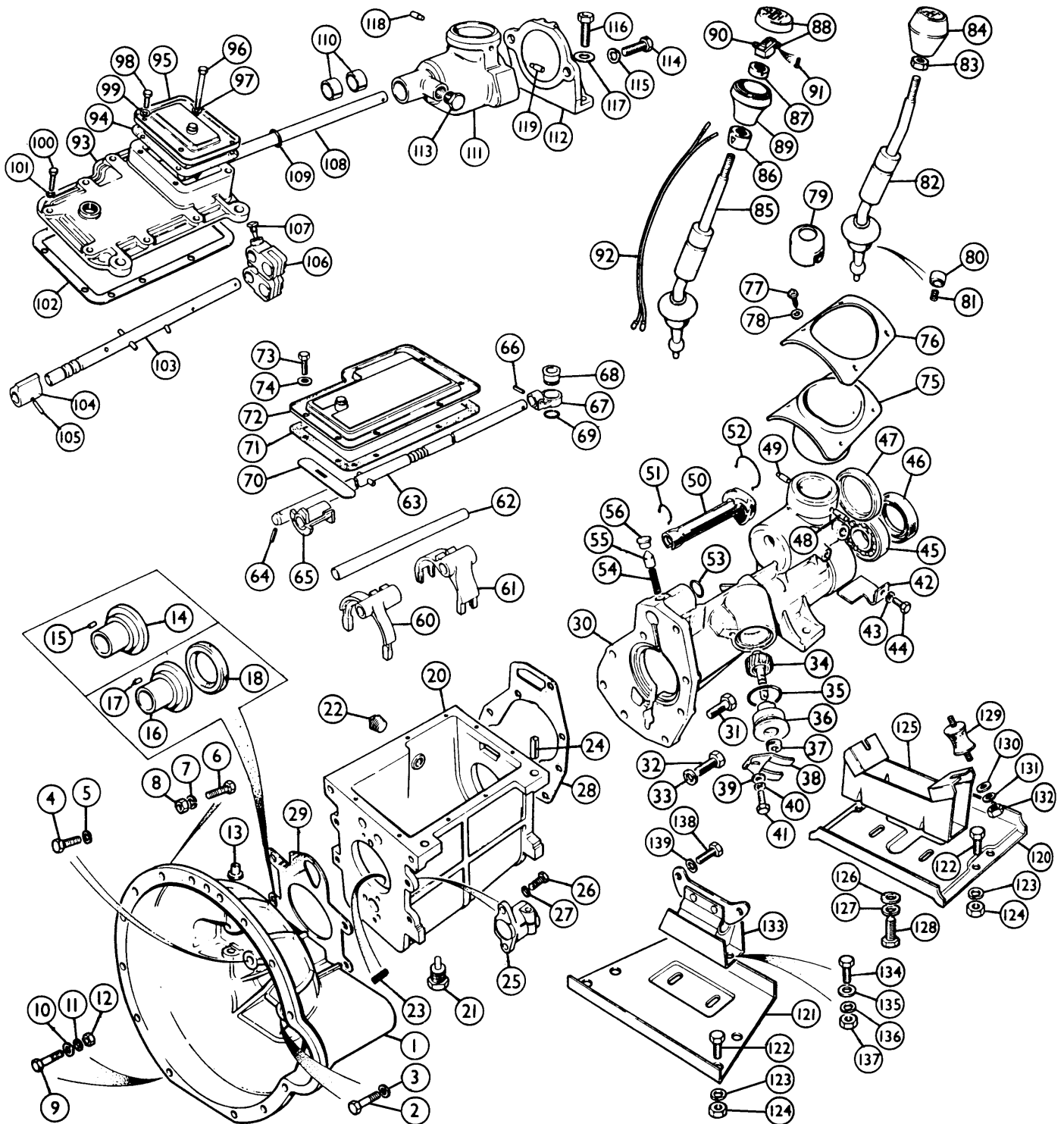
When fitting a reconditioned exchange gearbox assembly do not forget that the unit is delivered without lubricating oil.

The oil recommended is Hypoid 90 grade, as used in the rear axle assembly. As a useful tip, remember to slacken both the oil drain plug and filler plug prior to installation of the unit in the car. There is nothing more irritating than wanting to fill (or drain) a gearbox and then discovering that the plugs on the freshly fitted and now inaccessible unit were apparently installed by the world's strongest man! Afterwards, re-tighten both plugs to your chosen torque.

Splitting the gearbox from the engine

It is, for a start, considerably easier to remove the engine and gearbox as one from the car. Having done so, make sure that the gearbox is supported adequately while the nuts and bolts holding it to the engine back plate are removed. Failure to do so will stress the mounting flange on the bell housing local to the remaining nuts and bolts as others are removed (if you're really unlucky, the flange may even crack there and then). Once all the fasteners have been removed, the gearbox should still be carefully supported until it has been moved away from the engine. The box (which is fairly heavy) will otherwise be held in the air by its input shaft; this in turn will be cantilevering from the end of the crankshaft, damaging bearings, the front cover seal or even the shaft itself.





iii. Part Number No	Description	Qty. Req.	Details
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Gearbox Units & External Components (1500 - Single rail)

Gearbox Units (Non overdrive)

UKC5643E	GEARBOX, reconditioned	1	Scroll type pinion shaft/seal
ULC2483E	GEARBOX, reconditioned	1	Lip type pinion shaft/seal

Gearbox Units (Overdrive)

UKC5646E	GEARBOX, reconditioned	1	Scroll type pinion shaft/seal
ULC2450E	GEARBOX, reconditioned	1	Lip type pinion shaft/seal

Important Information

If you place an order for a 'Lip type' shaft/seal Gearbox unit to replace your 'Scroll type' unit, there is a non refundable (additional) surcharge applied to cover extra manufacturing costs.

You must supply us with a re-buildable 'like for like' old unit.. For example, offering us an old non-overdrive box for a rebuilt overdrive item won't do.

Our overdrive boxes are supplied without gear lever extension assembly or overdrive, but with the overdrive adaptor plate.

iii. Part Number No	Description	Qty. Req.	Details
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External Components (All Models)

NI	HMP290020	GASKET KIT, gearbox	1	Includes items 24, 29, 71
1	312151	BELL HOUSING	1	to gearbox FR33414
	UKC7933	BELL HOUSING	1	from gearbox FR33415

The bell housing changes correspond with the change from the scroll type to rubber lip type seal on the constant pinion shaft. New bell housings do not include front covers (items 14 or 16)

2	156336	BOLT	1	
3	500464	WASHER, copper	1	
4	SH606091	SCREW, bell housing to casing	4	
5	GHF333	WASHER, locking	4	
6	SH605091	SCREW, gearbox to engine	6	
7	GHF332	WASHER, locking	6	
8	GHF201	NUT	6	
9	132872	DOWEL BOLT	1	
10	GHF301	WASHER, plain	1	

Ill. No	Part Number	Description	Qty. Req.	Details
11	GHF333	WASHER, locking	1	
12	GHF202	NUT	1	
13	129358	BUSH, clutch pivot	2	
14	122566	COVER, front, scroll type seal	1	
15	DP205	DOWEL	1	
16	UKC7926	FRONT COVER	1	
17	DP205	DOWEL	1	
18	132292	SEAL, in front cover	1	use with item 16 only
20	RKC461	GEARBOX CASING	1	
21	155660	DRAIN PLUG, magnetic	1	
22	114774	FILLER PLUG	1	
23	137532	SPRING	3	
24	DS5016	DOWEL	2	overdrive models only
25	206175	HOUSING, clutch slave cylinder	1	
26	SH605071	SCREW, fixing housing	2	
27	GHF332	WASHER, locking	2	
28	22G1420	GASKET, rear	1	
29	157690	GASKET, front	1	
30	DAM1650	REAR EXTENSION	1	non-overdrive models
<i>Note: The DAM1650 rear extension is a 'cut to fit' type supercession by Rover Cars Parts.</i>				
<i>To fit a DAM1650 you will also need to buy an insert (DAM2959) and a plug (DAM3632).</i>				
<i>The gearbox mounting plate will also have to be drilled and tapped to accept the mounting rubbers.</i>				
31	112653	BOLT	2	
32	GHF103	SCREW	6	
33	GHF332	WASHER, locking	8	
34	219005A	SPEEDO DRIVE GEAR	1	for 3.89:1 axle
	219003A	SPEEDO DRIVE GEAR	1	for 3.63:1 axle
	219001	SPEEDO DRIVE GEAR	1	from FH126380 Switzerland only (3.27:1 axle)
35	TRS1620	O' RING, speedo drive bush	1	
36	22G1486	BUSH, locating drive gears	1	
37	AAU2304A	OIL SEAL	1	
38	22G1711	RETAINER, speedo pinion	1	
39	GHF300	WASHER, plain	1	
40	GHF331	WASHER, locking	1	
41	GHF117	SCREW	1	
42	22G1425	REVERSE LIFT PLATE	1	
43	GHF331	WASHER, locking	1	
44	SH604051	SCREW	1	
45	157732	BEARING, rear	1	
46	22G2353	SEAL, rear	1	
47	22G1422	END COVER	1	
48	DAM2670	PIN, locating cap	1	
49	DAM2670	PIN, locating cap	1	to gearbox FR268
	22G2277	PIN, locating cap	1	from gearbox FR269
50	DAM518	GAITER, selector shaft	1	to gearbox FR12687
	UKC8875	GAITER, selector shaft	1	from gearbox FR12688
51	DAM1723	CLEAT, front	1	to gearbox
52	DAM671	CLEAT, rear	1	FR12688
53	TRS912	'O RING	1	
54	22G2198	SPRING	1	use with non-overdrive
55	22G1421	PLUNGER	1	original rear extension only
56	22G1947	PLUG, plunger securing	1	
	DAM6892	INSERT	1	use with non-overdrive
	DAM4968	DETENT	1	replacement DAM1650
	DAM4804	SPRING	1	extension only as detailed
	DAM3632	NYLON PLUG	1	in notes for item 30
	DAM2959	INSERT	1	
60	22G1584	SELECTOR FORK, 3rd & 4th	1	
61	22G1406	SELECTOR FORK, 1st & 2nd	1	
62	22G1408	SHAFT, selector fork	1	

External Components for 'Non-Overdrive' Models

63	22G1413	SELECTOR SHAFT	1	
64	UKC6398	ROLL PIN, shaft to interlock	1	
65	22G1418	INTERLOCK	1	
66	RZS1216	PIN	1	
67	22G2291	YOKE	1	
68	22G1424	YOKE SEAT	1	alternatives
	DAM3045	YOKE SEAT	1	
69	13H6762	CIRCLIP	1	use only if DAM3045 fitted
70	22G1419	SPOOL INTERLOCK PLATE	1	
71	22G1911	GASKET, top cover	1	
72	22G1884	TOP COVER	1	
73	SH604041	SCREW, securing cover	9	
74	GHF331	WASHER, locking	9	
75	YKC1481	GAITER, gear lever	1	non overdrive
	YKC1482	GAITER, gear lever	1	overdrive

Ill. No	Part Number	Description	Qty. Req.	Details
76	YKC1483	RETAINER PLATE	1	
77	AD608053	SCREW, securing gaiter	4	
78	WP124	WASHER, plain	4	
79	22G1434	RETAINER	1	
80	22G2286	PLUNGER, nylon, anti-rattle	1	
81	106388	SPRING, anti-rattle	1	
82	UKC3284	GEAR LEVER	1	
83	JN2158	LOCK NUT, lever to knob	1	
84	UKC2793	GEAR KNOB	1	
	UKC7615	GEAR KNOB	1	
	UKC7614	GEAR KNOB	1	
<i>See Accessories for alternative gear lever knobs.</i>				

External Components for 'Overdrive Models'

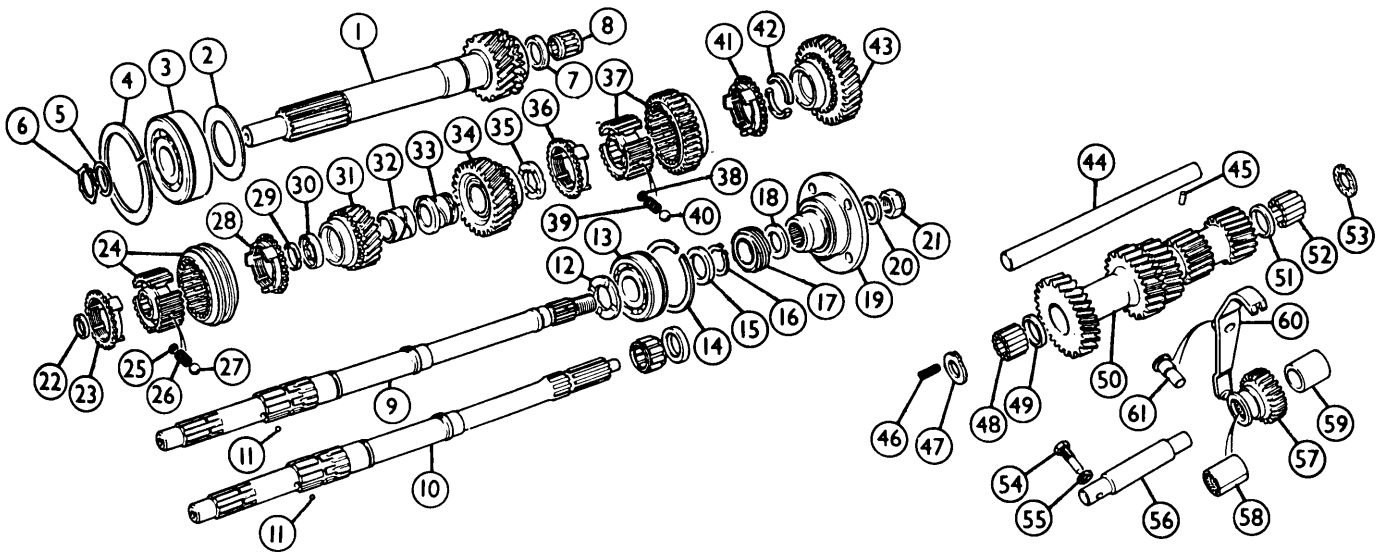
85	UKC3285	GEAR LEVER	1	
86	C30505A	CONE NUT, chrome	1	
87	C30623	LOCK NUT, knob	1	
88	AAU6867	GEAR KNOB CAP & SWITCH	1	
89	DAM2174	BODY, gear knob	1	
90	520999A	SWITCH, overdrive control	1	
91	520999C	SCREW	2	
92	153726	EXTENSION HARNESS (pair)	1	
93	TKC1256	TOP COVER	1	
94	UKC2937	GASKET, cover plate to top cover	1	
95	UKC3600	COVER PLATE	1	
96	GHF118	BOLT	2	
97	GHF331	WASHER, locking	2	
98	SH604041	SCREW	2	
99	GHF331	WASHER, locking	2	
100	SH604071	SCREW	7	
101	GHF331	WASHER, locking	7	
102	22G1911	GASKET, top cover	1	
103	UKC4619	SELECTOR SHAFT	1	
104	UKC2281	ACTUATOR	1	
105	DS1914	ROLL PIN	1	
106	UKC2742	CONNECTOR BLOCK	1	
107	122653	LOCATING PIN	2	
108	UKC2892	SELECTOR SHAFT	1	
109	TRS912	'O RING	1	
110	UKC2890	BUSH	2	
111	UKC2939	TOWER	1	
112	TKC1305	END COVER	1	
113	108114	SCREWED PLUG	1	
114	GHF163	SCREW	2	
115	GHF332	WASHER, locking	2	
116	GHF163	SCREW	2	
117	GHF332	WASHER, locking	2	
118	22G2277	PIN, short	1	
119	DAM2670	PIN, long	1	

Overdrive 'conversions' are frequently a desirable feature. 'J' type overdrive units can be fitted to a suitably prepared gearbox (see gearbox internal & overdrive unit sections, pages 86 & 91). It would be wise to make sure that the correct tower unit is to hand before progressing too far, as this may well be the 'hens teeth' of this enterprise.

Gearbox Mountings (All Models)

120	TKC484	PLATFORM, rear engine mounting	1	non-overdrive
121	TKC1407	PLATFORM, rear engine mounting	1	overdrive
122	SH605051	SCREW, platform to chassis	4	
123	GHF332	WASHER, locking	4	
124	GHF201	NUT	4	
125	UKC3215	BRACKET, gearbox mounting	1	
126	GHF302	WASHER, plain	2	
127	GHF332	WASHER, locking	2	
128	SH605051	SCREW, bracket to platform	2	non-overdrive models
129	CHA615	MOUNTING	2	
130	GHF301	WASHER, plain	2	
131	GHF332	WASHER, locking	2	
132	GHF201	NUT	2	
133	159656	BRACKET & MOUNTING	1	
134	SH605061	SCREW, mounting to platform	2	
135	GHF301	WASHER, plain	2	
136	GHF332	WASHER, locking	2	overdrive models
137	GHF201	NUT	2	
138	HU957	SCREW, mounting to overdrive	2	
139	GHF333	WASHER, locking	2	

86 | Internal Gearbox: (1500 - Single Rail)



Ill. No	Part Number	Description	Qty. Req.	Details
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Internal Gearbox (1500 - Single rail)

1	TKC1267	CONSTANT PINION SHAFT	1	to FR33414, (1st motion)
	TKC3259	CONSTANT PINION SHAFT	1	from FR33415, (1st motion)

Note; TKC1267 has a scroll type oil seal; TKC3259 is machined plain to accommodate a rubber lip type seal.

2	106365	OIL THROWER	1	
3	104433	BEARING, front main	1	
4	112654	CIRCLIP (snap ring)	1	
5	104438	SPACER WASHER	1	to gearbox FR33414
6	129839	CIRCLIP	1	
7	22G2840	SHAFT SPACER	1	
8	13H9513	BEARING, constant pinion	1	1st to 3rd motion shaft
9	RKC722	MAINSHAFT	1	non-overdrive
10	RKC767	MAINSHAFT	1	overdrive
11	BLS106	BALL	1	
12	22G2210	WASHER, radial grooved both sides	1	
13	104433	BEARING, rear main	1	
14	112654	CIRCLIP (snap ring)	1	
15	155805	THRUST WASHER (0.120")	a/r	
	155806	THRUST WASHER (0.123")	a/r	
	155807	THRUST WASHER (0.126")	a/r	
	155808	THRUST WASHER (0.129")	a/r	

The thrust washers (item 15) adjust the end float of the 1st speed gear.

16	CR620325	CIRCLIP	1	
17	22G1753	SPEEDO DRIVE GEAR	1	
18	155756	THRUST WASHER	1	
		drive flange to mainshaft		non-overdrive
19	155755	FLANGE, to prop shaft	1	
20	142333	WASHER, plain	1	

21	510618A	NUT, nyloc	1	
22	22G2839	SPACER	1	
23	150328	BAULK RING, 4th gear (top)	1	
24	156968	SYNCHRO HUB, 3rd/4th gears	1	
25	037948	*SHIM, under synchro spring	a/r	

*This shim is selectively fitted under each of the springs and balls in the two synchro hubs in the gearbox. Its use is to equalise the outward pressure of the balls in the hub. Equalising the pressure can only be achieved with special spring balance equipment, so it only remains to be said that if you have to take a hub apart for inspection or cleaning, make sure (by means of scribing identifying marks on non-working surfaces of the gear) that the correct shims go back in their respective holes.

Along the same lines as the above, use corresponding scribed marks on the hub and outer ring to ensure that the ring is slipped back in place exactly as it was before (and the same way round!).

26	104445	SPRING, in synchro hub	3	
27	BLS108	BALL, in synchro hub	3	

Ill. No	Part Number	Description	Qty. Req.	Details
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28	150328	BAULK RING, 3rd gear	1	
29	TKC6444*	CIRCLIP, mainshaft	1	

*This circlip must always be renewed when re-assembling the main gear cluster

30	159978	THRUST WASHER	1	
31	216614	GEAR, 3rd speed	1	alternatives
	TKC3003	GEAR, 3rd speed	1	
32	147354	BUSH, 3rd gear	1	
33	UKC933	BUSH, 2nd gear	1	
34	TKC3002	GEAR, 2nd speed	1	
35	UKC934	WASHER, thrust (0.199" thick)	a/r	
	UKC935	WASHER, thrust (0.203" thick)	a/r	
	UKC936	WASHER, thrust (0.205" thick)	a/r	
	UKC937	WASHER, thrust (0.208" thick)	a/r	

These washers are used to obtain the correct end float for 2nd and 3rd gears

36	150328	BAULK RING, 2nd gear	1	
37	156911	SYNCHRO HUB, 1st & 2nd	1	33 teeth
	UKC8748	SYNCHRO HUB, 1st & 2nd	1	29 teeth

Note: 156911 & UKC8748 are only interchangeable if both laygear cluster & reverse idler are fitted at the same time. Once again, an exchange gearbox is advisable if damage is obvious here.

38	037948	SHIM (in synchro hub)	a/r	
39	106388	SPRING (in synchro hub)	3	
40	BLS108	BALL (in synchro hub)	3	

41	150328	BAULK RING, 1st gear	1	
42	137834	SPLIT COLLAR (pair)	2	
43	TKC3001	GEAR, 1st speed (bottom)	1	
44	144595	LAYSHAFT, genuine	1	alternatives
	144595B	LAYSHAFT, pattern	1	
45	DS1908	ROLL PIN	1	
46	137532	*SPRING	3	

*These springs control the end float of the laygear on its shaft, by pushing the front thrust washer against the laygear. Placing the springs in their respective holes in the gear case is the last job to be done prior to refitting the bell housing; it's very easy to forget them. Be warned.

47	113229	THRUST WASHER, front	1	
48	119893	NEEDLE ROLLER, front	25	
49	119891	RETAINING RING, front	2	
50	154829	LAYGEAR CLUSTER, 15 teeth	1	for 21 tooth reverse gear
	TKC5799	LAYGEAR CLUSTER, 13 teeth	1	for 17 tooth reverse gear
51	119891	RETAINING RING, rear	2	
52	119893	NEEDLE ROLLER, rear	25	
53	106270	THRUST WASHER, rear	1	
54	106477	SCREW, locating	1	
55	GHF332	WASHER, locking	1	
56	113071	SPINDLE, reverse gear	1	

Ill. No	Part Number	Description	Qty. Req.	Details
57	144580	REVERSE IDLER GEAR (21 teeth)	1	
	UKC8750	REVERSE IDLER GEAR (17 teeth)	1	
58	104420	BUSH, in reverse gear	1	
59	22G1435	SPACER	1	
60	CHM63	REVERSE LEVER	1	
61	DAM1714	PIVOT PIN, reverse lever	1	

Assessment for Gearbox Overhaul

Oil in any machinery collects particles from the operating parts that it comes into contact with. Many engineering concerns use lubricating oil analysis at regular intervals to monitor the machinery's condition. In fact, with the oil laboratory's help and the applied knowledge of the mechanical engineer, machinery life expectancy and time period between overhauls can be established. Economically speaking, a piece of machinery can be withdrawn from service for bearing replacement before it actually fails and destroys other more expensive parts within the whole.

This, in the case of an aircraft engine for example, will minimise in-service break downs and unscheduled power plant changes. Some motor car oil manufacturers offer lubricant analysis to users of their product.

Impending failures can be noted by increases of certain deposits in the analysed oil. The oil drained from your gearbox can be viewed in a less scientific manner, but still with an accent towards indicating any potential failure, or to give an idea of which item has failed within the gearbox and how it has failed.

A damaged component such as a synchro ring may prove relatively cheap to replace. The complete collapse of the mainshaft tip bearing or layshaft needle roller bearings is not. The inclusion of a magnetic drain plug in the sump of the gearbox is recommended; it will collect all the metallic particles that otherwise would circulate with the oil and further erode the wearing surfaces of all components.

So what do you look for in your oil when you have drained it into a clean container?

A light brassy coloured oil is nothing to worry about. However, brassy coloured lumps or pieces of yellow coloured metal probably indicates the failure of synchro rings, the plain bushes on the mainshaft or the thrust washers at each end of the laygear countershaft.

A thick grey coloured oil will indicate the start of or the actual failure of steel components such as the laygear bearings, or the mainshaft tip bearing in the first motion shaft. This coloured deposit can be tested with a magnet; steel fragments will of course be attracted to it.

If the reason you have drained your oil is because of a nasty noise from the gearbox when it is driven, this information may assist you in planning the repair route you choose. Once the gearbox is removed from the car, the exterior of the gearbox should be cleaned. It is important that no extra dirt be deposited inside the gearbox while an internal examination is carried out through the removed top cover. Physically moving parts about and checking for excessive play in bearings will give a good indication whether it is cheaper to 'chop the box in' for a reconditioned item, or tackle the repair yourself. Often it is cheaper to tackle the task yourself.

Ill. No	Part Number	Description	Qty. Req.	Details
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As with all things in life - you get what you pay for.

A cheap reconditioned exchange gearbox is not necessarily as good as your own with the same amount spent on replacement parts. This said, if you are expecting to have to renew gear assemblies or sets of gears it may well prove economically more prudent to obtain a quality reconditioned exchange unit. Often, when gear set and shaft replacement is required the sum of the cost of the parts far exceeds the cost of the whole.

The quality gearbox repairer knows what goes wrong and will replace items regardless of their condition, as he has to guarantee the finished unit. Similarly an experienced re-conditioner will have spares available to himself which are not always obtainable by the public. This is his trade and he will protect it to retain his position in the marketplace.

When fitting a reconditioned exchange gearbox assembly do not forget that the unit is delivered without lubricating oil.

The oil recommended is Hypoid 90 grade, as used in the rear axle assembly. As a useful tip, remember to slacken both the oil drain plug and filler plug prior to installation of the unit in the car. There is nothing more irritating than wanting to fill (or drain) a gearbox and then discovering that the plugs on the freshly fitted and now inaccessible unit were apparently installed by the world's strongest man! Afterwards, re-tighten both plugs to your chosen torque.

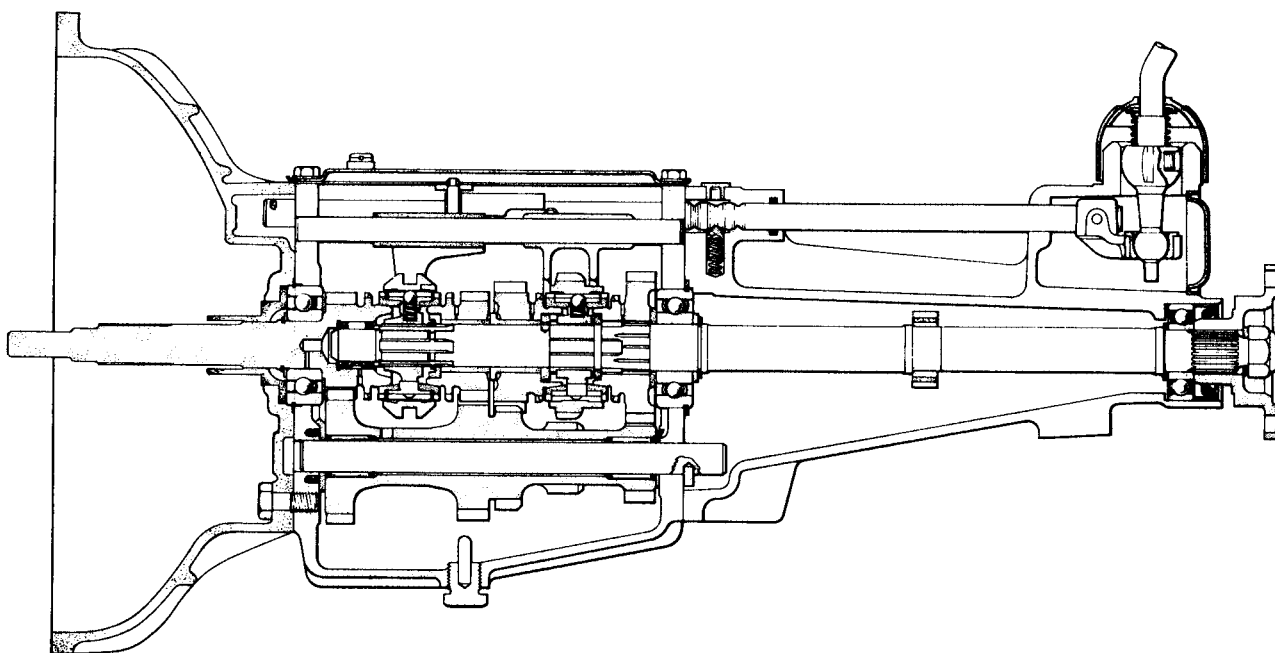
Bell housing drainage

Some (but apparently not all) 1500 gearbox bell housings have a small hole at the bottom, in which is a loosely fitted split pin, seemingly serving no purpose. In fact, this split pin (part no. PC39) is sitting in a drainage hole, and its mere presence dangling in the hole helps oil or water which may have found its way into the bell housing to drain out again, thus avoiding fluid build up in the environs of the clutch.

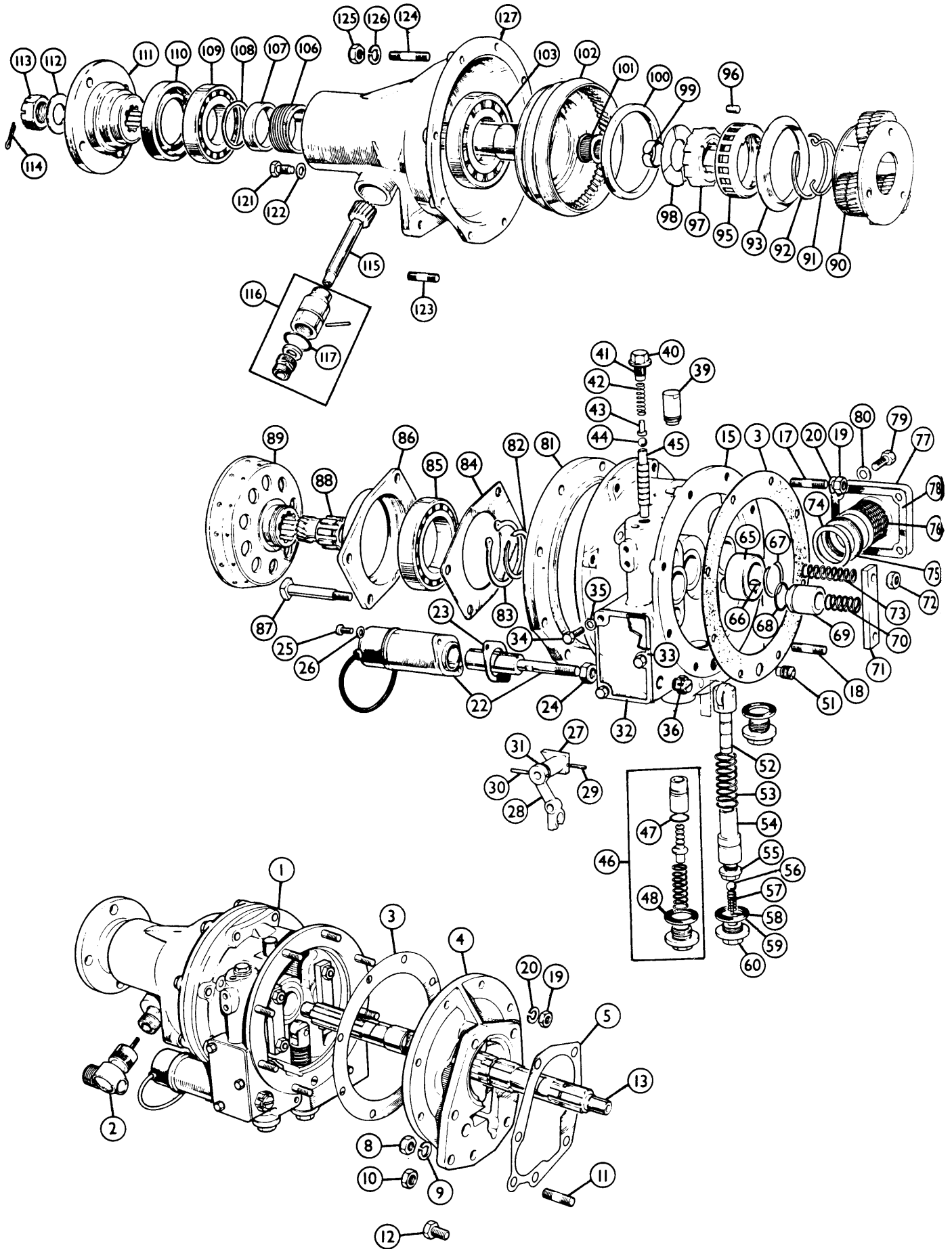
Omit the split pin and the hole, devoid of the rattling bit which kept it clear, will quickly block up and fail to serve its purpose.

Splitting the gearbox from the engine

It is, for a start, considerably easier to remove the engine and gearbox as one from the car. Having done so, make sure that the gearbox is supported adequately while the nuts and bolts holding it to the engine back plate are removed. Failure to do so will stress the mounting flange on the bell housing local to the remaining nuts and bolts as others are removed (if you're really unlucky, the flange may even crack there and then). Once all the fasteners have been removed, the gearbox should still be carefully supported until it has been moved away from the engine. The box (which is fairly heavy) will otherwise be held in the air by its input shaft; this in turn will be cantilevering from the end of the crankshaft, damaging bearings, the front cover seal or even the shaft itself.



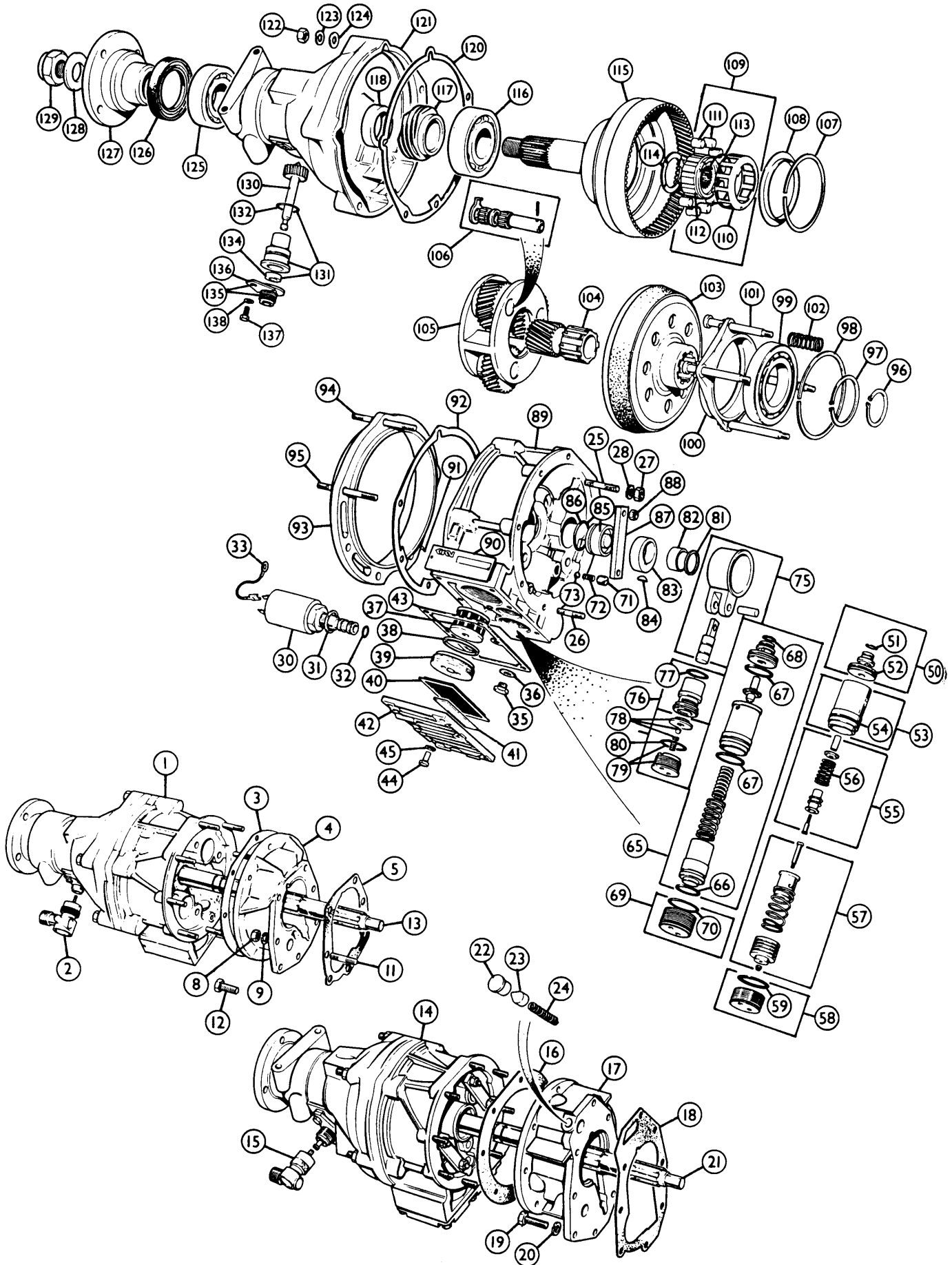
88 | 'D' Type Overdrive



Ill. No	Part Number	Description	Qty. Req.	Details
'D' Type Overdrive				
1	307862R	OVERDRIVE, reconditioned	1	exchange
2	120694	ANGLE DRIVE, speedo pinion	1	
3	37H1901	GASKET, overdrive to extension	1	
4	305137	ADAPTOR PLATE	1	
5	106437	GASKET, adaptor plate to gearbox	1	
<i>Triumph attached the adaptor plate to the gearbox using either seven studs, or with five screws plus two studs, with nuts & washers as required.</i>				
8	GHF201	NUT	6/2	} quantity decreases if item 12 is used
9	GHF332	WASHER, locking	7	
10	NT605041	NUT	1/0	
11	132115	STUD, locking extension to g/box	7/2	
12	SH605071	SCREW	5	alternative to 8, 10, 11
13	TKC923	MAINSHAFT	1	
15	515814	MAIN CASING	1	
17	506083	STUD, overdrive to extension	7	
18	506105	STUD, overdrive, lower LH	1	
19	GHF200	NUT	8	
20	GHF331	WASHER, locking	8	
22	010002	SOLENOID	1	
23	7H8196	GASKET	1	
24	NZ604041	NUT, solenoid adjusting	1	
25	UFS1194R	SCREW, solenoid to main casing	2	
26	WF702101	WASHER, shakeproof	2	
27	515811	CAM, operating valve	1	
28	515813	LEVER	1	
29	513888	LOCATING PIN, cam	1	
30	500412	LOCATING PIN, lever	1	
31	500594	'O' RING	1	
32	506109	SIDE PLATE	1	
33	513204	GASKET, side plate	1	
34	53K126	SCREW, side plate	3	
35	WF702101	WASHER, shakeproof	3	
39	502560	BREATHER	1	
40	506117	PLUG	1	
41	3H693	WASHER, copper	1	
42	007972	SPRING, plunger	1	
43	500591	PLUNGER	1	
44	BLS108	BALL	1	
45	17H8030	OPERATING VALVE	1	
46	7H8191	RELIEF VALVE KIT	1	
<i>Wear in this assembly is a frequent cause of sluggish overdrive engagement.</i>				
47	506129A	SEAL, upper, relief valve	1	
48	506118A	SEAL, lower, relief valve	1	
51	506076	SCREW, pump retaining	1	
52	513196	PLUNGER	1	
53	500633	SPRING, plunger	1	
54	513222	PUMP BODY	1	
55	37H2693	NON-RETURN VALVE	1	
56	BL14	BALL	1	
57	37H2557	SPRING, non return valve	1	
58	514889	PIN, locating	1	
59	506118A	WASHER, sealing	1	
60	513206	PLUG, non return valve	1	
65	513216	PUMP CAM	1	
<i>Remember to align the pump cam & plunger correctly when attaching overdrive to gearbox</i>				
66	WKN304	WOODRUFF KEY	1	
67	22H228	SNAP RING	1	
68	TRS1114	SEAL, operating piston	2	
69	7H8290	OPERATING PISTON	2	
70	513219	SPRING, operating piston	2	
<i>If the overdrive is sluggish in engaging, these 2 springs may be the cause</i>				
71	7H8286	BRIDGE BAR	2	
72	JS616A	LOCK NUT	4	
73	513199	CLUTCH SPRINGS (set of four)	1	locates on to item 87
<i>If the overdrive is sluggish in disengaging, deterioration in these four springs may also be the cause</i>				
74	506107	SEALING PLATE	1	
75	513205	MAGNET SET	1	
76	7H8197	FILTER	1	
77	506097	COVER PLATE, filter	1	

Ill. No	Part Number	Description	Qty. Req.	Details
78	506098	GASKET, filter cover	1	
79	GHF117	SCREW, cover retaining	4	
80	GHF321	WASHER, shakeproof	4	
81	513228	BRAKE RING	1	
82	506091	SNAP RING	1	
83	515356	CIRCLIP	1	
84	506104	BASE PLATE, bearing housing	1	
85	7H8301	FRONT BEARING	1	
86	506081	BEARING HOUSING	1	
87	513203	BOLT, bearing housing	4	locates disengagement springs
88	506044	SUN GEAR	1	
89	513200	SLIDING MEMBER	1	(also known as clutch)
<i>Sudden cessation of overdrive engagement is often caused by this item wearing badly, burning, breaking up, or frequently, the lining shearing off the sliding member.</i>				
90	17H8014	PLANET GEAR CARRIER	1	
	505546	BEARING, needle roller	6	
	500412	MILLS PIN, securing bearings	3	
91	513208	SPRING, one-way clutch	1	ratchet operation
92	NKC77A	SNAP RING	1	
93	010857	SLEEVE, clutch retaining	1	
95	012610	CAGE, uni-directional clutch rollers	1	
96	506063A	ROLLERS, set of twelve	1	
97	513209	CLUTCH CENTRE	1	
98	500613A	WASHER, thrust	1	
99	22H193	SPRUNG SLEEVE	1	
100	-	BEARING FACE, inside annulus		not separately available
101	506113	SPIGOT BEARING, inside annulus	1	
102	513195	ANNULUS	1	
103	134465	BEARING, front of annulus shaft	1	
106	7H8294	DRIVE GEAR, speedometer	1	
107	513211	SPACER TUBE	1	
108	17H8024	SHIM, 0.105"	a/r	
	17H8025	SHIM, 0.1"	a/r	
	17H8026	SHIM, 0.095"	a/r	
	17H8027	SHIM, 0.09"	a/r	
	27H2893	SHIM, 0.085"	a/r	
109	533360A	BEARING, rear of annulus shaft	1	
110	7H8325	OIL SEAL, drive flange	1	
111	146102	DRIVE FLANGE	1	
112	WP24	WASHER, plain	1	
113	BTB753	NUT, nyloc	1	} alternatives
	515817	NUT, slotted	1	
114	PC12	SPLIT PIN (or slotted nut only)	1	
115	506119	PINION, speedometer drive	1	
116	506066	BEARING, pinion	1	
<i>Dismantle this Bearing at your peril.</i>				
117	506115	O' RING	1	
121	506071	SCREW, locking pinion assembly	1	
122	500469	WASHER, copper	1	
123	506103	STUD, rear casing to main casing	2	for lower 2 holes on flange
124	506082	STUD, rear casing to main casing	6	use in other six positions
125	GHF200	NUT	8	
126	GHF331	WASHER, locking	8	
127	513198	REAR CASING	1	
So Your Overdrive's Stopped Working (part 1)				
Symptom	A)	Overdrive does not engage		
	B)	Overdrive does not disengage		
	C)	Clutch slip in overdrive		
Possible Cause	A	B	C	
Insufficient oil in gearbox	•		•	
Electrical system fault	•	•		
Solenoid lever out of adjustment	•	•	•	
Insufficient hydraulic pressure (check valves for seating or dirt)	•		•	
Pump filter blocked	•			
Blocked restrictor jet in operating valve		•		
Solenoid sticking	•	•		
Sticking clutch		•		
Worn or glazed clutch lining			•	
Car not fitted with overdrive	•	•	•	

90 | 'J' Type Overdrive



Ill. No	Part Number	Description	Qty. Req.	Details
'J' Type Overdrive				
Overdrive Assembly; for '3-Rail Gearbox'				
1	313305R	OVERDRIVE, reconditioned/exchange	1	
2	120694	ANGLE DRIVE, speedo' pinion	1	
3	37H1901	GASKET, o/drive to adaptor plate	1	
4	313085	ADAPTOR PLATE	1	
5	106437	GASKET, adaptor plate to gearbox	1	
8	GHF201	NUT	7/2	quantity decreases
9	GHF332	WASHER, locking	7	if item 12
11	132115	STUD, extension to gearbox	7/2	is used
12	SH605071	SCREW	5	alternative to items 8 & 11
13	TKC899	MAINSHAFT	1	

Ill. No	Part Number	Description	Qty. Req.	Details
Overdrive Assembly; for 'Single Rail Gearbox'				
14	RKC688R	OVERDRIVE, reconditioned/exchange	1	
15	120694	ANGLE DRIVE, speedo' pinion	1	
16	37H1901	GASKET, o/drive to adaptor plate	1	
17	RKC634	ADAPTOR PLATE	1	
18	22G1420	GASKET, adaptor plate to gearbox	1	
19	UKC4811	SCREW, adaptor plate to gearbox	8	
20	GHF332	WASHER, locking	8	
21	RKC767	MAINSHAFT	1	'J' type overdrive
22	22G1947	PLUG, in adaptor plate	1	
23	22G1421	PLUNGER	1	
24	22G2198	SPRING	1	
25	NKC56	STUD, long, set of six	1	main housing to
26	NKC57	STUD, short, set of two	1	adaptor plate
27	GHF200	NUT	8	
28	GHF331	WASHER, locking	8	
30	NKC41	SOLENOID	1	
31	NKC108	WASHER, copper	1	
32	NKC107	O' RING	2	
33	NKC67	EARTH WIRE, solenoid	1	
35	NKC97	SCREWED PLUG	1	
36	NKC96	WASHER, copper	1	
37	NKC23	FILTER, pressure	1	
38	NKC11	WASHER	1	
39	NKC24	PLUG (threaded), filter	1	
40	NKC53	FILTER, suction	1	
41	37H1943	MAGNET SET	2	
42	NKC54	COVER, sump	1	
43	NKC76	GASKET, sump	1	
44	37H1946	SCREW, sump cover	6	
45	NKC110	WASHER, shakeproof	6	
50	NKC30	BODY, relief valve	1	
51	NKC102A	O' RING, small	1	
52	NKC92	O' RING, large	1	
53	NKC14	DASH POT SLEEVE	1	
54	NKC92	O' RING	1	used in '3 rail'
55	NKC33	RELIEF VALVE	1	type overdrive (item 1)
56	NKC104	SPRING, relief valve	1	
57	NKC15	DASH POT PISTON	1	
58	NKC13	DASH POT PLUG KIT	1	
59	NKC91	O' RING	1	
65	AAU1388	RELIEF VALVE KIT	1	
66	RTC1949	O' RING, large	1	used in 'single rail'
67	NKC92	O' RING, large	2	type overdrive
68	NKC102A	O' RING, small	1	(item 14)
69	NKC13	DASH POT PLUG KIT	1	
70	NKC91	O' RING	1	
71	NKC93	PLUG, relief valve	1	
72	NKC94	SPRING, relief valve	1	
73	NKC95	BALL	1	
75	NKC28	PUMP PLUNGER	1	
76	NKC25	PUMP BODY KIT	1	
77	NKC100	O' RING	1	
78	NKC29A	NON-RETURN VALVE KIT	1	
79	NKC26A	PUMP PLUG KIT	1	
80	NKC101A	O' RING	1	
81	159503	CIRCLIP	1	
82	22H228	SNAP RING	1	
83	159505	CAM, oil pump operating	1	
84	WKN304	WOODRUFF KEY	1	
85	NKC21	OPERATING PISTON	1	
86	NKC99A	O' RING	1	

Ill. No	Part Number	Description	Qty. Req.	Details
87	500587	BRIDGE BAR	2	
88	JS616A	LOCK NUT	4	
89	NKC19	MAIN HOUSING	1	supplied with items 25, 26, 71, 72, 73, 94, 95
90	NKC66	NAMEPLATE	1	
91	NKC98	DRIVE SCREW, nameplate	2	
92	NKC86	GASKET	1	brake ring to main housing
93	NKC10	BRAKE RING	1	
94	NKC58	STUD, short	1	set of four
95	NKC59	STUD, long	1	set of two
96	NKC83	CIRCLIP, sun gear	1	
97	NKC85	CIRCLIP, clutch	1	
98	NKC84	SNAP RING, bearing	1	
99	NKC63	BEARING, clutch	1	
100	NKC62	BEARING HOUSING	1	
101	NKC109	BOLT	4	
102	NKC12	SPRINGS, set of four	1	
103	NKC40	SLIDING MEMBER, (clutch)	1	
104	NKC55	SUN GEAR	1	
105	AEU1051	PLANET GEAR & CARRIER	1	
106	37H1949	BEARING & AXLE SET	1	
107	NKC77A	SNAP RING	1	
108	NKC20	OIL THROWER	1	
109	NKC17	FREEWHEEL UNIT	1	
110	012610	CAGE	1	uni-directional clutch rollers
111	506063A	ROLLERS, set of twelve	1	
112	NKC16	CLUTCH, inner member	1	
113	513208	SPRING, clutch retaining	1	
114	NKC79	THRUST WASHER	1	
115	NKC9	ANNULUS	1	
116	217325A	BEARING, annulus head	1	
117	NKC46	GEAR, speedometer drive	1	3.89:1 axle ratio
	NKC45	GEAR, speedometer drive	1	3.63:1 axle ratio
118	NKC78	SPACER, annulus shaft	1	
120	NKC87	GASKET, rear to main housing	1	
121	RTC1951	REAR HOUSING	1	for three rail gearbox
	AAU1387	REAR HOUSING	1	for single rail gearbox
122	NKC90	NUT	6	
123	NKC88	WASHER, locking	4	
124	NKC89	WASHER, plain	2	
125	SP75G	BEARING, rear of annulus shaft	1	
126	NKC39A	OIL SEAL	1	
127	160286	DRIVE FLANGE	1	
128	NKC82A	WASHER	1	
129	NKC81	NUT, nyloc	1	
130	NKC49	PINION, speedometer drive	1	3.89:1 axle ratio
	AEU1578	PINION, speedometer drive	1	3.63:1 axle ratio
131	NKC42	HOUSING, pinion	1	
132	NKC106	O' RING	1	
134	NKC105A	OIL SEAL	1	
135	NKC43	RETAINER, pinion	1	
136	AAU1384	CLAMP, retainer	1	
137	NKC80	SCREW	1	
138	NKC70	WASHER, shakeproof	1	

So Your Overdrive's Stopped Working (part 2) ...

... and you'd prefer to explore some less expensive reasons for failure before looking up the price of a solenoid or overdrive unit. Check for the following easy-to-cure problems first (these are equally applicable to both 'D' and 'J' type fitted cars);

1) If you look at the gear knob switch you will notice that there are special connectors used on the gear lever harness which slide onto the switch fittings. The connectors are insulated from each other by means of the switch casing, however they do sometimes become disconnected through vibration and either earth out or break the circuit intermittently.

2) A short circuit caused by chaffing of the gear lever wires (153726) is a prevalent problem on all cars with gear knob mounted overdrive switches.

3) The overdrive may sometimes cease to work due to wear on the inhibitor switch ball end of the 3rd & 4th gear selector shaft. Removal of a spacing washer may cure this problem. Too few washers may load up the selector and 'stiffen' the gear change.

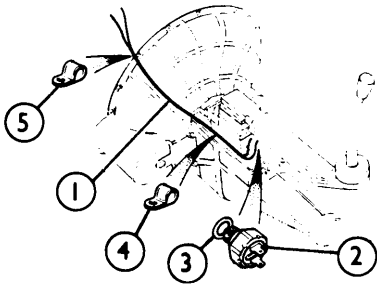
4) Remember the all important ingredient of an overdrive is oil. It is the operating medium as well as a lubricant. Under no circumstances should anti-friction additives be used in gearbox or overdrive oil. Hypoy oil should not be used even though it's recommended by Triumph (the gearbox maker). 'Laycock de Normanville' (the overdrive maker) specifically excludes oils with Hypoy additives from its lubrication chart.

We suggest the following oils;

Warm climates; Penrite Gear oil 40 (GGL9021X).

Cold climates and winter: Penrite Gear oil 30 (GGL9019X).

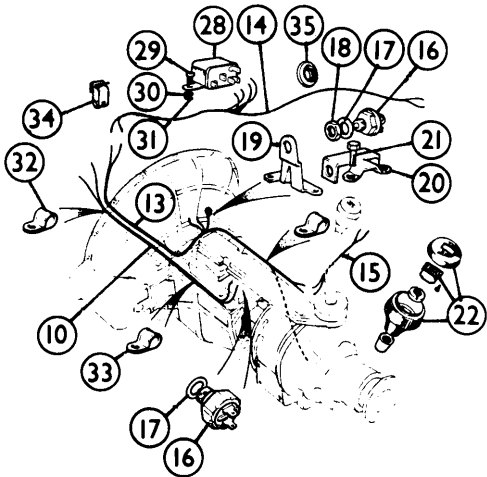
(Numbers in brackets are Moss part numbers)



Ill. No	Part Number	Description	Qty. Req.	Details
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1300, Non Overdrive Gearbox

1	160335	HARNESS, reverse lamp switch	1	
2	BAU1074A	SWITCH, reverse lamps	1	
3	502146	WASHER, spacing	a/r	
4	PCR509	CLIP, harness to gearbox top cover	1	
5	AEU1581A	CLIP, harness to bell housing	1	



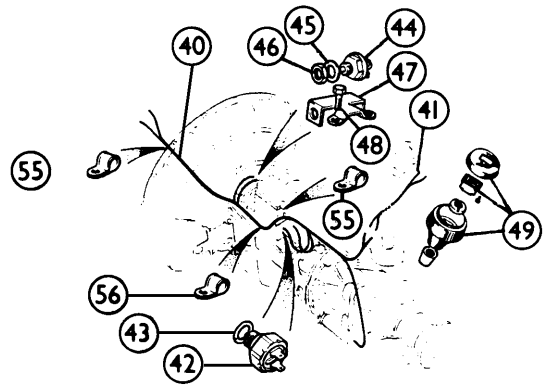
1300, 'D' Type Overdrive Gearbox up to (c) FH60000

10	160335	HARNESS, reverse lamp switch	1	
13	155985	HARNESS, overdrive, on gearbox	1	
14	155983	HARNESS, overdrive, on body	1	RHD
	155984	HARNESS, overdrive, on body	1	LHD
15	153726	EXTENSION HARNESS, overdrive	1	in gear lever
16	BAU1074A	SWITCH, overdrive inhibitor	2	also reverse lamps
17	502146	WASHER, spacing	a/r	
18	059474	NUT, switch securing	1	
19	133770	BRACKET, inhibitor switch	1	to FH31846
20	158002	BRACKET, inhibitor switch	1	from FH31847
21	SH604071	SCREW, bracket to gearbox	2	
22		GEAR KNOB & SWITCH	1	see page 80 for details
28	142169A	RELAY, overdrive	1	
29	GHF425	SCREW, self tapping	2	
30	WL700101	WASHER, locking	2	
31	PWZ203	WASHER, plain	2	
32	AEU1581A	CLIP, harness securing	2	
33	PCR509	CLIP, harness securing	1	
34	618511	CLIP, harness to bulkhead	1	
35	061917	GROMMET, bulkhead	1	

1300, 'J' Type Overdrive Gearbox (c) FH60001 to (c) FH62644

'J' Type overdrive equipped Spitfires built in this period (beginning of 1974 model year) used two harnesses on the gearbox (one for reverse lights, the other for overdrive) plus two sets of wires running from the car body to supply the two systems. All later 1300 'J' type overdrive cars (c) FH62645 onwards) had just one set of supply wires on the body, plus one dual purpose harness on the gearbox (item 40 on this page). This harness may be easily installed on the earlier cars by simply connecting it to the reverse lamp circuit wires hanging on the bulkhead, just to the left of the front of the gearbox tunnel (the wires are green and green/brown). The overdrive supply wires on the car body will now be redundant.

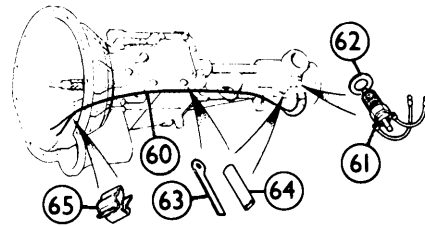
All switches, brackets & clips are as per the '(c) FH62645 onwards' section.



Ill. No	Part Number	Description	Qty. Req.	Details
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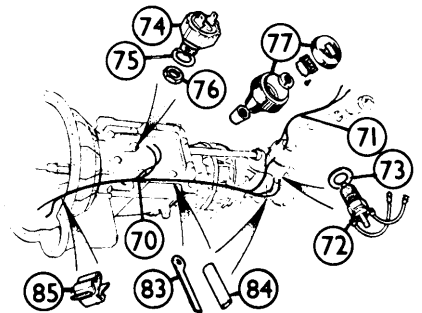
1300, 'J' Type Overdrive Gearbox from FH62645

40	159653	HARNESS	1	reverse lamp switch & overdrive in gear lever
41	153726	EXTENSION HARNESS, overdrive	1	
42	BAU1074A	SWITCH, reverse lamps	1	
43	502146	WASHER, spacing	a/r	
44	BAU1074A	SWITCH, inhibitor, overdrive	1	
45	502146	WASHER, spacing	1	
46	059474	NUT, switch securing	1	
47	158002	BRACKET, inhibitor switch	1	
48	SH604071	SCREW, bracket to gearbox	2	
49		GEAR KNOB & SWITCH	1	see pages 80/81 for details
55	AEU1581A	CLIP, harness securing	2	
56	PCR509	CLIP, harness securing	1	



1500, Non Overdrive Gearbox

60	UKC4481	HARNESS, reverse lamp switch	1	
61	GAE191A	SWITCH, reverse lamps	1	
62	GHF302	WASHER, spacing	a/r	
63	ULC1178	CLIP, harness to gearbox	2	
64	503213	INSULATING SLEEVE (for clip)	2	
65	618511	CLIP, harness to bulkhead	1	



1500, 'J' Type Overdrive Gearbox

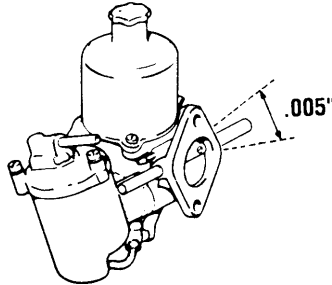
70	UKC4612	HARNESS	1	reverse lamp switch & overdrive in gear lever
71	153726	EXTENSION HARNESS, overdrive	1	
72	GAE191A	SWITCH, reverse lamps	1	
73	GHF302	WASHER, spacing	a/r	
74	BAU1074A	SWITCH, inhibitor, overdrive	1	
75	502146	WASHER, spacing	a/r	
76	059474	NUT, switch securing	1	
77		GEAR KNOB & SWITCH	1	see pages 84/85 for details
83	ULC1178	CLIP, harness to gearbox	2	
84	503213	INSULATING SLEEVE, for clip	2	
85	618511	CLIP, harness to bulkhead	1	

Carburettor Technical Tips

Carburettors rarely go 'out of tune' by themselves. When engine condition changes, the carburation requirements of the engine are altered. A compromise is sometimes possible by adjusting the carburettor(s) to suit, but the overall performance will be below what it should be. When you think your car needs a carburettor tune-up, make sure that everything is in proper condition and adjusted. It is impossible to properly adjust carburettors if the engine is not set up correctly.

Re-bushing Carburettor Bodies

Re-bushing carburettor bodies and fitting new throttle shafts is a major part of a carburettor rebuild which is often overlooked. Vacuum leaks due to worn bodies and shafts cause rough idle, poor performance, and poor fuel economy. Checking the shaft & body clearance is a simple matter of wiggling the shafts in the carburettor bodies. Any appreciable play indicates wear in the bodies or on the shafts or both. Some wear is to be expected, but performance is seriously affected when clearances are over 0.005" (five thousandths of an inch). Verification is done with the engine running at idle by spraying carburettor cleaner (MRD1023) on the shafts where they enter the carburettor body. If the idle changes, the shafts and/or the bodies are worn.



Quite often, the problem can be fixed by simply replacing the throttle shafts. 'Remove the couplings, springs, and other fittings from the ends of the shafts. Mark the butterfly plates with a felt-tip pen to indicate which end is installed upwards and remove the two securing screws. Pull the plates out and slide the shaft sideways until a clean, unworn section of the shaft is in each side of the body. Now wiggle the shaft up & down, forwards & backwards, to determine if any play is present. If none, a new pair of standard throttle shafts should solve the problem. Oversize shafts (if not already fitted) can be purchased to take up slight wear in the carburettor body. Since the holes in the bodies generally wear to a slight 'oval' shape, it is advisable when fitting oversize shafts, to ream the carburettor bodies to the diameter of the particular new shaft plus 0.002" clearance. Standard SU shafts measure 0.310" to 0.311" in diameter. Oversize shafts vary in diameter, but are generally 0.005" to 0.010" larger than the standard shafts. If the carburettor bodies are found to be worn too badly for oversize shafts to be effective, the bodies must be re-bushed.

To re-bush carburettor bodies, the old bushes (or the bodies themselves, if the particular carburettors don't have bushes) must be drilled out to a diameter just smaller than the outside diameter of the new bushes, and to a depth just short of entering the venturi. Since each side of the body must be drilled separately, accurate alignment of the two holes is difficult to maintain. Several members of our staff have found that an easy way to do this is to chuck the appropriate drill in a lathe, and run the carburettor body onto the drill with the tailstock centre. New bushes are then pressed into the bodies and reamed to fit the new shafts with the minimum clearance which allows free rotation. This is best accomplished with a 5/16" adjustable reamer with a pilot long enough to ride in the opposing bush. Sometimes it is necessary to lap the shafts in the bushes by chucking the projecting end of the shaft in an electric drill and running it dry in the bushes. Do not use any abrasive compound; the dark oxide that is formed is enough. Add a drop or two of light oil and continue until the shaft rotates freely in the bushes. After re-installation of the throttle plates, springs, and linkage, the rest of the rebuild is routine. Keep in mind that the throttle plates must be centralised before the screws are tightened.

Carburettor Adjusting Tools

The proper tools will give you an edge in the correct tuning and maintenance of your carburettors. For full details of carburettor tools please refer to Accessories.



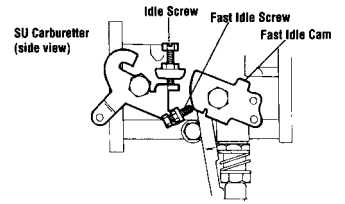
Choke Adjustment

Adjustment of the "choke" mechanism of SU's and Zenith-Stromberg's is of great importance, but seems to be little understood.

Technically speaking, SU's do not have true 'choke' mechanisms by which a richer mixture is created by restricting the airflow, but accomplish the same result by keeping the airflow the same and increasing the flow of fuel.

Zenith-Stromberg carburettors on U.S.A. market Spitfires use a true choke; a starter bar which rotates up under the air piston, at once restricting the airflow and increasing the fuel flow. Before any choke adjustments can be made accurately, the carburettors must be synchronised and balanced and the choke cable disconnected from the carburettors.

Of primary consideration is the physical condition of the choke & fast idle linkages. Excess looseness or binding prevent proper adjustment and operation. Replace any worn or damaged parts. Next, the choke linkages of the two carburettors must be synchronised. If you have any doubts as to how to do this, refer to a good workshop manual. In general, back off the fast idle screws so they won't get in the way, loosen the interconnecting linkage, and re-tighten so that both chokes begin to operate at the same time. Adjust the fast idle screws so that in the 'rest' position, there is about 1/32" clearance between the screws and the fast idle cams. Re-connect the choke cable leaving it a bit slack, as you do not want any pre-load on the choke mechanism that would hinder its return to 'rest' when the choke is in the off position.



Idle Speed Adjustment Problems

If difficulty is encountered in adjusting to a proper idle speed, check for:

- 1) vacuum leaks.
- 2) jet/choke linkage position.
- 3) interference between the fast idle adjusting screw and the fast idle cam.

Check all of this only after you are sure that the ignition system and the rest of the engine are in good order.

COLORTUNE

"The tune-up window"

Using Colortune is as simple as fitting a spark plug, and it lets you see into the engine! The colour of the burning mixture lets you know whether fuel is being mixed and burnt properly or being wasted, and if the mixture is wrong Colortune provides the means to make accurate adjustments with ease.

According to the 'AA' (the world's largest automobile association), Colortune can save up to 10% of the fuel you put into the tank, which gives you more money to spend on Saturday night.

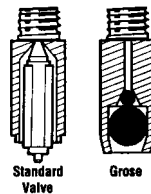


MRD1005

COLORTUNE

a/r

GROSE-JET®



GROSE JETS

'Precision fuel flow'

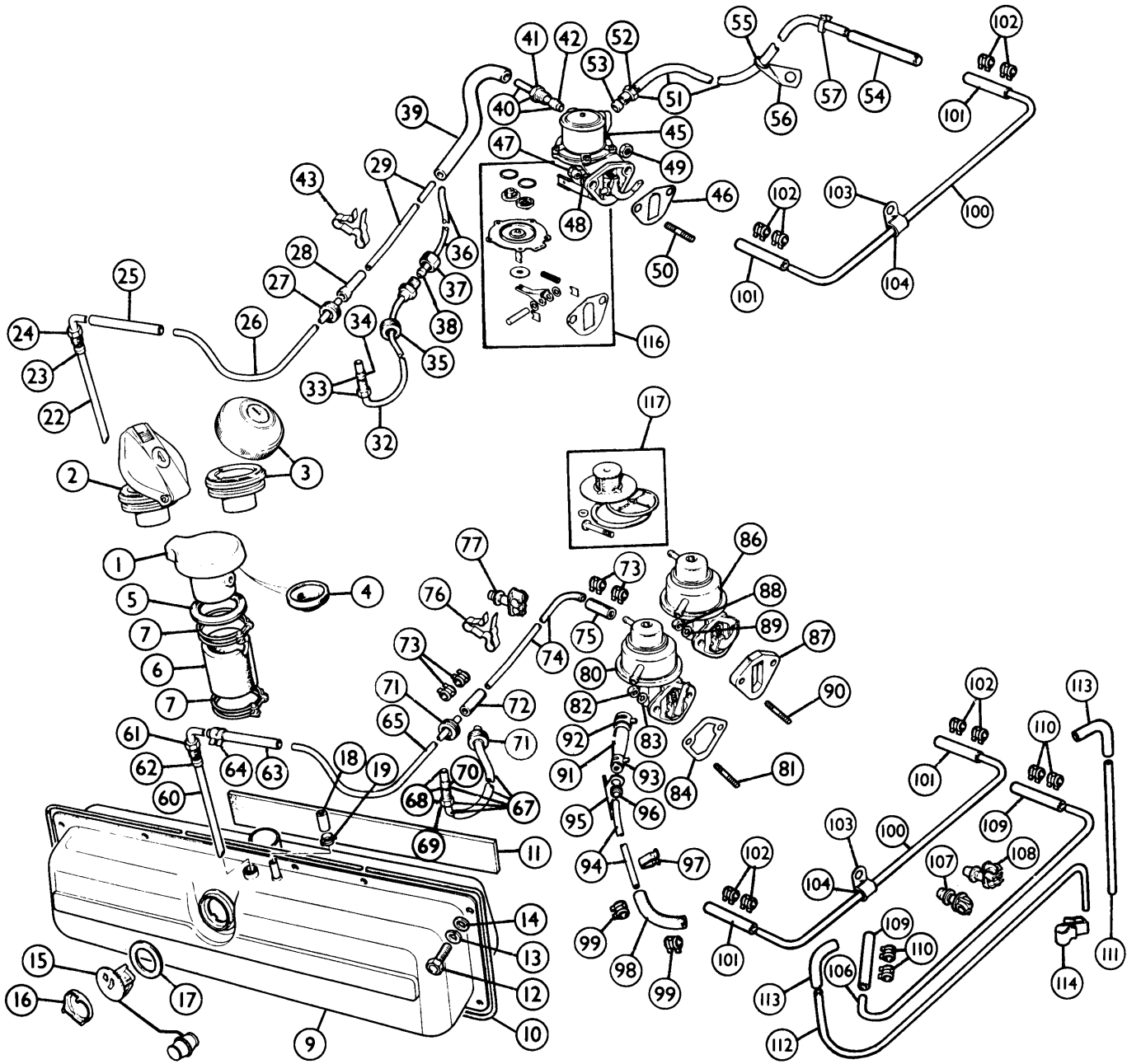
Your carburettors may be reconditioned, but they still leak fuel all over the place when you lift your foot off the accelerator. If so, fit Grose jets, the ball valve jet which won't stick open, unlike old fashioned needle and seat valves.

GAC9201X

Grose Jet for HS type SU carbs

2

94 Fuel Tank, Pump & Fittings



Ill. No	Part Number	Description	Qty. Req.	Details
Fuel Tank, Pipes & Pump				
See also 'Performance & Tuning' in Accessories.				
1	725117	FUEL CAP, vented	1	
	725570	FUEL CAP, non vented	1	alternative
2	GAC6001X	FUEL CAP, locking, lozenge shaped	1	(cut neck length to fit)
3	571086	FUEL CAP, locking, round shape	1	
4	718738	SEAL, vented	1	
	725220	SEAL, non vented	1	
5	650247	GROMMET, filler neck to rear deck	1	
6	UKC9920	HOSE, filler neck to tank	1	replacement
7	CS4038	CLAMP, wire type	2	original filler hose
	CS4042	CLAMP, wire type	2	fits UKC9920 hose
9	311589	FUEL TANK	1	1300 to FH50000
	RKC3395	FUEL TANK	1	1300 from FH50001, 1500
	312407	FUEL TANK	1	1300 German models only 1500 to FH75379 D, B, DK, F, NL, I, CH & A models only

Ill. No	Part Number	Description	Qty. Req.	Details
10	154036	FINISHER, tank edge	1	
11	107562	FELT PAD, anti-rattle	1	glued to tank
12	GHF103	SCREW, tank mounting	5	
13	GHF332	WASHER, locking	5	
14	WP125	WASHER, plain	5	
15	TKC2053	SENDER UNIT, fuel gauge	1	
16	ARA1501	LOCKING RING, sender unit	1	
17	ARA1502	SEALING RING, sender unit	1	
18	158554	CAP, blanking vent	a/r	
19	UKC3793	CLIP, securing blanking cap	a/r	
1300 models to (c) FH50000				
22	155083	PICK-UP PIPE	1	
23	TL8	OLIVE	1	
24	060142	TUBE NUT	1	
25	144938	HOSE, rubber	1	all markets except Germany
26	216006	TUBE, fuel feed	1	
27	600395	GROMMET	1	
28	153300	CONNECTOR	1	
29	155506	TUBE, fuel feed	1	

Ill. No	Part Number	Description	Qty. Req.	Details
32	305953	TUBE ASSEMBLY, fuel feed	1	
33	AHA5535	TUBE NUT & OLIVE	1	
34	TL7	OLIVE	1	
35	600395	GROMMET	1	German market only
36	305824	TUBE ASSEMBLY, fuel feed	1	
37	134942	TUBE NUT	1	
38	TL7	OLIVE	1	
39	122796	CONNECTOR	1	
40	AHA5535	TUBE NUT & OLIVE, pump inlet	1	
41	060176	TUBE NUT	1	
42	TL7	OLIVE	1	
43	059191	CLIP	2	fuel & brake pipes to chassis
45	208493B	FUEL PUMP	1	screw in connections
46	138591	GASKET, fuel pump to engine	1	
<i>Original fuel pumps require the use of a tube nut to attach it on its rearward mounting stud. The tube nut allows clearance for the manual priming lever to operate and allows easier fitting of the nut.</i>				
47	104359	TUBE NUT	1	
48	GHF332	WASHER, locking	2	
49	GHF201	NUT	1/2	can be used to replace item 47
50	101962	STUD, pump to engine	2	
51	305946	TUBE ASSEMBLY	1	fuel pump to carburettors
52	060176	TUBE NUT	1	
53	TL7	OLIVE	1	
54	122796	CONNECTOR	1	
55	630661	GROMMET	1	
	061917	GROMMET	1	
56	155959	BRACKET, tube supporting	1	
57	138892	CLIP, vacuum pipe to fuel tube	1	

**1300 models from (c) FH50001 except Germany
1500 except D, B, DK, F, NL, I, CH, A to (c) FH75379**

60	TKC5419	PIPE ASSEMBLY, pick up	1	
61	060142	TUBE NUT	1	
62	TL8	OLIVE	1	
63	144938	HOSE, rubber	1	
64	UKC3795	CLIP, securing connector to tube	2	
65	215975	PIPE, fuel feed	1	

**1300 models from (c) FH50001 German markets
1500 models up to (c) FH75379
D, B, DK, F, NL, I, CH, A only**

67	UKC1764	PIPE ASSEMBLY, fuel feed	1	
68	AHA5535	TUBE NUT & OLIVE	1	
69	060176	TUBE NUT	1	
70	TL7	OLIVE	1	

All 1300 models from (c) FH50001 & 1500

71	600395	GROMMET	1	
72	115784	CONNECTOR	1	
73	UKC3795	CLIP, securing connector	4	
74	PKC828	TUBE, fuel feed	1	
75	149608	CONNECTOR, tube to pump inlet	1	
76	059191	CLIP, metal (alternative)	3	fuel & brake pipes
77	624155	CLIP, plastic (alternative)	3	to chassis

Proper use of a Spitfire Manual Choke

Pulling out the choke knob causes two distinct mechanical things happen to your carburettors.

A) The first third of movement increases the idle speed, this can often be observed by the accelerator pedal moving downwards.

B) The next two thirds of movement continues to increase the idle speed while enriching the fuel/air mixture.

To start your Triumph from cold you should always use full choke.

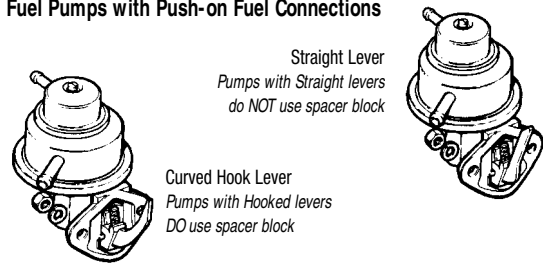
Once the engine has started, feed the choke back in to obtain a smooth fast idle which has sufficient mixture enrichment to allow smooth acceleration but not rough idling. The real trick is to gradually feed the choke back in as the engine warms up and retain 'normal running & pick up'.

Whatever happens the choke must be pushed fully in before the engine reaches normal running temperature. Remember too little choke will mean bad cold starting and hesitant pick-up while the engine is warming up.

Too much choke will give a lumpy tickover, excessive fuel consumption and more dramatically, increased cylinder bore wear due to the petrol washing off the lubricating oil from the cylinder walls. If your Spitfire does not warm up quickly to the correct temperature, check the operation of the radiator thermostat. If in doubt read the service manual about resetting the choke mixture & fast idle.

Ill. No	Part Number	Description	Qty. Req.	Details
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Fuel Pumps with Push-on Fuel Connections



Straight Lever
Pumps with Straight levers
do NOT use spacer block

Curved Hook Lever
Pumps with Hooked levers
DO use spacer block

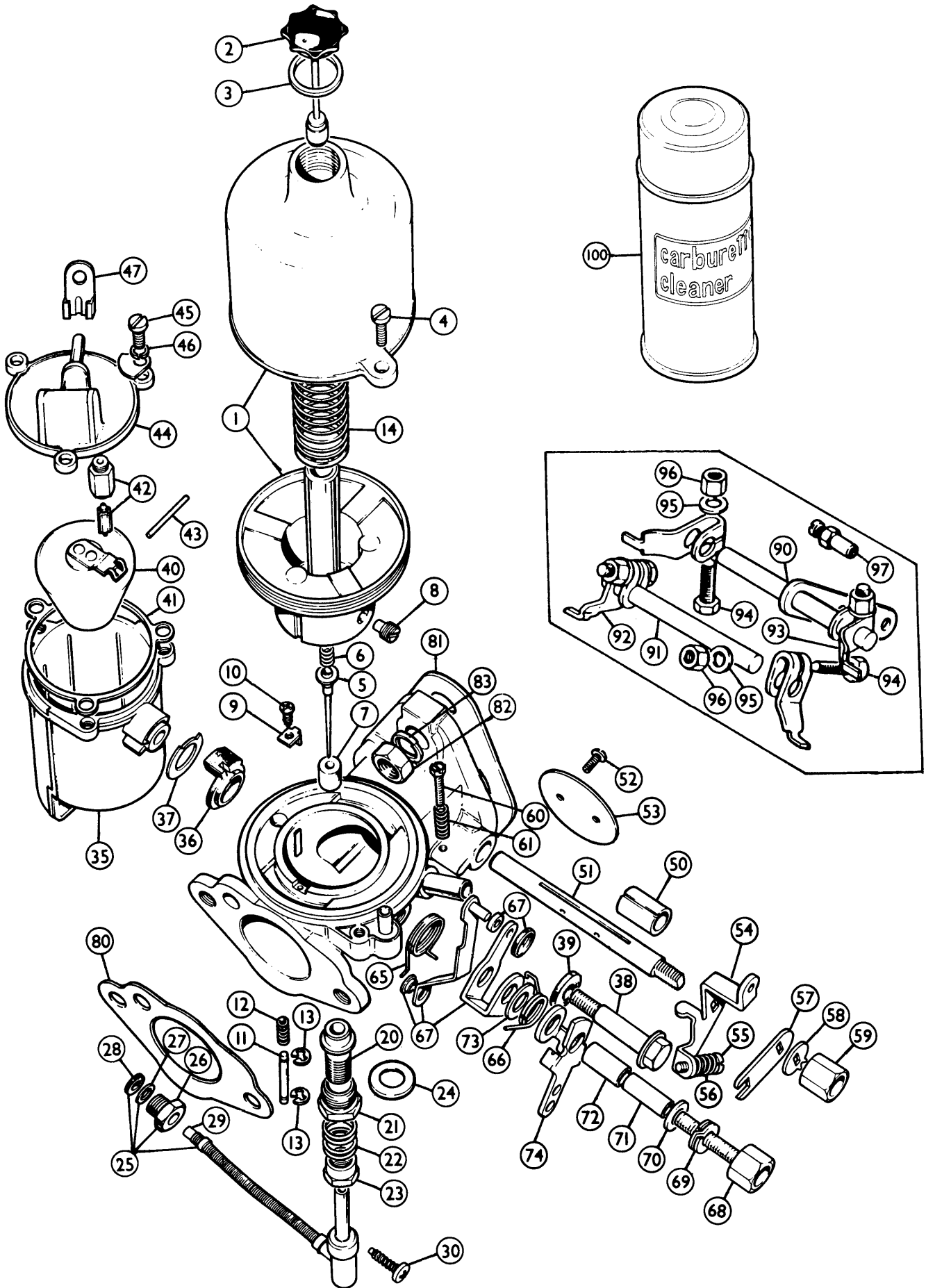
Triumph changed the pump installation at engine no. FM93157. The new installation included a spacer block between the engine and pump. The later pump must be fitted with the block and conversely the early pump must not. This is due to different types of contact desired between the lever & the camshaft. Please note that aftermarket versions of the pumps may have lever profiles which only approximate to the illustrations.

80	RKC1624	FUEL PUMP, original	1	
	RKC1624B	FUEL PUMP, reproduction	1	
81	TE605105	STUD, pump to engine	2	pumps fitted without
82	GHF201	NUT	2	13mm spacer block
83	GHF332	WASHER, locking	2	
84	2A113	GASKET	1	
86	TKC3417	FUEL PUMP, original	1	
	TKC3417B	FUEL PUMP, reproduction	1	
87	UKC8523	SPACER BLOCK, 13mm	1	pumps fitted with
88	GHF201	NUT	2	13mm spacer block
89	GHF332	WASHER, locking	2	
90	TE605141	STUD, pump to engine	2	

If in doubt as to what you have or need - order the pump, and its correct studs, spacer block or gasket, depending on the pump chosen.

91	144938	HOSE rubber, (5/16" int. dia)	1	to FH59688E
	153300	CONNECTOR (5/16" to 1/4" int. dia)	1	from FH59689E
92	UKC3795	CLIP (1/2" int. dia)	1/2	
93	UKC3794	CLIP (7/16" int. dia)	1	
94	TKC680	TUBE, fuel feed (5/16" outer dia)	1	to FH59688E
	310221	TUBE, fuel feed (1/4" outer dia)	1	from FH59689E
95	155959	BRACKET, tube support	1	
96	061917	GROMMET, in bracket	1	alternatives
	630661	GROMMET, in bracket	1	
97	138892	CLIP, vacuum pipe to fuel tube	2/3	
98	153300	CONNECTOR (5/16" to 1/4" int. dia)	1	to FH59688E
	120331	CONNECTOR (1/4" int. dia)	1	from FH59689E
99	UKC3795	CLIP (1/2" outer dia)	1	
	UKC3794	CLIP (7/16" outer dia)	1/2	
100	157082	TUBE, fuel feed (carb to carb)	1	1300 engine
101	120331	CONNECTOR	2	alternatives
	125170	CONNECTOR	2	
102	UKC3793	CLIP, connector clamping	4	if fitted
103	AEU1581A	CLIP, fuel tube	2	1300 engines only
104	114178	GROMMET, tube	2	
106	UKC4962	TUBE, fuel feed (carb to carb)	1	500 engines
107	623313	CLIP, single (1/4" pipe)	1	to FM105277E
108	629596	CLIP, twin (1/4" & 5/16" pipe)	1	from M105278E
109	120331	CONNECTOR	2	alternatives
	125170	CONNECTOR	2	
110	UKC3793	CLIP	4	
111	215924	OVERFLOW & VENT TUBE, front	1	
112	215938	OVERFLOW & VENT TUBE, rear	1	from FM105278E
113	125170	CONNECTOR, tube to carb	2	
114	C45174	EDGE CLIP, overflow tube	1	
116	BAU5077	REPAIR KIT, fuel pump	1	screw in connections
117	37H7281	REPAIR KIT, fuel pump	1	push on connections

NI	HFFK8	FUEL PIPE KIT, copper	1	to FH50000E
NI	HFFK13	FUEL PIPE KIT, copper	1	from FH50001E



Ill. No	Part Number	Description	Qty. Req.	Details
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HS2 SU Carburettors

See also 'Performance & Tuning' in Accessories.

Non USA Spitfires used only SU carburettors in two sizes; 1 1/4" (HS2) & later 1 1/2" (HS4). This is lucky because it therefore means there is continuity in the supply of parts, also that the changes made (for emission control) are negligible.

All 1300 non USA Spitfires use HS2 carburettors of the swing (or 'biased') needle type.

When components differ between the front & rear carburettors, the text lists both items describing them simply as 'front' or 'rear'.

HS2 Carburettors are supplied in pairs

AUD441T	CARBURETTORS, new	1pr	}	to FH25000E
AUD441E	CARBURETTORS, reconditioned	1pr		
AUD517T	CARBURETTORS new	1pr	}	from FH25001E
AUD517E	CARBURETTORS, reconditioned	1pr		
AUD580T	CARBURETTORS, new	1pr	}	to FH50001E
AUD580E	CARBURETTORS, reconditioned	1pr		
AUD624T	CARBURETTORS new	1pr	}	from FH59688E
AUD624E	CARBURETTORS, reconditioned	1pr		

Please note that reconditioned carburettors are offered on an exchange basis. To be acceptable for exchange, your old units must be complete and undamaged.

1	AUD9998	SUCTION CHAMBER & PISTON	2	
2	CUD4103A	DAMPER PISTON	2	
3	AUC4900A	WASHER, fibre	2	if required
4	JZX1394	SCREW, chamber to body	6	
5	CUD1012	NEEDLE, type AAN	2	original specification
6	AUD3306	SPRING	2	
7	AUD4288	NEEDLE GUIDE	2	
8	AUD4252	SCREW, needle guide securing	2	
	WZX1259	PISTON GUIDE & SCREW KIT	2	
9	AUC2054	PISTON GUIDE	2	
10	AUC2099	SCREW	2	
	WZX1108	PISTON LIFTING PIN KIT	2	
11	AUC8464	PIN, piston lifting	2	'tickler pin'
12	AUC1151	SPRING	2	
13	AUC1250	CIRCLIP, pin securing	4	
14	AUC4387	PISTON SPRING, (Red, 4 1/2 oz)	2	
	WZX1442	JET BEARING KIT	2	
20	AUD3414	JET BEARING	2	
21	AUC2002	TUBE NUT, jet securing	2	
22	AUC2114	SPRING	2	
23	AUC8461	TUBE NUT, mixture adjustment	2	
24	AUD2987	WASHER, sealing, jet bearing	2	
25	AUD9104	JET ASSEMBLY, rear	1	} 0.090"
	AUD9103	JET ASSEMBLY, front	1	
26	AUD2129	TUBE NUT, jet to float chamber	2	
27	AUD2193	WASHER, seal supporting	2	
28	AUD2194	SEAL, rubber	2	
29	AUD2195	FERRULE, brass	2	
30	AUC2104	SCREW, jet to lever	2	
35	AUD2140	FLOAT CHAMBER	2	
36	AUD2179	ADAPTOR, float chamber, rear	1	
	AUD2178	ADAPTOR, float chamber, front	1	
37	AUC1329	WASHER, support	2	
38	AUD2891	BOLT, flanged head,	2	} float chamber mounting
	AUD3017	BOLT, mounting float chamber	2	
	AUC1317	WASHER, plain	2	
39	AUC1318	WASHER, rubber	2	
40	WZX1300	FLOAT, (includes gasket)	2	
41	AUC8459A	GASKET, float chamber lid	2	
42	WZX1100A	NEEDLE & SEAT, (inc. gasket)	2	
	GAC9201X	GROSE JET, (superior design)	2	alternative to WZX1100A
43	AUC1152	PIN, float pivot	2	
44	AUE270*	FLOAT LID, rear	1	} for AUD441 & AUD517 carburettors
	AUE267*	FLOAT LID, front	1	
	AUE267*	FLOAT LID, rear	1	} for AUD580 carburettors
	AUE271*	FLOAT LID, front	1	
	AUE268*	FLOAT LID, rear	1	} for AUD624 carburettors
	AUE271*	FLOAT LID, front	1	
*Note: All float lids are now supplied as kits & include items 40, 42 & 43				
45	JZX1394	SCREW, float lid	6	
46	WL700101	WASHER, locking	6	
47	AUC1215	BAFFLE, float lid	2	

Ill. No	Part Number	Description	Qty. Req.	Details
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50 AUD3079 INSERT, throttle shaft bush a/r Steel
 Note: Item 50 is to be used when the carburettor body is worn around the throttle spindle. Reaming the boss in the carburettor body to 8mm allows the insert to be fitted, thereby bringing the hole diameter to a correct 1/4". See page 93 (Fuel System Technical Tips) for further details.

51 WZX1310 THROTTLE SPINDLE & FITTING KIT 2
 52 AUC1358 SCREW, throttle disc to spindle 4

Note: Throttle spindle & fitting kit also includes lock tab (item 58) & carburettor mounting gaskets item 80 & 81.

53 WZX1320 THROTTLE DISC & FITTING KIT (plain disc type) 2 } AUD441 carburettors

WZX1383 THROTTLE DISC & FITTING KIT (valve type disc) 2 } AUD517, 580, 624 carburettors

Note: Throttle disc kits include screws (item 52) & carburettor mounting gaskets items 80 & 81.

54 AUD2052 THROTTLE LEVER, rear 1
 AUD2053 THROTTLE LEVER, front 1
 WZX1140 SUNDRIES KIT 2 throttle levers

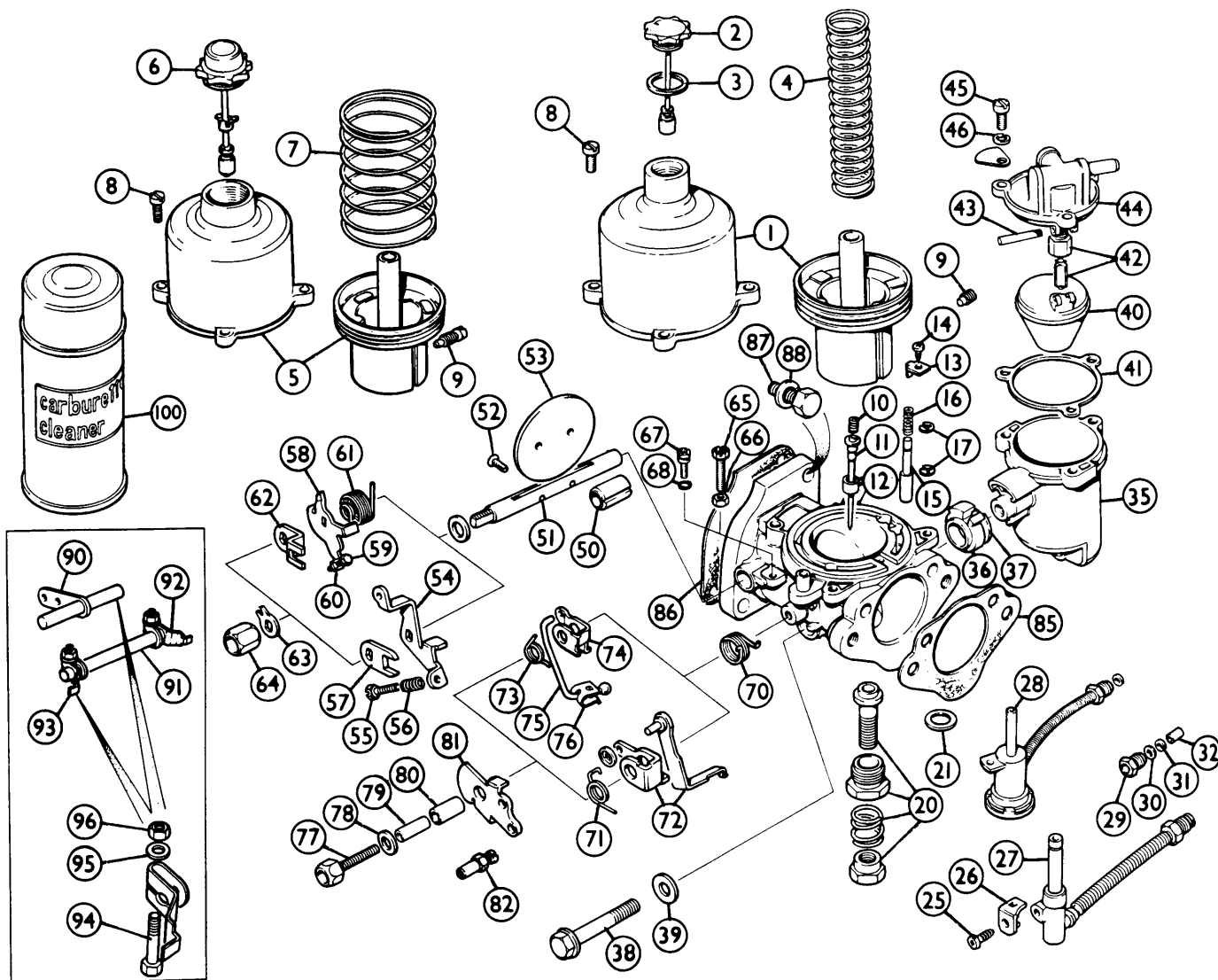
Throttle linkage sundry parts kit includes items 55, 56, 60 & 61

55	AUC8483	SCREW, fast idle adjustment	2	
56	AUC2451	SPRING	2	
57	JZX1328	LEVER, lost motion	2	
58	AUD3323	LOCK TAB	2	
59	AUC1424	PIVOT NUT	2	
60	AUC8483	SCREW	2	} throttle stop & idle adjustment
61	AUC2451	SPRING	2	
	WZX1336	CHOKE SPRING KIT, choke, rear	1	
65	AUC8462	SPRING, choke, rear, inner	1	
66	AUD2431	SPRING, choke, rear, outer	1	
	WZX1335	CHOKE SPRING KIT, choke, front	1	
	AUC1375	SPRING, choke, front, inner	1	
	AUD2432	SPRING, choke, front, outer	1	
67	CUD2687	LEVER & JET LINK, rear	1	
	CUD2686	LEVER & JET LINK, front	1	
	WZX1331	PIVOT BOLT KIT	2	
68	AUC1426	BOLT, pivot	2	
69	AUD2429	WASHER, anti rattle	2	
70	AUC5032	WASHER, spacing	2	
71	AUC8473	DISTANCE TUBE, inner	2	
72	AUD2430	DISTANCE TUBE, outer	2	
73	AUD2433	WASHER, spacing	2	
74	AUD3287	CHOKE LEVER, rear	1	
	AUD3288	CHOKE LEVER, front	1	
80	ACA8014	GASKET, carburettor to air filter	4	
81	1G2624	GASKET, carburettor to manifold	2	
82	GHF202	NUT, carburettor to manifold	4	
83	GHF333	WASHER, locking	4	
90	156290	LINK ROD & LEVER, throttle	1	
91	AUC1453	LINK ROD, choke	1	
92	AUE587	LOST MOTION LEVER, rear	2	
93	AUE586	LOST MOTION LEVER, front	2	
94	AUC2694	SCREW, in lever	4	
95	AUC8396	WASHER, plain	4	
96	AJD8012Z	NUT	4	
97	AUE34	TRUNNION, choke cable	1	
100	MRD1023	SPRAY CLEANER	a/r	carburettor cleaner

Other kits available for the servicing of HS2 carburettors include the following;

NI	WZX1120	CARBURETTOR SUNDRIES KIT	2	
		(inc. items 4, 9, 10, 24 for one carburettor)		
NI	AUE810A	CARBURETTOR GASKET KIT	2	
		(inc. items 24, 27, 28, 41, 80, 81 for one carburettor)		
NI	WZX1391	FLOAT CHAMBER SUNDRIES KIT	2	
		(inc. items 27, 28, 37, 41, 43, 45, 46, 47 for one carburettor)		
NI	WZX1860X	SERVICE KIT	1	
		(inc. items 3, 25, 41, 42, 80, 81; to service two carburettors)		
NI	GAC6154X	REBUILD KIT	1	
		(inc. items 3, 25, 41, 42, 50, 51, 52, 53, 80, 81 for 2 carb's plus instructions.)		
		Please note that only plain type throttle discs are included in this kit)		

98 | HS4 SU Carburettors



iii. Part No	Part Number	Description	Qty. Req.	Details
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HS4 SU Carburettors

See also 'Performance & Tuning' in Accessories.

The HS4 type carburettor on 1500 engines during production was subjected to more visually obvious improvements than its predecessor, the HS2 on 1300 engines. These changes included the replacement of the age old 'sliding bush' suction chamber & piston assembly, with a new smoother ball bearing design (a definite improvement) and, the introduction in 1976 of the emissions-conscious Capstat jets (at best, controversial). The illustration and text is structured in an attempt to group together all the components in each sub assembly which changed.

Please note that reconditioned carburettors are offered on an exchange basis. To be acceptable for exchange, your old units must be complete and undamaged.

HS4 Carburettors (Supplied in pairs)

AUD665T	CARBURETTORS, new	1pr	} to FM53446E	
AUD665E	CARBURETTORS, reconditioned	1pr		
FZX1258T	CARBURETTORS, new	1pr	} from FM53447E	
FZX1258E	CARBURETTORS, reconditioned	1pr		
FZX1122E	CARBURETTORS reconditioned	1pr	} from FM105279E to FM118374E	
FZX1327T	CARBURETTORS, new	1pr		
FZX1327E	CARBURETTORS, reconditioned	1pr		
1	AUD9988	SUCTION CHAMBER & PISTON	2	for AUD665 &
2	AUC8114A	DAMPER PISTON	2	FZX1258 carburettors
3	AUC4900A	WASHER, fibre	2	('sliding bush' type

iii. Part No	Part Number	Description	Qty. Req.	Details
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4	AUC4387	PISTON SPRING, red (4 1/2 oz)	2	suction chamber)
5	LZX1025	SUCTION CHAMBER & PISTON	2	} for FZX1122 carburettors
6	LZX1313	DAMPER PISTON	2		('ball bearing' type chamber)
	LZX1523	SUCTION CHAMBER & PISTON	2	} for FZX1327 carburettors
	LZX1506	DAMPER PISTON	2		('ball bearing' type chamber)
7	AUD4355	PISTON SPRING, red (4 1/2 oz) (2 1/4" diameter)	2	} for FZX1122 & FZX1327 carburettors

Note: The ball bearing type suction chamber is a vast improvement over the earlier sliding bush type, with benefits to smoothness, acceleration and economy. If fitted it must be used with the correct damper (LZX1313 or LZX1506) and piston spring (AUD4355). No needle specification change is required.

8	JZX1394	SCREW, chamber to body	6	
9	AUD4251	SCREW, needle guide securing	2	
10	AUD3306	SPRING	2	
11	CUD1041	NEEDLE, type ABT	2	} for AUD665 & FZX1258 carburettors
	NZX4013	NEEDLE, type ADN	2		} for FZX1122 & FZX1327 Carburettors
12	AUD4288	NEEDLE GUIDE	2	
	WZX1259	PISTON GUIDE & SCREW SET	2	
13	AUC2054	PISTON GUIDE	2	
14	AUC2099	SCREW	2	
	WZX1108	PISTON LIFTING PIN KIT	2	if fitted
15	AUC1249	PIN, piston lifting	2	'tickler pin'
16	AUC1151	SPRING	2	
17	AUC1250	CIRCLIP, pin securing	4	
20	WZX1442	JET BEARING KIT	2	} for AUD665 carburettors
	WZX1443	JET BEARING KIT	2		} for FZX1258, FZX1122 & FZX1327 carburettors

Ill. No	Part Number	Description	Qty. Req.	Details
21	AUC8478	WASHER, sealing, jet bearing	2	
25	AUD2104	SCREW, jet to bracket	2	for AUD665 carburettors (standard jets)
26	AUD2427	BRACKET, jet to lever, front	1	
	AUD2428	BRACKET, jet to lever, rear	1	
27	AUD9451A	JET, front, 0.090" jet	1	for AUD665 carburettors (standard jets)
	AUD9450A	JET, rear, 0.090" jet	1	
28	LZX1323A	JET, front, 0.090" jet	1	for FZX1258 carburettors (capstat jets)
	LZX1322A	JET, rear, 0.090" jet	1	
	LZX1331	JET, front, 0.090" jet	1	for FZX1122 & FZX1327 carburettors (capstat jets)
	LZX1330	JET, rear, 0.090" jet	1	
29	AUD2129	TUBE NUT, jet to float chamber	2	
30	AUD2193	WASHER, seal supporting	2	
31	AUD2194	SEAL, rubber	2	
32	AUD2195	FERRULE, brass	2	

TT1459 JET CONVERSION KIT 1 Converts Capstat jets to standard jets

If your car has capstat type carburettors (FZX1258, FZX1122 or FZX1327) then read on. It's possible that your engine - when hot, dies on idle, or idles unevenly. If these maladies can be definitely traced back to the carburettors, our TT1459 'Capstat' conversion kit can be fitted. The kit replaces the dubious Capstat jets with standard items and also effects the necessary choke linkage changes. One kit services both carburettors.

35	AUC2140	FLOAT CHAMBER	2	
36	AUD2178	ADAPTOR, float chamber, front	1	
	AUD2179	ADAPTOR, float chamber, rear	1	
37	AUC1329	WASHER, support	2	
38	AUD2891	BOLT, flanged head	2	float chamber
	AUD3017	BOLT, mounting float chamber	2	alternative to item 38
	AUC1317	WASHER, plain	2	
39	AUC1318	WASHER, rubber	2	
40	WZX1300	FLOAT, (includes gasket)	2	
41	AUC8459A	GASKET, float chamber lid	2	
42	WZX1100A	NEEDLE & SEAT (inc. gasket)	2	
	GAC9201X	GROSE JET (alternative to 42)	2	(superior valve design)
43	AUC1152	PIN, float pivot	2	
44	AUE271*	FLOAT LID, front	1	without overflow connection AUD665 and FZX1258 carbs
	AUE268*	FLOAT LID, rear	1	
	AUE272*	FLOAT LID, front	1	with overflow connection FZX1122 and FZX1327 carbs
	AUE273*	FLOAT LID, rear	1	

*Note: All float lids are now supplied as kits & include items 40, 42, & 43

45	JZX1394	SCREW, float lid	6	
46	WL700101	WASHER, locking	6	
50	AUD3080	STEEL INSERT	a/r	throttle shaft bush

Note: Use Item 50 when the carburettor body is worn around the throttle spindle. Peaming the boss in the carburettor body to 9.5mm allows the insert to be fitted, thereby bringing the hole diameter in the boss to a correct 5/16". See page 93 (Fuel System Technical Tips) for further details.

51	WZX1177	SPINDLE & FITTING KIT	2	
52	AUC1358	SCREW, throttle disc to spindle	4	

Note: kit 51 also includes lock tab (item 63) & mounting gaskets 85 & 86

53	WZX1323	THROTTLE DISC & FITTING KIT valve type disc	2	for AUD665 carburettors
	WZX1385	THROTTLE DISC & FITTING KIT valve type disc	2	for FZX1258 carburettors
	WZX1225	THROTTLE DISC & FITTING KIT valve type disc	2	for FZX1122 & FZX1327 carburettors

Note: Throttle disc kits include screws (item no. 52) & carburettor mounting gaskets item nos. 85 & 86. A plain disc may be substituted here, particularly if greater performance is sought. The discs are supplied individually, again with screws and gaskets.

	WZX1323	THROTTLE DISC & FITTING KIT	2	plain disc
54	AUD4863	THROTTLE LEVER, front	1	
	AUD4862	THROTTLE LEVER, rear	1	
55	AUC8483	SCREW, fast idle adjustment	2	for AUD665
56	AUC2451	SPRING (alternative to AJD8014Z)	2	carburettors
	AJD8014Z	NUT, locking	2	
		(alternative to AUC2451 spring)		
57	AUD3518	LEVER, lost motion	2	
58	JZX1179	THROTTLE LEVER, front	1	
	JZX1178	THROTTLE LEVER, rear	1	
59		SCREW, fast idle adjustment	2	for FZX1258, FZX1122
60	AJD8014ZX	SPIRE NUT, screw to throttle lever	2	& FZX1327 carburettors
61	JZX1299	SPRING, throttle return, front	1	
	JZX1298	SPRING, throttle return, rear	1	
62	JZX1328	LEVER, lost motion	2	

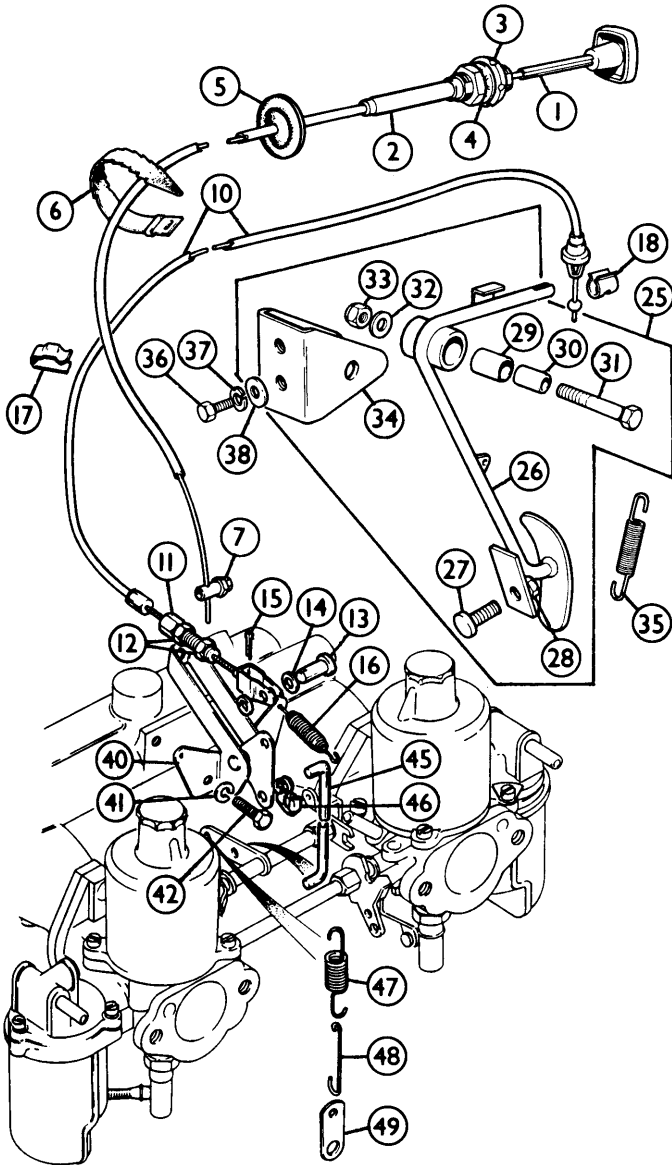
Ill. No	Part Number	Description	Qty. Req.	Details
NI	WZX1140	SUNDRIES KIT (throttle linkage) (contains items 25, 26, 55, 56, 65, 66)	2	for AUD665 carburettors
	WZX1156	SUNDRIES KIT (throttle linkage) (contains items 59, 67, 68)	2	for FZX1258, FZX1122 & FZX1327 carburettors
63	AUD3323	LOCK TAB	2	
64	AUC1424	PIVOT NUT	2	
65	AUC8483	SCREW, throttle stop & idle	2	
66	AJD8014Z	NUT, locking (alternative to AUC2451 spring)	2	for AUD665 carburettors
	AUC2451	SPRING (alternative to AJD8014Z)	2	
67	JZX1180	SCREW, throttle stop & idle	2	for FZX1258, FZX1122
68	AUD3586	O' RING	2	& FZX1327 carburettors
	WZX1335	CHOKE SPRING KIT, front	1	
70	AUC8462	SPRING, choke, front, inner	1	
71	AUD2431	SPRING, choke, front, outer	1	for AUD665 carburettors
	WZX1336	CHOKE SPRING KIT, rear	1	
	AUC1375	SPRING, choke, rear, inner	1	
	AUD2432	SPRING, choke, rear, outer	1	
72	CUD3073	LEVER & JET LINK, front	1	
	CUD3072	LEVER & JET LINK, rear	1	
	WZX1339	CHOKE SPRING KIT, front	1	for FZX1258, FZX1122 & FZX1327 carburettors
	AUC8462	SPRING, choke, front, inner	1	
73	HMP290050	SPRING, choke, front, outer	1	
	WZX1338	CHOKE SPRING KIT, rear	1	
	AUC1375	SPRING, choke, rear, inner	1	
	HMP290051	SPRING, choke, rear, outer	1	
74	AUD4871	LEVER, front	1	
	AUD4870	LEVER, rear	1	
75	WZX1357	ROD LINK KIT, front	1	for FZX1258, FZX1122 & FZX1327 carburettors
	WZX1356	ROD LINK KIT, rear	1	
76	JZX1259	CLIP, rod link to jet	2	
	WZX1331	PIVOT BOLT KIT	2	
77	AUC1426	BOLT, pivot	2	
78	AUC5032	WASHER, spacing	2	
79	AUC8473	DISTANCE TUBE, inner	2	
80	AUD2430	DISTANCE TUBE, outer	2	
81	AUD4860	CHOKE LEVER, front	1	
	AUD4861	CHOKE LEVER, rear	1	
82	AUE34	TRUNNION, choke cable	1	
85	12G2125	GASKET, carb' to air filter	4	carburettor to heat shield & heat shield to manifold
86	UKC2992	GASKET	4	
87	SH505091	SCREW, carb' to manifold	4	
88	GHF332	WASHER, locking	4	
90	UKC3009	LINK ROD & LEVER, throttle	1	
91	AUE668	LINK ROD, choke	1	
92	AUE586	LOST MOTION LEVER, front	2	
93	AUE587	LOST MOTION LEVER, rear	2	
94	AUC2694	SCREW, in lever	4	
95	AUC8396	WASHER, plain	4	
96	AJD8012Z	NUT	4	
100	MRD1023	SPRAY CLEANER	a/r	carburettor cleaner

Other kits available for the servicing of HS4 carburettors include;

NI	WZX1120	CARB' SUNDRIES KIT (inc. items 8, 13, 14, 21 for one carburettor)	2	
NI	AUE811A	CARB' GASKET KIT (inc. items 21, 30, 31, 41, 85, 86 for one carburettor)	2	
NI	WZX1391	FLOAT CHAMBER SUNDRIES KIT (inc. items 30, 31, 37, 41, 43, 45, 46, for one carburettor)	2	
NI	WZX1852X	SERVICE KIT, front	1	for AUD665 carburettors
NI	WZX1853X	SERVICE KIT, rear	1	
		(inc. items 3, 27, 41, 42, 85, 86 for one carburettor)		
NI	WZX1890X	SERVICE KIT, front	1	for FZX1258 carburettors
NI	WZX1889X	SERVICE KIT, rear	1	
		(inc. items 3, 28, 41, 42, 85, 86 for one carburettor)		
NI	WZX1849X	SERVICE KIT (for two carburettors) (inc. items 3, 28, 41, 42, 85, 86)	1	for FZX1122 & FZX1327 carburettors

NI GAC6155X REBUILD KIT (for both carb's) 1 for AUD665 carb's
 NI GAC6166X REBUILD KIT (for both carb's) 1 for FZX1258 carb's
 NI GAC6167X REBUILD KIT (for both carb's) 1 FZX1122 & FZX1327 carb's
 Rebuild kits include items 3, 27 (in GAC6155X), 28 (in GAC6166X & GAC6167X), 41, 42, 50, 51, 52, 53, 85, 86 for two carburettors, plus instructions.





Ill. No	Part Number	Description	Qty. Req.	Details
25	156216	ACCELERATOR PEDAL & BRACKET ASSEMBLY	1	RHD models
	UKC1370	ACCELERATOR PEDAL & BRACKET ASSEMBLY	1	LHD models
26	156188	ACCELERATOR PEDAL	1	RHD
	217465	ACCELERATOR PEDAL	1	LHD
27	156300	PEDAL STOP	1	RHD
	156301	PEDAL STOP	1	LHD
28	NT605041	NUT, locking pedal stop	1	
29	AHH5301	BUSH, accelerator pedal pivot	1	
30	AHH6504	SPACER, accelerator pedal pivot	1	
31	GHF104	BOLT, accelerator pedal pivot	1	
32	GHF301	WASHER, plain	1	
33	GHF272	NUT, nyloc	1	
34	156190	BRACKET, pedal support	1	
35	057950	SPRING, pedal return	1	
36	SH604041	SCREW, bracket attaching	2	
37	GHF331	WASHER, locking	2	
38	WM57	WASHER, plain	2	
40	156533	BRACKET, linkage & bell crank	1	1300
	UKC5374	BRACKET, linkage & bell crank	1	1500 to FM118389E
	UKC9225	BRACKET, linkage & bell crank	1	1500 from FM118390E
41	GHF331	WASHER, locking	2	
42	SH504041	SCREW, bracket to manifold	2	1300
	SH504051	SCREW, bracket to manifold	2	1500
45	156535	LINK ROD, bellcrank to carb'	1	1300
	UKC3272	LINK ROD, bellcrank to carb'	1	1500 to FM118389E
	UKC6268	LINK ROD, bellcrank to carb'	1	1500 from FM118390E
46	153957	CLIP, retaining link rod	2	
47	136835	SPRING, throttle return	1	1300
	153953	SPRING, throttle return	1	1500
48	143747	LINK ROD, spring to bracket	1	
49	157065	BRACKET	1	1300
	UKC3281	BRACKET	1	1500 to FM118389E
	UKC9193	BRACKET	1	1500 from FM118390E

Note: UKC9193, the most commonly found bracket, mounts on one of the exhaust down pipe nuts. The two earlier brackets attach to the chassis rail and front suspension turret respectively.

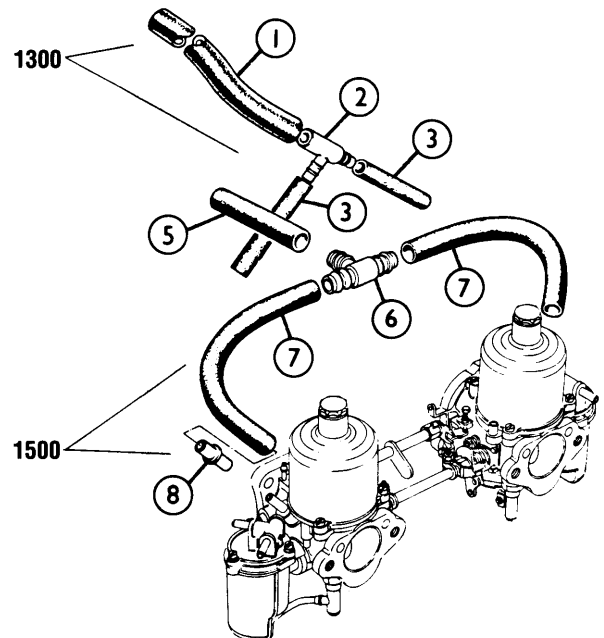
Ill. No	Part Number	Description	Qty. Req.	Details
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Accelerator & Choke Controls

	156137	CHOKE CABLE	1	RHD models
	<i>includes RHD equivalents of 1 & 2</i>			
1	518313	CHOKE CABLE, inner	1	LHD models
2	518314	CHOKE CABLE, outer	1	
3	618946	BEZEL NUT	1	
4	WF600081	WASHER, locking	1	
5	061917	GROMMET, cable (bulkhead)	1	
6	13H6107	CABLE TIE, fir tree type	1	alternatives
	RTC222A	CABLE TIE, ratchet type	1	
7	AUE34	TRUNNION, cable end to carb	1	
10	156342	ACCELERATOR CABLE	1	RHD
	156345	ACCELERATOR CABLE	1	1300, LHD
	156346	ACCELERATOR CABLE	1	1500, LHD
11	BHH1059	SCREWED ADJUSTER	1	
12	146984	NUT, locking	2	1300,
				1500 to FM53446E
13	PJ8504	CLEVIS PIN, cable to lever	1	
14	PWZ203	WASHER, plain	1/2	
15	GHF500	SPLIT PIN, cut to fit	1	
16	145197	RETURN SPRING, cable linkage	2	

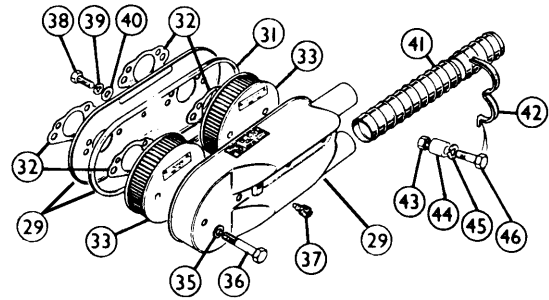
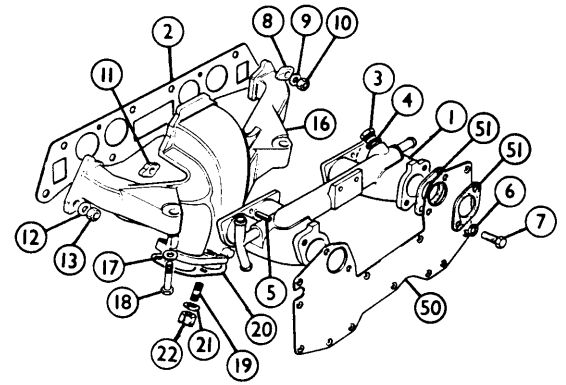
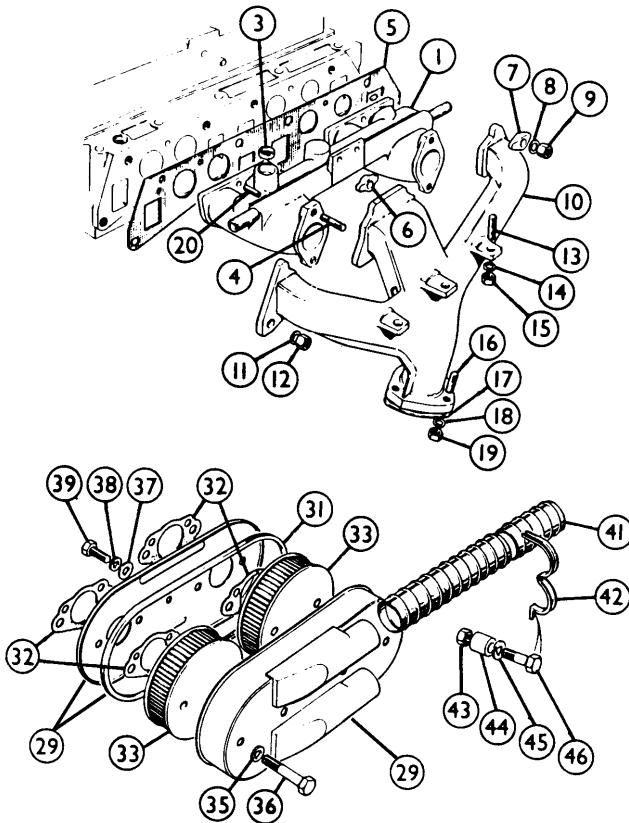
The return spring became redundant in 1976 upon the introduction of the 'Capstal' type carburettor; these later carburettors were constructed with a return spring operating between the throttle linkage and the carburettor body.

17	615707	CLIP, cable retaining	1	
18	153041	CLIP, clamping nipple to pedal	1	



Engine Breather System

1	216924	HOSE, rocker cover breather to 'T' piece	1	1300
2	156605	'T' CONNECTOR	1	twin HS2 carb.
3	144938	HOSE, 'T' piece to carbs	2	models
5	154220	HOSE, rocker cover to 'T' piece	1	1500
6	UAM1600	'T' PIECE, rocker cover to carburetors	1	twin HS4
7	154935	HOSE, 'T' piece to carbs	2	models
8	154934	ADAPTOR, breather to carbs	2	



Ill. No	Part Number	Description	Qty. Req.	Details
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Manifolds (Inlet/Exhaust) & Air Filters, 1300

See also 'Performance & Tuning' in Accessories.

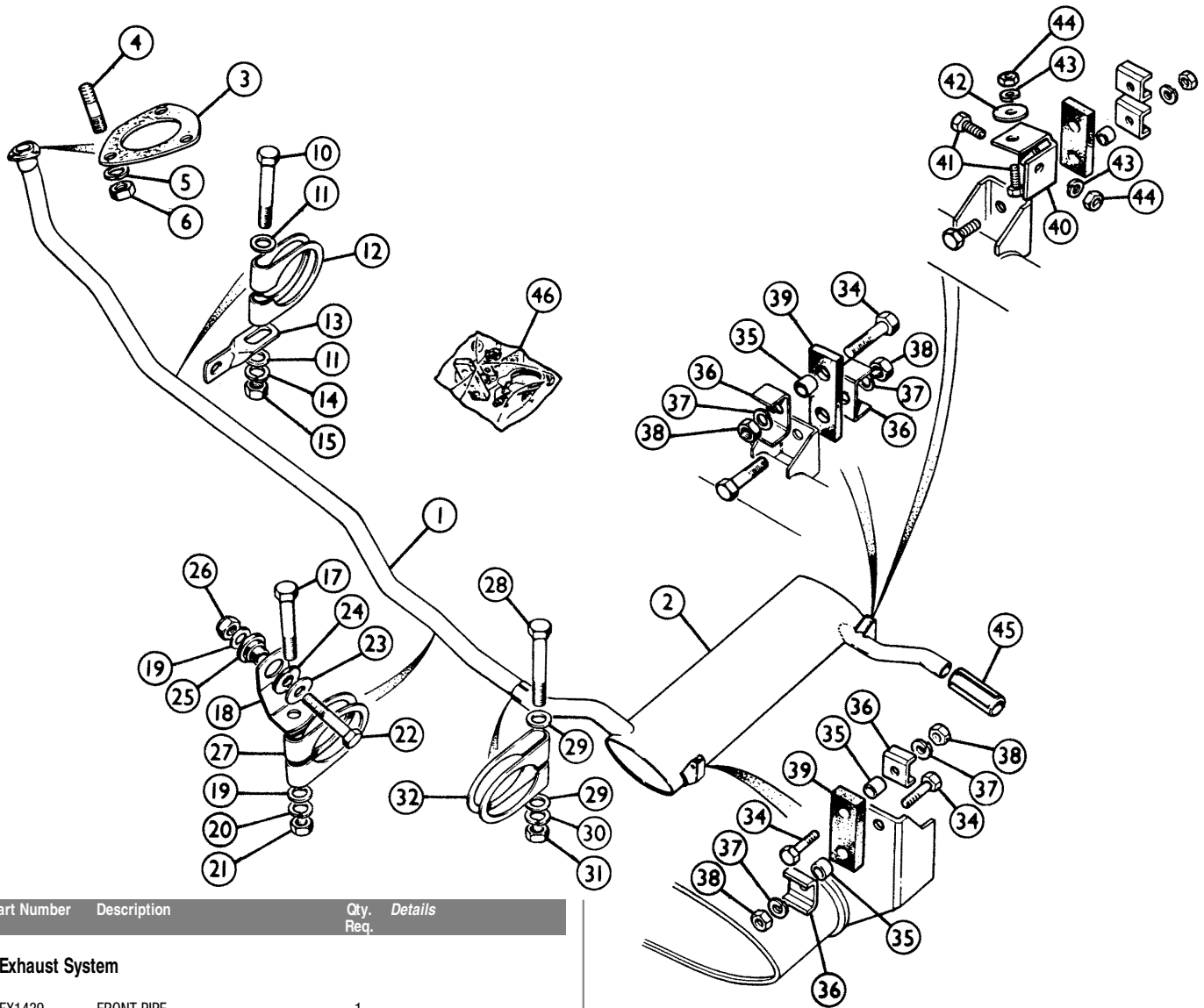
1	308087	MANIFOLD, inlet (2 connectors)	1	to FH59688E
	311925	MANIFOLD, inlet (3 connectors)	1	from FH59689E
3	154053	CORE PLUG	1	
4	105745	STUD	4	
5	AJM648	GASKET	1	
6	137845	CLAMP, large	2	
7	058258	CLAMP, small	4	
8	WP20X	WASHER, plain	6	
9	100498	NUT	6	
10	308086	MANIFOLD, exhaust	1	
11	WP20X	WASHER, plain	2	
12	100498	NUT	2	
13	TE505111	STUD	2	
14	GHF332	WASHER, locking	2	
15	GHF201	NUT	2	
16	TE605105	STUD	3	
17	GEG701	GASKET, manifold to pipe	1	
18	GHF332	WASHER, locking	3	
19	515369	NUT, stainless steel	3	alternatives
	GHF261	NUT, brass	3	
20	DS2516	ROLL PIN, manifold	2	
29	217822	AIR CLEANER BOX	1	
31	141648	SEAL, back plate	1	
32	ACA8014	GASKET, 1 1/4"	4	
33	GFE1037	AIR FILTER, 1 1/4"	2	
See Accessories for Sports air filters.				
35	GHF332	WASHER, locking	4	
36	BH505181	BOLT, air cleaner to carb	4	
37	GHF300	WASHER, plain	1	
38	GHF331	WASHER, locking	1	
39	SH604041	SCREW	1	
41	616012	AIR HOSE	2	
42	151784	CLAMP	1	
43	GHF201	NUT, plain	1	
44	156511	SPACER	1	
45	GHF332	WASHER, locking	1	
46	SH604091	SCREW	1	

Ill. No	Part Number	Description	Qty. Req.	Details
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Manifolds (Inlet/Exhaust) & Air Filters, 1500

1	RKC723	MANIFOLD, inlet	1	
2	AJM681	GASKET, manifolds	1	
3	122132	BLANKING PLUG	1	
4	WF512	WASHER, fibre	1	
5	DS2512	ROLL PIN, manifold	2	
6	GHF332	WASHER, locking	4	carb & heat shield
7	SH505101	SCREW	4		to manifold
8	058258	CLAMP, small	4	
9	WP20X	WASHER, plain	6	
10	100498	NUT	6	
11	137845	CLAMP, large	2	
12	WP20X	WASHER, plain	2	
13	100498	NUT	2	
16	RKC648	MANIFOLD, exhaust	1	
17	GHF332	WASHER, locking	2	
18	SH505141	SCREW	2	
19	TE605105	STUD	3	
20	GEG739	GASKET, manifold to down pipe	1	
21	GHF332	WASHER, locking	3	
22	515369	NUT, stainless steel	3	alternatives
	GHF261	NUT, brass	3	
29	RKC4165	AIR CLEANER BOX	1	to FH127151
	TKC1570	AIR CLEANER BOX	1	from FH127152
31	141648	SEAL, back plate	1	
32	12G2125	GASKET	4	
33	GFE1063	AIR FILTER	2	
See Accessories for Sports air filters.				
35	GHF332	WASHER, locking	4	
36	BH505181	BOLT, air box to carburetors	4	
37	623313	PIPE CLIP	1	to FH27151
	626960	PIPE CLIP	1	from FH27152
38	SH604041	SCREW	1	
39	GHF331	WASHER, locking	1	
40	GHF300	WASHER, plain	1	
41	616012	AIR HOSE	2	
42	151784	CLAMP	1	
43	GHF201	NUT	1	
44	156511	SPACER	1	
45	GHF332	WASHER, locking	1	
46	SH604091	SCREW	1	
50	UKC8372	HEAT SHIELD, carburetors	1	
51	UKC2992*	GASKET	4	carburettor to heat shield & heat shield to manifold

*Gaskets were used 'to approx. mid 1977' when the heat shield was manufactured in a new material that no longer required gaskets. The part number remained unchanged. Ours are made to the early specification and require gaskets.



Ill. No	Part Number	Description	Qty. Req.	Details
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1300 Exhaust System

Ill. No	Part Number	Description	Qty. Req.	Details
1	GEX1439	FRONT PIPE	1	
2	GEX3668	SILENCER	1	
3	GEG701	GASKET, manifold to front pipe	1	
4	TE605105	STUD, manifold to front pipe	3	
5	GHF332	WASHER, locking	3	
6	515369	NUT, stainless steel	3	alternatives
	GHF261	NUT, brass	3	
10	BH605221	BOLT, pipe clamping	1	
11	GHF301	WASHER, plain	2	
12	GEX7509	CLAMP BRACKET	1	
13	GEX7511	SUPPORT BRACKET	1	
14	GHF332	WASHER, locking	1	
15	GHF201	NUT	1	
17	BH605201	BOLT, pipe clamping	1	
18	GEX7496	ANGLED BRACKET	1	to front of differential
19	GHF301	WASHER, plain	2	
20	GHF332	WASHER, locking	1	
21	GHF201	NUT	1	
22	BH605101	BOLT, bracket	1	
23	WP17	WASHER, plain	1	
24	GEX7330	WASHER, rubber	1	
25	GEX7329	GROMMET	1	rubber & steel composite
26	GHF242	NUT	1	
27	GEX7509	CLAMP BRACKET	1	
28	BH605221	BOLT, pipe clamping	1	
29	GHF301	WASHER, plain	2	
30	GHF332	WASHER, locking	1	
31	GHF201	NUT	1	
32	GEX7506	CLAMP, silencer to pipe joint	1	
	GEX9007	CLAMP ASSEMBLY, 'U' bolt type	1	alternative to items 28 to 32
34	GHF103	SCREW, silencer mounting	4	
35	155249	SPACER TUBE (in rubber strap)	4	

Ill. No	Part Number	Description	Qty. Req.	Details
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36	GEX7510	CLAMP PLATE	4	
37	GHF332	WASHER, locking	4	
38	GHF201	NUT	4	
39	GEX7359	FLEXIBLE STRAP	2	
40	UKC1910	MOUNTING BRACKET	1	
41	GHF120	SCREW, attaching bracket	2	
42	GHF315	WASHER, reinforcing	1	
43	GHF332	WASHER, locking	2	
44	GHF201	NUT	2	
45	GEX1305	CHROME FINISHER	1	1 5/8" internal diameter
46	GFK6630X	EXHAUST FITTING KIT	1	includes items 3 to 39

1300 Stainless Steel Exhaust System (Original UK Specification)

See also 'Performance & Tuning' in Accessories.

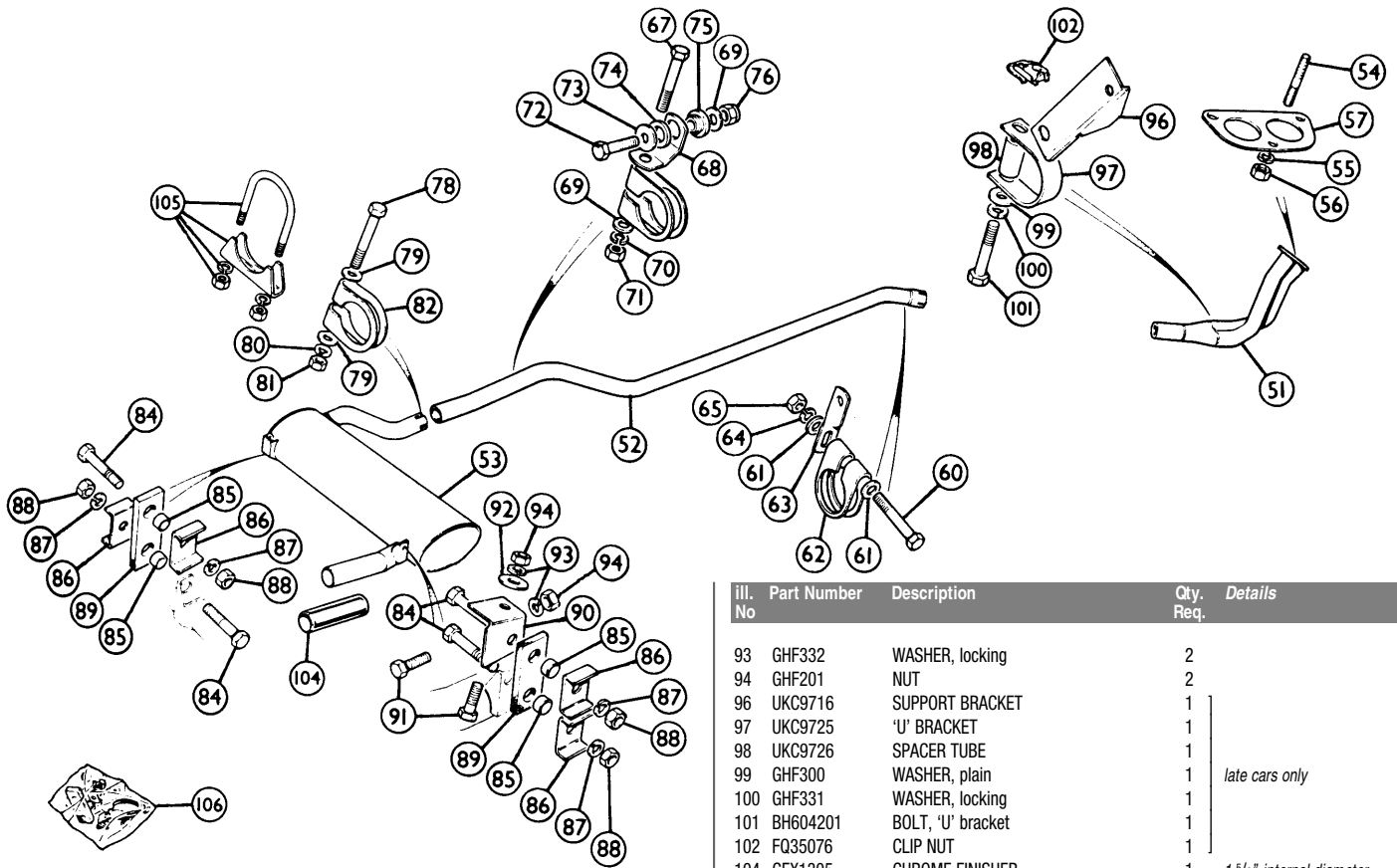
FSSP4	EXHAUST, stainless steel	1	1300 original design
Exhaust System (FSSP4) consists of;			
FSTH121	FRONT PIPE	1	equivalent to GEX1439
FSTH150	SILENCER (Single tail pipe)	1	equivalent to GEX3668
FSTH150SP*	SILENCER (Twin tail pipes)	1	

These system kits do not include fixings; order the appropriate mild steel fixing kit.

1300 Stainless Steel Exhaust System (USA type Specification)

FSTH171	SILENCER (Single tail pipe)	1	
Inlet pipe at end of silencer/Outlet at side of silencer.			
FS5417	SILENCER (Twin tail pipes)	1	
Inlet pipe at end of silencer/Outlets at end of silencer.			

See Also 'TriumphTune Sports Exhaust Manifolds & Systems' on the opposite page.



Ill. No	Part Number	Description	Cty. Req.	Details
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1500 Exhaust System

51	GEX1620	FRONT PIPE	1	
52	GEX1621	INTER PIPE, front pipe to silencer	1	
53	GEX3668	SILENCER	1	
54	TE605105	STUD, manifold to down pipe	3	
55	GHF332	WASHER, locking	3	alternatives
56	515369	NUT, stainless steel	3	
	GHF261	NUT, brass	3	
57	GEG739	GASKET, manifold to front pipe	1	
60	BH605221	BOLT, pipe clamping	1	
61	GHF301	WASHER, plain	2	
62	GEX7509	CLAMP BRACKET	2	
63	GEX7511	SUPPORT BRACKET	1	
64	GHF332	WASHER, locking	1	
65	GHF201	NUT	1	
67	BH605201	BOLT, pipe clamping	1	
68	GEX7496	ANGLED BRACKET	1	
69	GHF301	WASHER, plain	2	
70	GHF332	WASHER, locking	1	
71	GHF201	NUT	1	
72	BH605101	BOLT, bracket attaching	1	
73	WP17	WASHER, plain	1	
74	GEX7330	WASHER, rubber	1	rubber & steel composite
75	GEX7329	GROMMET	1	
76	GHF242	NUT	1	
78	BH605221	BOLT, pipe clamping	1	
79	GHF301	WASHER, plain	2	
80	GHF332	WASHER, locking	1	
81	GHF201	NUT	1	
82	GEX7506	CLAMP	1	
84	GHF103	SCREW, silencer mounting	4	
85	155249	SPACER TUBE, in rubber strap	4	
86	GEX7510	CLAMP PLATE	4	
87	GHF332	WASHER, locking	4	
88	GHF201	NUT	4	
89	GEX7359	FLEXIBLE STRAP	2	
90	UKC1910	MOUNTING BRACKET	1	
91	GHF120	SCREW	2	
92	GHF315	WASHER, reinforcing	1	

Ill. No	Part Number	Description	Cty. Req.	Details
93	GHF332	WASHER, locking	2	
94	GHF201	NUT	2	
96	UKC9716	SUPPORT BRACKET	1	late cars only
97	UKC9725	'U' BRACKET	1	
98	UKC9726	SPACER TUBE	1	
99	GHF300	WASHER, plain	1	
100	GHF331	WASHER, locking	1	
101	BH604201	BOLT, 'U' bracket	1	
102	FQ35076	CLIP NUT	1	
104	GEX1305	CHROME FINISHER	1	1 1/8" internal diameter
105	GEX9007	CLAMP ASSEMBLY, 'U' bolt type	1	alternative to items 78 to 82
106	GFK6604X	EXHAUST FITTING KIT	1	includes items 54 to 89

1500 Stainless Steel Exhaust System (Original UK Specification)

See also 'Performance & Tuning' in Accessories.

NI	FSSP5	EXHAUST, stainless steel	1	1500 original design
<i>Exhaust System (FSSP5) consists of;</i>				
NI	FSTH148	FRONT PIPE	1	equivalent to GEX1620
NI	FSTH149	INTER PIPE	1	equivalent to GEX1621
	FSTH150	SILENCER (Single tail pipe)	1	equivalent to GEX3668
	FSTH150SP*	SILENCER (Twin tail pipes)	1	

These system kits do not include fixings; order the appropriate mild steel fixing kit.

1500 Stainless Steel Exhaust System (USA type Specification)

FSTH171	SILENCER (Single tail pipe)	1
<i>Inlet pipe at end of silencer/Outlet at side of silencer.</i>		
FS5417	SILENCER (Twin tail pipes)	1
<i>Inlet pipe at end of silencer/Outlets at end of silencer.</i>		

TriumphTune Sports Exhaust Manifolds & Systems

Alternative Exhaust Systems to fit all Spitfire (& GT6 models)

Popular for many years has been the TriumphTune twin silencer exhaust system. Historically we have supplied the kit in mild steel material only but we now offer a stainless steel version. This product has been introduced alongside our existing range of original design stainless steel exhaust components. The replacement TT Sports exhaust systems can be used with the existing front down pipe. They include fitting kit & instructions.

TriumphTune Sports Manifolds;

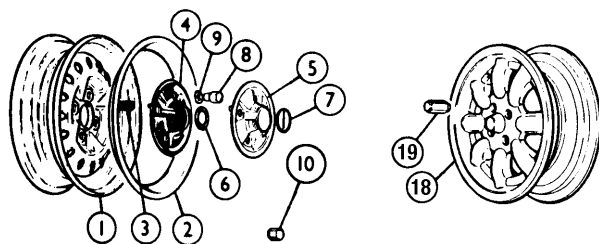
See also 'Performance & Tuning' in Accessories.

TT1400	SPORTS MANIFOLD	1	mild steel
FS1400	SPORTS MANIFOLD	1	stainless steel
TT9931	EXHAUST CLAMP	2	
TT5911	ADAPTOR PIPE	1	TriumphTune manifold to original system, mild steel

TriumphTune Sports Exhausts;

See also 'Performance & Tuning' in Accessories.

TT5412	with TWIN ROUND BOX	1	mild steel
FS5412	with TWIN ROUND BOX	1	stainless steel
TT5420	with TWIN OVAL BOX	1	mild steel
TT5913	ADAPTOR PIPE (mild steel)	1	original manifold to TriumphTune system



iii. No	Part Number	Description	Qty. Req.	Details
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Road Wheels & Tools

See also 'Exterior Trim' in Accessories for our full range of road wheels.

1	312046	ROAD WHEEL, steel, 4.5" x 13"	5	1300
	151539	ROAD WHEEL, steel, 4.5" x 13"	5	1500 to (c) FH130000
	PKC518	ROAD WHEEL, steel, 5" x 13"	5	1500 from (c) FH130001
2	GLZ225Z	TRIM RING (individual)	a/r	Stainless Steel
	GAC2254X	TRIM RING (set of 4 trims)	1	
3	628097	SPRING, hub cap tensioning	16	
4	716180	HUB CAP, black	4	1300
5	YKC1335	HUB CAP, silver	4	1500
6	633590	FOIL BADGE, silver & black	4	'Spitfire' 1300
7	YKC1334	FOIL BADGE, silver & blue	4	'Triumph' 1500
8	155751	WHEEL NUT, chrome	16	
9	155753	WASHER, wheel nut	16	
10	154028	WHEEL NUT, chrome	16	steel wheels only.

(for steel wheels without hub caps)

Note: At the time of writing we have no plans to re-manufacture Spitfire steel wheels due to the prohibitive cost of tooling the complex centre pressing. The situation could conceivably change in future (keep an eye on our price guide), but in the meantime we can offer an alloy wheel alternative. This wheel, styled as a replica of the 8 spoke competition wheels used so widely in the 1960's & 1970's, is manufactured specifically for Spitfires in a silver finish. Special wheel nuts must be used.

18	GAC8223X	ALLOY WHEEL, silver, (5" x 13")	5	
19	AHA8785SS	WHEEL NUT, stainless steel	16	for alloy wheels only
20		WIRE WHEEL (Centre Lock) SPINNERS (Centre lock wheels)		see Accessories for full range

68 142598 ADAPTOR HUB, wire wheel, LH 2 } originally for Mk1 to III
 142597 ADAPTOR HUB, wire wheel, RH 2 } Spitfires; but will fit later cars
 Following the success of their earlier TR wheel hubs, designers at Standard Triumph developed a wheel hub set which would bolt directly to the steel wheel axles of the Spitfire. We are able to supply these for owners wishing to convert from steel to wire wheels. Please note that Adaptor nuts will be required and are not supplied with the adaptor hubs.

These hubs will only safely accept the wire wheels specifically designed for Spitfires. Other 13" dia. wire wheels may look as though they fit, but the spline & seat design may differ - so they don't. (See below for hubs for custom built cars) It's a matter of Triumph engineers effectively widening the axle by using adaptors, but endeavouring to keep the overall track dimension the same. See also Accessories.

69 144504 NUT, chamfered, adaptor to hub 16
 Note: The above nuts must be used when installing wire wheel adaptor hubs. If ordinary wheel nuts are used, each wheel will be unable to locate properly on its adaptor. The steering will become increasingly interesting as the wire wheels start sliding along the hubs and the wheel nuts & spinners begin to unfasten.

Offset Splined Hub Kit

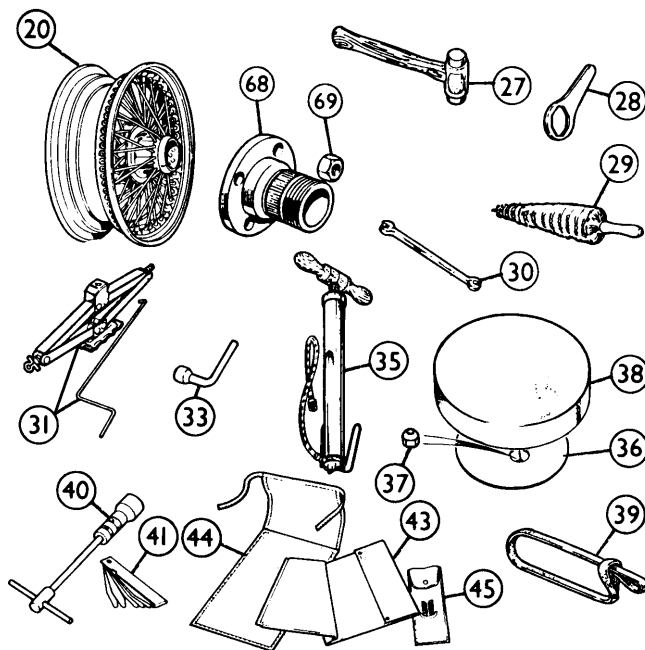
If you have ever wanted to fit larger diameter or wider wire wheels to your Spitfire/Herald, but were always told you couldn't, well think again, because Moss Europe can now supply (a set of 4) easy to fit bolt-on splined hubs that fit directly onto your existing (disc brake type) hub flange utilising the original wheel studs. Simple.

Because these splined hubs have an ingenious off-set, they allow you the fitting of 14"/15" diameter (centre lock wire) wheels - and, a choice of different rim widths.

So now you really can make your classic not only look good, but you can make it a real head turner.

NI	GAC7051X	'Off-set' Splined Hub Kit	1	
68	142598L	ADAPTOR (Long) HUB, wire wheel, LH	2	Also suitable for custom built cars using Spitfire running gear
	142597L	ADAPTOR (Long) HUB, wire wheel, RH	2	
69	144504	NUT, chamfered, adaptor to hub	16	

Note: The above nuts must be used when installing wire wheel adaptor hubs. If ordinary wheel nuts are used, each wheel will be unable to locate properly on its adaptor. The steering will become increasingly interesting as the wire wheels start sliding along the hubs and the wheel nuts & spinners begin to unfasten. (Unless you already have 'standard' bolt-on centre lock/splined hubs fitted, you will need to order 16 nuts)



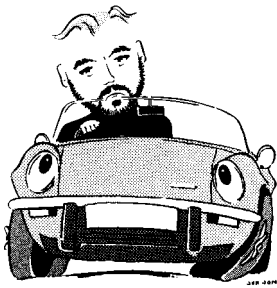
iii. No	Part Number	Description	Qty. Req.	Details
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Miscellaneous Tools & Equipment

See also 'Workshop & Tools' in Accessories for our full range of tools & garage equipment.

27	C27290	HAMMER	1	copper & hide
	88G329	HAMMER	1	lead alloy
28	AHH5839	SPANNER	1	octagonal knock on nuts
29	GAC4089	BRUSH	1	for wire wheels
30	MM385-800	SPOKE SPANNER	1	
31	212677Z	JACK & HANDLE, scissor type	1	
33	21A2818	WHEEL NUT SPANNER	1	steel & bolt on wire wheels
35		TYRE PUMP, period 'stirrup' type	1	
36	706807	SPARE WHEEL BOARD	1	not suitable for wire wheels (fit flat side down)
37	113087	WHEEL NUT	1	
38	717601	COVER, spare wheel	1	for standard dimension wheel & tyre
39	JRC7954	STRAP, spare wheel removal	1	
40	DMR13868	PLUG SPANNER	1	
41	125505	FEELER GAUGE SET	1	imperial
43	725793*	TOOL BAG ONLY, black	1	polythene
44	716032*	TOOL BAG ONLY, black	1	'hardura'
45	715092*	TOOL POUCH ONLY, red	1	
	715097*	TOOL POUCH ONLY, blue	1	(USA cars)

*Tools not included

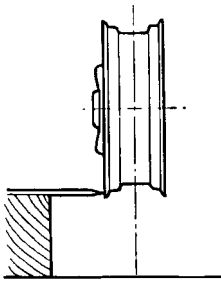


So You Think You've Got Wobbly Wire Wheels? (By Pete Cox)

enabled me to indulge in experiments: if they didn't work (or fit), offending wheels would always be 'sold on' and a couple of 'bob' profit could still be made.

So my TR2, an attractive beast wearing glistening Midnight Blue paint work and not so glistening (but by then typical), rusty quarter panels, finalised it's development with the unusual combination of 6" Cobra wheels at the front and, 5.5" TR6 wheels at the rear. This was because the TR2 was always enthusiastically driven and the growing pile of Lockheed half shafts finally stopped growing the day a second hand TR4 rear axle was installed, its extra width requiring the above wheel combination to balance its cornering habits.

Now, wire wheels are built to flex (or bend) and this was brought shockingly home to me on one occasion when Pete Buckles visited me in Birmingham (remember Claggate Lane?). We were off to visit a supplier (who incidentally, still stamps out trunnion blanks for Moss). Pete's TR3 followed my TR2 down an interestingly twisty road which I happened to know particularly well, and after exiting a seriously exciting corner I looked in the mirror to check on the progress of our illustrious leader, and was horrified to see his car in a lurid slide (he maintained it was under control) with its outside front wheel keeling over at a crazy angle, almost 60 off vertical. This memory has remained vivid ever since, and is one explanation why Moss Europe (formerly Cox & Buckles) do not sell second hand or reconditioned wire wheels.



Checking vertical run-out by spinning the wheel on a front hub

If it is assumed that both hub & rim of a wire wheel are in good condition, it may be worth having the wheel re-spoked 'as necessary' and then trued up by a competent re-builder. The wheel will probably need shot blasting and stove enamelling which will bring the cost to near to (or possibly over) the price of a new wheel. Remember also that you have got a used, worn wheel, not a nice new one. Bear in mind then, that the wheel is capable of being flexed by 4" (i.e., the hub is fixed and the top of the wheel is 4" further out than the bottom), while it is rotating at speed on the road, it is then supposed to return to the original shape.

NOW decide if you still want the wheel re-built! We certainly would not want to guarantee one.

Slight sideways run-out (or 'out of true') with wire wheels is therefore not significant: a couple of hard corners will soon re-arrange the wheel spokes anyway. Vertical 'run out' should not be permitted, ever. By far the most common cause of wire wheel 'wobbles' is an incorrect method employed in balancing. A simple spirit level balancer is the thing to seek out. Under no circumstances should balancing be attempted on the now common dynamic machine without the use of the special sprung cones shown in the illustration, because, although the wheel locates correctly on its inner coned surface, these machines 'try' and locate onto the inside of the wire wheels outer flange, which is NOT a true machined surface. This incorrect technique appears as terrific sideways run-out and the balancing 'specialist' always blames the wheel. Now you know the truth.

It is always best to check the wire wheel by clamping it onto a front hub, using the correct knock-on nut BEFORE fitting the tyre. Spin the wheel on the hub and check sideways or vertical run-out as shown in the illustration, and observe or measure the run-out. + or - 1/16" is not a problem, even +/- 1/8" is barely detectable on the road.

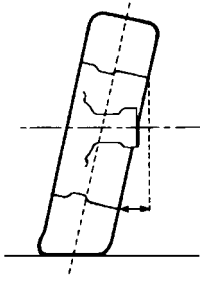
So the conclusion is summarised as follows;

Our new wire wheels are built and assembled to the highest standards.

When your wheel/tyre fitter says they are not good, there is a very, very strong chance that he is not using the equipment in a fashion which is appropriate for wire wheels. The above tips will allow you to check the 'truth' of the wire wheel, whether the wheel is new or used.

It's a sad truth that wire wheels have a bad reputation they don't deserve, but the people who give them a bad reputation actually deserve it themselves. We have total confidence in the Dunlop product we sell.

Pete Cox



Bear in mind that the wheel is capable of being flexed by 4" it is then supposed to return to the original shape!

How To Balance Centre Lock Wire Wheels

We show here the advice given to tyre fitters, produced by Motor Wheel Service.

These notes are intended as a guide in helping to solve problems that are commonly encountered when balancing wire wheels on a electronic balancer.

Diagram A ..

.. is the correct method of locating the wheel.

Diagram B ..

.. shows the wrong method and one which gives false readings, giving the appearance of untrue or wheels that require large amounts of weights to balance the wheel.

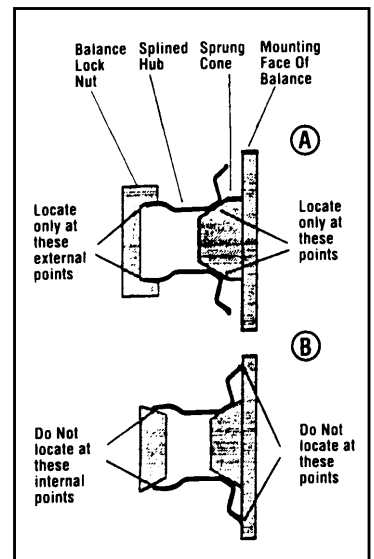
Points To Check

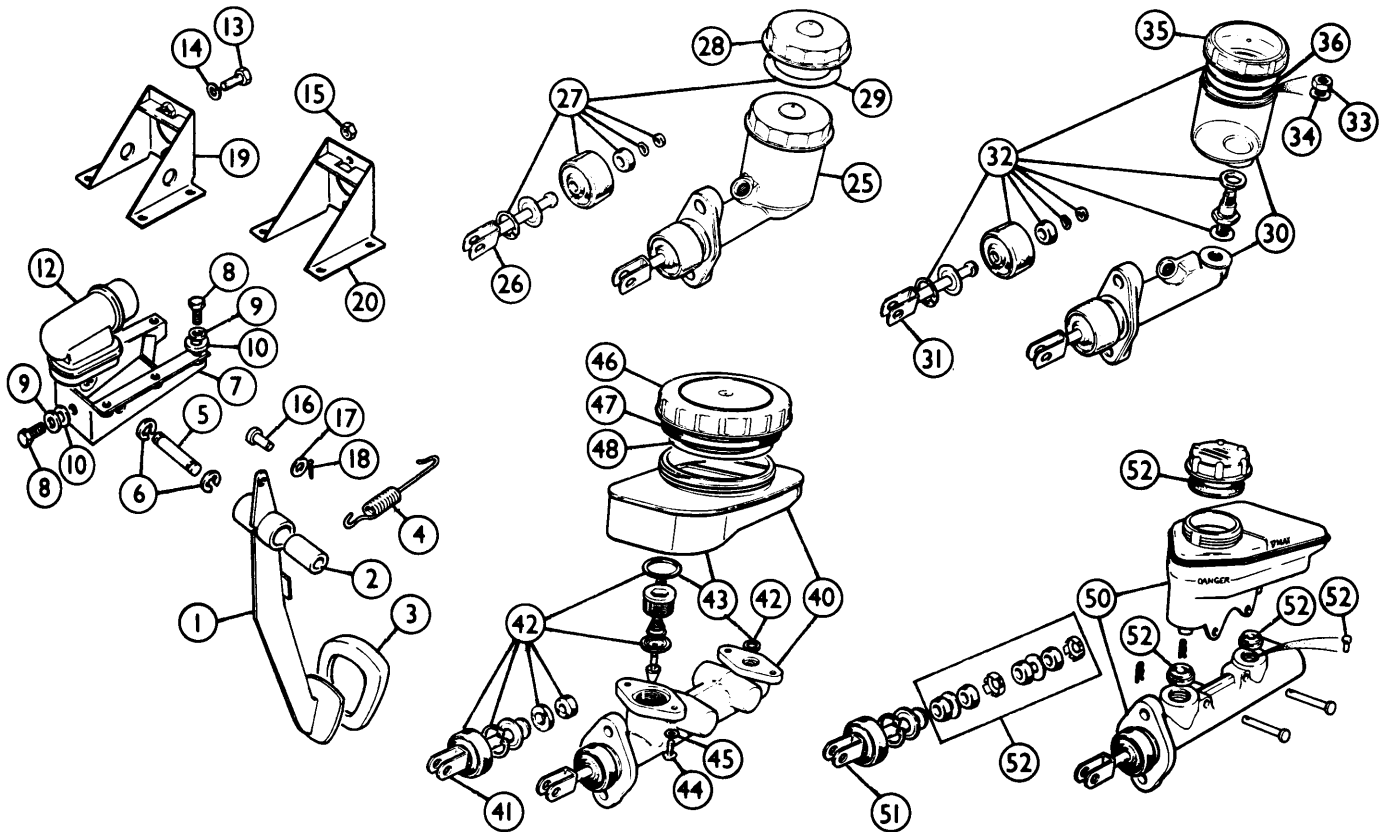
* The original high degree of balance may be affected by wheel damage as well as by other factors related to the tyres uneven tread wear, cover or tube repairs.

* If vibration or high speed steering troubles develop, and this cause is not disclosed by mechanical investigation, then the complete tyre & wheel assembly should be checked for balance.

* It is IMPERATIVE that the hubs are located in the balancing machine in exactly the same manner as located on the car, and the factory truing jigs. Alternatively, balance on the vehicle, this operation can only be done on the front wheels.

Motor Wheel Services' dedicate considerable time to ensure that your wheels are of the highest quality & reliability. Following this guide, and the information contained in our centre-lock brochure will provide the highest level of customer satisfaction.





iii. No	Part Number	Description	Qty. Req.	Details
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Brake Pedal & Fittings

1	TKC4156	BRAKE PEDAL	1	
2	105605	BUSH	1	
3	150881	PEDAL RUBBER	1	
4	114438	SPRING, return	1	
5	119575	SHAFT, pedal	1	
6	506542	CIRCLIP, shaft end	2	
7	152823	PEDAL BOX	1	
8	SH604051	SCREW, pedal box to bulkhead	8	
9	GHF331	WASHER, locking	8	
10	WM57	WASHER, plain	4	
12	125217	GAITER	1	
13	SH605071	SCREW, m/cylinder to bracket	2	
14	GHF332	WASHER, locking	2	
15	GHF201	NUT	2	tandem systems only
16	PJ8808	CLEVIS PIN	1	
17	GHF301	WASHER, plain	1	
18	GHF502	SPLIT PIN	1	
19	146413	BRACKET, master cyl to bulkhead	1	single system
20	TKC4088	BRACKET, master cyl to bulkhead	1	tandem system RHD
	148156	BRACKET, master cyl to bulkhead	1	tandem system LHD

Master Cylinder Identification

If your car has single system brakes, identifying the master cylinder is easy, either it has an alloy reservoir cast integrally with the cylinder (GMC224), or it has a translucent plastic reservoir (GMC220).

However, if you're trying to purchase parts for (or replace completely) one of the two tandem system master cylinders, the simplest method of identification is 'big cap' and 'little cap', referring of course to the filler caps. 'Big or Little cap?' is very likely to be the question asked of you by your parts man. Unfortunately, when viewed independently, both cylinders appear to have big caps. The sure-fire method of identification is:

Master cylinder (213689) cap is 95mm diameter.

Master cylinder(GMC226) cap is 50mm diameter.

iii. No	Part Number	Description	Qty. Req.	Details
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Brake Master Cylinders

Single System

RHD to (c) FH130000 and LHD (not F, B, NL, LUX) to FH80000

25	GMC224	BRAKE MASTER CYLINDER	1	
26	516225	PUSH ROD	1	
27	GRK1029	SERVICE KIT	1	
28	133581	FILLER CAP	1	
29	606404A	SEAL, in cap	1	

Single System

F, B, NL, LUX, to FH80000

30	GMC220	BRAKE MASTER CYLINDER	1	
31	516225	PUSH ROD	1	
32	516227	SERVICE KIT	1	
33	516222	NUT, reservoir to cylinder	1	
34	516221	WASHER, plain	1	
35	516218	FILLER CAP	1	
36	606404A	SEAL, in cap	1	

Tandem System

LHD to FH80000

40	213689	BRAKE MASTER CYLINDER	1	
41	517046	PUSH ROD	1	
42	517700	SERVICE KIT, master cylinder	1	
43	517333	SERVICE KIT, reservoir	1	
44	517044	SCREW, reservoir to cylinder	4	
45	517045	WASHER, locking	4	
46	517040	FILLER CAP	1	
47	517042	SEAL, in cap	1	
48	517041	BAFFLE, in cap	1	

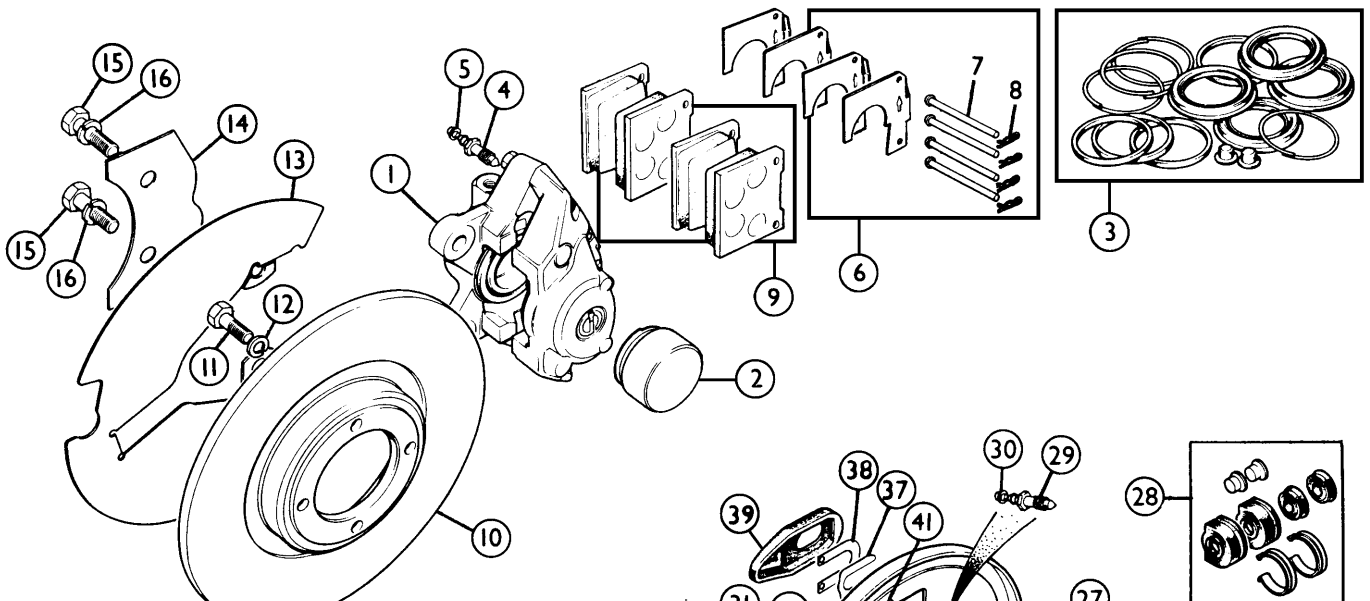
Tandem System

RHD from FH130000 and LHD from FH80000

50	GMC226	BRAKE MASTER CYLINDER	1	
51	517046	PUSH ROD	1	
52	AAU2850	SERVICE KIT, master cylinder	1	

Brake Servo

NI	TT3949	BRAKE SERVO	1	
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Ill. No	Part Number	Description	Qty. Req.	Details
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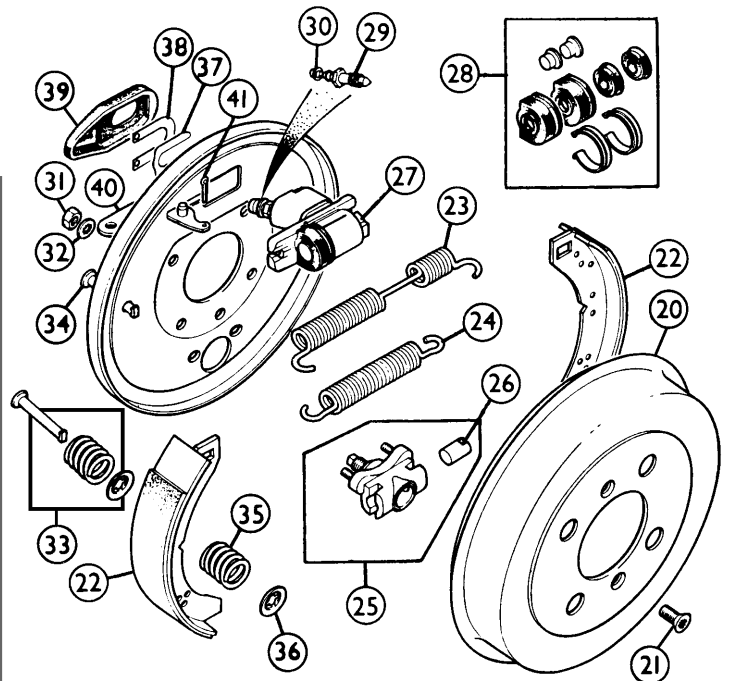
Front Brakes

See also 'Performance & Tuning' in Accessories.

1	159131	BRAKE CALIPER, new, LH	1	
	159131E	BRAKE CALIPER, exchange, LH	1	
	159130	BRAKE CALIPER, new, RH	1	
	159130E	BRAKE CALIPER, exchange, RH	1	
2	516212	PISTON, caliper	4	
3	GRK5005	REPAIR KIT, caliper	1	car set
4	601959	BLEED NIPPLE	2	
5	234957A	CAP, bleed nipple	2	
6	BHM7057	BRAKE PAD FITTING KIT	1	includes anti-squeal shims
7	511031	PIN, brake pad securing	4	
8	511032	CLIP, for pin	4	
9	GBP574	DISC PAD SET, (four pads)	1	
	TT34501	DISC PAD SET, (Mintex M171)	1	uprated
10	GBD154	BRAKE DISC	2	
11	113150	BOLT, disc attachment	8	
12	GHF333	WASHER, locking	8	
13	213681	DUST SHIELD, LH	1	
	213680	DUST SHIELD, RH	1	
14	149623	SHIELD DUCT, caliper mounting	2	
15	ATB4074	BOLT, caliper mounting	4	
16	WQ310	WASHER, locking (square)	4	

Rear Brakes

20	201246	BRAKE DRUM	2	
21	V5435	SCREW, securing brake drum	4	
22	GBS749	BRAKE SHOES, car set	1	
23	105689	SPRING, upper, shoe return	2	
24	105690	SPRING, lower, shoe return	2	
25	37H6134	ADJUSTER	2	
26	111054	TAPPET, brake adjuster	4	
27	GWC1202	WHEEL CYLINDER, 0.625" bore	2	to (c) FH80000
	GWC1110	WHEEL CYLINDER, 0.7" bore	2	from (c) FH80001
28	18G9004	REPAIR KIT, wheel cylinder	1	to (c) FH80000
	GRK2010	REPAIR KIT, wheel cylinder	1	from (c) FH80001
29	556508A	BLEED NIPPLE	2	
30	234957A	CAP, bleed nipple	2	
31	GHF200	NUT, adjuster fixing	4	
32	GHF321	WASHER, shake-proof	4	
33	GRSP1006	PIN KIT, brake shoe retaining	1	
34	17H7993	PIN, brake shoe retainer	4	
35	504877	SPRING, brake shoe retainer	4	
36	17H4374	CUP, spring retaining	4	
37	37H6132	PLATE, spring, inner	2	wheel cylinder retaining
38	120138	PLATE, spring, outer	2	
39	120139	DUST SEAL	2	w/cyl & handbrake lever
40	123135	LEVER, handbrake operating	2	
41	GHF502	SPLIT PIN, securing lever to shoe	2	



Ill. No	Part Number	Description	Qty. Req.	Details
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Clutch & Brake Fluids

When did you last change your Clutch/Brake fluid?

DOT 3 fluid ought to be completely discarded, DOT 4 ('GBF4') should be installed and replaced every 2 years, as recommended by manufacturers.

An alternative, especially if you are replacing master cylinders, brake calipers and/or wheel cylinders, is to thoroughly flush out the pipes and install Silicone fluid (DOT5 'ABF'), which is 'Non-Hygroscopic', so it doesn't promote rust problems in the hydraulic system. The bonus is that it won't damage paint work.

When silicone is in use it will provide years of trouble free braking and an end to the monotonous & expensive pastime of repairing or replacing worn or leaking hydraulic components.

Racing Fluid (DOT 5 'GBF5') really is the ultimate in brake fluid. Its anti-boil properties mean that even when the brakes get hot the fluid will remain efficient, rather than boiling locally (such as in the calipers) into useless vapour. Ideal on the race track or when the brakes are used to their limits.

Due to its high 'Hygroscopic' nature, DOT 5 Racing Fluid should be replaced annually otherwise the quality and effectiveness will be drastically reduced.

Brake/Clutch Fluid (DOT 4 Specification);

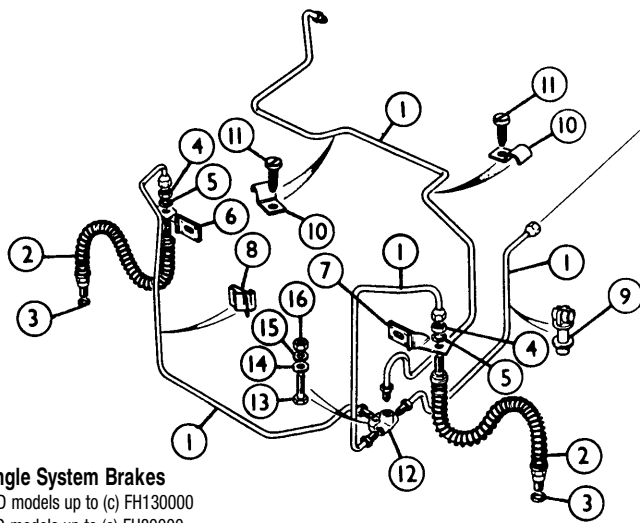
NI	GBF4102	(500ml)	a/r
NI	GBF4103	(1 Litre)	a/r
NI	GBF4104	(5 Litre)	a/r

Silicone Brake/Clutch Fluid (DOT 5 Specification);

NI	ABF3	(500ml)	a/r
NI	ABF4	1 Litre	a/r

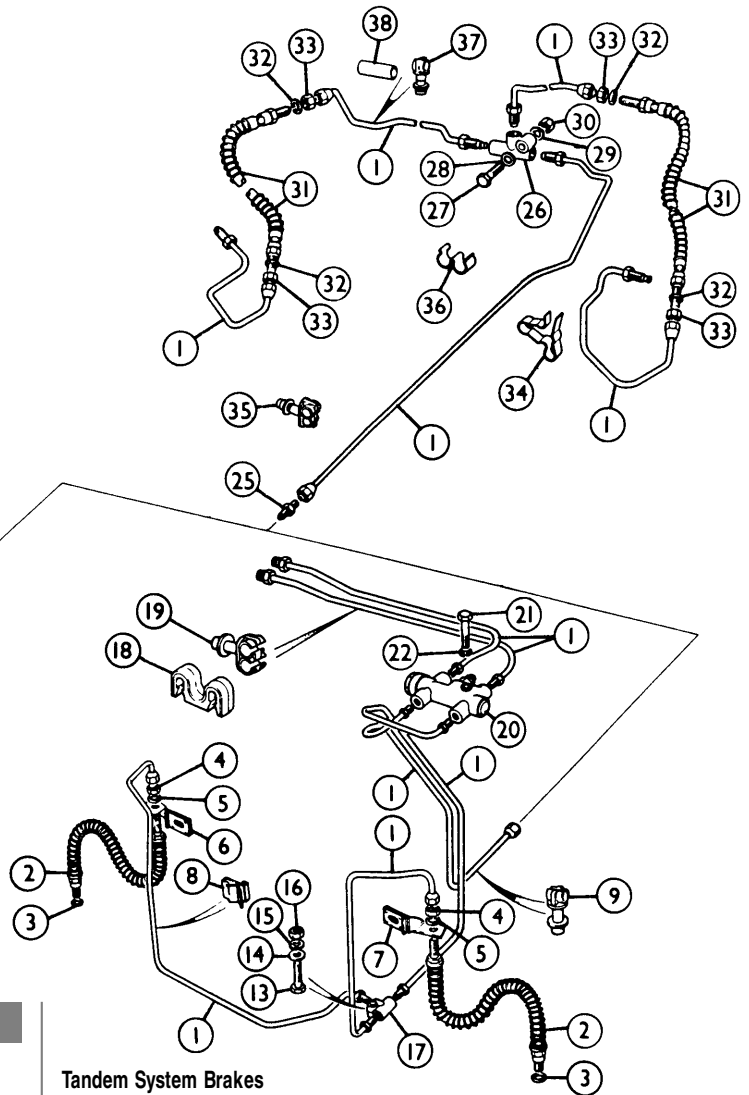
Racing Brake/Clutch Fluid (DOT 5 Specification);

NI	GBF5102	(500ml)	a/r
NI	GBF5103	(1 Litre)	a/r



Single System Brakes

RHD models up to (c) FH130000
LHD models up to (c) FH80000



Tandem System Brakes

RHD models (c) FH130001 on
LHD models from (c) FH1 on

Ill. No	Part Number	Description	Qty. Req.	Details
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Brake Pipe Kits (Copper Pipes)

Kits include all relevant brake pipes numbered (1) the illustration.

1	HGB6222	BRAKE PIPE SET, RHD	1	single system
	HGB6222L	BRAKE PIPE SET, LHD	1	
	HGB6241	BRAKE PIPE SET, RHD	1	tandem system
	HGB6241L	BRAKE PIPE SET, LHD	1	
	HGB6226	BRAKE PIPE SET, RHD	1	tandem system
	HGB6226L	BRAKE PIPE SET, LHD	1	

Hydraulic Brake System - Front

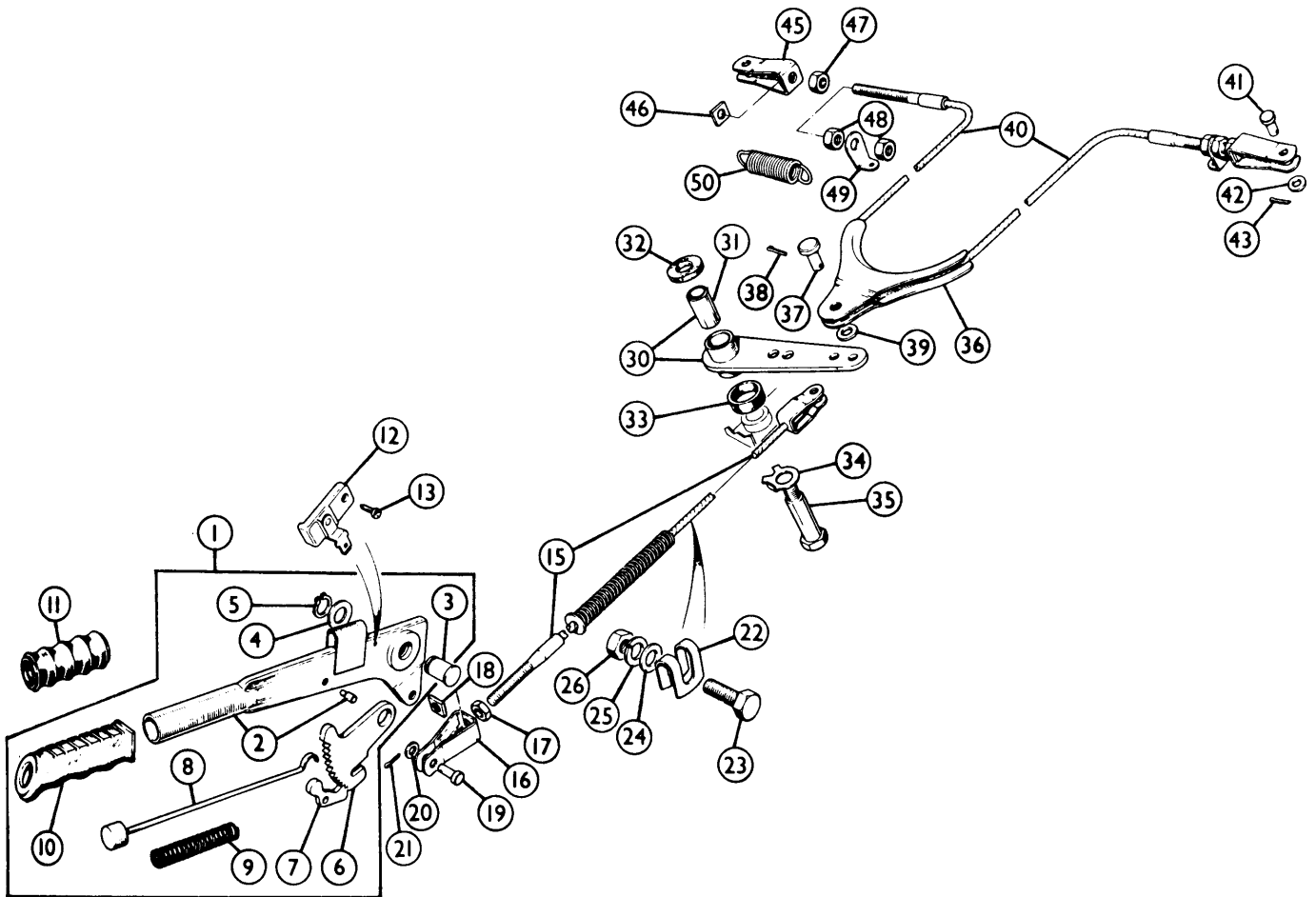
2	GBH216	HOSE, standard (rubber)	2	single system
	TT3340	HOSE stainless steel braided	1pr	
3	233220A	WASHER, copper	2	single system
4	NT606041	NUT	2	
5	GHF323	WASHER, shake-proof	2	single system
6	145454	BRACKET, hose to pipe, RH (Bracket may require some adjustment to fit)	1	
7	132366	BRACKET, hose to pipe, LH	1	single system
8	11K9181	CLIP, pipe to chassis	1	
9	GHF1192	CLIP, plastic, pipe to chassis	1	single system
10	059380	CLIP, pipe to bulkhead	3/2	
11	AB608031	SCREW	3/2	single system
		(lower quantities of 10 & 11 are for LHD vehicles.)		
12	565719A	UNION, (4 way)	1	single system
13	BH604101	BOLT, union to chassis	1	
14	GHF300	WASHER, plain	1	tandem system
15	GHF331	WASHER, locking	1	
16	GHF200	NUT	1	tandem system
17	BTB657	UNION, 3 way	1	
18	13H7428	CLIP, brake pipe spacing	1	tandem system
19	079127A	CLIP, pipes to bulkhead, RHD	1	
20	RTC2525	VALVE, pressure differential (imperial threads)	1	tandem system to (c) FH80000

Ill. No	Part Number	Description	Qty. Req.	Details
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(20)	TKC2710	VALVE, pressure differential (metric threads)	1	tandem system from (c) FH80001
21	BH604141	BOLT, valve to bulkhead	1	tandem system
22	GHF331	WASHER, locking	1	

Hydraulic Brake System - Rear

25	ACB5559	UNION, double male	1	to FH50000
26	BTB657	UNION, 3 way	1	
27	BH604101	BOLT, union to chassis bracket	1	from FH50001
28	GHF300	WASHER, plain	1	
29	GHF331	WASHER, locking	1	to FH50000
30	GHF200	NUT	1	
31	GBH175	HOSE, standard (rubber)	2	from FH50001
	GBH166	HOSE, standard (rubber)	2	
	TT3342	HOSE, stainless steel braided	1pr	from FH50001
	TT3442	HOSE, stainless steel braided	1pr	
32	GHF323	WASHER, shake-proof	4	to FH50000
33	NT606041	NUT	4	
34	059191	CLIP, brake and fuel pipe	3/7	to FH50001
		Note: Increased quantity of item 30 is for Sweden market only.		
35	624155	CLIP, plastic	2	brake & fuel pipes to chassis
36	148820	CLIP, metal (alternative)	2	brake pipe to fuel pipe
37	GHF1192	CLIP, plastic (alternative)	1	brake pipe to chassis
38	503213	INSULATING SLEEVE, for clip	1	



Ill. No	Part Number	Description	Qty. Req.	Details
Handbrake				
1	UKC6691	HANDBRAKE LEVER	1	
2	UKC866	HANDBRAKE LEVER	1	
3	104743	FULCRUM PIN	1	
4	WB112081	WASHER, plain	1	
5	AS610032	CIRCLIP, external	1	
6	148083	RATCHET, segment	1	
7	104737	PAWL	1	
8	132588	ROD & KNOB	1	
9	104740	SPRING	1	
10	UKC3918	GRIP, handbrake	1	1500
11	131312	GRIP, handbrake	1	1300
12	TKC3894	*SWITCH, handbrake warning	1	1500 alternative
	144432	*SWITCH, handbrake warning	1	
<i>*All USA vehicles and UK spec with dual circuit brakes.</i>				
13	AB604023	SCREW	1	
15	121766	HANDBRAKE CABLE, front	1	
16	104749	FORK END, handbrake cable	1	
17	JN2107	HALF NUT, locking	1	
18	CN1	CAPTIVE NUT	1	
19	104750	CLEVIS PIN	2	
20	WM93	WASHER, plain	2	
21	GHF500	SPLIT PIN	2	
22	106036	CLAMP	1	tensioning cable spring
23	PMZ210	SCREW	1	
24	509563	WASHER, plain	1	
25	WL700061	WASHER, locking	1	
26	NH806011	NUT	1	
30	158080	RELAY LEVER, original	1		front cable to compensator
	UKC1788	RELAY LEVER, alternative	1	
31	121757	BEARING, relay lever	1	

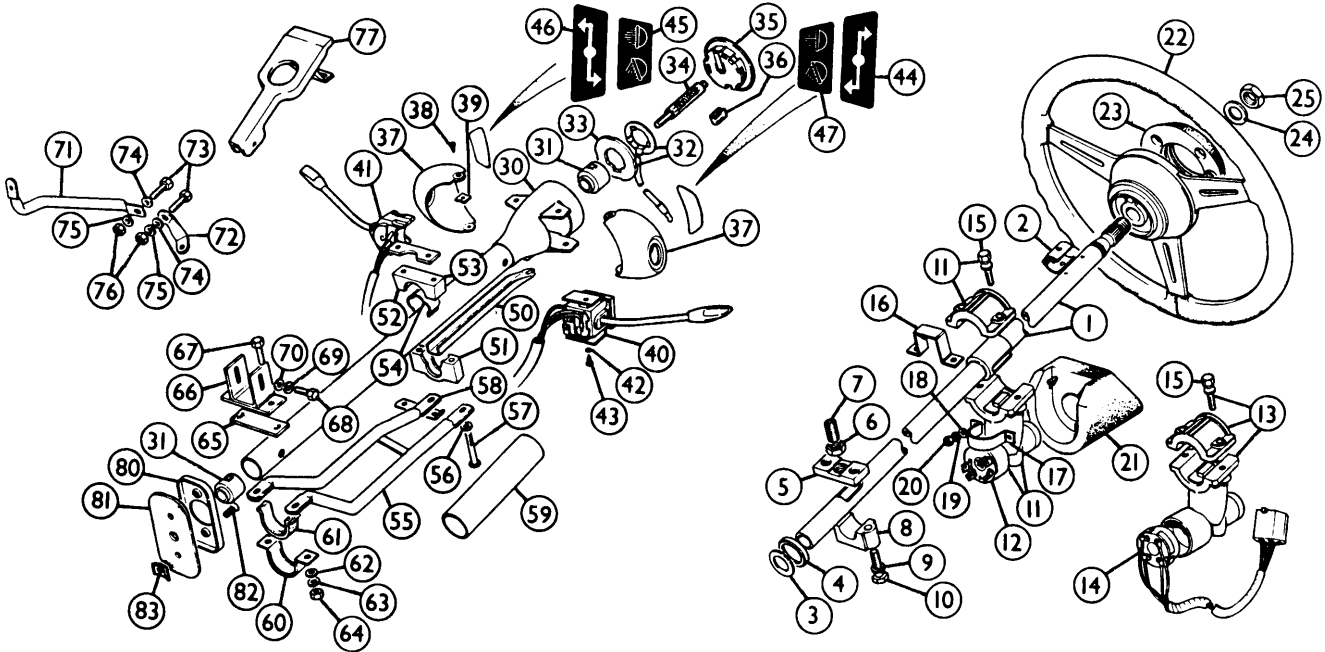
Ill. No	Part Number	Description	Qty. Req.	Details
32	121760	WASHER	1	
33	121755	DUST SEAL	1	
34	121758	LOCK TAB, for pivot bolt	1	
35	121759	PIVOT BOLT	1	
36	121699A	COMPENSATOR, cable	1	
37	PJ8807	CLEVIS PIN	1	
38	GHF502	SPLIT PIN	1	
39	GHF301	WASHER, plain	1	
40	133915	CABLE, compensator to drums	1	1300 to FH50000 1300 from FH50001, and 1500
	159372	CABLE, compensator to drums	1	
<i>The difference in length of the above cables is due to the change in drive shaft length from FH50000.</i>				
41	104750	CLEVIS PIN	2	
42	GHF300	WASHER, plain	2	
43	GHF500	SPLIT PIN	2	
45	104749	FORK END, handbrake cable	2	
46	CN1	CAPTIVE NUT	2	
47	JN2107	HALF NUT, locking	2	
48	GHF200	NUT, locating anchor plate	4	
49	131807	ANCHOR PLATE	2	
50	131806	SPRING	2	(rear brake back plate to anchor plate)

Handbrake Adjustment

When adjusting the handbrake, please note there is a simple, and a hard way, to do the job. First of all try adjusting the cable from the lever end, rather than making two sets of adjustments at the wheels. Also it is well worth greasing the chassis guides (especially the compensator), because otherwise the cables seem well adjusted, until the lever is applied; they then release under tension resetting themselves again when the handbrake is applied.

Greasing all of the guides and compensator will inevitably lead to longer cable life and a smoother action during operation.

110 | Steering Column & Wheel: Early Type



Ill. No	Part Number	Description	Qty. Req.	Details
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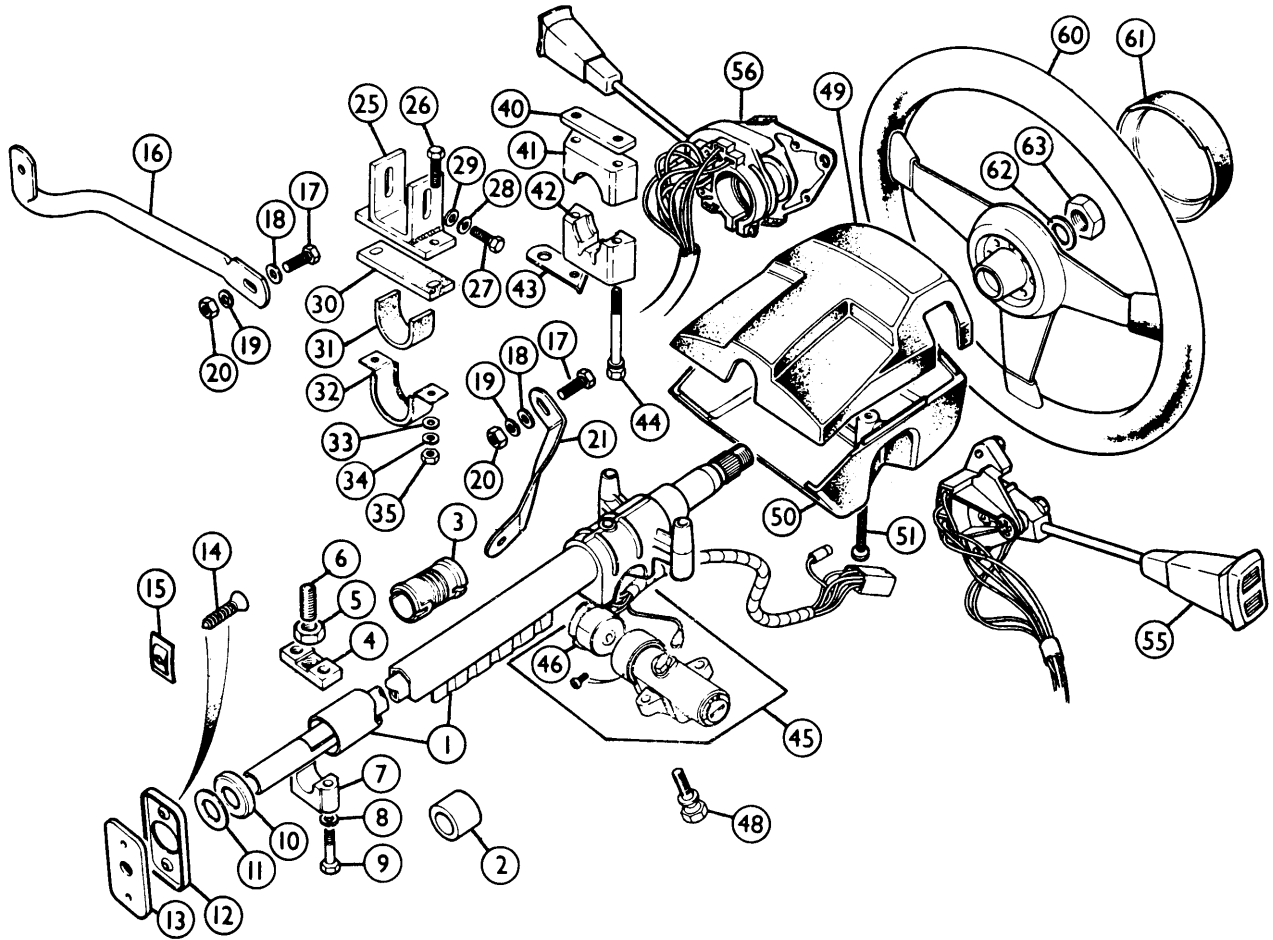
Steering Column (Upper)

Early type to (c) FH100020

1	155621	STEERING COLUMN	1	
2	140549	CLIP, (indicator cancelling)	1	
3	122719	BEARING WASHER	1	
4	122718	END CAP	1	
5	125782	LOCK PLATE, tapped	1	column adjustment
6	JN2110	JAM NUT	1	
7	125781	SCREW, Allen	1	
8	122669	CLAMP	1	
9	GHF331	WASHER, locking	2	
10	BH604101	BOLT	2	
11	2190611	STEERING LOCK & IGN SWITCH (with two keys)	1	to FH62644
12	579085	SWITCH, only (with Lucar type terminals)	1	
13	UKC27191	STEERING LOCK & IGN SWITCH (with two keys)	1	from FH62645
14	218959	SWITCH, only (with small loom & block connector)	1	
For ease of identification, you should order an ignition switch based on the presence of, or absence of, a block connector. I.E. no block connector, use 2190611 or 579085; block connector, use UKC27191 or 218959.				
15	519188	SHEAR BOLT	2	
16	UKC894	CLAMP	1	
17	627340	CLIP	1	
18	PWZ203	WASHER, plain	2	
19	WL700101	WASHER, locking	2	
20	HN2005	NUT	2	
21	718813	PADDED SURROUND	1	
22	160038	STEERING WHEEL	1	
23	156170	PADDING, for boss	1	
See Accessories for our full range of sports steering wheels				
24	WP8013	WASHER, plain	1	
25	105438	NUT, steering wheel to column	1	
30	154177	SHROUD	1	
31	209423	BUSH, steering column	2	
32	608462	HORN SLIP RING & INSULATOR	1	
33	608139	INSULATOR	1	
34	142534	BRUSH, horn push	1	
35	150277	HORN PUSH, 'Triumph Shield'	1	to FH50000
	159761	HORN PUSH, 'Triumph'	1	from FH50001
36	613766	CLIP, horn push securing	1	
37	708479	ESCUTCHEON	2	

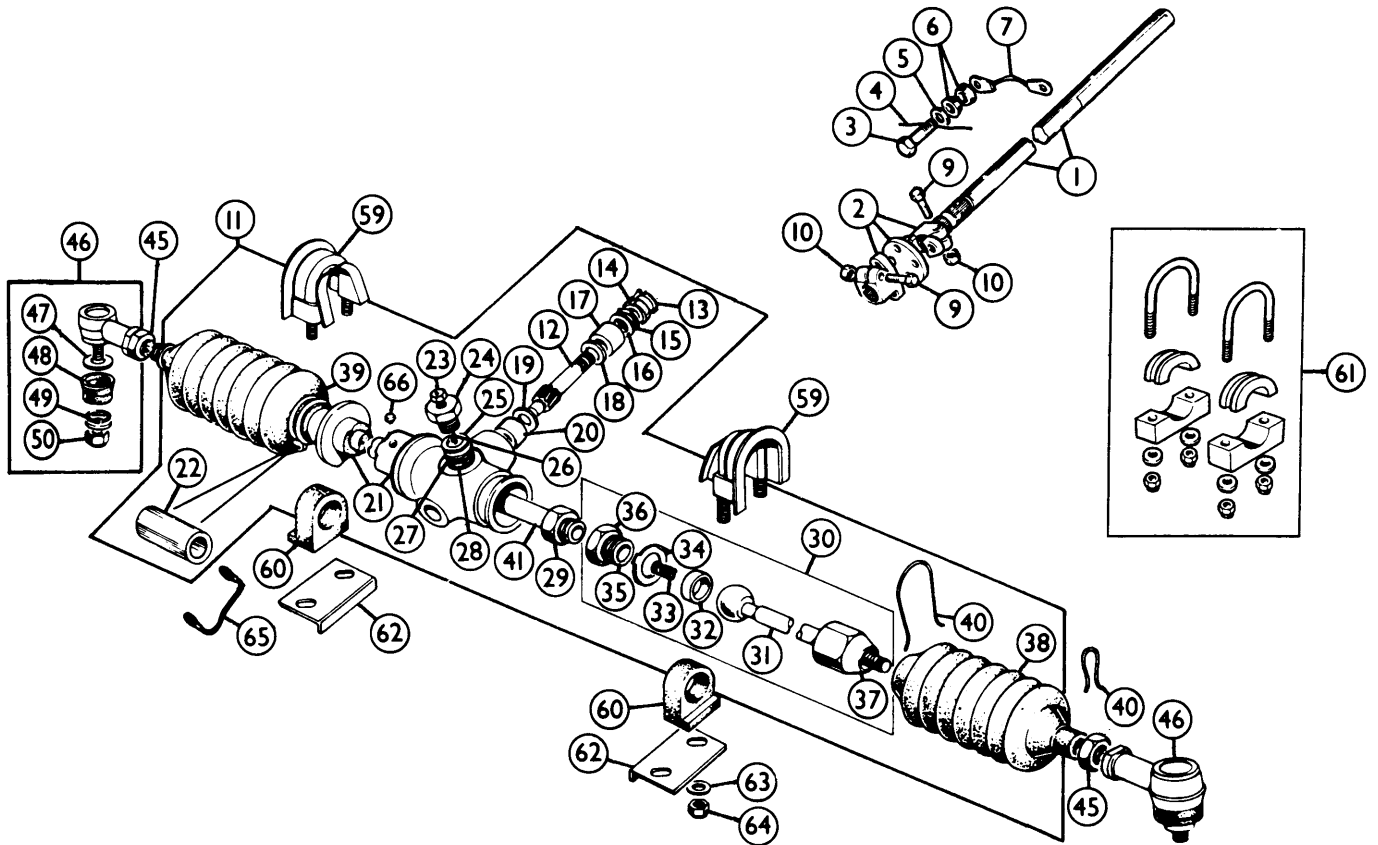
Ill. No	Part Number	Description	Qty. Req.	Details
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38	AD606033	SCREW	2	
39	FC2803	SPIRE NUT	2	
40	152616	SWITCH, headlamp, dip & flash	1	RHD
	148648	SWITCH, headlamp, dip & flash	1	LHD
41	158966	SWITCH, indicator	1	
It is not uncommon for these switches to be transposed. For this reason it is necessary that you should decide which transfers suit your vehicle.				
42	WE604	WASHER, shake-proof	4	
43	TP402	SCREW, pan head	4	
44	611011	TRANSFER, 'indicators'	1	check type of switch fitted
45	621968	TRANSFER, 'main/dip'	1	
46	611012	TRANSFER, 'indicators'	1	
47	621967	TRANSFER, 'main/dip'	1	
50	154833	CHANNEL	1	for wiring
51	619850	CLAMP, lower	1	
52	611368	CLAMP, upper	1	
53	620547	TAPPED PLATE	1	
54	609639	SPRING CLAMP	1	
55	154977	BRACKET, (Anti-Torque)	1	
56	GHF300	WASHER, plain	2	
57	155086	SCREW, clamping	2	
58	628375	SUPPORT PLATE	1	speedo' trip control
59	155038	TUBE, distance (cardboard)	1	LHD
60	608185	CLAMP, column to bracket	1	
61	608223	FELT PACKING STRIP	1	
62	GHF314	WASHER, plain	2	
63	GHF331	WASHER, locking	2	
64	GHF200	NUT	2	
65	608222	FELT PACKING STRIP	1	
66	628402	SUPPORT BRACKET	1	
67	SH604071	SCREW	2	
68	SH604051	SCREW	2	
69	GHF331	WASHER, locking	2	
70	GHF300	WASHER, plain	2	
71	623488	TIE BAR	1	RHD
	623489	TIE BAR	1	LHD
72	716966	TIE BAR	1	RHD
	716967	TIE BAR	1	LHD
73	GHF117	SCREW, tie bar to column support	4	
74	GHF300	WASHER, plain	4	
75	GHF331	WASHER, locking	4	
76	GHF200	NUT	4	
77	809785	SUPPORT, steering column	1	RHD
	809786	SUPPORT, steering column	1	LHD
80	601597	RETAINING PLATE	1	
81	613466	SEAL, retaining plate	1	
82	AD608043	SCREW	2	
83	GHF701	SPIRE NUT	2	



Ill. No	Part Number	Description	Qty. Req.	Details
Steering Column (Upper)				
<i>Late Type from FH100021</i>				
1	TKC2299	STEERING COLUMN, upper	1	RHD
	TKC2300	STEERING COLUMN, upper	1	LHD
2	209423	BUSH, steering column, lower	1	
3	GSV1095	BUSH, steering column, upper	1	
4	125782	LOCK PLATE, tapped	1	steering column adjustment
5	JN2110	JAM NUT	1	
6	125781	SCREW, 'Allen'	1	
7	122669	CLAMP	1	
8	GHF331	WASHER, locking	2	
9	BH604101	BOLT	2	
10	122718	END CAP	1	
11	122719	BEARING WASHER	1	
12	601597	RETAINING PLATE	1	
13	613466	SEAL, retaining plate	1	
14	AD608043	SCREW	2	
15	GHF701	SPIRE NUT	2	
16	623488	TIE BAR	1	RHD
	623489	TIE BAR	1	LHD
17	GHF117	SCREW	4	
18	GHF300	WASHER, plain	2	
19	GHF331	WASHER, locking	4	
20	GHF200	NUT, plain	2	
21	716966	TIE BAR	1	RHD
	716967	TIE BAR	1	LHD
25	628402	BRACKET	1	
26	GHF117	SCREW	2	
27	SH604051	SCREW	2	
28	GHF300	WASHER, plain	2	
29	GHF331	WASHER, locking	2	
30	608222	PACKING STRIP, felt	1	
31	608223	PACKING STRIP, felt	1	
32	608185	CLAMP, column to bracket	1	

Ill. No	Part Number	Description	Qty. Req.	Details
33	GHF314	WASHER, plain	2	
34	GHF331	WASHER, locking	2	
35	GHF200	NUT, plain	2	
40	620547	TAPPED PLATE	1	
41	UKC6765	CLAMP, upper	1	
42	UKC5664	CLAMP, lower	1	
43	628375	SUPPORT PLATE	1	speedo' trip control
44	UKC7070	BOLT, clamp assembly	2	
45	RKC3982	STEERING LOCK & IGN SWITCH	1	RHD (with two keys)
	RKC3983	STEERING LOCK & IGN SWITCH	1	LHD (with two keys)
46	218959	SWITCH only	1	
48	152597	SHEAR BOLT	2	
49	XKC2344	COWL, top	1	RHD
	XKC2342	COWL, top	1	LHD
50	XKC2343	COWL, bottom	1	RHD
	XKC2345	COWL, bottom	1	LHD
51	SE104601	SCREW, cowl securing	2	
55	AAU8843	SWITCH, wiper & wash	1	RHD
	AAU8844	SWITCH, wiper & wash	1	LHD
56	AAU7994	SWITCH, indicator & headlamp	1	RHD
	AAU7996	SWITCH, indicator & headlamp	1	LHD
See Accessories for our full range of sports steering wheels				
60	RKC2818	STEERING WHEEL	1	to approx. mid 1978 not Germany
		'Formula' type, silver spokes		
	TKC2796	STEERING WHEEL	1	to approx. mid 1978 Germany only
		'Anti-reflective' finish		
	RTC2504	STEERING WHEEL	1	approx. mid 1978 to FH130000
		'Moto-Lita' original equipment		
	RKC4042	STEERING WHEEL, padded spokes	1	from FH130001
61	UKC8135	CENTRE PAD, s/wheel	1	to approx. mid 1978
	TKC5178	CENTRE PAD, s/wheel ('Moto-Lita')	1	approx. mid 1978
	ULC1591	BADGE, centre pad	1	to FH130000
	ULC1992	BADGE, s/wheel, padded spokes	1	from FH130000
62	WB600121	WASHER, plain, thin	1	
63	138466	NUT, steering wheel	1	



Ill. No	Part Number	Description	Qty. Req.	Details
Steering Rack & Lower Column				
1	209688	STEERING COLUMN, lower	1	
2	FAM1718	COUPLING, steering	1	(universal joint)
3	108976	BOLT, drilled	4	
4	502148	WIRE, locking	4	
5	GHF301	WASHER, plain	4	
6	108977	O' RING	8	
7	130581	EARTH CABLE	1	
9	BH605101	BOLT, pinching clamp	2	
10	GHF272	NUT, nyloc	2	
	305932X	STEERING RACK KIT, High Ratio (new) (Supplied with Alloy Mountings)	1	RHD models (Track rod ends not included)
	305932XNF	STEERING RACK, High Ratio (new) (Less Alloy Mountings)	1	
	305931X	STEERING RACK KIT, High Ratio (new) (Supplied with Alloy Mountings)	1	LHD models (Track rod ends not included)
	305931XNF	STEERING RACK, High Ratio (new) (Less Alloy Mountings)	1	
<p>Our Quick Racks have a high ratio pinion giving you lock-to-lock in only 2.5 turns (compared to the standard 3.5). Made initially for competition use, racks have a stronger outer casing with a higher grade of steel rack for increased durability. The 'Steering Rack Kits' also include solid alloy mounts to reduce the amount of steering rack float.</p> <p>Note: These Quick Racks must be fitted with Alloy (solid) mountings)</p>				
	TT3255	'Alloy' RACK MOUNTING KIT	1	
<p>This Alloy (solid) rack mounting kit stops the 'steering float' caused by wear in the rubber mounts. Although it gives a slightly less comfortable ride, it provides much more accurate steering - and lasts longer.</p>				
11	305932	*STEERING RACK, new	1	RHD
	305932R	*STEERING RACK, rebuilt, exchange	1	(Standard)
	305931	*STEERING RACK, new	1	LHD
	305931R	*STEERING RACK, rebuilt, exchange	1	(Standard)
(*Less Track Rod Ends)				

Ill. No	Part Number	Description	Qty. Req.	Details
12	134689	PINION, (7T)	1	RHD
	134688	PINION, (7T)	1	LHD
13	509537	CIRCLIP, securing pinion	1	
14	128001	COLLAR	1	
15	128021	SEAL	1	
16	120941	SHIM (0.005")	a/r	
17	127998	PINION BUSH, upper	1	
18	127999	WASHER, thrust, upper	1	
19	128000	WASHER, thrust, lower	1	
20	127997	PINION BUSH, lower	1	
21	305774	RACK BODY	1	LHD
	305773	RACK BODY	1	RHD
22	128002	BUSH, passenger side	1	
23	133103	PLUG	1	alternatives
	056935	GREASE NIPPLE	1	
A plug is traditionally fitted here to discourage over-greasing of the steering rack.				
24	132053	SCREWED CAP	1	
25	120959	SHIM, 0.002"	a/r	
	120949	SHIM, 0.004"	a/r	
	132055	SHIM, 0.010"	a/r	
26	126765	SPRING	1	
27	143952	WASHER	1	
28	120946	DAMPER PAD	1	
29	146364	LOCK NUT, rack bar	2	
30	129961	INNER BALL JOINT	2	
31	128023	BALL PIN	2	
32	158732	SOCKET	2	
33	120953	SPRING	2	
34	120957	TAB WASHER	2	
35	130031	SHIM, 0.002"	a/r	
	130032	SHIM, 0.010"	a/r	
36	129963	SOCKET NUT	2	
37	128024	BALL HOUSING	2	
38	GSV1104	GAITER, passenger side	1	
39	GSV1105	GAITER, drivers side	1	

Ill. No	Part Number	Description	Qty. Req.	Details
	GSV1104/5	GAITERS, pair, (includes clips)	a/r	
40	GHF1267	CABLE TIE, ratchet type	a/r	] alternatives
	EAW4321	WIRE TIE, original	a/r	
41	208058	RACK BAR	1	
45	NT608041	NUT, locking (track rod end)	2	
46	GSJ158	TRACK ROD END, genuine	2	] alternatives
	GSJ158B	TRACK ROD END, pattern	2	
47	138869	GAITER CLAMPING RING	2	
48	EAW2270	GAITER	2	
49	WB110061	WASHER, plain	2	
50	GHF223	NUT, nyloc	2	
59	156024	'U' CLAMP, steering rack	2	
60	139386	MOUNTING, rubber, steering rack	2	
61	TT3255	'Alloy' RACK MOUNTING KIT	1	replaces items 59 & 60

This Alloy (solid) rack mounting kit stops the 'steering float' caused by wear in the rubber mounts. Although it gives a slightly less comfortable ride, it provides much more accurate steering - and lasts longer.

62	133875	PLATE, reinforcer	2	
63	GHF301	WASHER, plain	4	
64	GHF222	NUT, nyloc	4	
65	134301	EARTH LEAD	1	steering rack to chassis
66	145108	PLUG, nylon	1	

Omission of this plug will contribute to slackness in the rack.

If fitted in conjunction with item 61, it may need slight reduction in length.

Removing & Refitting Steering Components

1. The steering lock.

There are several ways of removing steering lock shear bolts, which by security conscious design will have sheared their heads off during fitting. The methods range from the ham-fisted (ignoring the bolts and simply hack-sawing the lock off, thereby destroying it) to a couple of more rational ideas described below.

If there is any of the shear bolt material proud of the steering lock casting, it may be possible to create a slot across it with careful use of a hacksaw and then undo the bolt with a screwdriver. If this is not possible, the bolt can be undone by putting the point of a centre punch near the outer edge of the sheared surface of the bolt, then angling the punch so that when struck by a hammer it knocks the bolt round in an anti-clockwise direction.

Repeating this action will, of course, eventually undo the bolt. Granted, it's a slow procedure, but it works every time.

Drilling the bolts out is not really recommended if the lock is to be saved - unless you are remarkably skilful (or lucky) in your aim, the drill will probably drift into the soft metal of the lock casting, leaving rather too much of the relatively harder bolt complete.

In the same vein, using an 'Easyout' (a device for removing broken studs) is a bit of a gamble; if the Easyout breaks - as it will if you get a little too enthusiastic with it, you will be left staring at something that's definitely too hard to drill out.

2. The steering wheel.

When trying to ease the steering wheel off the tapered splines on the top of the column without the aid of the correct wheel pulling tool (i.e. jiggling it from side to side and tugging at the same time, or tapping the back of the wheel with a soft faced hammer), make sure that the wheel retaining nut is still held on to the end of the column by a thread or two. You'll have saved face - literally - when the wheel eventually breaks free in a hurry from its splines.

Going back to the start of the task, scratch a mark on the top of the inner column to match another on the wheel centre, so that later during re-assembly you don't have to go through the hit and miss process of trying to get the wheel on straight again.

3. Joining the steering column to the steering rack.

Never attempt to join the column and steering rack together without the rack clamps being loose enough to allow a little rotation of the rack in its mountings.

The movement will allow the splines of the column and the rack to settle properly in line with each other; only then should all the bolts be nipped up tight:

the column pinch bolt first, followed by the rack mountings. If the rack pinion was not quite in line, so that the column exerted a lateral pressure on it, abnormal wear on bushes and bearings would result.

Ill. No	Part Number	Description	Qty. Req.	Details
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The embarrassing horn fault

One sunny afternoon, you find yourself driving along in town with the hood down, generally enjoying life. You turn a corner slowly into a crowded street in your gleaming pride and joy and...the horn blares out, whereupon everyone stops and stares/glares at you. But you're sure you didn't touch the horn.

Later, you drive over a bump while following a taxi and the horn goes off again. You hide miserably behind the steering wheel, as much out of sight of the taxi driver as possible.

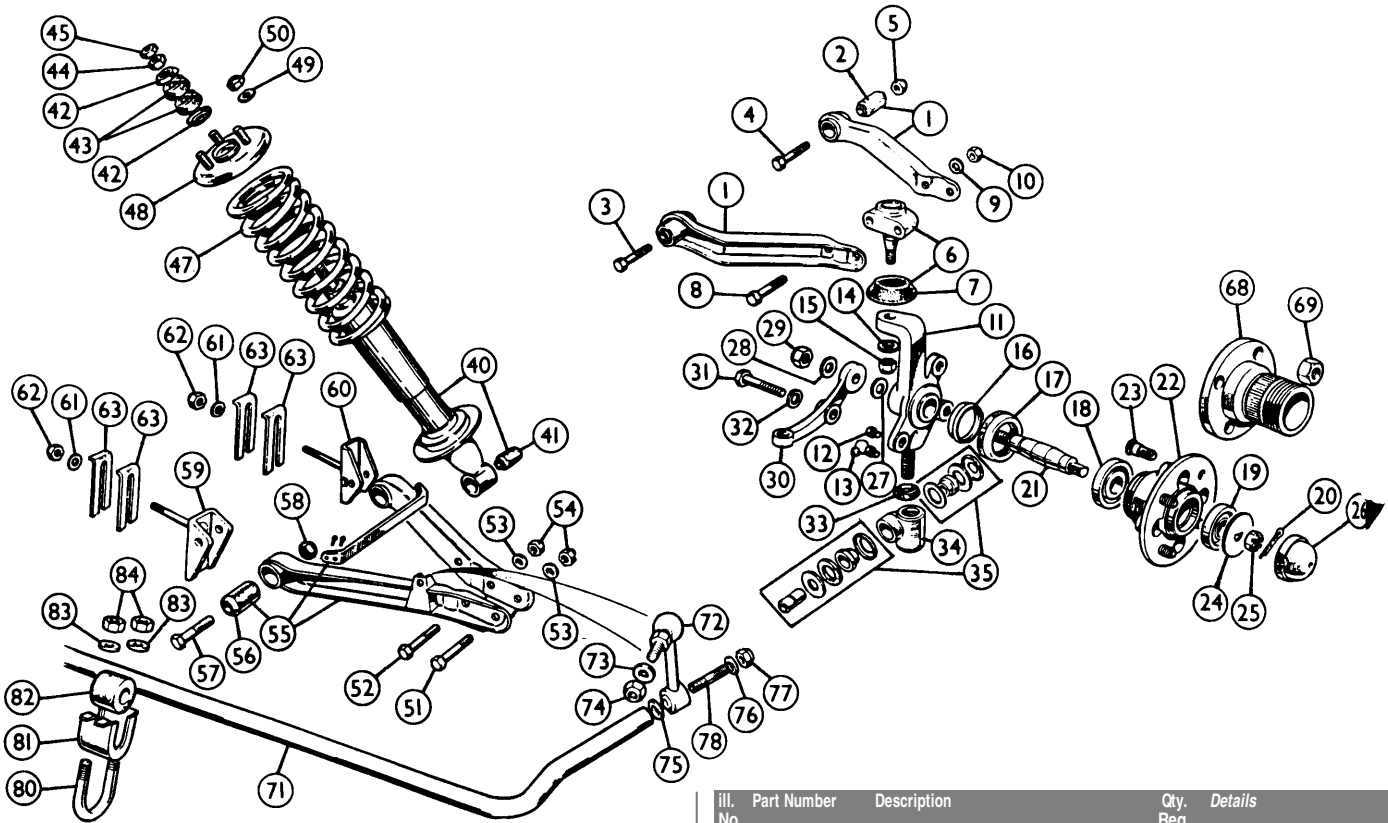
Once back at the sanctuary of your house, you wreak revenge on the horn controls, carrying out a thorough inspection and overhaul. A couple of days later, the same embarrassing events repeat themselves. You can't believe it.

Try this test:

hold the steering wheel and try to pull it back towards yourself; then push it forwards, away from yourself, as far as you can. You will probably be shocked at the amount of longitudinal play (though not as shocked as when the horn goes off again).

The excessive play - which at its worst point enables the horn circuit to be unintentionally completed - is due to worn thrust washers on the steering rack pinion.

If you fancy your chances dealing with fine tolerance shims and things, then have a go at repairing it. If you're sensible, replace your steering rack.

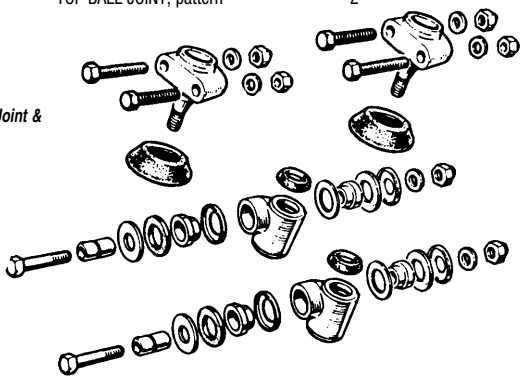


Ill. No	Part Number	Description	Qty. Req.	Details
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Front Suspension

1	119272	UPPER WISHBONE ARM	4	
2	119451	BUSH, rubber	4	
	GBK6601X	BOLT KIT	2	
<i>(Kit inc. items 3, 4, 5, 8, 9, 10, 51, 52, 53, 54, 57, 58 to service one side of the front suspension)</i>				
3	BH606181	BOLT, upper wishbone, front	2	
4	BH606201	BOLT, upper wishbone, rear	2	
5	GHF223	NUT, nyloc	4	
6	GSJ155	TOP BALL JOINT, genuine	2	
	GSJ155B	TOP BALL JOINT, pattern	2	

QHQS88 Ball Joint & Trunion Kit



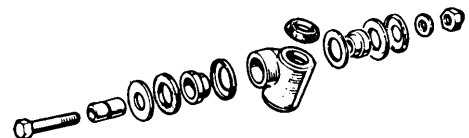
QHQS88	TRUNNION & UPPER BALL JOINT KIT	1	
<i>(Kit is per car and includes all bushes & seals)</i>			

7	UKC3466	GAITER, (genuine ball joint)	2	
8	BH605181	BOLT, top ball joint	4	
9	GHF301	WASHER, plain	4	
10	GHF222	NUT, nyloc	4	
11	GSJ266	VERTICAL LINK, LH	1	
	GSJ265	VERTICAL LINK, RH	1	
12	FAM581	BLANKING PLUG	2	
13	LN30041	GREASE NIPPLE (90° angle)	a/r	

Rather than grease the steering swivel joint, it is recommended to oil (with EP90) and to replace the grease nipple with blanking plug (FAM581) between services.

14	WD600071	WASHER, plain	2	
15	GHF224	NUT, nyloc (top ball joint)	2	
16	138559	SHIELD, inner seal	2	
	GHK1021	HUB BEARING & SEAL KIT	2	
17	GHS146	OIL SEAL	2	
18	GHB111	BEARING, inner	2	
19	GHB110	BEARING, outer	2	
20	PC20	SPLIT PIN	2	
21	UKC697	STUB AXLE	2	
22	146479	HUB UNIT	2	
23	158729	STUD, wheel	8	
24	102690	THRUST WASHER, outer bearing	2	
25	NL608041	CASTLE NUT, hub retaining	2	
26	102689	GREASE CAP, front hub	2	
27	WC112081	WASHER, spacing	2	
28	WC112081	WASHER, spacing	2	
29	GHF225	NUT, nyloc, stub axle	2	
30	211049	STEERING ARM, LH	1	
	211048	STEERING ARM, RH	1	
31	159514	BOLT, arm to vertical link	2	
32	WQ310	WASHER, locking, square	2	
33	122126	SEAL, rubber	2	vertical link to trunion
34	140920	TRUNNION, lower, LH	1	genuine
	140919	TRUNNION, lower, RH	1	
	140920B	TRUNNION, lower, LH	1	reproduction
	140919B	TRUNNION, lower, RH	1	

QHQS88ALH/RH Lower Trunion Kit



QHQS88ALH	LOWER TRUNNION KIT, LH	1	includes all bushes & seals	
QHQS88ARH	LOWER TRUNNION KIT, RH	1		
35	514191	TRUNNION BUSH KIT	1	complete kit for both sides
	514191B	TRUNNION BUSH KIT	2	kit for one side
40	GSA267	SHOCK ABSORBER, standard	2	
	TT3301	SHOCK ABSORBER, Spax	2	adjustable
	TT3302	SHOCK ABSORBER, Koni	2	
	TT3303	SHOCK ABSORBER, Gaz	2	
See also Accessories.				

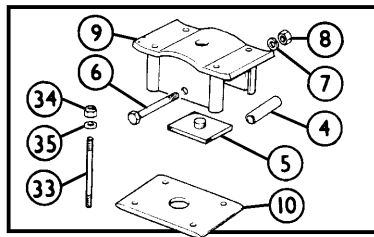
Ill. No	Part Number	Description	Qty. Req.	Details
41	119450	BUSH, rubber, lower mounting	2	
42	147631	WASHER, cupped (upper) (upper mounting bush retaining)	4	for standard shock absorbers only
43	122324A	BUSH, rubber, upper mounting	4	
44	GHF202	NUT	2	
45	NT606041	NUT, locking	2	
47	TKC1884	ROAD SPRING, standard	2	
	TT4301	ROAD SPRING, uprated	2	slightly lower ride height
48	122137	SPRING PLATE, upper	2	
49	WM93	WASHER, plain	6	
50	GHF221	NUT, nyloc	6	

A range of spacers is available to increase the ride height of the car. The upper spring plate (48) will accept the thin spacer TT4404 above it (& still leave enough of the mounting studs lengths free to fit the assembly safely), but if a further increase in height is required, the spacer TT4405 must be used under the coil spring.

	TT4404	SPACER, above spring cap	2	0.375" (0.95cm)
	TT4405	SPACER, below coil spring	2	0.875" (2.22cm)

51	119142	BOLT, trunion to lower wishbone	2	
52	BH607201	BOLT, s/abs to lower wishbone	2	
53	WD600071	WASHER, plain	4	
54	GHF224	NUT, nyloc	4	
55	206686	LOWER WISHBONE, LH	1	
	206685	LOWER WISHBONE, RH	1	
56	119451	BUSH, (standard)	4	inner wishbone
	TT3362	BUSH, (uprated/Polyurethane)	4	
57	BH606191	BOLT, wishbone pivot	4	
58	GHF223	NUT, nyloc	4	
59	130757	PIVOT BRACKET, forward	2	
60	130758	PIVOT BRACKET, rearward	2	
61	GHF302	WASHER, plain	4	
62	GHF223	NUT, nyloc	4	
63	122022	SHIM, camber adjustment	a/r	

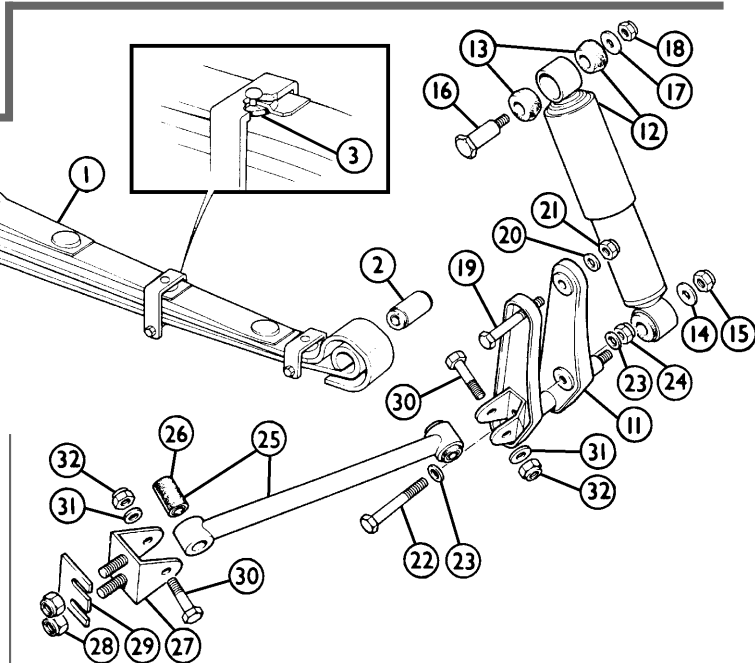
Ill. No	Part Number	Description	Qty. Req.	Details
68	142598	ADAPTOR HUB, wire wheel, LH	2	originally for Mkl to Ill Spitfires; will fit later cars
	142597	ADAPTOR HUB, wire wheel, RH	2	
These hubs will only safely accept the wire wheels specifically designed for Spitfires. Other 13" dia. wire wheels may look as though they fit, but the spline & seat design may differ - so they don't. It's a matter of Triumph engineers effectively widening the axle by using adaptors, but endeavouring to keep the overall track dimension the same. See also 'Road Wheels & Tools' and Accessories.				
69	144504	NUT, chamfered, adaptor to hub	16	
Note: The above nuts must be used when installing wire wheel adaptor hubs. If ordinary wheel nuts are used, each wheel will be unable to locate properly on its adaptor. The steering will become increasingly interesting as the wire wheels start sliding along the hubs and the wheel nuts & spinners begin to unfasten.				
71	217033	ANTI ROLL BAR	1	
72	125482	LINK, anti roll bar to wishbone, LH	1	
	125481A	LINK, anti roll bar to wishbone, RH	1	
73	WP46	WASHER, plain	2	
74	GHF224	NUT, nyloc	2	
75	WP20X	WASHER, plain, inner	2	
76	GHF303	WASHER, plain, outer	2	
77	GHF223	NUT, nyloc	2	
78	125074	STUD, link	2	
80	155307	'U' BOLT, roll bar	2	
81	155308	CAP, retaining roll bar	2	
82	155310	BUSH, rubber	2	
	155309	MOUNTING PLATE	2	fitted to chassis
83	GHF301	WASHER, plain	4	
84	GHF222	NUT, nyloc	4	



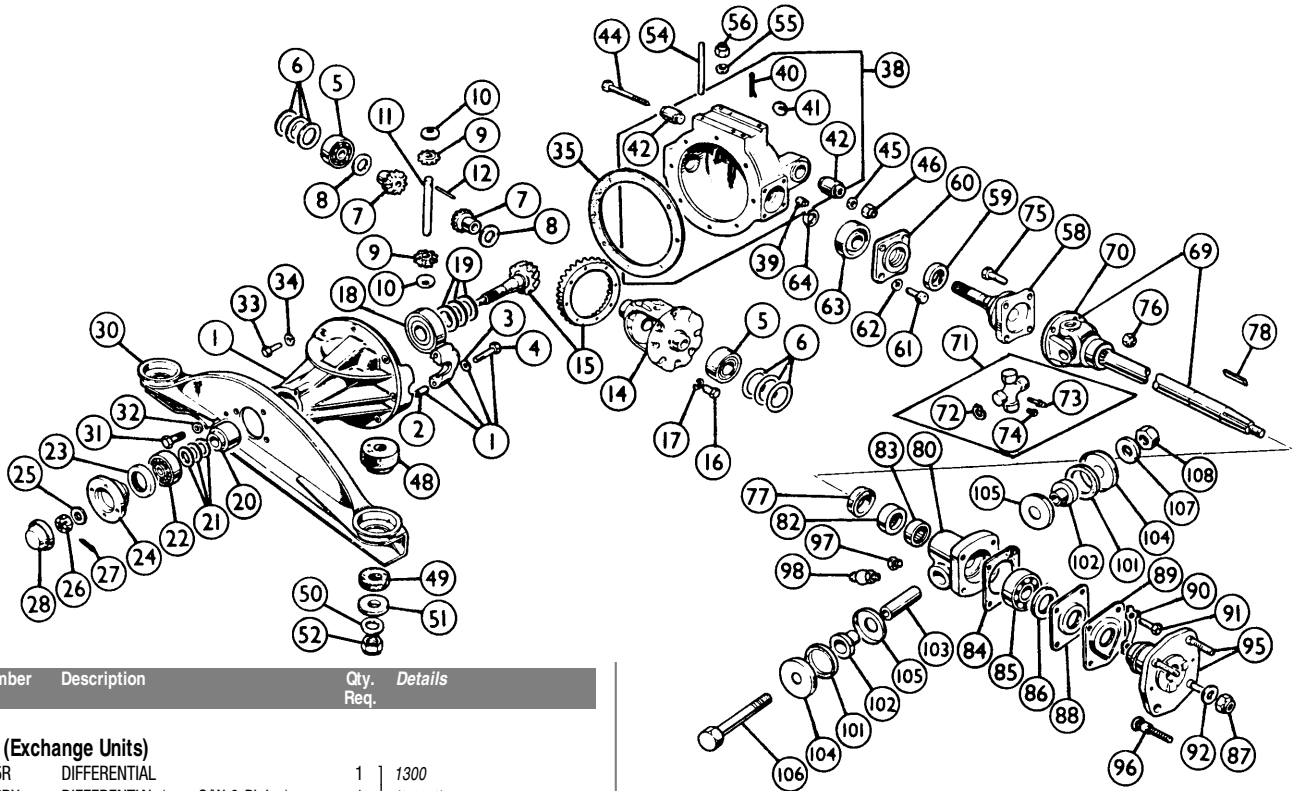
Rear Suspension

A rear spring shows its tiredness by inducing excessive camber on one of the rear wheels, usually the drivers side. This malady can be cured by replacing the spring with either a new or reconditioned unit to restore spring tension. It will also restore the ride quality of the car.

1	159640	SPRING, new, genuine	1	includes items 2 to 10
	159640B	SPRING, new, reproduction	1	
	TT4410	SPRING, reconditioned	1	
	TT4413	SPRING 'Negative Camber'	1	
2	C8939A	OUTER EYE BUSH	2	fits between leaves
3	114006	BUSH, thrust	4	
4	149190	SPACER TUBE, lower leaf	1	
5	149191	CENTRE INSULATOR	1	
6	BH605211	BOLT, centre pivot	1	
7	GHF332	WASHER, locking	1	
8	GHF201	NUT	1	
9	159641	CENTRE MOUNTING BOX	1	
10	149189	LOWER MOUNTING BOX PLATE	1	
11	132764	VERTICAL LINK, LH	1	
	132763	VERTICAL LINK, RH	1	
12	GSA385	SHOCK ABSORBER, standard	2	adjustable
	TT3311	SHOCK ABSORBER, Spax	2	
	TT3312	SHOCK ABSORBER, Koni	2	
	TT3313	SHOCK ABSORBER, Gaz	2	
		(See also Accessories)		
13	102987	MOUNTING BUSH	8	standard shock absorber only
14	WM69	WASHER, plain	2	
15	GHF224	NUT, nyloc	2	
16	118599	BOLT, shock absorber	2	
17	WB112081	WASHER, plain	2	
18	GHF275	NUT, nyloc, thin	2	
19	BH607281	BOLT, rear spring to vertical link	2	
20	WD600071	WASHER, plain	2	
21	GHF224	NUT, nyloc	2	
22	BH607281	BOLT, rear hub	1	



23	WD600071	WASHER, plain	4	
24	GHF224	NUT, nyloc	2	
25	133065	RADIUS ARM, rear	2	1300 to (c) FH50000
	155930	RADIUS ARM, rear	2	1300 from (c) FH50001 & 1500
26	119451	BUSH, rubber, rear radius arm	4	
27	151967	PIVOT BRACKET, LH	1	1300 to (c) FH50000
	151966	PIVOT BRACKET, RH	1	
	159842	PIVOT BRACKET, LH	1	1300 from (c) FH50001
	159843	PIVOT BRACKET, RH	1	& 1500
Although the rear spring was not altered when the drive shaft length was increased (at (c) FH50000), the mounting brackets & radius arms were modified to suit the new position they were required to take up.				
28	GHF223	NUT, nyloc	4	
29	133070	SHIM, pivot bracket to chassis	a/r	
30	BH606181	BOLT, radius arm	4	
31	GHF302	WASHER, plain	4	
32	GHF223	NUT, nyloc	4	
33	131008	STUD, rear spring	4	
34	GHF223	NUT, nyloc	4	
35	GHF302	WASHER, plain	4	
	GBK6602X	BOLT KIT	1	
inc. items 14, 15, 19, 20, 21, 22, 23, 24, 30, 31, 32 to service both sides of rear suspension.				



Ill. No	Part Number	Description	Qty. Req.	Details
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Differential (Exchange Units)

RTC2305R	DIFFERENTIAL	1	1300
RTC2305RX	DIFFERENTIAL (new C/W & Pinion)	1	(3.89:1)
TKC3718R	DIFFERENTIAL	1	1500
TKC3718RX	DIFFERENTIAL (new C/W & Pinion)	1	(3.63:1)
TKC5240R	DIFFERENTIAL, exch. 3.27:1	1	Switzerland only

The above Differential Assemblies come built up in an axle case. They do not come with Hubs, Drive Shafts or Brake Assemblies.

We are only able to exchange differentials for reconditionable units of the same type and ratio. Units found to be not reconditionable will either be returned or surcharged according to the customers wishes.

Differential & Axle Components

1	518949	CASING & BEARING CAPS	1	
2	060070	BUSH, bearing cap alignment	4	
3	GHF333	WASHER, locking	4	
4	104554	BOLT, attaching bearing cap	4	
5	GHB105	BEARING, differential carrier	2	1300, 1500 to FH106101
	UKC4805	BEARING, differential carrier (24.8mm internal diameter)	2	1500 from FH106102
6	156082	SHIM, carrier side, 0.003"	a/r	adjustment
	156083	SHIM, carrier side, 0.005"	a/r	
	154921	SHIM, carrier side, 0.010"	a/r	
	154925	SHIM, carrier side, 0.020"	a/r	
7	134073	SUN WHEEL, differential	2	1300, 1500 to FH106101
	UKC6281	SUN WHEEL, differential	2	1500 from FH106102
8	AT47039	T/WASHER, sun wheel to carrier	2	
9	134074	PLANET GEAR, differential	2	1300, 1500 to FH106101
	UKC3365	PLANET GEAR, differential	2	1500 from FH106102
10	ADJUSTING WASHER, planet gear thrust, sizes shown below:			
	138440	0.027"	a/r	1300, 1500 to FH106101
	147249	0.029"	a/r	
	134076	0.031"	a/r	
	147250	0.033"	a/r	
	138441	0.035"	a/r	
	147251	0.037"	a/r	
	138442	0.039"	a/r	
	148805	0.041"	a/r	
	147252	0.043"	a/r	
	UKC4788	0.69mm (0.027")	a/r	
	UKC4789	0.74mm (0.029")	a/r	
	UKC4790	0.79mm (0.031")	a/r	
	UKC4791	0.84mm (0.033")	a/r	
	UKC4792	0.89mm (0.035")	a/r	
	UKC4793	0.94mm (0.037")	a/r	
	UKC4794	0.99mm (0.039")	a/r	
	UKC4795	1.04mm (0.041")	a/r	
	UKC4796	1.09mm (0.043")	a/r	
	ULC2029	1.14mm (0.045")	a/r	
	ULC2030	1.19mm (0.047")	a/r	

Ill. No	Part Number	Description	Qty. Req.	Details
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11	134072	CROSS PIN, differential	1	1300, 1500 to FH106101
	UKC4493	CROSS PIN, differential	1	1500 from FH106102
<i>The later cross pin UKC4493 can be used to replace the earlier type</i>				
12	110376	PIN, solid type, locking cross pin	1	1300, 1500 to FH106101
	UKC3948	PIN, scroll type, locking cross pin	1	1500 from FH106102
14	21H5478	CARRIER, diff & crown wheel	1	1300, 1500 to FH106101
	RKC1983	CARRIER, diff & crown wheel	1	1500 from FH106102
	RKC2802	CARRIER, diff & crown wheel	1	Switzerland only with 3-27:1 ratio from FH126380

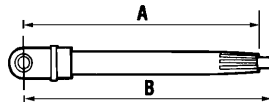
Note: Sun & planet gears must be fitted in type sets.

Early ones can be mixed and run with later ones, but not for very long ...

15	518844	CROWN WHEEL & PINION 3.89:1 (solid bearing spacer)	1	1300 to mid 1973
	159801	CROWN WHEEL & PINION 3.89:1 (collapsible bearing spacer)	1	1300 from mid 1973
	159802	CROWN WHEEL & PINION 3.63:1	1	1500 except Switzerland
	159803	CROWN WHEEL & PINION 3.27:1	1	Switzerland only from FH126380
<i>When replacing crown wheel & pinion sets ensure the correct spacer is used, i.e. solid or collapsible type.</i>				
16	21H5479	BOLT, crown wheel to carrier	8	1500 from FH125380 except Switzerland
	144668	BOLT, crown wheel to carrier	8	Swiss from FH126380 and 3-27:1 CWP ratio
17	118977A	WASHER, locking	8	
18	134065	BEARING, pinion head	1	
19	SHIM, pinion head bearing height adjusting. (Sizes shown below):			
	145918	0.075"	a/r	
	145919	0.0765"	a/r	
	148099	0.077"	a/r	
	145920	0.078"	a/r	
	148100	0.079"	a/r	
	145921	0.0795"	a/r	
	148101	0.080"	a/r	
	145922	0.081"	a/r	
	148102	0.082"	a/r	
	145923	0.0825"	a/r	
	148103	0.083"	a/r	
	145924	0.084"	a/r	
	148104	0.085"	a/r	
	145925	0.0855"	a/r	
	148105	0.086"	a/r	

Ill. No	Part Number	Description	Qty. Req.	Details
	145926	0.087"	a/r	
	145927	0.0885"	a/r	
	145928	0.090"	a/r	
	145929	0.0915"	a/r	
	145930	0.093"	a/r	
	145931	0.0945"	a/r	
	145932	0.096"	a/r	
20	145933	SOLID SPACER	1	1300 to mid 1973
	156903	COLLAPSIBLE SPACER	1	1300 from mid 1973, 1500
21	140790	SHIM, 0.030"	a/r	
	140791	SHIM, 0.010"	a/r	
	140792	SHIM, 0.005"	a/r	
	140793	SHIM, 0.003"	a/r	
22	BTB440	BEARING, pinion, flange end	1	
23	DAM5079	SEAL, pinion flange	1	
24	153677	DRIVE FLANGE	1	1300 to 1973
	UKC764	DRIVE FLANGE	1	1300 from 1973, 1500
25	142333	WASHER, plain	1	
26	LN2212	NUT, flange, slotted type	1	
	159394	NUT, flange, nyloc type	1	
27	GHF502	SPLIT PIN, for slotted nut	1	alternatives
	PC45	SPLIT PIN, for slotted nut	1	
28	UKC725	SHIELD, over pinion nut	1	1300 from mid 1973, 1500
30	215537	BRACKET, front mounting	1	
31	132856	BOLT, mounting bracket	4	
32	GHF324	WASHER, shake-proof	4	
33	GHF103	SCREW, casing	8	
34	GHF332	WASHER, locking	8	
35	114749	GASKET, casing	1	
38	TKC220	REAR CASING	1	
39	114774	FILLER PLUG	1	
40	GHF502	SPLIT PIN, breather	1	
41	104449	CORE PLUG, 5/8" diameter	1	
42	117578	MOUNTING BUSH, rear	2	
44	136869	BOLT, rear differential mounting	1	
45	GHF303	WASHER, plain	1	
46	GHF274	NUT, nyloc	1	
48	133568	MOUNTING BUSH, front, upper	2	
49	131796	MOUNTING BUSH, front, lower	2	
50	WM810	WASHER, differential mounting	2	
51	CRC3343	WASHER, (LH side only)	1	
52	GHF273	NUT, nyloc	2	
54	131008	STUD, rear spring	4	
55	WB110061	WASHER, plain, nut to spring	4	
56	GHF273	NUT, nyloc	4	spring to stud in diff casing
58	139531	OUTPUT SHAFT & FLANGE	2	
59	117952	SEAL	2	output shaft to diff casing
60	139530	RETAINER, seal to bearing	2	
61	123803	SCREW, socket headed	8	
62	GHF331	WASHER, locking	8	
63	533360A	BEARING, output shaft	2	
64	139532	CIRCLIP, bearing to output shaft	2	

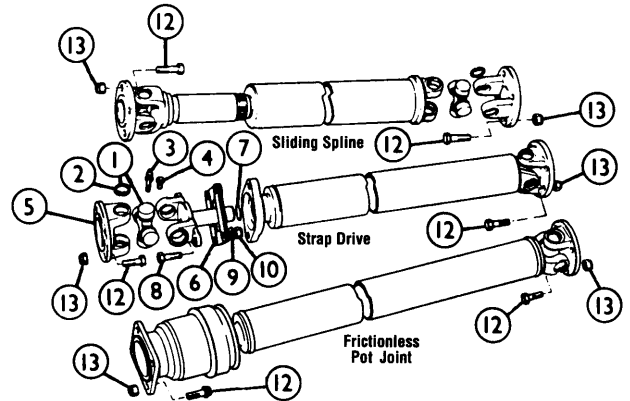
Drive shafts changed in length on 1300 models in 1973.
They each increased by one inch to give a wider track.



Spitfire Driveshaft Lengths	Part No	Dimension A	Dimension B
	128135	18.5"	19.5"
	155928	19.5"	20.5"

69	128135	DRIVE SHAFT & YOKE	2	1300 to (c) FH50000
	155928	DRIVE SHAFT & YOKE	2	1300 from (c) FH50001, 1500
70	37H4973	DRIVE FLANGE YOKE	2	
71	GUJ115	UJ & CIRCLIPS, grease-able type	2	genuine
	GUJ115B	UJ & CIRCLIPS, grease-able type	2	pattern
	GUJ101	UJ & CIRCLIPS, sealed type	2	genuine
72	144101	CIRCLIP, 0.058" - 0.059"	8	
73	144825	GREASE NIPPLE,	a/r	inc. with GUJ115 & GUJ115B
74	144825P	PLUG,	2	replaces grease nipple between services
				Note that grease-able UJ's cannot be run on the vehicle with the grease nipple in place.
75	132023	BOLT	8	drive shaft flange
76	GHF273	NUT, nyloc,	8	to diff flange
77	128469	STONE GUARD, on drive shaft	2	protects inner seal
78	104581	KEY, drive shaft to drive flange	2	

Ill. No	Part Number	Description	Qty. Req.	Details
80	204226	BEARING HOUSING	2	
	GHK1029	BEARING KIT, rear wheel hub	2	
82	128978	INNER SEAL	2	
83	117853	INNER BEARING, needle roller	2	
84	GFG117	GASKET	2	
85	GHB117	OUTER BEARING	2	
86	GHS111	OUTER SEAL	2	
87	510618A	HUB NUT, nyloc	2	
88	104773	PLATE,	2	seal housing & bearing retaining
89	104582	SHIELD, retaining grease	2	
90	121860	LOCK TAB	4	
91	121862	BOLT (alternative)	8	plate & shield to hub housing
	GHF103	SCREW (alternative)	8	
92	142333	WASHER, hub nut to drive flange	2	
95	FAM2004	DRIVE FLANGE & STUDS	2	
96	21H5774	STUD, rear wheel	8	
97	122115	PLUG	2	blanks rear hub lubrication hole
98	056935	GREASE NIPPLE	2	
NI	514370	TRUNNION BUSH KIT	1	one kit per car
NI	514370B	TRUNNION BUSH KIT	2	1 kit per side
101	141185	RUBBER RING, dirt seal	4	
102	141218	NYLON BUSH	4	
103	141221	SPACER, steel	2	
104	141443	WASHER, outer	4	
105	141444	WASHER, inner	4	
106	BH607281	BOLT, trunnion pivot	2	
107	WD600071	WASHER, plain	2	
108	GHF224	NUT, nyloc	2	

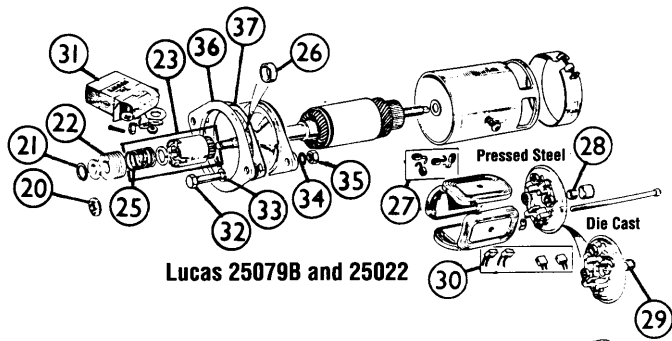


Propshaft

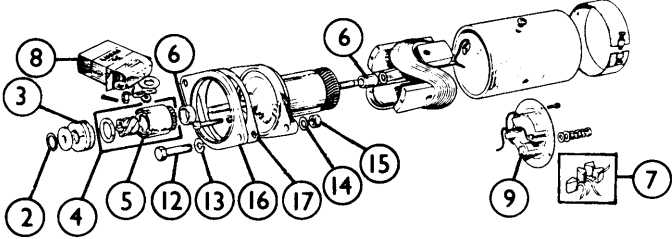
There were three designs for propshafts each with two different lengths. The changes in length were for overdrive or non-overdrive versions.

The constructional differences were sliding spline, strap drive and frictionless pot joint. Triumph finally ended up using the frictionless pot joint type in different lengths to service all cars. We offer either genuine Rover pot joint type (where still available) or aftermarket reproduction prop shafts with a sliding spline.

	TKC1753	PROPSHAFT, pot joint,	1	1300 three rail gearbox non-overdrive
	TKC1753B	PROPSHAFT, sliding spline	1	
	PKC1466	PROPSHAFT, pot joint	1	1300 three rail gearbox overdrive and
	PKC1466B	PROPSHAFT, sliding spline	1	
	PKC1467	PROP SHAFT, pot joint	1	1500 single rail gearbox non-overdrive
	PKC1467B	PROP SHAFT, sliding spline	1	
1	GUJ115	UJ & CIRCLIPS, grease-able	1/2	genuine
	GUJ115B	UJ & CIRCLIPS, grease-able	1/2	replacement
	GUJ101	UJ & CIRCLIPS, sealed type	1/2	genuine
2	144101	CIRCLIP, included with UJ	4/8	
3	144825	GREASE NIPPLE	1/2	included with UJ
4	144825P	PLUG	1/2	replaces grease nipple between services
				Note that grease-able UJ's cannot be run on the vehicle with the grease nipple in place.
5	37H4973	YOKE, drive flange	1/2	
6	143215	DRIVE STRAPS, flexible	8	
7	143213	O' RING, sealing spigot	1	
8	132023	BOLT	4	
9	WP20X	WASHER, plain	4	
10	GHF223	NUT, nyloc	4	
12	144961A	BOLT, prop shaft	8	
13	GHF273	NUT, nyloc, prop shaft	8	



Lucas 25079B and 25022



Lucas 25149B

Ill. No	Part Number	Description	Qty. Req.	Details
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Starter Motor

During the production of the Mk IV 1300 & 1500 Spitfire, Triumph fitted three different models of Lucas starter motor. All are interchangeable and have similar working characteristics. The problems start if you wish to repair your own starter motor. You will need to know the model type to ensure the correct parts for repair are ordered. The three model numbers are 25079B, 25022 and 25149B.

The Unipart/Lucas replacement rebuilt starter we supply is suitable for all applications.

(Inertia Starter Motor)

1	GEU9405	STARTER MOTOR, New	1	All Models
	GXE4405	STARTER MOTOR, exchange, recon	1	

(Pre-Engaged Starter Motor)

	GXE4439X	*Starter Motor (New)	1	All Models
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*Note: Discard stepped adaptor.

*These brand new (non-exchange) powerful Pre-Engaged (Geared) starter motors are High Torque, meaning they will not suffer the same fate as the original 'inertia' type, especially on high compression engines and, they are a direct replacement. No more costly motor rebuilds or excessive battery drain.

Lucas 25149B Starter Motor

2	519813	CLIP, retaining	1	
3	7H5045	SPRING	1	
4	BAU5781	PINION, BARREL & SCREW	1	(10 teeth)
	67H5010	PINION, BARREL & SCREW	1	(9 teeth)
5	511290	PINION & BARREL, (9 teeth)	1	
6	519812	BUSH SET, front & rear	1	
7	GSB105	BRUSH SET	1	
8	519566	SUNDRY PARTS KIT	1	
9	37H4672	END PLATE	1	
12	BH606181	BOLT, starter to engine	2	
13	GHF333	WASHER, locking	2	
14	WE600061	WASHER, shake-proof	2	
15	GHF203	NUT	2	
16	131570	MOUNTING SPACER	1	motor to engine plate
17	104549	SHIM	a/r	Starter bendix adjustment

Lucas 25079B & 25022 Starter Motors

20	508548	NUT, retaining	1	25022 only
21	519813	CLIP, retaining	1	25079B only
22	7H5045	SPRING	1	
23	BAU5781	PINION, BARREL & SCREW	1	(10 teeth)
	67H5010	PINION, BARREL & SCREW	1	(9 teeth)
25	501711	SPRING	1	

Ill. No	Part Number	Description	Qty. Req.	Details
26	7H5049	BUSH, driving end	1	25022 only
	47H5346	BUSH, driving end	1	25079B only
27	509819A	SPRING SET	1	pressed steel end plate
	47H5341	SPRING SET	1	die-cast end plate
28	47H5340	BUSH, commutator end	1	pressed steel end plate
29	511141	BUSH, commutator end	1	die-cast end plate
30	GSB102	BRUSH SET	1	
31	070391	SUNDRY PARTS KIT	1	
32	BH606181	BOLT, starter to engine	2	
33	GHF333	WASHER, locking	2	
34	WE600061	WASHER, shake-proof	2	
35	GHF203	NUT	2	
36	131570	MOUNTING SPACER	1	motor to engine plate
37	104549	SHIM, bendix adjusting	a/r	

Jammed Bendix Gears

Did you ever attempt to start your Spitfire and instead of the more usual loud rumbling sound from the exhaust (and the nasty rattling sound from the scuttle panel), you hear nothing more than a 'clunk'. That 'clunk' might have been finally diagnosed as a jammed starter bendix, but in the meantime there was a way of getting home without resorting to the tow truck. We've all been there, trying to get out of the car park before the ticket ran out, but there is a temporary repair method to release the jammed bendix gear and get you home.

To free the bendix gear, put the car into fourth gear with the ignition off, release the handbrake and rock the car backwards and forwards. Jump back into the car and try again, then take the car out of gear and try again without the car leapfrogging away from rest. Repeat as necessary.

Replacement of the starter bendix, starter motor or ring gear should be made at the earliest opportunity.

Stopping Trouble Before the Starter Stops

A starter motor often provides warnings in the form of jamming, slow cranking, or intermittent operation, before it fails completely. Obviously it is in the owner's interests to confront any problems before they become terminal.

Having removed the starter from the car, it can be carefully dismantled on a work surface and the possible causes for impending failure investigated. Resist the temptation to submerge the unit in cleaning fluid; doing so would probably result in the purchase of a new starter, since fluid will transfer copper dust from inside the motor to the electrical windings, causing a short circuit.

Dust may be removed by compressed air & wiping with a rag dampened with cleaning fluid.

The starter bendix gear can be cleaned and then inspected both for damage and spring return operation. If faulty, the sub assembly can be replaced.

The shaft bushes pressed into the front and rear end plates of the motor should be renewed if necessary. These are 'Oilite' bushes, which should be immersed in light engine oil for 24 hours prior to fitting (the bush material absorbs the oil, to give prolonged lubrication).

'Old lags' of the starter reconditioning trade have jam jars filled with oil and bushes awaiting use. Excess oil must be wiped away upon installation of the bushes (which is achieved by pressing, not hammering!).

Carbon brush replacement, if necessary, can be effected by soldering the replacements to the commutator end shield brush contacts - not hard, just fiddly.

The copper wire windings and insulation of the armature and commutator assembly should be inspected (the commutator is the segmented copper collar contacted by the carbon brushes at one end of the armature). The contact surface must be clean, smooth and concentric to the armature axis. A dirty commutator can be cleaned by wiping with a petrol moistened cloth, then lightly polished with very fine glass paper.

If the commutator is not true or excessively scored, it will need to be turned at high speed in a lathe and machined with a very sharp tool. Not everyone has such equipment to hand (!), but most people know of someone who has.

The lightest of possible cuts should be made on the lathe to 'true up' the contact area. A very light polish after turning with very fine glass paper is recommended. Under no circumstances should the insulation material between the copper segments of the commutator be undercut.

Re-assembly of the starter is the reverse of disassembly. The factory workshop manual may be consulted for any further information.

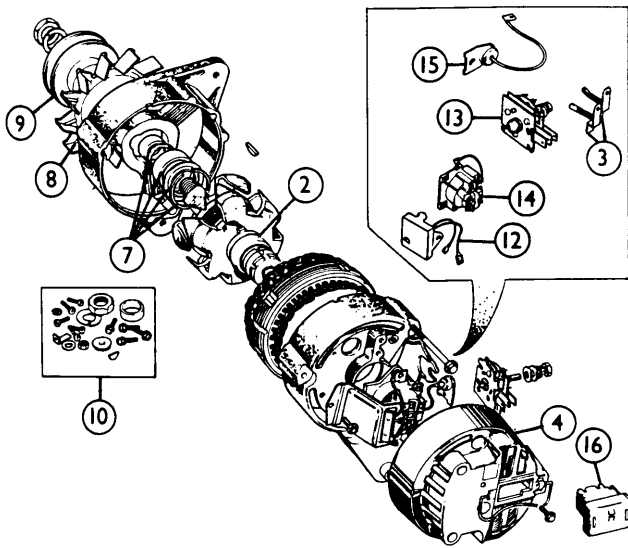
Before refitting to the car, the motor must be tested.

Secure the starter motor body carefully in a vice and test it by connecting it with heavy gauge cables (jump leads are ideal) to a 12 volt battery. Connect one cable to the starter terminal, the other should be held against the drive end bracket.

The starter should run at high speed under these light load conditions. Upon rotation, the bendix gear should move axially along the armature shaft towards the motor itself.

When the power is removed and the motor stops, the gear should return to its original position at the outer end of the shaft.

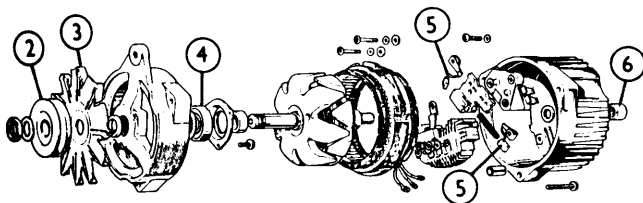
Lucas Alternators



Lucas Alternators, 15, 16 & 17 ACR types

Ill. No	Part Number	Description	Qty. Req.	Details
	Lucas Alternators, 15, 16 & 17 ACR types			
	<i>Triumph, in their wisdom, used six different Lucas alternators on the Mk IV & 1500 models. However, thanks to Unipart logic they all end up as having one part number. This is due also to Lucas upgrading and improving the alternators performance and output without affecting any other characteristics.</i>			
	GXE8211	ALTERNATOR, exchange, rebuilt	1	] replacement for original with improved output (17 acr) higher output (18 acr)
	GXE2206	ALTERNATOR, exchange, rebuilt	1	
2	18G8620	BEARING, rear	1	
3	GGB504	BRUSH SET	1	
4	NKC484A	PLASTIC COVER, rear	1	
7	18G8619	BEARING, front	1	
8	AAU3956A	FAN	1	
9	AEU1238	PULLEY	1	
10	37H2258	SUNDRY PARTS KIT	1	
12	BAU4443A	REGULATOR, (2 or 3 lead type)	1	15 acr
	BAU5264	REGULATOR, (4 lead type)	1	16/17 acr
13	BAU5063	RECTIFIER, (2 connections)	1	15 acr
	AEU4152A	RECTIFIER, (3 connections)	1	16/17 acr
14	607693A	BRUSH BOX	1	15/16/17 acr
15	AEU3079A	SURGE PROTECTOR, if fitted	1	16/17 acr
16	GEU250	PLUG KIT	a/r	

AC Delco Alternator



AC Delco Alternator

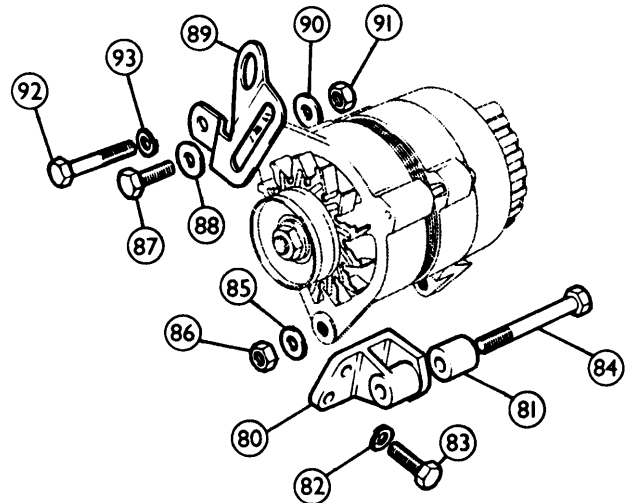
AC 35 amp type

AC 35 amp type

This is a rare original fitment item only used on some 1300 models to commission number FM/FH50000 (1973).

	GXE2224	ALTERNATOR, exchange, rebuilt	1
2	BHM7044	PULLEY	1
3	BHM7040	FAN	1
4	BHM7038	BEARING, front	1
5	GGB506	BRUSH SET	1
6	BHM7042	BEARING, rear	1

Customers having trouble obtaining an old unit AC Delco alternator for exchange can fit the more common Lucas unit instead - or break up an MGB GT V8 for its AC Delco alternator.

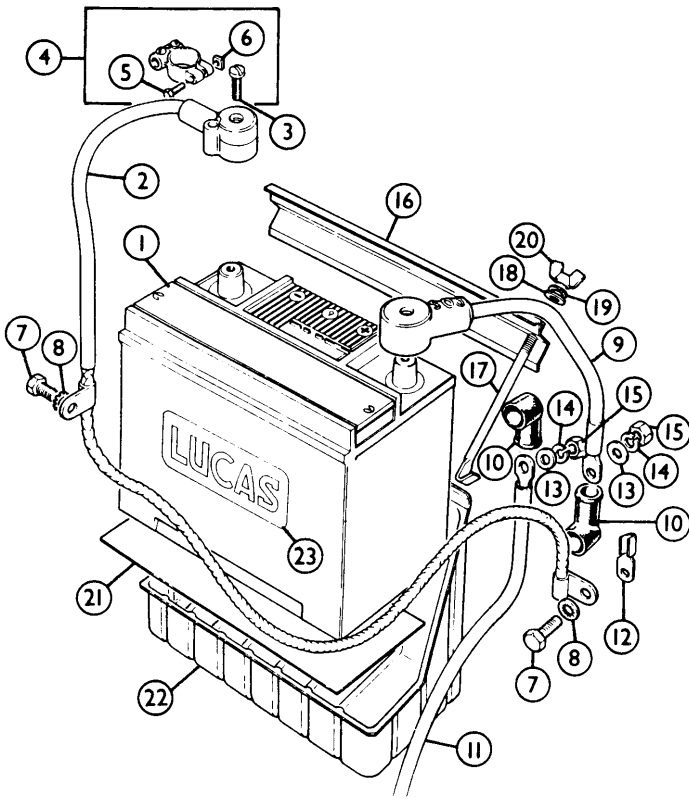


Ill. No	Part Number	Description	Qty. Req.	Details
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Alternator Mountings

80	147899	BRACKET, alternator	1	
81	147483	DISTANCE TUBE	1	
82	GHF332	WASHER, locking	2	
83	GHF103	SCREW	2	
84	BH605401A	BOLT	1	
85	WP139	WASHER, plain	1	
86	GHF242	NUT	1	
87	GHF163*	SCREW	1	
88	WP17	WASHER, plain	1	
89	156464	ADJUSTING LINK	1	
90	WP17	WASHER, plain	1	
91	JN2158*	LOCK NUT	1	
92	BH605181	BOLT	1	adjusting link to w/pump
93	GHF332	WASHER, locking	1	

**Modern replacement alternators are supplied with a metric mounting screw.*

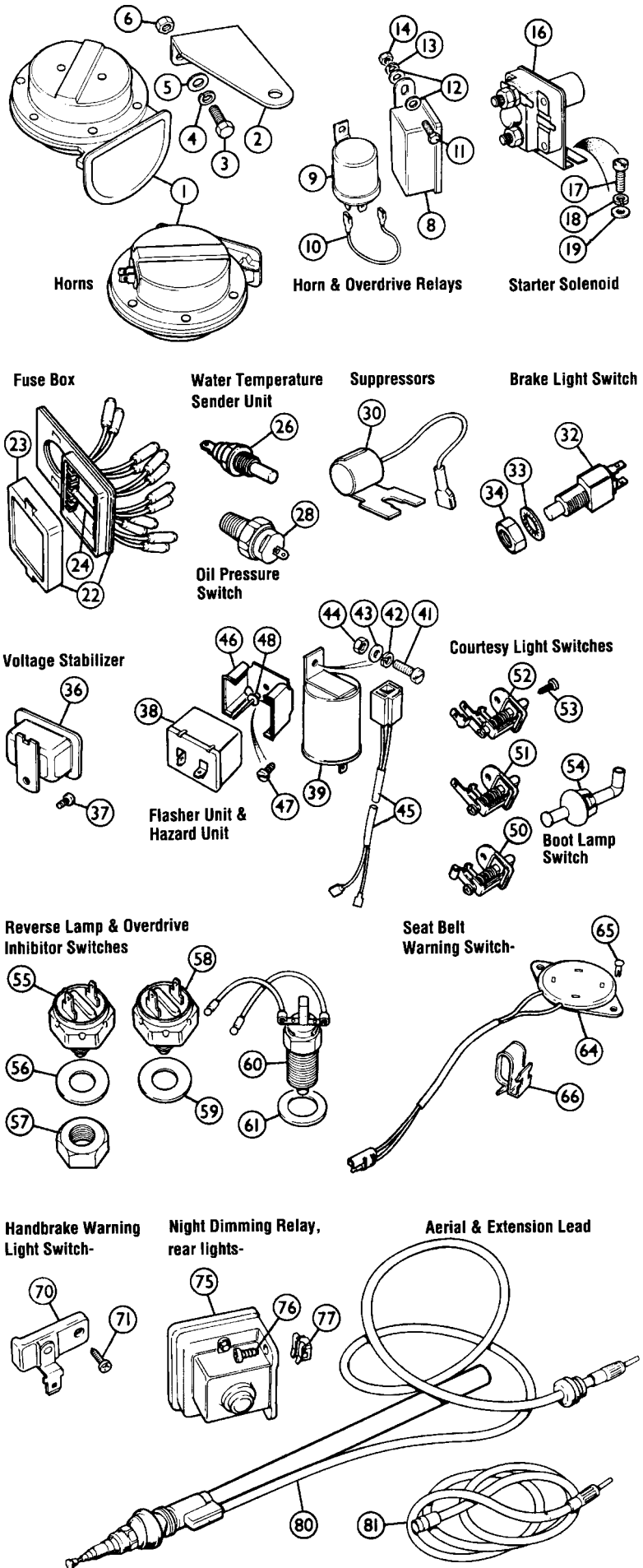


Ill. No	Part Number	Description	Qty. Req.	Details
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Battery & Fittings

See also Accessories

1	GBY015	*BATTERY, (wet) heavy duty (*not available by mail order)	1	55amp
	GBY165	CLASSIC BATTERY (rubber case)	1	45amp
	GBY291	CLASSIC BATTERY (rubber case)	1	60amp
2	515997	CABLE, earth, screw terminal	1	
3	2K8645	SCREW, terminal securing	2	
<p>Various cables were used on the Spitfire over the years (left hand drive, right hand drive, USA markets etc.), but all the different types were superseded by the Rover Group to one set of numbers. The alternative to the screw terminal type, fitted to most Spitfires, are clamp cables (which were standard on USA cars). Rover seemed, as a rule, to supply cables with clamp connections but using the screw connection cable numbers. In other words, be prepared- you could receive either type when you order a battery cable, but it's more likely to be one with a clamp on it.</p>				
4	GHF2750	CLAMP TERMINAL, 'Negative'	1	} replacement
	GHF2755	CLAMP TERMINAL, 'Positive'	1	
5	518903	BOLT, clamp terminal	2	
6	GHF208	NUT, clamp terminal	2	
7	SH604041	SCREW, earth cable	2	
8	GHF321	WASHER, shake-proof	2	
9	515873	CABLE, positive, screw terminal	1	
10	115706	BOOT, rubber insulating	2	
11	131114	CABLE, solenoid to starter motor	1	RHD
	516064	CABLE, solenoid to starter motor	1	LHD
12	LUCWB600	RING TERMINAL, brass	a/r	crimp type
13	GHF301	WASHER, plain, starter solenoid	3	
14	GHF382	WASHER, spring, starter solenoid	4	fits 13H5952 solenoid
15	GHF213	NUT, starter solenoid	4	
	142087K	BATTERY MOUNTING KIT	1	
<p>Kit includes: 142087 clamp, 2 x 601552 'J' bolts, 2 x WP127 washers & 2 x 132068 wing nuts</p>				
16	142087	CLAMP, battery securing, 10 1/4"	1	
	14G5508	CLAMP, battery securing, 12 1/4"	1	
17	601552	'J' BOLT, clamp to chassis, 4 1/8"	2	
	613051	'J' BOLT, clamp to chassis, 5 7/8"	2	
18	WP127	WASHER, plain	2	
19	GHF321	WASHER, shake-proof	2	
20	132068	WING NUT	2	
21	613155	PAD, rubber, battery shelf	1	
22	AM7302	BATTERY BOX, plastic	1	
23	CRST191	DECAL, 'Lucas'	1	



Ill. No	Part Number	Description	Qty. Req.	Details
Horns				
<i>Replacement horns should be fitted in car sets for matched sound.</i>				
1	GGE103	HORN, high note	1	
	GGE104	HORN, low note	1	
2	156275	BRACKET, LH	1	Lucas or Clearhooter horns only
	156276	BRACKET, RH	1	
	ULC1719	BRACKET, horn	2	
3	GHF117	SCREW, bracket	4	
4	GHF331	WASHER, locking	4	
5	GHF300	WASHER, plain	4	
6	GHF200	NUT	4	

Ill. No	Part Number	Description	Qty. Req.	Details
Horn & Overdrive Relays				
8	1377471	RELAY, horn	1	1300
	142169A	RELAY, overdrive	1	1300, 'D' type only
9	CHM68	RELAY, horn	1	1500 to (c) FH100020
10	125957	LOOP CABLE, relay power	1	
11	510503	SCREW, relay	a/r	
12	PWZ203	WASHER, plain, relay	a/r	
13	WL700101	WASHER, locking, relay	a/r	
14	HN2005	NUT	a/r	

Ill. No	Part Number	Description	Qty. Req.	Details
Starter Solenoid				
16	13H5952	SOLENOID, starter	1	
17	SE910201	SCREW, solenoid	2	
18	WL700101	WASHER, locking	2	
19	WM55	WASHER, plain	2	

Ill. No	Part Number	Description	Qty. Req.	Details
Fuse Box				
<i>Fuse boxes are actually an integral part of the wiring loom. We list a repair/replacement fuse box to service those cars with 'torched' fuse boxes. These items require electrical splicing skills to fit, but they are cheaper than a whole new loom.</i>				
22	521030	FUSE BOX	1	original
	608401	FUSE BOX	1	repair/replacement
23	607201A	LID, for fuse box	1	
24	GFS35X	FUSE, 35 amp	5	(17 amp continuous)

Ill. No	Part Number	Description	Qty. Req.	Details
Water Temperature Transmitter Unit				
26	GTR108	TEMPERATURE TRANSMITTER	1	

Ill. No	Part Number	Description	Qty. Req.	Details
Oil Pressure Switch				
28	GPS117	SWITCH, oil pressure warning light	1	

Ill. No	Part Number	Description	Qty. Req.	Details
Suppressors				
<i>The fitting of suppressors is required for all cars with radios. They quieten the electrical crackle created by both coil & alternator which is otherwise picked up by the radio.</i>				
30	DZB5567	SUPPRESSOR, radio	a/r	coil/alternator
	579356A	SUPPRESSOR, radio	a/r	alternator

Ill. No	Part Number	Description	Qty. Req.	Details
Brake Light Switch				
32	134529	BRAKE LIGHT SWITCH	1	
33	WF600081	WASHER, locking	1	
34	NT608041	NUT	1	

Ill. No	Part Number	Description	Qty. Req.	Details
Voltage Stabiliser				
36	148876A	VOLTAGE STABILISER	1	
37	AB604023	SCREW, stabiliser	1	

Ill. No	Part Number	Description	Qty. Req.	Details
Flasher Unit & Hazard Unit				
38	GFU2124	INDICATOR RELAY	1	all 1300 & 1500 FHD all 1300 LHD to FH50000
	GFU2124	INDICATOR RELAY	1	
	GFU2124	INDICATOR RELAY	1	
				FH50001 except Germany
				1500 LHD to FH100020 except D, B, DK, F, NL, I, CH, A
39	GFU2126	INDICATOR RELAY	1	1300 from FH50001 German markets
	GFU2126	INDICATOR RELAY	1	1500 D, B, DK, F, NL, I, CH, A only
	UKC9187	COMBINATION HAZARD INDICATOR & RELAY	1	1500 LHD models from FH100021 except D, B, DK, F, NL, I, CH, A

Ill. No	Part Number	Description	Qty. Req.	Details
	GFU2204	HAZARD RELAY	1	1300 LHD to FH50000
	GFU2204	HAZARD RELAY	1	1300 LHD from FH50001 - not Germany and FHD BAOR
	GFU2126	HAZARD RELAY	1	1300 from FH50001 Germany only
	GFU2204	HAZARD RELAY	1	1500 all FHD and LHD to FH100020 except D, B, DK, F, NL, I, CH, A
	GFU2126	HAZARD RELAY	1	1500 LHD D, B, DK, F, NL, I, CH, A only
41	PMZ206	SCREW	1	
42	WL700101	WASHER, locking	1	see item 47 for alternatives
43	WP3	WASHER, plain	1	
44	NH806011	NUT	1	
45	158491	EXTENSION HARNESS, relay	a/r	indicator/hazard
46	148621	CLIP, relay	1/2	alternatives to
47	AB608031	SCREW, clip	a/r	items 41-44
48	RU608123	RIVET	a/r	

Ill. No	Part Number	Description	Qty. Req.	Details
Courtesy Light Switches				
50	AAU1876A	SWITCH, courtesy light (earthed through screw)	a/r	1 bullet terminal
51	AAU1908A	SWITCH, courtesy light (earthed through screw)	a/r	1 Lucar spade terminal
52	627733	SWITCH, courtesy light (not earthed through screw)	a/r	2 Lucar spade terminals (1 line/1 earth)
53	GHF421	SCREW, switch	2/3	one per switch

Ill. No	Part Number	Description	Qty. Req.	Details
Boot Lamp Switch				
54	606240	SWITCH, boot lamp	1	1500 only

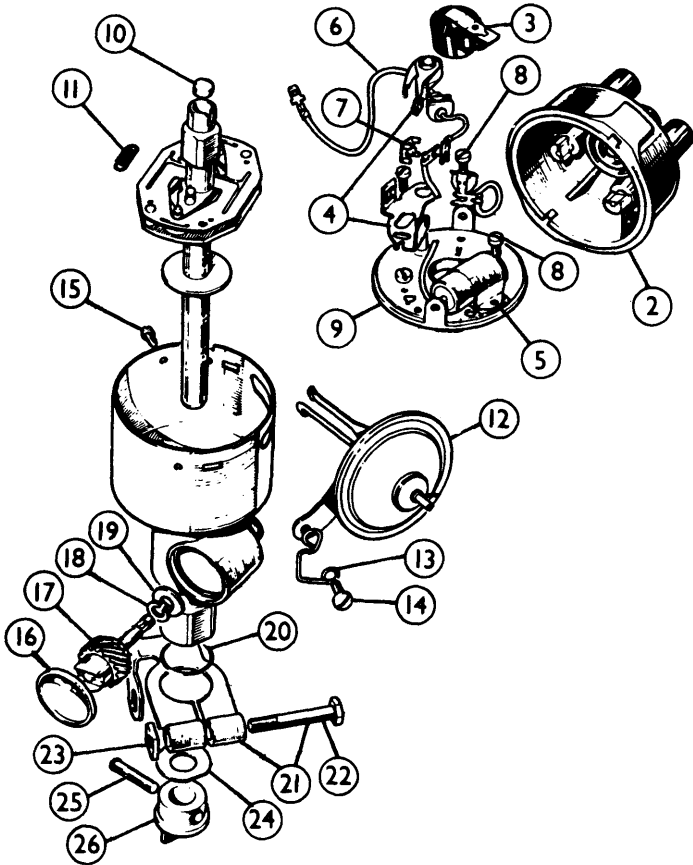
Ill. No	Part Number	Description	Qty. Req.	Details
Reverse Lamp & Overdrive Inhibitor Switches				
55	BAU1074A	SWITCH, inhibitor	1	overdrive models only
56	502146	WASHER, spacing	a/r	
57	059474	NUT, switch securing	1	
58	BAU1074A	SWITCH, reverse light	1	1300 models
59	502146	WASHER, spacing	a/r	(three rail gearbox)
60	GAE191A	SWITCH, reverse light, original	1	1500 models
	GAE191B	SWITCH, reverse light,	1	(single rail gearbox)
61	GHF302	WASHER, switch adjusting	1	

Ill. No	Part Number	Description	Qty. Req.	Details
Seat Belt Warning Switch				
<i>1500 models only</i>				
64	158534	SWITCH, seat sensor	2	in seat cushion
65	BRP906	RIVET, switch	4	
66	615837	CLIP, wiring	2	

Ill. No	Part Number	Description	Qty. Req.	Details
Handbrake Warning Light Switch				
<i>1500 models only</i>				
70	TKC3894	SWITCH, handbrake warning	1	
71	AB604023	SCREW, switch to brake lever	1	

Ill. No	Part Number	Description	Qty. Req.	Details
Night Dimming Relay, rear lights				
<i>1300 models only</i>				
<i>FHD only to FH50000, FHD & LHD from FH50001</i>				
75	216112	RELAY, night dimming	1	
76	GHF423	SCREW, self tapping	2	
77	GHF712	SPIRE NUT	2	

Ill. No	Part Number	Description	Qty. Req.	Details
Aerial & Extension Lead				
80	AJM1112	AERIAL, retractable	1	alternatives
	C44866	AERIAL, retractable	1	
81	ZKC533	EXTENSION LEAD, aerial	1	



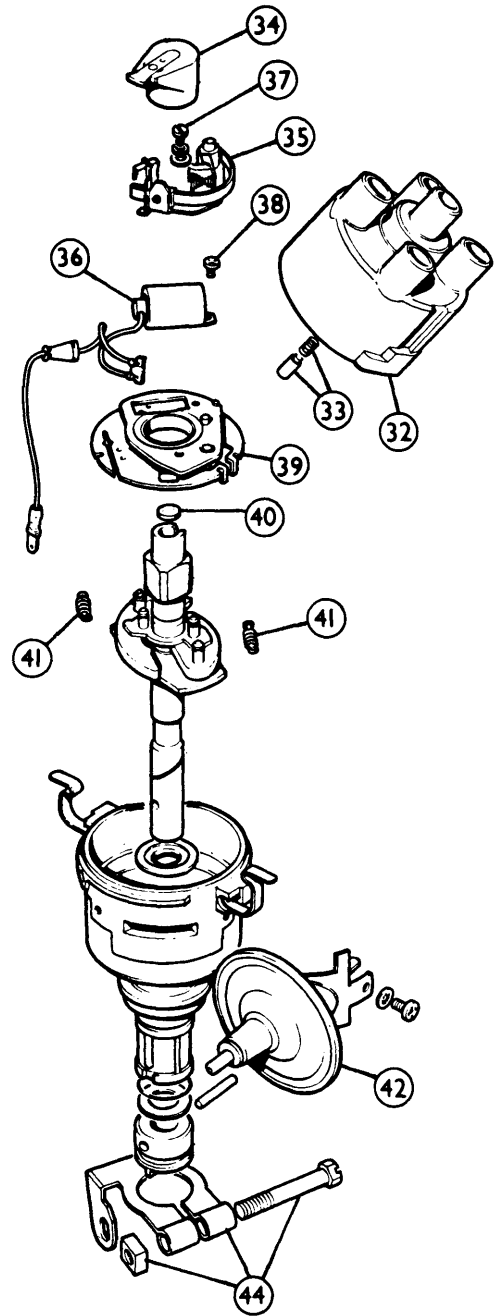
iii. Part No	Part Number	Description	Qty. Req.	Details
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AC Delco Distributor (Spitfire Mk IV)

See also Accessories.

Spitfire Mk IV models were all fitted originally with AC Delco distributors. The distributor had a mechanical tachometer drive take-off mounted at right angles to the main drive shaft. These distributors are also identifiable by the pressed steel main case construction and the 'squat' distributor cap. The AC Delco units are becoming increasingly difficult to obtain and repair, however we offer some spares and a rebuild service to a customers own unit.

1	TKC419R	DISTRIBUTOR	1	customers own rebuilt
2	GDC123	DISTRIBUTOR CAP	1	
3	GRA110	ROTOR ARM	1	
4	GCS105	CONTACT SET	1	
5	GSC104	CONDENSER	1	
6	520341	LOW TENSION LEAD	1	
7	511842	SCREW, for contact set	1	
8	511844	SCREW, condenser & base plate	2	
9	511847	BASE PLATE, horseshoe fitting	1	to (e) FH25000E
	520512	BASE PLATE, pin fitting	1	from (e) FH25001E
10	511851	FELT PAD, lubrication	1	
11	520343	SPRING SET, auto advance	1	
12	516240	VACUUM UNIT, horseshoe fitting	1	to (e) FH25000E
	520511	VACUUM UNIT, pin fitting	1	from (e) FH25001E
13	513400	CLIP, cap	2	
14	513999	SCREW, clip	2	
15	511844	SCREW, base plate locating	1	
16	511861	END PLUG	1	
17	511859	DRIVE GEAR	1	
18	520345	WASHER, locking (if fitted)	1	
19	511860	THRUST WASHER	1	
20	511863	O' RING	1	
21	134891	CLAMP PLATE, SCREW & NUT	1	
22	SH504141	SCREW	1	
23	NQ2757	NUT	1	
24	511864	THRUST WASHER	1	
25	517923	DRIVE PIN	1	
26	511866	DRIVE DOG	1	



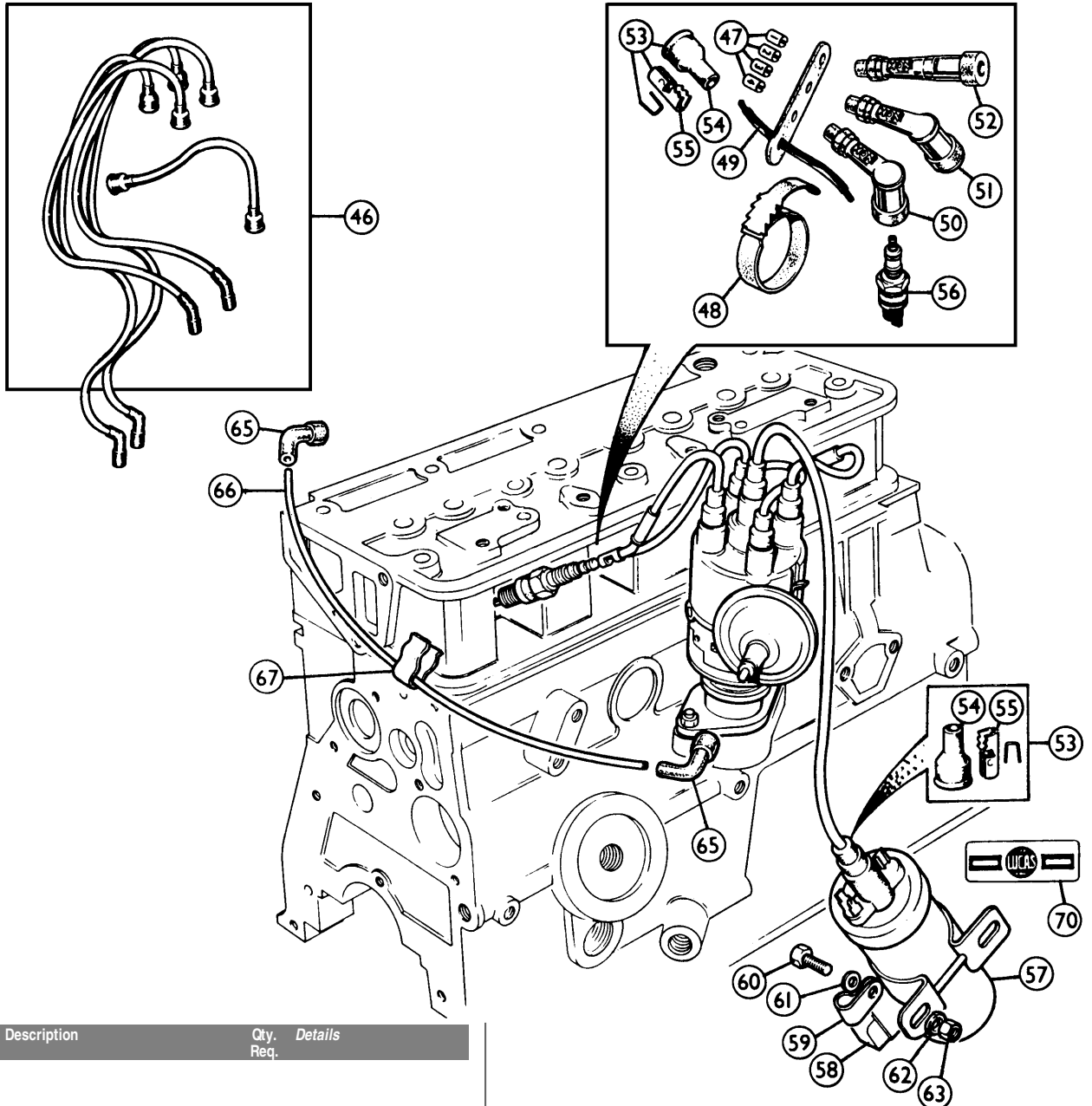
iii. Part No	Part Number	Description	Qty. Req.	Details
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Lucas Distributor (Spitfire 1500)

See also Accessories.

1500 Model Spitfires used Lucas Distributors in the UK and European delivered markets. The Lucas distributor is aluminium bodied and has no mechanical tachometer drive cable connection.

RKC5044	DISTRIBUTOR, (41449), New	1	} 45D4 type	
RKC5044R	DISTRIBUTOR, (41449), Recon	1		
32	GDC136	DISTRIBUTOR CAP	1	
33	RTC315A	BRUSH & SPRING	1	
34	GRA114	ROTOR ARM	1	
35	GCS118	CONTACT SET	1	
36	GSC118	CONDENSER & LOW TENSION LEAD	1	
37	GCS1001S	SCREW, for contact set	1	
38	GSC1001S	SCREW, for condenser	1	
39	RTC1190	BASE PLATE	1	
40	511851	FELT PAD, lubrication	1	
41	TT1903	SPRING PACK, advance/retard	1	5 pieces
42	RTC1775	VACUUM UNIT, auto advance	1	to (e) FM134995E
	AEU1665	VACUUM UNIT, auto advance	1	from (e) FM134995E
44	RTC1773	CLAMP PLATE	1	



Ill. No	Part Number	Description	Qty. Req.	Details
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Ignition System

46	GHT152	HT LEAD SET, complete	1	
	TT1472	HT LEAD SET, silicone	1	alternative to original
47	CRST255	LABEL SET, wire numbering	1	
48	13H6107	CABLE TIE, fir tree type	1	

...and for those who wish to make their own copper HT lead sets:

49	AAA5981M	HT LEAD, copper stranded	a/r	black PVC insulation
	TT2982M	HT LEAD, copper stranded	a/r	yellow/black PVC insulation
				period Lucas competition cable

Ignition lead is sold by the metre. You will need two metres to renew your Spitfire engine HT leads.

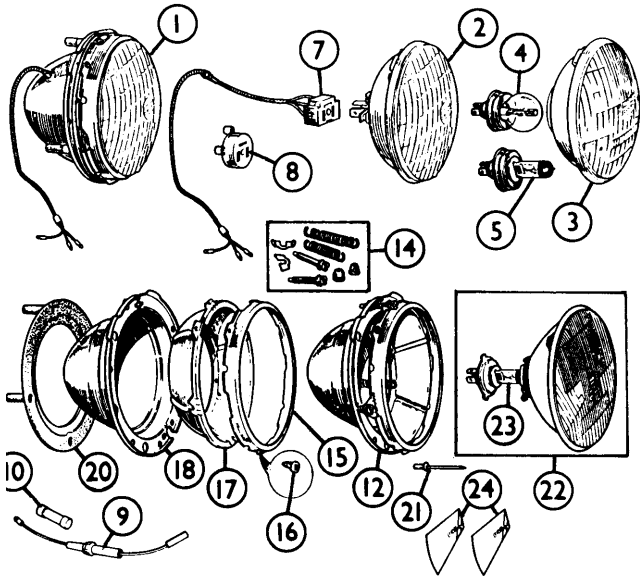
50	NLB5	SUPPRESSOR CAP, 90o angled	a/r	
51	NYB5	SUPPRESSOR CAP, 60o angled	a/r	
52	NSB5	SUPPRESSOR CAP, straight	a/r	
		Recommendation for standard use is 2 x straight caps (plugs 2 & 3), 2 x 60° caps (plugs 1 & 4).		
53	GCL1110	END KIT, for HT coil & plug leads	a/r	
		Six required if using item 49		
54	LUCYB354	COVER, HT terminal, straight	a/r	
55	LUCYB310	TERMINAL, HT lead, straight	a/r	
56	N9YCC	SPARK PLUG, Champion	4	copper cored, alternative
	BP6ES	SPARK PLUG, NGK, copper cored	4	1300 engine
	N12YCC	SPARK PLUG, Champion	4	copper cored, alternative
	BP5ES	SPARK PLUG, NGK	4	1500 engine

Ill. No	Part Number	Description	Qty. Req.	Details
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57	GCL111	COIL, ballasted	1	
58	134176A	BALLAST RESISTOR	1	1300 to FH50000

From 1973 the ballast resistor was replaced with a length of resistance wire incorporated in the wiring harness.

59	PCR711	CLIP, retaining wiring	1	
60	HU709P	SCREW, self aligning	2	
61	GHF300	WASHER, plain	4	
62	GHF331	WASHER, locking	2	
63	GHF200	NUT	2	
65	128262	ADAPTOR, right angle	a/r	vacuum tube
	12B2095	ADAPTOR, straight	a/r	
66	37H4229M	VACUUM TUBE	1	metre length, cut to fit
67	138892	CLIP	3	vacuum tube to petrol feed tube
70	CRST156	DECAL 'Lucas'	1	



Ill. No	Part Number	Description	Qty. Req.	Details
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Headlamps

See Accessories for our full range of Lamps.

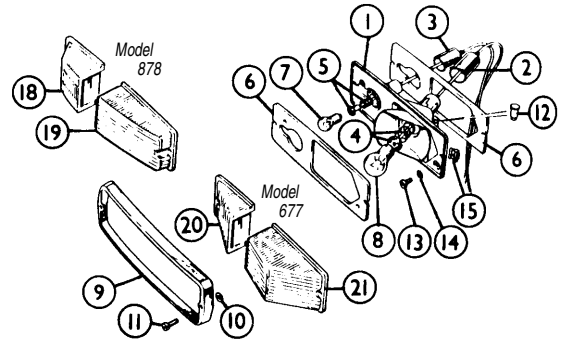
1	27H8499	HEADLAMP, sealed beam	2	RHD
	AEU1061A	HEADLAMP, P45T asymmetric	2	LHD
2	GLU101	LIGHT UNIT, sealed beam, 60/45W	2	RHD (L/H Dip)
	XBC103360	Light Unit, sealed beam, 75/50W	2	
	BMK2508	LIGHT UNIT, sealed beam, 60/45W	2	LHD (R/H Dip)
3	27H4146A	LIGHT UNIT, P45T, asymmetric	2	LHD
4	GLB410	BULB, P45T, clear, tungsten	2	45/40W
	GLB411	BULB, P45T, yellow, tungsten	2	45/40W
5	GLB2983	BULB, P45T, clear, halogen	2	60/55W
7	BAU2110	ADAPTOR, with Lucar connector and cable	2	
8	600226A	ADAPTOR only, for Lucar terminals	2	
9	UKC4446	FUSE, in-line, dip beam blue/red	2	
	UKC4447	FUSE, in-line, main beam blue/white	2	1300 - Italy
10	GFS3015	FUSE 15 amp (dip), (in line fuse holder) pack of five	a/r	1500 - D, B, DK, NL, I, CH, A
	GFS3020	FUSE, 20 amp (main) (in line fuse holder), pack of five	a/r	
12	27H8263X	BUCKET, BOWL & RIM	2	
14	BHM7058	ADJUSTER KIT	2	includes 2 screws, ferrules, springs & clips
15	515218A	RIM, outer, chrome	2	
16	AB606021	SCREW, outer rim	6	
17	SML4	Bowl, inner (Steel)	2	
	27H6481	Bowl, inner (plastic)	2	
	27H6481K	Bowl & Rim	2	
18	SML3	Bucket, headlamp, Original	2	with adjusters
	SML3P	Bucket, headlamp, (plastic)	2	
	SML3Z	Bucket, headlamp	2	Less adjusters
20	13H565	SEAL, bucket to body	2	alternatives
	512222	SEAL, bucket to body	2	fit in pairs
21	569313	POP RIVET, bucket to body	8	

Halogen Headlamps

For those of you who find the standard headlamps on your Spitfire inadequate for today's high speed night driving, convert your car to modern halogen bulb, asymmetric beam headlamps. The headlamp units are direct replacements for existing sealed beam or tungsten bulb units.

22	GAC4023	LUCAS H4, RHD, inc. bulbs, (pair)	1	
	GAC4022	WIPAC H4, RHD, inc. bulbs, (pair)	1	
	LULUB802	LUCAS H4, LHD, less bulbs, (pair)	1	
	WPS4695	WIPAC H4, LHD, inc. bulbs, (pair)	1	
23	GLB472	Bulb, Halogen H4 (60/55w)	2	standard
	GLB476	BULB, Halogen H4 (60/55w)	2	yellow
	GLB472BLU	*Bulb, Xenon H4 (60/55w)	2	Blue Tint
	GLB472X	*Bulb, Xenon H4 (60/55w) (*30% brighter)	2	Super White
	GLB484	Bulb, Halogen H4 (100/80w)	2	Check regulations
24	DRC1279	CONVERTER KIT, for RHD lamps, used on LHD roads (halogen lamps only)	1	

Lucas Model 878 or 677



Ill. No	Part Number	Description	Qty. Req.	Details
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Front Side & Indicator Lamps

Front side and indicator lamps are a source for concern. There were two different lens profiles used between the 1300 and 1500 models. The '878' model lamps had gently curved lens faces while the later '677' models had angled faces. Due to rationalisation the trend is to only supply the '677' type lamp for all applications. Be aware that owners of earlier cars who order one lens or one lamp could end up with a functional but not matching lamp to their original.

	155416	INDICATOR & SIDE LAMP clear & amber lens	2	'878' model; to FH78684 & Germany to FH75380; not Italy
	BHA4239	INDICATOR & SIDE LAMP clear lens	2	'677' model; Italy only, not original style
	UKC5992	INDICATOR & SIDE LAMP clear & amber lens	2	'677' model FH78685 on Germany FH75381 on Italy mid 1977 on
1	UKC5992NF	BASE PLATE	2	
	SML2W0	BASE, without cables	2	
2	17H5216	RUBBER SLEEVE	2	
3	37H5294	RUBBER SLEEVE	2	
4	37H5452	CONTACT & SPRING, flasher	2	
5	244700A	CONTACT & SPRING, side lamp	2	
6	57H5572	GASKET, lamp & lens seating	4	foam
7	GLB989	BULB, 5W, side lamp	2	
8	GLB382	BULB, flasher, 21W	2	
9	516304	CHROME RIM, lens retaining	2	
10	21G9057	RUBBER WASHER	4	rim to lens retaining screw
11	57H5569	SCREW, rim & lens retaining	4	
12	27H6713	BULLET CONNECTOR, male	2	lamp earth
13	PT504	SCREW, lamp	4	not supplied with
14	WE702101	WASHER, shakeproof	4	side lamp
15	FZ34044	CLIP NUT, lamp	4	

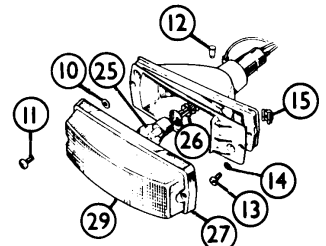
The two different profile lens designs are identified by their Lucas model number which is embossed in the plastic of genuine Lucas lenses. The two types are; '878' for Mk IV and 1500 up to 1976 approx.; and '677' for 1500 from 1976 on approx. If in doubt read the model number off the lens on your car to obtain the correct lens replacement.

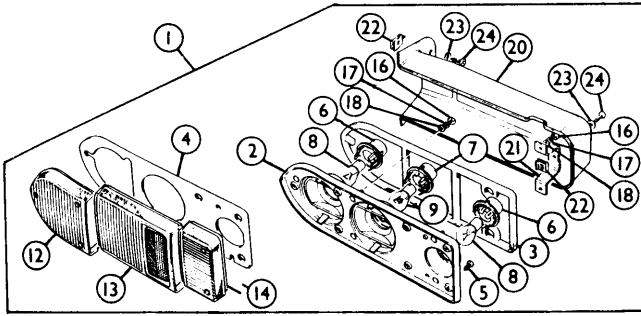
18	520083	LENS, small, side lamp, clear	2	'878' model
19	520082	LENS, large, indicator, amber	2	
20	516308	LENS, small, side lamp, clear	2	
	516308B	LENS, small, side lamp, clear, repro	2	
	518145	LENS, small, side lamp, amber	2	'677' model
21	516306	LENS, large, indicator, amber	2	
	516306B	LENS, large, indicator, amber, repro	2	
	516307	LENS, large, indicator, clear	2	

Lucas Model '879'

Indicator & side lamp model '879' is identified by its single colour one piece lens and single twin filament bulb. Single colour two piece lenses can be fitted as pairs to this lamp base. If 159154 cannot be supplied, lamp BHA4239 (listed on this page) can be used as an alternative.

	159154	LAMP, clear	2	Italy to mid 1977
	155418	LAMP, amber	2	USA spec alternative
25	GLB380	BULB, twin filament, 21/5W	2	
26	37H5459	CONTACT & SPRING	2	
27	UKC1675	CHROME RIM, lens retaining	2	
29	UKC1676	LENS, one piece, clear	2	
	520087	LENS, one piece, amber	2	





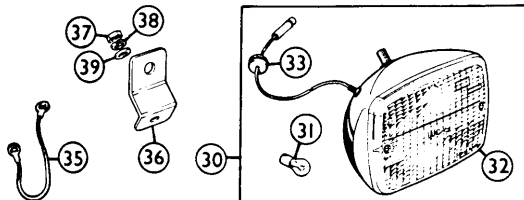
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Rear Lamps

1	TKC940	REAR LAMP, LH	2	all markets except France France only
	TKC941	REAR LAMP, RH	2	
	216935	REAR LAMP, LH	2	
	216934	REAR LAMP, RH	2	
2	TKC940NF	CHROME BASE only	2	
3	RTC1175	SEAL, lamp to body, foam	2	alternatives
	158196	SEAL, lamp to body, moulded	2	
4	520091	SEAL, lenses to lamp base, foam	2	
5	518147	SCREW, lens	14	
6	518042	BULB HOLDER, single contact	4	indicator/reverse brake/tail
7	518041	BULB HOLDER, twin contact	2	
8	GLB382	BULB, single filament, 21w	4	not Germany
9	GLB380	BULB, twin filament, 21/5w	2	
12	RTC1176	LENS, amber, indicator	2	
13	RTC1177	LENS, red, brake & tail	2	
14	RTC1174	LENS, clear, reverse	2	not France France only
	520093	LENS, amber, reverse	2	
16	HN2005	NUT, lamp securing	10	
17	WL700101	WASHER, locking	10	
18	PWZ203	WASHER, plain	10	
20	818761	COVER, rear lamp, LH	1	
	818771	COVER, rear lamp, RH	1	
21	624672	BRACKET, rear lamp cover	2	
22	GHF713	SPIRE NUT, cover	4	
23	PWZ203	WASHER, plain	4	
24	GHF425	SCREW, self tapping	4	

Rear Fog Lamp Assembly

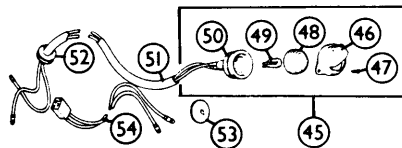
1500 models, from approx. 1979



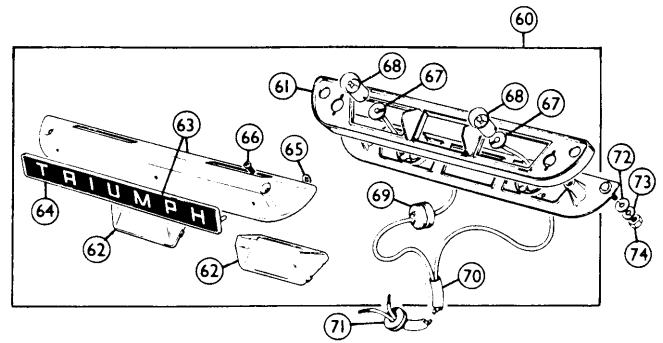
30	RKC4128	FOG LAMP (rear)	a/r	either 1 or 2 fitted
31	GLB382	BULB, 21W	a/r	
32	BAU1763	LENS	a/r	
33	061917	GROMMET	a/r	
35	134301	EARTH LEAD	a/r	
36	YKC4473	LAMP BRACKET	a/r	between bumper iron & rear valance
37	GHF200	NUT, lamp to bracket	a/r	
38	GHF331	WASHER, locking	a/r	
39	GHF300	WASHER, plain	a/r	

Rear Number Plate Lamp Assembly

Italy only to (c) FH115999



45	142002	NUMBER PLATE LAMP	2
46	131465A	COVER, chrome	2
47	AR606052	SCREW	2
48	510875A	LENS, clear	2
49	GLB6501	BULB, 5W	2
50	515154	BASE	2
51	503213	SHEATH, wire protecting	2
52	061917	GROMMET	2
53	631018	GROMMET	2
54	157555	ADAPTOR	2

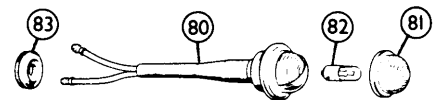


Ill. No	Part Number	Description	Qty. Req.	Details
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Rear Number Plate Lamp

all markets to (c) FH115999 - except Italy

60	718028	NUMBER PLATE LAMP & BADGE	1
61	215823	GASKET BASE	1
62	518031	LENS, LH	1
	518032	LENS, RH	1
63	519582	COVER & BADGE, chrome	1
64	626859	BADGE, Triumph'	1
65	FR1202	FIX NUT	3
66	RMP316	SCREW, cover	2
67	37H5452	TERMINAL KIT	2
68	GLB207	BULB, 5W	2
69	519583	RUBBER BOOT	2
70	503213	SHEATH, wire protecting	1
71	061917	GROMMET	1
72	WM55	WASHER, plain	2
73	WL700101	WASHER, locking	2
74	HN2005	NUT	2



Rear Number Plate Lamp

all markets from (c) FH116000

80	UKC7274	NUMBER PLATE LAMP	2
81	510875A	LENS, clear	2
82	GLB233	BULB, 4W	2
83	602037	GROMMET	2

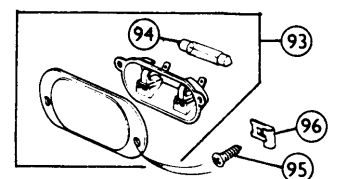
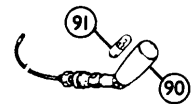


Passenger Footwell Lamp

85	13H1924	BULB HOLDER	a/r
86	627318	BRACKET	a/r
87	GLB987	BULB, 2.2W	a/r
88	GHF421	SCREW, self tapping	a/r

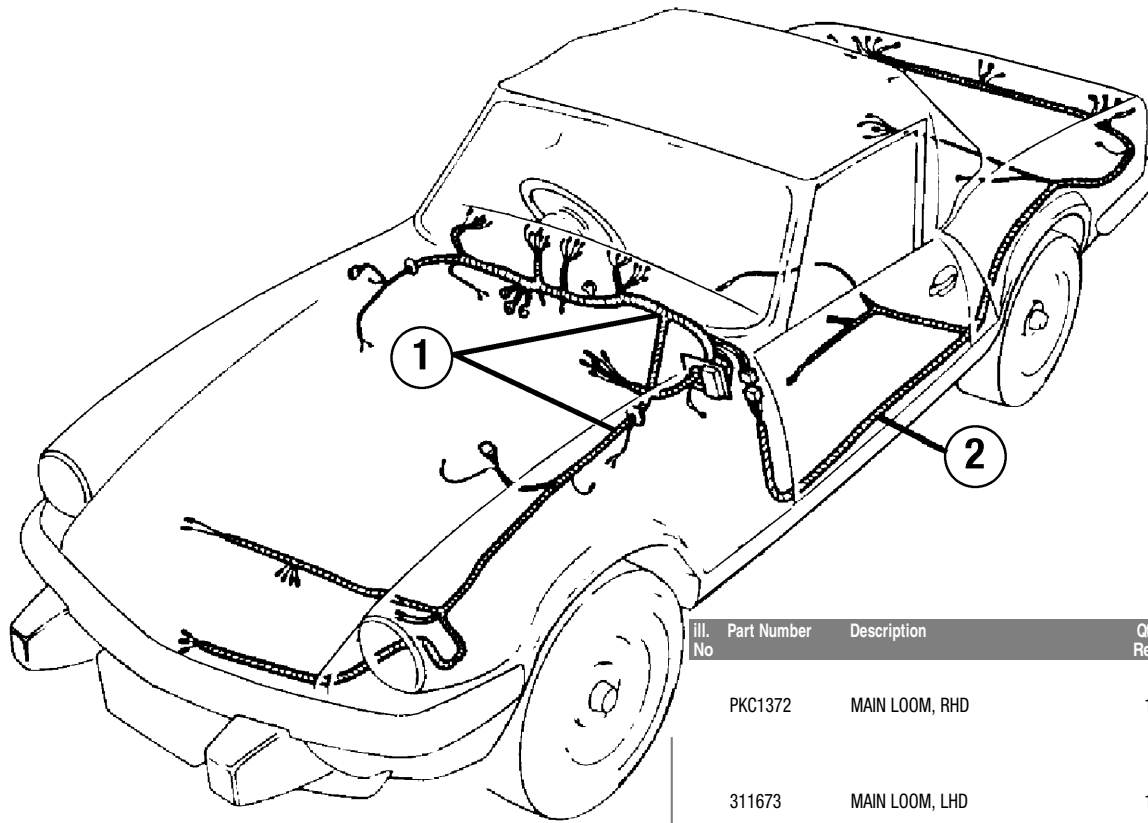
Map Reading Lamp Assembly

90	UKC3946	MAP READING LAMP	1
91	GLB233	BULB, 4W	1



Boot Lamp Assembly

93	151353	BOOT LAMP	1
94	GLB239	BULB, 5W	1
95	AD606033	SCREW, lamp to body	2
96	GHF711	SPIRE NUT, lens to body	2

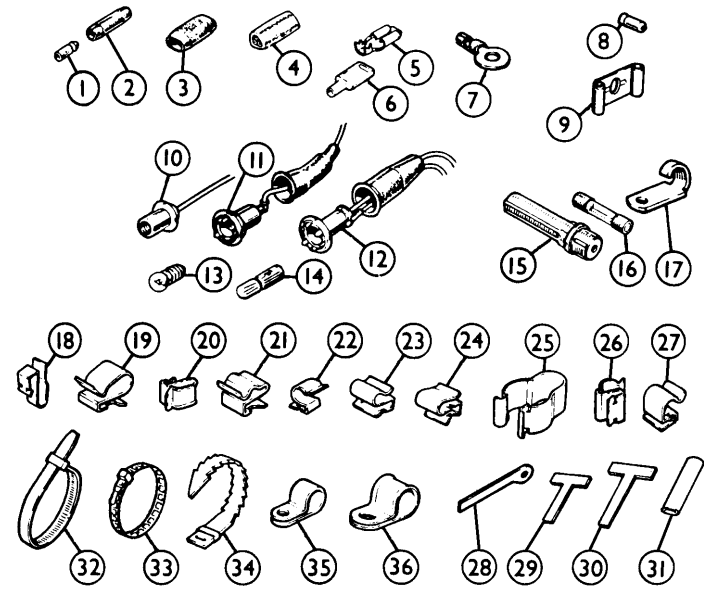
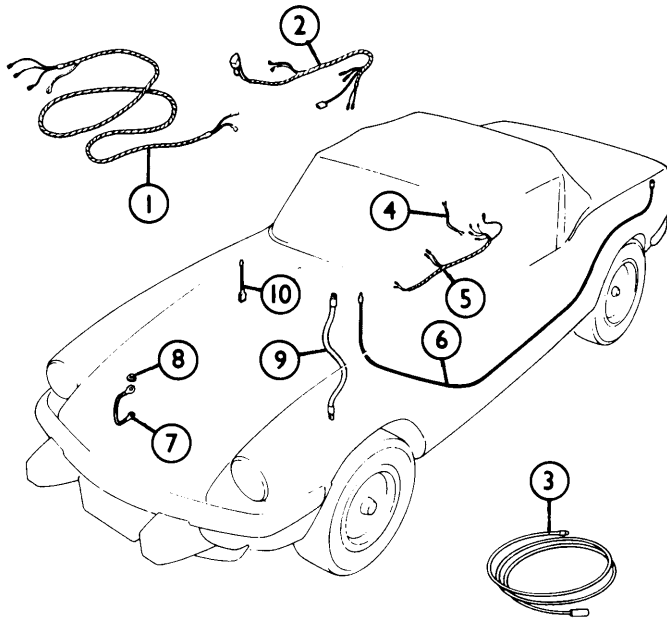


Ill. No	Part Number	Description	Qty. Req.	Details
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Main & Body Looms

1	311674	MAIN LOOM, RHD	1	1300 to (c) FH50000 (separate ballast resistor; Lucar ignition switch connections)
	313274	MAIN LOOM, RHD	1	1300 from (c) FH50001 to (c) FH62644 (ballast resistor wire in loom; Lucar ignition switch connections; two feeds to gearbox)
	RKC569	MAIN LOOM, RHD	1	1300 from (c) FH62645 (ballast resistor wire in loom; plug type ignition switch; single feed to gearbox)
	RKC912	MAIN LOOM, RHD	1	1500 to (c) FH100020 (TR6 style switch gear)
	RKC3193	MAIN LOOM, RHD	1	1500 from (c) FH100021 to (c) FH130000 (TR7 switch gear & single circuit brakes)
	PKC765	MAIN LOOM, RHD	1	1500 from (c) FH130001 to VIN 001198 (dual circuit brakes; optional single rear fog lamp)
	PKC765	MAIN LOOM, RHD	1	1500 from VIN 001198 on except UK (dual circuit brakes; optional single rear fog lamp)

	PKC1372	MAIN LOOM, RHD	1	1500 from VIN 001198 on UK only (standard fitment twin rear fog lamps)
	311673	MAIN LOOM, LHD	1	1300 to (c) FH50000 (separate ballast resistor; Lucar ignition switch connections)
	313273	MAIN LOOM, LHD	1	1300 from (c) FH50001 to (c) FH62644 (ballast resistor wire in loom; Lucar ignition switch connections; two feeds to gearbox)
	RKC570	MAIN LOOM, LHD	1	1300 from (c) FH62645 (ballast resistor wire in loom; plug type ignition switch; single feed to gearbox)
	RKC925	MAIN LOOM, LHD	1	1500 to (c) FH100020 (TR6 style switch gear)
	PKC1228	MAIN LOOM, LHD	1	1500 from (c) FH100021 (TR7 style switch gear)
2	156087	BODY LOOM, RHD & LHD	1	1300 to (c) FH50000
	UKC856	BODY LOOM, RHD & LHD	1	1300 from (c) FH50000
	TKC1782	BODY LOOM, RHD	1	1500 to (c) FH116000
	TKC4128	BODY LOOM, RHD	1	from (c) FH116000 to VIN 001197
	TKC4128	BODY LOOM, RHD	1	from VIN 001198 except UK
	TKC5886	BODY LOOM, RHD	1	from VIN 001198 UK only
	TKC1804	BODY LOOM, LHD	1	1500 to (c) FH100020
	TKC3392	BODY LOOM, LHD	1	1500 from (c) FH100021 to (c) FH116000
	TKC4127	BODY LOOM, LHD	1	from (c) FH116000 on



Ill. No	Part Number	Description	Qty. Req.	Details
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Auxiliary Looms

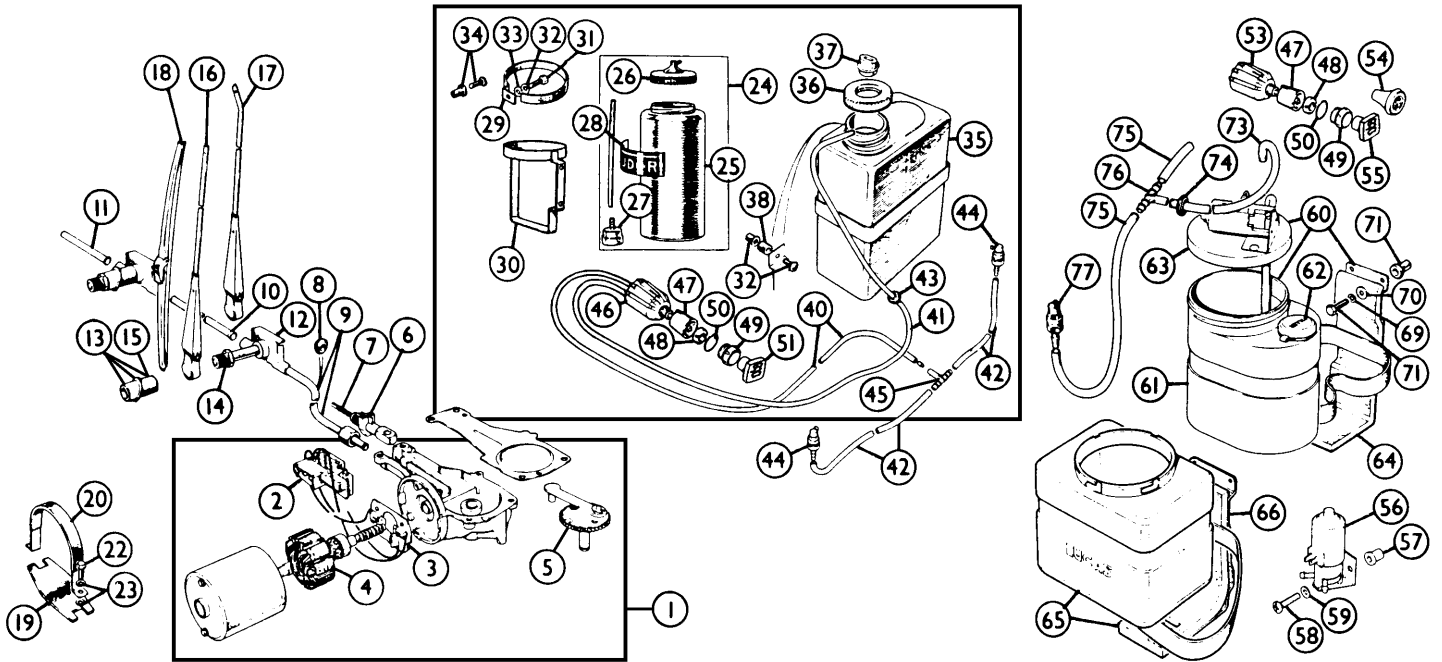
1	153984	EXTENSION CABLE (windscreen washer pump)	1	Sweden only to (c) FH100020
2	UKC1157	CABLE, extension, reverse lights	1	Italy only, reverse lamp
3	159643	CABLE, extension, reverse lights	1	feed through side lights
4	520999B	EXTENSION HARNESS, pair	1	overdrive models only
5		GEARBOX HARNESS, see page 92		
6	ZKC533	EXTENSION LEAD, aerial	1	
7	134301	EARTH CABLE, RHD	1	steering rack to chassis
8	WN708	WASHER, locking, earth cable	2	
9	131114	CABLE, starter to solenoid	1	RHD
	516064	CABLE, starter to solenoid	1	LHD
10	149967	CABLE EXTENSION (to dual brake warning switch)	1	dual brake circuit cars only to (c) FH130000

Ill. No	Part Number	Description	Qty. Req.	Details
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Cable Connectors & Ties

2	2H3406	CONNECTOR, single line female	a/r	
3	RTC603A	CONNECTOR, double line female	a/r	common contacts
4	BHA4460	CONNECTOR, triple line female	a/r	
5	13H2050	CONNECTOR, Lucar, 3/16" wide	a/r	
	RTC220A	CONNECTOR, Lucar, 1/4" wide	a/r	
	47H5419	CONNECTOR, Lucar, 3/8" wide	a/r	
6	511269	INSULATOR, for 1/4" Lucar	a/r	
	515399	INSULATOR for 3/8" connector	a/r	
7	17H5287	EYELET, 3/16" hole	a/r	
	2H4528	EYELET, 1/4" hole	a/r	
	13H625	EYELET, 5/16" hole	a/r	
8	27H6713	BULLET CONNECTOR, male	a/r	'push-on' for earth clip
9	236366A	CLIP, earth lead	a/r	head side & flasher lamps
10	13H1926	BULB HOLDER, screw in	a/r	twin cable, separate earth
11	13H1924	BULB HOLDER, bayonet	a/r	single cable
12	37H5181	BULB HOLDER, bayonet	a/r	twin cable
13	GLB987	BULB, 2.2W, screw in type	a/r	
14	GLB989	BULB, 5W, bayonet type	a/r	
15	UKC4446	IN-LINE FUSE	a/r	
16	GFS3025	FUSE, 25 amp, side & tail lamps (pack of five)	a/r	12.5 amp continuous
	GFS35X	FUSE, 35 amp	a/r	17 amp continuous
17	UKC6166	CLIP, holding fuse holder to edge	a/r	
18	620952	CLIP, harness to body	a/r	alternatives
19	551490	CLIP, harness to body	a/r	
20	615811	CLIP, harness to body	a/r	
21	11K9181	CLIP, cable to body	a/r	
22	144117	CLIP	1	harness to suspension bracket
23	508726	CLIP	1	temp. cable to alternator bracket
24	615924	CLIP, alternator cables	1	
25	125469	CLIP (head lamp cables to bonnet hinge tube)	1	
26	612703	CLIP, light cables to chassis	7	
27	611793	CLIP, horn cables to radiator cradle	2	
28	ULC1178	CLIP, harness securing	a/r	screw on type
29	622150	CLIP, harness securing	a/r	weld on type, long
30	603559	CLIP, harness securing	a/r	weld on type, short
31	511541	INSULATING SLEEVE	1	harness to radiator grille
	511551	INSULATING SLEEVE	6	harness to chassis
	503213	INSULATING SLEEVE	38	harness to body
32	GHF1265	CABLE TIE, ratchet type, 3 1/2"	a/r	
	GHF1266	CABLE TIE, ratchet type, 5 1/4"	a/r	
	GHF1267	CABLE TIE, ratchet type, 8 3/4"	a/r	
	GHF1268	CABLE TIE, ratchet type, 12 1/4"	a/r	
33	AAU5660	CABLE TIE, original type	a/r	
34	13H6107	CABLE TIE, 'fir tree' type	a/r	
35	515002	'P' CLIP	1	harness to engine bay side valance
36	AEU1581A	'P' CLIP	a/r	harness to body, and harness to gearbox

128 | Windscreen Wiper/Washer System



Ill. No	Part Number	Description	Qty. Req.	Details
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Wiper Motor, Blades & Arms

1	GXE7708	WIPER MOTOR, exchange	1	
<i>Wiper motor assemblies are built to the later specification (see parking switches below).</i>				
2	517645A	PARKING SWITCH, screw on	1	to approx. 1979
	520160A	PARKING SWITCH, clip on	1	from approx. 1980
<i>Due to motor casing differences, these switches cannot easily be interchanged.</i>				
3	RTC198A	BRUSH & PLATE, with wires	1	from approx. 1980
4	37H8222	ARMATURE	1	
5	520101	SHAFT & GEAR	1	
6	37H3694	FERRULE	1	tubing nut to motor gear case
7	37H5208	CROSS HEAD & RACK	1	cut to fit
8	600395	GROMMET	1	
9	813942	TUBING & NUT	1	motor to 1st wheelbox
10	716803	TUBING	1	wheel box to wheelbox
11	575047A	TUBING	1	from 2nd wheelbox
12	155430	WHEELBOX	2	
13	519988	MOUNTING KIT, wheelbox	2	inc. chrome bezel, seal, spacer
	519988B	NUT, CHROME BEZEL & SEAL	2	
	ADC560	SEAL ONLY	2	
14	17H8769	NUT, wheelbox retaining	2	8 sided
15	155906	BUSH, rubber, rear	2	
16	156307	WIPER ARM, RH, straight, bright	1	1300, 1500 to FH80000
	UKC1285	WIPER ARM, RH, straight, black	1	1500 from FH80001
17	156308	WIPER ARM, LH, cranked, bright	1	1300, 1500 to FH80000
	UKC1284	WIPER ARM, LH, cranked, black	1	1500 from FH80001
18	GWB168	WIPER BLADE, bright finish	2	
	GWB199	WIPER BLADE, black finish	2	
19	150844A	PAD, wiper motor mounting	1	
20	BHA4790	BRACKET & RUBBER STRAP	1	
22	SH604041	SCREW	2	
23	GHF300	WASHER, plain	4	

Washer Bottle Assemblies

24	GWW918K	WASHER BOTTLE & LID, round	1	
25	GWW918	BOTTLE only	1	1300 all markets
26	AHG6848	LID only	1	except Germany
27	GWW506	NON-RETURN VALVE	1	and Sweden, 1500
28	CRST124	LABEL, "Tudor"	1	all markets excluding
29	RTC2392	BRACKET, original	1	D, NL, A, F, B, I, CH
30	13H232	BRACKET, replacement	1	
31	HU505	SCREW, bracket to body	1/2	
32	WL700101	WASHER, locking	2/4	
33	PWZ203	WASHER, plain	2/4	
34	566293	RAWL-NUT & SCREW	1/2	replaces item 31
35	GWW901	WASHER BOTTLE, rectangular	1	1300 German
36	GWW952	SCREWED LID, for washer bottle	1	markets
37	GWW951	FILLER PLUG & OUTLET, push fit	1	500 D, NL, A,
38	622224	SPACER, mounting washer bottle	2	F, B, I, CH only

Ill. No	Part Number	Description	Qty. Req.	Details
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40	GWW202M	TUBING, pump to 'T' piece	a/r	4mm bore (sold per metre)
41	GWW202M	TUBING, bottle to pump, RHD	a/r	4mm bore (sold per metre)
	GWW201M	TUBING, bottle to pump, LHD	a/r	3mm bore (sold per metre)
42	GWW201M	TUBING, 'T' piece to jets	a/r	3mm bore (sold per metre)
43	061917	GROMMET	1	
44	568027	JET	2	
45	GWW404	'T' PIECE	1	

Manual Screen Wash System

46	155495	SWITCH, wash & wiper (2 speed manual pump)	1	to FH100020 excluding Sweden
47	621510	SPACER	1	
48	622682	NUT	1	
49	622443	BEZEL	1	
50	616048	WASHER, PVC	1	
51	725374	KNOB, wash & wiper switch	1	

Electric Screen Wash System

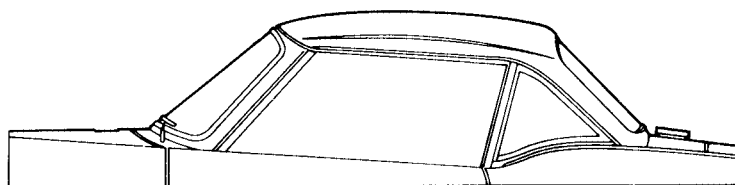
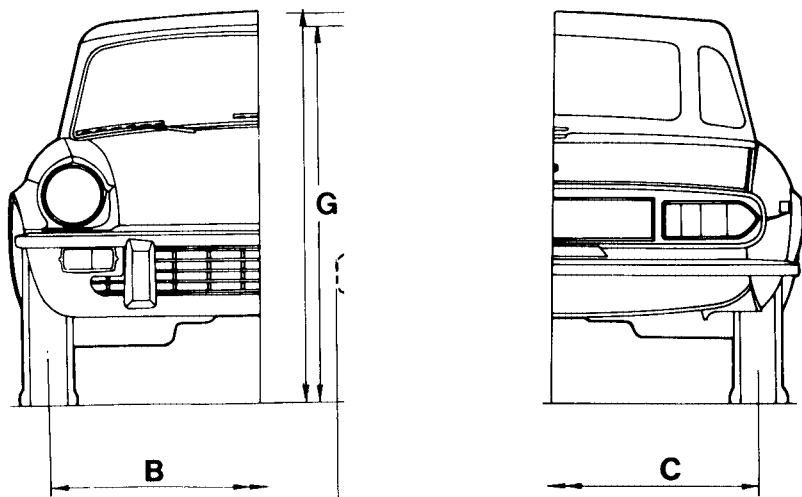
53	155496	SWITCH, wash & wiper	1	from FH100021 and Sweden
<i>The mounting hardware for this switch is the same as manual wash/wiper switch items 47-50 listed above.</i>				

54	625966	KNOB, wash & wiper switch	1	Sweden 1300 from FH100021
55	725374	KNOB, wash & wiper switch	1	and Sweden 1500 models
56	GWW125	ELECTRIC PUMP	1	1500 from (c) FH100021
57	AFU1233	RAWL-NUT (in body)	2	must be used
58	SE104141	SCREW, pump	2	together
	566293	RAWL-NUT & SCREW	2	alternative to
59	GHF306	WASHER, plain	2	items 57 & 58

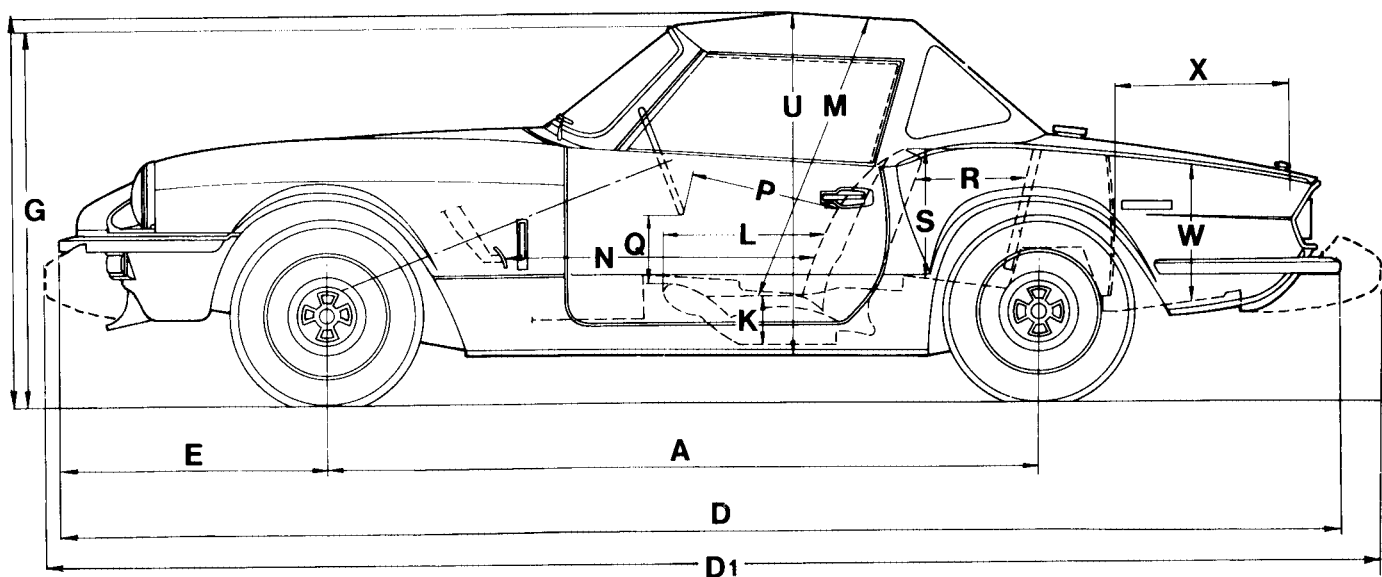
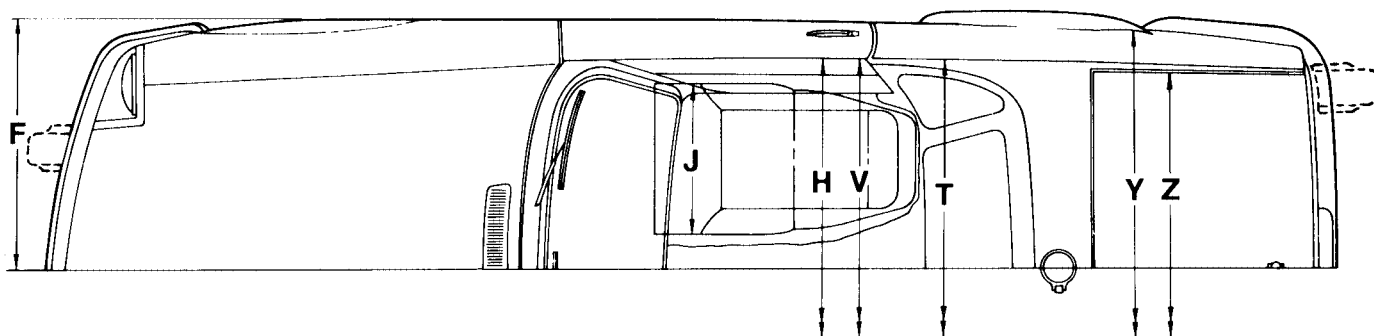
Electric Screen Wash System - Swedish Markets

60	TKC909	BOTTLE, BRACKET & PUMP	1	
61	GWW914	WASHER BOTTLE, oval	1	
62	GWW957	FILLER CAP	1	
63	GWW111	LID & PUMP	1	
64	514223A	BRACKET & STRAP, oval bottle	1	
65	518264	BOTTLE & BRACKET, square bottle	1	alternative to
66	518265	BRACKET & STRAP, square bottle	1	items 61 & 64
<i>The square shaped washer bottle was supplied as an alternative to the oval washer bottle. These are interchangeable assuming bottle & bracket are fitted together, they accept the same lid & pump assembly.</i>				

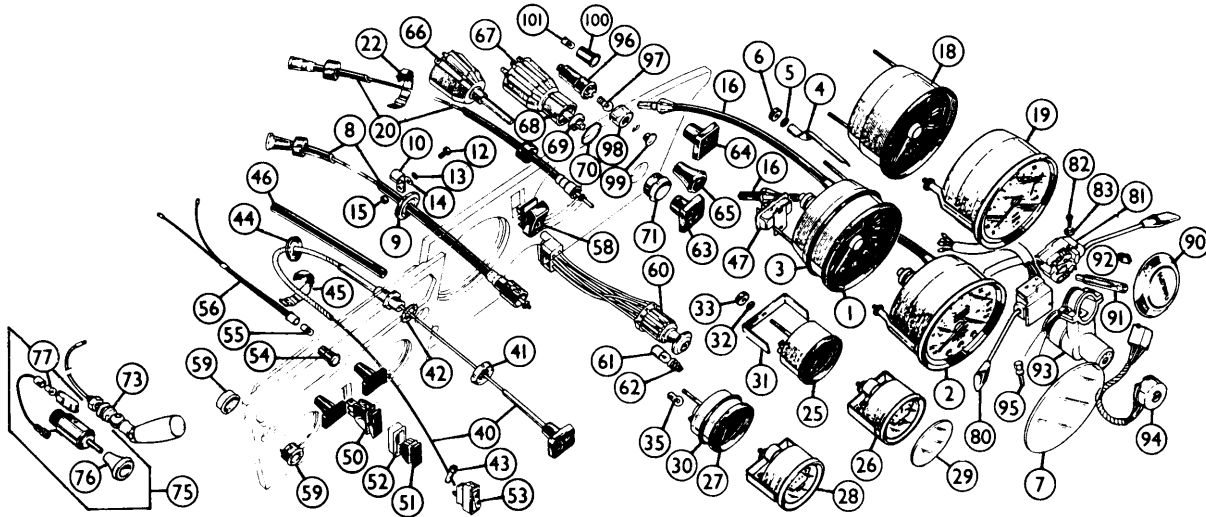
69	WL700101	WASHER, locking	3	
70	GHF306	WASHER, plain	3	
71	566293	RAWL-NUT & SCREW	3	
73	GWW202M	TUBING, pump to 'T' piece	a/r	4mm bore, sold per metre
74	061917	GROMMET	1	
75	GWW201M	TUBING, 'T' piece to jets	a/r	3mm bore, sold per metre
76	GWW404	'T' PIECE	1	
77	568027	JET	2	



HARDTOP VERSION



130 | Instruments, Switches & Cables (Early)



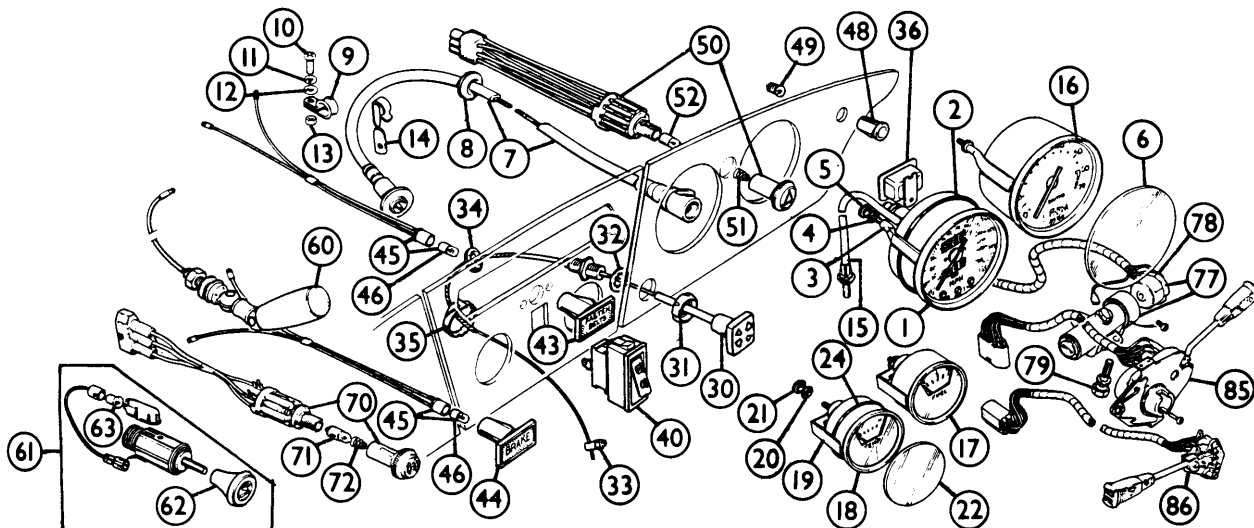
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1300 & 1500 to FH100020 (Early)

1	217517R	SPEEDO' mph (SNT6203-54)	1	1300 to FH50000
	217518R	SPEEDO' kph (SNT6203-57)	1	
2	218815R	SPEEDO' mph (SNT6211-10S)	1	1300 from FH50001
	218816R	SPEEDO' kph (SNT6211-11)	1	
	TKC1513E	SPEEDO' mph (SNT6211/14S)	1	1500
	TKC1514E	SPEEDO' kph, (SNT6211/13S)	1	
<i>All gauges are exchange items, your old unit must be repairable.</i>				
3	17H2105	O' RING	2	
4	17H1339	BRACKET, gauge securing	4	
5	LWZ402	WASHER, locking	4	
6	17H1304	KNURLED NUT	4	
7	AJH5177	GAUGE GLASS, large	2	4" diameter
8		SPEEDOMETER CABLE	1	
<i>Please refer to next page (131) for speedometer cables.</i>				
9	602037	GROMMET, rubber,	1	cable through bulkhead
10	AEU1581A	'P' CLIP, speedo cable	a/r	
12	PMZ308	SCREW	1	
13	WL700101	WASHER, locking	1	
14	PWZ203	WASHER, plain	1	
15	HN2005	NUT	1	
16	155191	TRIP METER RESET, speedo	1	to (c) FH50000
	159737A	TRIP METER RESET, speedo	1	from (c) FH50001
18	215100R	REV COUNTER (RN1319-04)	1	mech. 1300 to (c) FH50000
19	218835R	REV COUNTER (RN1326-00)	1	mech. 1300 from (c) FH50001
	TKC17006E	REV COUNTER (RVC2414/01F)	1	electric 1500 to (c) FH100020
20	144370	CABLE, rev counter	1	RHD
	138316	CABLE, rev counter	1	LHD
22	13H6107	CABLE TIE, rev counter cable	2	
25	150385R	FUEL GAUGE (BF2201-16)	1	to FH50000
26	159604R	FUEL GAUGE (BF2232-00)	1	from FH50001
27	150386R	TEMP' GAUGE (BT2204/12)	1	to FH50000
28	159606R	TEMP' GAUGE (BT2230-00)	1	from FH50001
29	502269F	GAUGE GLASS, small	2	(2" diameter)
30	17H1642	O' RING, small	2	
31	AJH5187	BRACKET, gauge	2	
32	LWZ302	WASHER, locking	2	
33	17H932	KNURLED NUT	2	
35	GLB987	BULB, 2.2W, instrument lighting	6	
40	156137	CHOKE CABLE (inner & outer)	1	RHD
	518313	CHOKE CABLE, inner	1	LHD
	518314	CHOKE CABLE, outer	1	
41	618946	BEZEL	1	
42	WF600081	WASHER, locking	1	
43	AUE34	TRUNNION	1	
44	061917	GROMMET	1	
45	RTC222A	CABLE TIE	1	
46	UKC6256	TUBE, PVC. water valve cable	1	LHD only
47	148876A	VOLTAGE STABILISER	1	
50	157353	SWITCH, master light	1	1300 to FH50000
51	150380	SWITCH, master light	1	
52	148437	BEZEL (fits 150380 light switch)	1	

Ill. No	Part Number	Description	Qty. Req.	Details
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53	UKC8647	SWITCH, master light	1	1500
<i>Note: The light switch 157353 is not currently available and, we can only supply the later type switch 150380. To fit the later 1300 light switch into an earlier 1300, the bezel 148437 will be required.</i>				
54	90559472	WARNING LIGHT, side lamp	1	
55	GLB643	BULB, 2.2W, warning light	1	Italy only from FH52644
56	159644	HARNES, warning light	1	
58	156044	SWITCH, hazard warning lights	1	LHD only
59	BHA4770	LAMP, warning	1	when hazard warning lights or dual brakes fitted
60	159905A	SWITCH, hazard warning lights	1	BAOR RHD only
61	GLB281	BULB, 2.2W (for 159905 switch)	1	(see page 135 for details)
62	520953	SPRING	1	
63	712913	KNOB, wash/wiper switch, square	1	all markets except Sweden
64	725374	KNOB, wash/wiper switch, square	1	USA spec. alternative
65	625966	KNOB, wash/wiper switch, round	1	Sweden only
<i>Knob (725374) was original fitment on USA specification Spitfires. British Leyland decided that as stocks of the 712913 & 625966 switches became depleted, the USA knobs (725374) would replace them. The Swedish one is still currently available!</i>				
66	155495	SWITCH, wash & wiper	1	2 speed, manual pump
67	155496	SWITCH, wash & wiper	1	electric pump, Sweden
68	621510	SPACER	1	
69	622682	NUT	1	
70	616048	WASHER, PVC	1	
71	622443	BEZEL	1	
73	UKC3946	MAP READING LAMP	1	
75	ZKC1152	CIGAR LIGHTER, blank knob	1	not original
76	624189	KNOB, original cigar lighter only	1	
	AJM1253	ELEMENT ONLY, replacement type	1	
77	GLB987	BULB, 2.2W	1	
80	152616	SWITCH, headlamp, dip & flash	1	RHD
	148648	SWITCH, headlamp, dip & flash	1	LHD
81	158966	SWITCH, indicators	1	
82	TP402	SCREW, pan head	4	
83	WE604	WASHER, shake-proof	4	
90	150277	HORN PUSH, 'Triumph Shield'	1	to (c) FH50000
	159761	HORN PUSH, 'Triumph'	1	from (c) FH50001
91	142534	BRUSH, horn push	1	
92	613766	CLIP, horn push securing	2	
93	2190611	IGNITION SWITCH & LOCK (with 2 keys)	1	to FH62644
	UKC27191	IGNITION SWITCH & LOCK (with 2 keys)	1	from FH62645
94	579085	IGNITION SWITCH only (with Lucar terminals)	1	to FH62644
	218959	IGNITION SWITCH only (with small loom & block connectors)	1	from FH62645
95	519188	SHEAR BOLT	2	
	119616	WARNING LIGHT, indicator	1	
96	13H1924	BULB HOLDER	1	
97	GLB987	BULB, 2.2W	1	1300 to (c) FH50000
98	508137	SHADE	1	
99	508138	LENS	1	
100	90559472	WARNING LIGHT, indicator	1	1300 from (c) FH50001
101	GLB643	BULB, 2.2W	1	& 1500



Ill. No	Part Number	Description	Qty. Req.	Details
1500 from FH100021 (Late)				
1	TKC1513E	SPEEDO' mph, (SNT6211/14S)	1	
	TKC1514E	SPEEDO' kph, (SNT6211/13S)	1	
	PKC643E	SPEEDO' mph, (SNT6211/12SB)	1	
	PKC641E	SPEEDO' kph, (SNT6211/17)	1	
<i>All gauges are exchange items; your returned unit must be in a reconditionable state of repair.</i>				
2	17H2105	O' RING	2	
3	17H1339	BRACKET, gauge securing	4	
4	LWZ402	WASHER, locking	4	
5	MM361-035	KNURLED NUT	4	
6	AJH5177	GAUGE GLASS, large	2	(4" diameter)
7		SPEEDOMETER CABLE	1	for details regarding speedometer cables, see next column.
8	602037	GROMMET	1	speedo cable through bulkhead
9	AEU1581A	'P' CLIP, speedometer cable	1	
10	PMZ308	SCREW	1	
11	WL700101	WASHER, locking	1	
12	PWZ203	WASHER, plain	1	
13	HN2005	NUT	1	
14	159556	HOOK, speedometer cable	1	
15	159737A	TRIP METER RESET FLEX	1	The trip meter reset flex 159737A is supplied with the speedometers listed above.
16	TKC1706E	REV COUNTER, (RVC2414/01F)	1	
17	159604R	FUEL GAUGE, (BF2232/00)	1	
18	159606R	TEMP' GAUGE, (BT2230/00)	1	
19	AJH5187	BRACKET, gauge securing	2	
20	LWZ302	WASHER, locking	2	
21	MM361-035	KNURLED NUT, large	2	
22	502269F	GAUGE GLASS	2	(2" diameter)
24	17H1642	O' RING, small	2	
30	156137	CHOKE CABLE, inner & outer	1	RHD
	518313	CHOKE CABLE, inner	1	LHD
	518314	CHOKE CABLE, outer	1	
31	146987	BEZEL, choke cable	1	
32	WF600081	WASHER, locking	1	
33	AUE34	TRUNNION UNIT	1	
34	061917	GROMMET	1	choke cable through bulkhead
35	RTC222A	CABLE TIE	1	
36	148876A	VOLTAGE STABILISER	1	
40	UKC8647	SWITCH, master light	1	
43	13H7986	WARNING LIGHT, 'fasten belts'	1	
44	UKC5812	WARNING LIGHT, 'brakes'	1	
45	UKC4187	BULB & HOLDER	2	
46	GLB281	BULB, 2.2W	2	
48	90559472	FLASHER WARNING LIGHT	1	
49	GLB504	BULB, 3W	1	

Ill. No	Part Number	Description	Qty. Req.	Details
50	159905A	SWITCH, hazard warning lights	1	RHD
	UKC8204	SWITCH, hazard warning lights	1	LHD
51	520953	SPRING	1	
52	GLB281	BULB, 2.2W	1	
<i>The original BL parts book is proven once again to be incorrect. The hazard warning switch assembly is shown as having the spring located behind the bulb. The reverse is true. The spring forces the bulb into the connector and keeps it away from the plastic knob which would otherwise melt. If your knob has melted there is no known cure other than to purchase a new switch assembly.</i>				
60	UKC3946	MAP READING LAMP	1	
61	ZKC1152	CIGAR LIGHTER, blank knob	1	not original
	158794	CIGAR LIGHTER, original	1	
62	624189	KNOB	1	original cigar lighter only
63	GLB987	BULB, 2.2W	1	
70	TKC5067	FOG LIGHT SWITCH	1	
71	GLB283	BULB	1	
72	520953	SPRING	1	
<i>The steering column was changed at (c) FH100019 for a more modern and safer design. It included a new steering lock and switch gear. The horn was operated by the indicator switch rather than by a button on the steering wheel. Consequently Triumph Spitfire owners discovered that during panic stricken moments they could now flash their lights, operate the horn, set the wipers and washers going while indicating left all at the same time, thereby blowing some necessary fuses at the wrong moment.</i>				
77	RKC3982	IGNITION SWITCH & LOCK	1	RHD (with 2 keys)
	RKC3983	IGNITION SWITCH & LOCK	1	LHD (with 2 keys)
78	218959	IGNITION SWITCH only	1	(with block & bullet connectors)
79	152597	SHEAR BOLT	2	
85	AAU7994	SWITCH, indicator, headlamp dip and horn	1	RHD
	AAU7996	SWITCH, indicator, headlamp dip and horn	1	LHD
86	AAU8843	SWITCH, wiper and wash	1	RHD
	AAU8844	SWITCH, wiper and wash	1	LHD

Speedometer Cables (All Models)

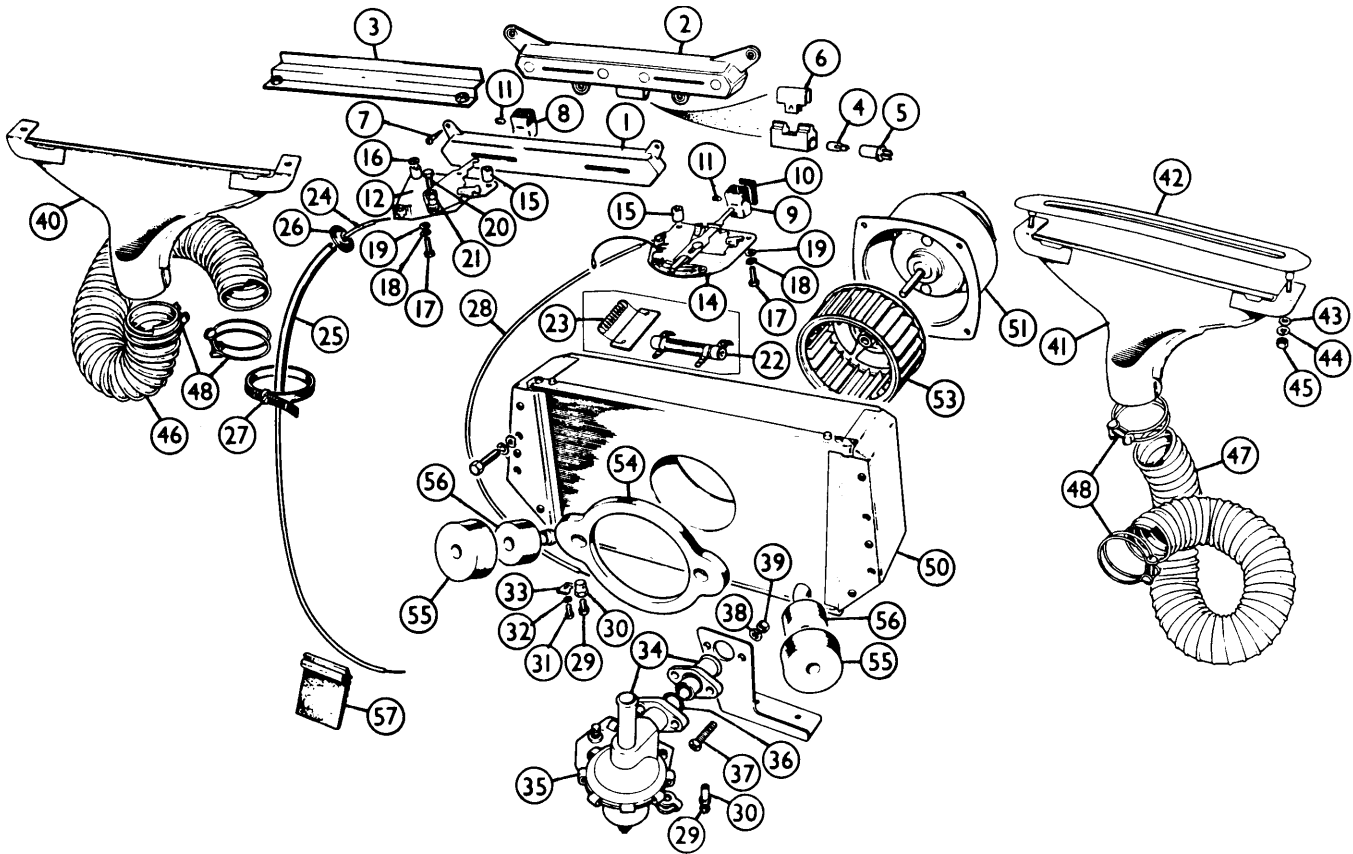
There were a number of speedometer cables applied to the 1300 and 1500 Spitfire range. They allow for variations such as RHD & LHD, overdrive or non overdrive and gearbox type. We list all the types used below. The measurements shown relate to the length (in inches) of the outer cable.

1300 Range (3-rail gearbox)

GSD272	SPEEDO' CABLE (48") RHD	1	non-overdrive
156316	SPEEDO' CABLE (57") LHD	1	
GSD273	SPEEDO' CABLE (54") RHD	1	overdrive
156318	SPEEDO' CABLE (63") LHD	1	

1500 Range (Single-rail gearbox)

GSD295	SPEED' CABLE (54") RHD	1	non-overdrive
GSD410	SPEEDO' CABLE (48") LHD	1	
156316	SPEEDO' CABLE (57") RHD	1	overdrive
GSD273	SPEEDO' CABLE (54") LHD	1	



Ill. No	Part Number	Description	Qty. Req.	Details
Heater Unit				
1	713790	ESCUTCHEON, fascia panel	1	to (c) FH50000
2	726870	ESCUTCHEON, fascia panel	1	from (c) FH50001
3	622220	BRACKET, heater vent control	1	
4	GLB286	BULB, 1.2W	1	
5	13H8690	BULB HOLDER	1	fits 726870 fascia panel
6	160022	CLIP & MASK, bulb	1	
7	AF604031	SCREW, escutcheon securing	4	
8	622228	KNOB, with grub screw	1	water valve control
9	622229	KNOB, with grub screw	1	ventilator control
10	624276	LABEL, 'pull' boost	1	
11	620750	GRUB SCREW, knob securing	2	
12	622237	CONTROL	1	water valve
14	622236	CONTROL & FAN SWITCH	1	ventilator
15	622224	SPACER, thick	3	control lever
16	622235	SPACER, thin	1		to fascia
17	GHF101	SCREW, lever control	4	
18	GHF331	WASHER, locking	4	
19	GHF300	WASHER, plain	4	
20	53K1016	SCREW, cable securing	2	
21	24G1482	TRUNNION, cable securing	2	
22	2H6926	RESISTOR	1	1300, 1500 to mid 1976
23	AAU9680	RESISTOR	1	1500 from mid 1976 on
24	625687	CONTROL CABLE, water valve	1	(cut to fit)
25	UKC6256	TUBE, PVC, water valve	1	LHD
26	061917	GROMMET, bulkhead	1	
27	GHF1266	CABLE TIE, ratchet type, cable	1	
28	624193	CONTROL CABLE, ventilator	1	
29	53K1016	SCREW, cable	2	
30	24G1482	TRUNNION, cable	2	
31	511765	SCREW, ventilator outer cable	1	
32	WL700101	WASHER, locking	1	
33	108943	CLAMP	1	
34	724021	VALVE, water control	1	
35	724021B	WATER VALVE BODY	1	repair part
36	C9928A	SEALING RING	1	valve to adaptor

Ill. No	Part Number	Description	Qty. Req.	Details
37	PMZ316*	SCREW, water valve (No 10 x 1" UNF)	2	Unified thread (UNF)* alternative
38	WL700101*	WASHER, locking	2	
39	HN2005*	NUT, 3/16" UNF	2	BA thread alternative*
	AJD1052*	SCREW, water valve (2BA)	2	
	WL700101*	WASHER, locking	2	
	AJD8012Z*	NUT (2BA)	2	
*Check thread in heater valve adaptor before ordering.				
Demister System				
Due to the fitment of a modified heater matrix in mid 1976 the demister system was slightly modified. This led to the introduction of wider diameter demister tubes and new vents. Since Leyland did not specify a change point (perhaps old and new stock were mixed in together for a short period on the production lines) the only way to tell what demister system is fitted is by checking the diameter of the pipes. Spitfires up to mid 1976 used 1.1/2" tubes; Spitfires after mid 1976 incorporated 1.3/4" diameter tubes. The dashboard top and vent capping assembly remained unchanged so you could interchange late with early heater matrix and demisters (or vice versa) and nobody would ever know. What you can't do is mix and match the early and late systems.				
40	714434	DEMISTER VENT, RH	1	to mid 1976
	YKC2640	DEMISTER VENT, RH	1	from mid 1976
41	714434	DEMISTER VENT, LH	1	to mid 1976
	YKC2639	DEMISTER VENT, LH	1	from mid 1976
42	622812	VENT CAPPING	2	
43	PWZ203	WASHER, plain	4	
44	WL700101	WASHER, locking	4	
45	HN2005	NUT	4	
46	611825	DEMISTER TUBE, RH	1	to mid 1976
	GHH175/18	DEMISTER TUBE, RH	1	from mid 1976
47	602638	DEMISTER TUBE, LH	1	to mid 1976
	GHH175/18	DEMISTER TUBE, LH	1	from mid 1976
48	CS4029	CLAMP, hose, wire type	4	alternatives
	GHC1217	CLAMP, hose, band type	4	

Ill. No	Part Number	Description	Qty. Req.	Details
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Heater Assembly

50	910501	HEATER	1	to mid 1976
	WKC2519	HEATER	1	from mid 1976

The heater matrix was cleverly pop riveted into its box, making it very difficult to remove in the event of a blockage, if the matrix failed a whole new assembly had to be purchased. Should the matrix be blocked or leaking, the outer chamber will have to be dismantled by either drilling out the rivets, or if you are really desperate, by using a hammer and chisel. If the fragile matrix was not damaged before you attacked the box, it will be now.

	910501NF	HEATER BOX	1	
	910501M	HEATER MATRIX	1	to mid 1976
	WKC2519M	HEATER MATRIX	1	from mid 1976

Both heaters & matrices are very difficult to find, manufacture, or recondition for Spitfires due to the unusual design (that hole in the middle!). Check our price guide for availability.

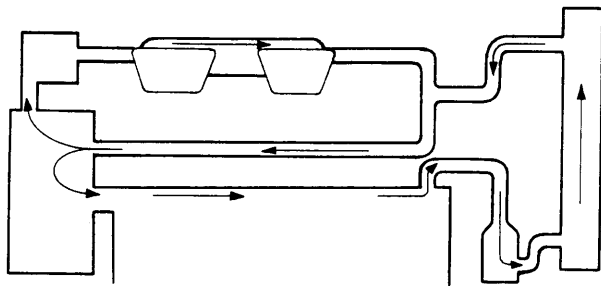
51	518480	MOTOR, heater fan	1	
53	515825	FAN BLADE, heater blower	1	
54	614125	GASKET, matrix to plenum	1	
55	616627	SEAL, large	2	heater inlet &
56	613648	SEAL, small	2	outlet pipes
57	616206	FLAP, air box draining	1	

Heater Hoses

If you own a copy of the original Triumph Spitfire Mk IV & 1500 Parts book (there were a number of versions) you will have noticed that the pipes and hoses shown look nothing like those which are fitted to your car. You may be worried about this, but rest assured that Triumphs highly experienced technical illustrators, whose intricate and detailed work is admired around the world, were very slightly wrong. In fact its doubtful whether they actually saw any of the components they were drawing (possibly they only looked at prototype samples or sketches). The truth is now clear. That water valve is the correct way up, you have got the correct hoses on your car, they don't connect up the way shown in the factory parts book, and yes, you do have the proper thermostat housing fitted above the water pump!

Water Flow and the Inlet Manifolds

The way in which water was supplied to the heater matrix altered considerably over the years to account for changes in environmental requirements, particularly in the USA. Originally the water reached the heater via an outlet towards the rear of the block. A pipe connected to the water pump, running the length of the block, allowed water to be sucked back into the main cooling system.



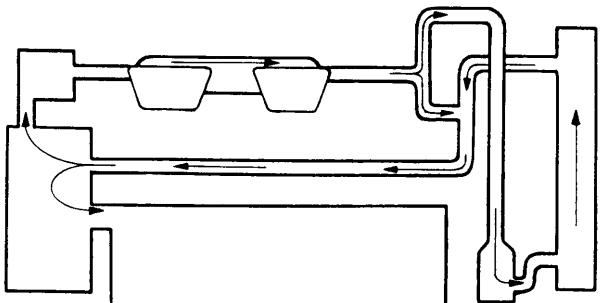
MkIV to FH59688E

The early Mk IV's (to (e) FH59688E) were fitted, like the Mk III models, with a water heated manifold allowing the fuel vapour to be heated prior to combustion. This had the effect of needing less choke, but had the unfortunate by-product of allowing a less dense mixture into the combustion chamber.

For the technically minded - a less dense mixture 'in', leads to less power 'out'!

On these early Mk IV models, water was sucked through the inlet manifold and around into the water pump return pipe to heat the manifold (whether the heater was turned on or not!).

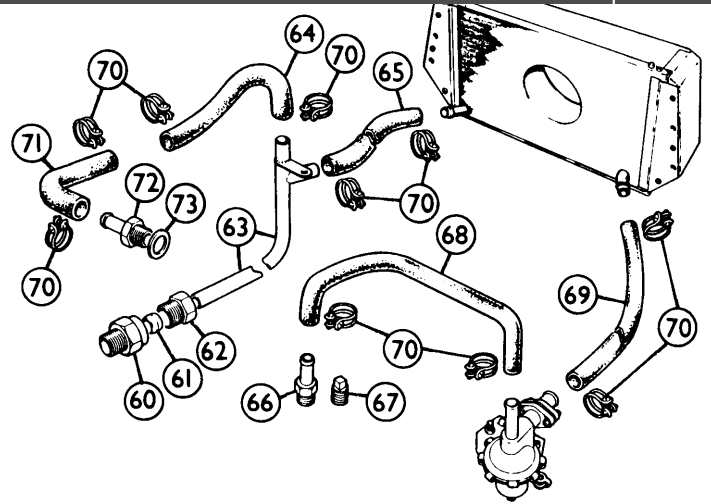
When the heater valve was opened, water was sucked from the rear of the cylinder block through the heater joining up with the inlet manifold water on its way to the pump.



MkIV from FH59689E

On the later model, this system was modified so that the supply of water for both the inlet manifold and the heater came only from one source - the thermostat housing. This probably improved flow considerably and, made the inlet manifold even hotter, which in turn probably made the Spitfire even slower.

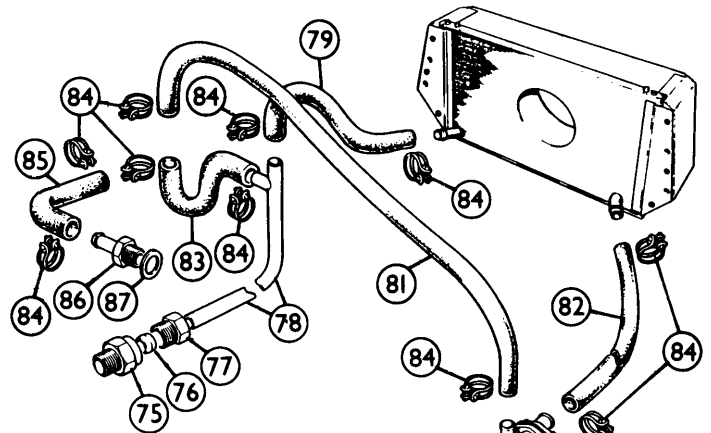
Soon after this Triumph introduced the world to a slow but warm Spitfire 1500.



Ill. No	Part Number	Description	Qty. Req.	Details
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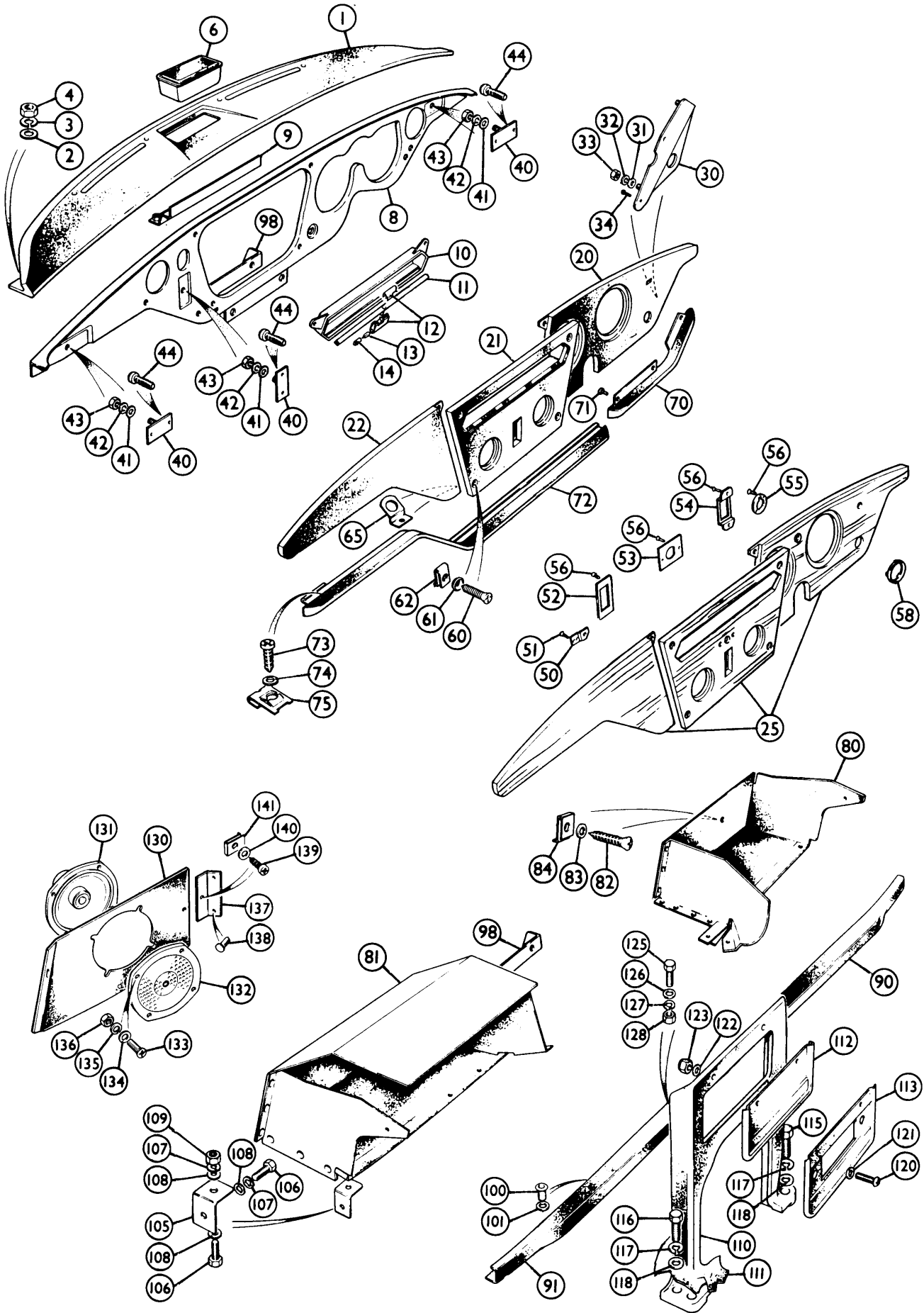
Heater Hoses to (e) FH59688E

60	101343	ADAPTOR (water return tube to water pump housing)	1	
61	TL11	OLIVE	1	
62	101302	TUBE NUT	1	
63	212416	TUBE, water return	1	except Sweden
	212935	TUBE, water return	1	Sweden
64	152521	HOSE, return tube to inlet manifold	1	
65	152523	HOSE, heater to water return tube	1	
66	057602	ADAPTOR, cylinder block to hose	1	
67	114774	PLUG, blanking	1	when heater not fitted
68	GZA983	HOSE, cyl block to water valve	1	except Sweden
	GRH812	HOSE, cyl block to water valve	1	Sweden
69	GZA1336	HOSE, water valve to heater	1	
70	CS4012	CLAMP, hose, wire type	10	alternatives
	GHC406	CLAMP, hose, band type	10	
71	GZA2052	HOSE (thermostat housing to inlet manifold)	1	
72	138530	ADAPTOR, thermostat to hose	1	
73	AUC2141	WASHER, fibre	1	



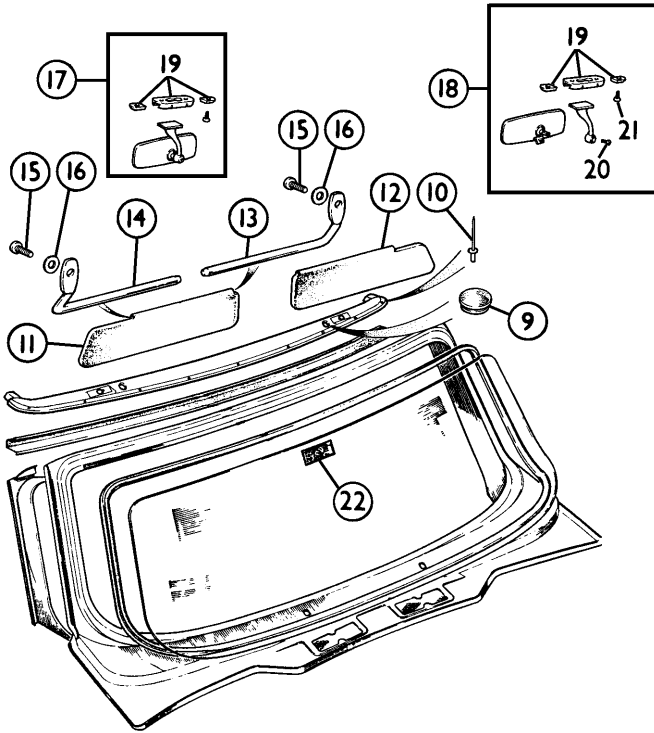
Heater Hoses from (e) FH59689E

75	101343	ADAPTOR (water return tube to water pump housing)	1	
76	TL11	OLIVE	1	
77	101302	TUBE NUT	1	
78	212935	TUBE, water return	1	
79	152523	HOSE, heater to water return tube	1	
81	GZA983	HOSE, inlet manifold to heater valve	1	
82	GZA1336	HOSE, water valve to heater	1	
83	154149	HOSE (inlet manifold pipe to water return pipe)	1	
84	CS4012	CLAMP, hose, wire type	10	alternatives
	GHC406	CLAMP, hose, band type	10	
85	GZA2052	HOSE (thermostat housing to inlet manifold)	1	
86	138530	ADAPTOR, thermostat to hose	1	
87	AUC2141	WASHER, fibre	1	



Ill. No	Part Number	Description	Qty. Req.	Details	
Crash Panel & Fascia Panels					
1	815281	CRASH PAD	1		
2	WP124	WASHER, plain	6		
3	WL700101	WASHER, locking	6		
4	HN2005	NUT	6		
6	613186	ASH TRAY	1		
8	910961	FASCIA PANEL	1	RHD	
	910962	FASCIA PANEL	1	LHD	
9	622220	BRACKET, heater vent control	1		
10	713790	ESCUTCHEON, fascia panel	1	to FH50000	
	726870	ESCUTCHEON, fascia panel	1	} from FH50001	
11	160020	STRIP (illuminated strip)	1		
12	160022	CLIP & MASK, bulb securing	1		
13	GLB286	BULB, 1.2W	1		
14	13H8690	BULB HOLDER	1		
Fascia Panels					
<i>Black Panels to FH50000</i>					
20	912891	FASCIA PANEL, RH	1		RHD
	912901	FASCIA PANEL, LH	1	LHD	
21	912911	FASCIA PANEL, centre	1	RHD	
	715911	FASCIA PANEL, centre	1	LHD	
	715921	FASCIA PANEL, centre	1	LHD	
} all markets where dual braking system is fitted					
22	815401	FASCIA PANEL, LH	1	RHD	
	815411	FASCIA PANEL, RH	1	LHD	
Veneered Panels from FH50001 to FH64995					
25	918230	FASCIA PANEL	1	RHD	
	824540	FASCIA PANEL	1	RHD (BAOR)	
	918210	FASCIA PANEL	1	LHD	
	918220	FASCIA PANEL	1	LHD (dual braking)	
Veneered Panels, RHD, from FH75001					
	WKC2100	FASCIA PANEL	1	to FH100020	
	WKC3390	FASCIA PANEL	1	from FH100021	
	WKC4190	FASCIA PANEL	1	UK FH130001 to VIN 001197	
} BAOR, Australia to FH130000					
	WKC5130	FASCIA PANEL	1	UK from VIN 001198	
Veneered Panels, LHD from FH75001					
	WKC2110	FASCIA PANEL	1	N, CH, D, F	
	WKC2120	FASCIA PANEL	1	without dual braking or seat belt warning	
	WKC2130	FASCIA PANEL	1	with dual braking or seat belt warning	
	WKC3410	FASCIA PANEL	1	from FH100020	
Fittings (Fascia Panel)					
30	715879	PLATE REINFORCEMENT	1	RHD to FH50000	
	715880	PLATE REINFORCEMENT	1	LHD to FH50000	
31	PWZ203	WASHER, plain	2		
32	WL700101	WASHER, locking	2		
33	HN2005	NUT	2		
34	576669	SCREW, self tapping	1		
40	618505*	STUD, fascia fixing	3		
41	PWZ203	WASHER, plain	3		
42	WL700101	WASHER, locking	3		
43	HN2005	NUT	3		
44	576669	SCREW, self tapping	6	Black fascia	
	TW602*	SCREW	6	veneered	
	AF604031*	SCREW	2	fascia	
50	618486*	PLATE, fascia fixing, LH	1		
	618487*	PLATE, fascia fixing, RH	1		
51	TW602*	WOOD SCREW	4		
52	622222*	PLATE, hazard switch retaining	1	RHD	
53	632987*	PLATE, hazard light retaining	1	(RHD, BAOR only)	
54	622230*	PLATE, hazard switch retaining	1	LHD only	
55	622223*	PLATE, windscreen wiper switch	1		
56	516762*	WOOD SCREW	a/r		
*These items are supplied with the veneer kits where applicable.					
58	ZKC1130	BEZEL, hazard warning switch	1		
60	AD608103	SCREW, chrome, fascia panel	4		
	AD608084	SCREW, black, fascia panel	4		

Ill. No	Part Number	Description	Qty. Req.	Details
61	CD24152	CUP WASHER, chrome	4	
	625549	CUP WASHER, black	4	
62	FU2554	SPIRE CLIP	4	
65	627318	BRACKET, interior light	1	
Padding Assembly – Lower (all models)				
70	813271	PADDING, fascia lower, RH	1	RHD
	813281	PADDING, fascia lower, LH	1	LHD
71	YB1142	SCREW, padding securing	3	
72	812981	PADDING, fascia lower, LH	1	RHD
	812991	PADDING, fascia lower, RH	1	LHD
73	GHF421	SCREW, securing padding	4	
74	WP4	WASHER, plain	4	
75	FJ2443	SPIRE CLIP	4	
Parcel Trays & Centre Console				
80	813745	PARCEL TRAY, drivers side	1	RHD
	813746	PARCEL TRAY, drivers side	1	LHD
81	813753	PARCEL TRAY, passenger side	1	RHD
	813754	PARCEL TRAY, passenger side	1	LHD
82	509161	SCREW, parcel tray securing	4	black fascia
	AD608054	SCREW, parcel tray securing	4	veneered fascia
83	WP4	WASHER, plain	4	
84	FU25648	SPIRE CLIP	4	
90	709693	SUPPORT, RH	1	black fascia
	728641	SUPPORT, RH	1	veneered fascia to FH113677
	YKC3328PA	SUPPORT, RH	1	veneered fascia from FH113678
91	709692	SUPPORT, LH	1	black fascia
	728631	SUPPORT, LH	1	veneered fascia to FH113677
	YKC3327PA	SUPPORT, LH	1	veneered fascia from FH113678
98	709691	BRACKET, parcel tray	1	
100	565756	RIVET CAP, bracket (parcel tray)	3	
101	563032	RIVET BASE, bracket (parcel tray)	3	
105	630278	ANGLE SUPPORT, parcel shelf	2	
106	HU505	SCREW, angle support	5	
107	WL700101	WASHER, locking	5	
108	PWZ203	WASHER, plain	8	
109	HN2005	NUT	3	
110	WKC3621PA	BRACKET, fascia & radio housing	1	
111	NSK4500PA	COVER, fascia bracket	1	vinyl only
112	709842	BLANKING PLATE, radio aperture	1	when radio not fitted
113	709843	PLATE, radio mounting	1	when radio fitted
115	516288	SCREW, domed head	2	console to floor, front
	SH605091	SCREW, standard head	2	(alternatives)
116	511930	SCREW, domed head	2	console to floor, rear
	SH605101	SCREW, standard head	2	(alternatives)
117	GHF332	WASHER, locking	4	
118	WA108052	WASHER, plain	4	
120	515279	SET SCREW, support bracket	2	
121	WM57	WASHER, plain	2	
122	WC106041	WASHER, plain	2	
123	GHF221	NUT, nyloc	2	
125	HU506	SCREW, support bracket	2	
126	PWZ203	WASHER, plain	4	
127	WL700101	WASHER, locking	2	
128	HN2005	NUT	2	
Loudspeaker Fittings				
130	YKC2488	MOUNTING BOARD, RHD	1	} for fitting one speaker in glove box only
	YKC288	MOUNTING BOARD, LHD	1	
131	YKC2845	LOUDSPEAKER	a/r	
132	ZKC412	GRILLE, loudspeaker	a/r	
133	512461	SCREW, loudspeaker securing	4	
134	PWZ203	WASHER, plain	4	
135	AUC2246	WASHER, spring	4	
136	HN2005	NUT	4	
137	ZKC517	BRACKET	1	
138	RB5504	RIVET	2	
139	GHF424	SCREW, self tapping	1	
140	517783	WASHER, plain	1	
141	GHF712	SPIRE NUT	1	
BAOR = British Army on the Rhine.				
<i>For British Servicemen stationed in Germany, Triumph exported special BAOR specification (Right Hand Drive) models with the necessary extras to get through the German safety requirements. Some of these cars may well have returned to Britain.</i>				



Ill. No	Part Number	Description	Qty. Req.	Details
Rear View Mirror & Sun Visors				
9	612976	PLUG, rubber, screen capping	2	] required when hardtop not fitted
10	RU608123	RIVET, capping to screen	9	
11	823381	SUN VISOR, drivers side	1	] Mk IV, 1500 to FH113678 (fine grain)
12	823311	SUN VISOR, passenger side (RHD)	1	
	823321	SUN VISOR, passenger side (LHD)	1	] 1500 from FH113679 (coarse grain)
	WKC3634PA	SUN VISOR, drivers side	1	
	XKC2948PA	SUN VISOR, passenger side (RHD)	1	
	XKC2949PA	SUN VISOR, passenger side (LHD)	1	
13	630933	MOUNTING BAR	2	LH end of visor
14	630932	MOUNTING BAR	2	RH end of visor
15	PT505	SCREW, visor mounting	4	
16	PWZ203	WASHER, plain	4	
17	630981	MIRROR, non-dipping	1	
18	632089	MIRROR, dipping	1	screws not included
19	RTC1006	MIRROR RETAINER	1	
20	632095S	SCREW, mirror head to stem	1	
21	512461	SCREW, mirror retaining	2	
22	CRST125	DECAL, "Triplex laminated"	1	

Trim Colour Codes

The correct original trim colour is defined with a 2 digit coding system for vehicles to 1976, and vehicles from 1976 used a 3 'letter' code. the Commission Number or VIN plate will supply the trim code.

Trim Colour Codes to 1976;

11 = Black
12 = Matador Red
27 = Shadow Blue
33 = New Tan
63 = Chestnut
74 = Beige
78 = Grey

Trim Colour Codes from 1976;

PAA = Black
AAA = Beige
RAC = Black & White
C74 = Beige & White



Ill. No	Part Number	Description	Qty. Req.	Details
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Seat Cover Kits - Non Reclining Seats (all markets to FH50000 - 1970-72)

Seat covers are sold as a car set for both seats, with two base (cushion) & two back (squab) covers. They do not have pre-cut headrest holes. A complete set of replacement fixing clips are included. For Seat Belts please refer to Accessories.

1	SCA7411	SEAT COVERS, Black	1pr] Vinyl trim
	SCA7412	SEAT COVERS, Matador red	1pr	
	SCA7417	SEAT COVERS, Shadow blue	1pr	
	SCA7418	SEAT COVERS, Grey	1pr	
	SCA7419	SEAT COVERS, New tan	1pr	
SCL7411	SCL7411	SEAT COVERS, Black	1pr] Leather trim
	SCL7412	SEAT COVERS, Matador red	1pr	
	SCL7417	SEAT COVERS, Shadow blue	1pr	
	SCL7418	SEAT COVERS, Grey	1pr	
	SCL7419	SEAT COVERS, New tan	1pr	

Seat Cover Kits - Reclining Seats (from FH50001 - 1973 on)*

Seat covers are sold as a car set for both seats, with two base (cushion) & two back (squab) covers & clips. These covers fit all reclining seat frames and include head restraint apertures. *Note: Some overseas markets used 'high' back reclining seats for which covers & most components are not listed here. For Seat Belts please refer to Accessories.

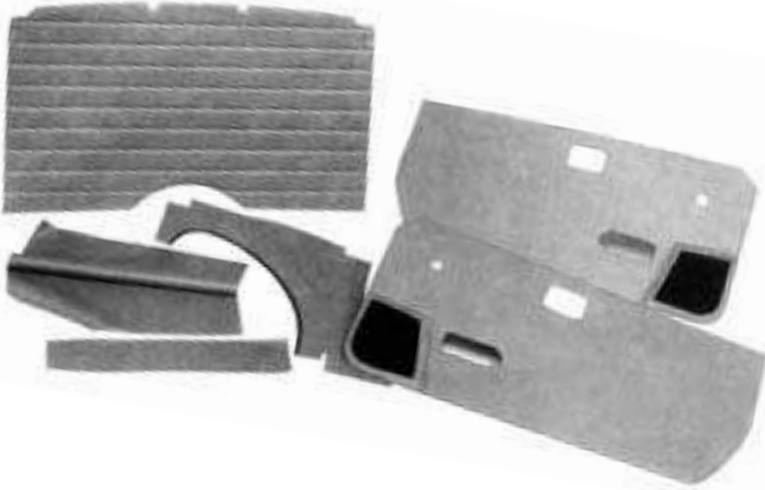
2	SCA7421	SEAT COVERS, Black	1pr] Vinyl trim
	SCA7422	SEAT COVERS, Matador red	1pr	
	SCA7423	SEAT COVERS, Chestnut	1pr	
	SCA7424	SEAT COVERS, Beige	1pr	
	SCA7427	SEAT COVERS, Shadow blue	1pr	
	SCA7428	SEAT COVERS, Grey	1pr	
	SCA7429	SEAT COVERS, New tan	1pr	
SCA7511	SCA7511	SEAT COVERS, Black & White	1pr] Houndstooth cloth
	SCA7514	SEAT COVERS, Beige & White	1pr	
SCL7421	SCL7421	SEAT COVERS, Black	1pr] Leather trim
	SCL7422	SEAT COVERS, Matador red	1pr	
	SCL7423	SEAT COVERS, Chestnut	1pr	
	SCL7424	SEAT COVERS, Beige	1pr	
	SCL7424Z	SEAT COVERS, Biscuit	1pr	
	SCL7427	SEAT COVERS, Shadow blue	1pr	
	SCL7428	SEAT COVERS, Grey	1pr	
	SCL7429	SEAT COVERS, New tan	1pr	

Head Restraints

We offer a range of vinyl covered head restraint assemblies which have a slightly different stalk to the original Spitfire ones.

3	919071	HEAD REST, Black vinyl	2] coarse grain		
	WKC3680PA	HEAD REST, Black vinyl	2			
	919072	HEAD REST, Matador red	2] fine grain		
	919073	HEAD REST, Chestnut	2			
	919074	HEAD REST, Beige	2			
	919077	HEAD REST, Shadow blue	2			
	919078	HEAD REST, Grey	2			
	923083	HEAD REST, New tan	2			
] vinyl



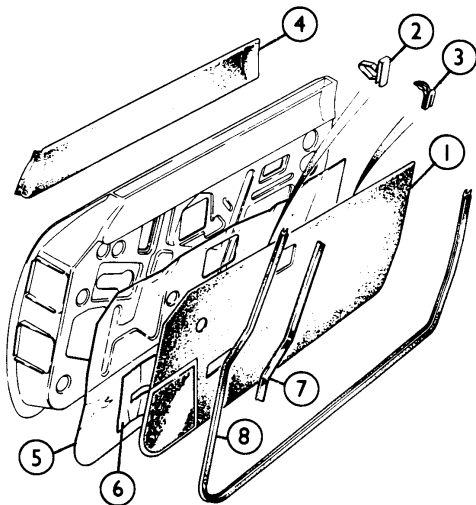


Ill. No	Part Number	Description	Qty. Req.	Details
Rear Cockpit Trim				
12	XKC2921	TRIM BOARD, Black	1	Mk IV, 1500 to FH113678
	WKC3579PA	TRIM BOARD, Black	1	1500 from FH113679
	XKC2924	TRIM BOARD, Beige	1	
	818642	TRIM BOARD, Matador red	1	
	822613	TRIM BOARD, Chestnut	1	
	821753	TRIM BOARD, New tan	1	
	822617	TRIM BOARD, Shadow blue	1	
	818648	TRIM BOARD, Grey	1	
13	7H9868	BASE, stud to rear cockpit board	2	
14	509563	WASHER, support	2	
15	713511	PLASTIC STUD, Black	2	} 'durable dot'
	713519	PLASTIC STUD, White	2	
16	AD606063	SCREW, chrome	6	
17	CD24152	CUP WASHER	6	
NI	TSK401	SCREW KIT (Trim panels)	1	

Ill. No	Part Number	Description	Qty. Req.	Details
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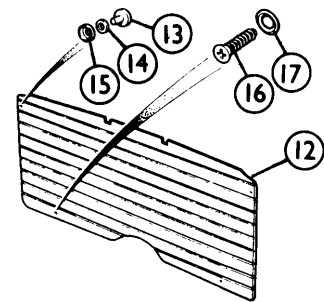
Head Restraints continued...

4	919071C	COVER ONLY, Black vinyl	2	coarse grain
	WKC3680PAC	COVER ONLY, Black vinyl	2	fine grain
	919072C	COVER ONLY, Matador red	2	} vinyl
	919073C	COVER ONLY, Chestnut	2	
	919074C	COVER ONLY, Beige	2	
	919077C	COVER ONLY, Shadow blue	2	
	919078C	COVER ONLY, Grey	2	
	923083C	COVER ONLY, New tan	2	
5	722937	FOAM PAD	2	inside head restraint cover



Door Trim & Weather Seal

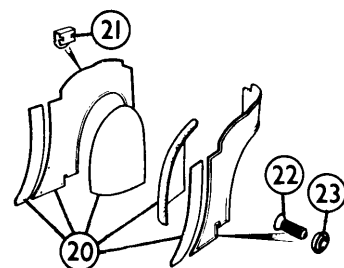
1	TKP511	TRIM PANELS, Black, (pair)	1	1500 to FH113678
	TKP7521	TRIM PANELS, Black, (pair)	1	1500 from FH113679
	TKP7514	TRIM PANELS, Beige, (pair)	1	
	TKP7512	TRIM PANELS, Matador red, (pair)	1	
	TKP7519	TRIM PANELS, New tan, (pair)	1	
	TKP7513	TRIM PANELS, Chestnut, (pair)	1	
	TKP7517	TRIM PANELS, Shadow blue, (pair)	1	
	TKP7518	TRIM PANELS, Grey, (pair)	1	
2	GHF1230	CLIP, trim panel to door	28	
3	GHF1232	CLIP, trim panel to door	16	top edge
4	727581	TRIM, waist rail, LH, Black	1	
	727591	TRIM, waist rail, RH, Black	1	
5	822559	MEMBRANE, large	2	} Waterproofing
6	632200	MEMBRANE, small	2	
7	620913*	SEAL, 'A' post to side window	2	
	620403*	SEAL, 'A' post to side window	2	
*Note: 620913 is a thick soft sponge seal, 620403 is a soft, thin walled moulding. Omission of these parts will quickly result in a soggy backside and in the longer term, rotten floorpan(s). The original item is 620403; the alternative 620913 may be required for larger 'A' post to window gaps.				
8	631321	SEAL, door aperture	2	'Furflex'



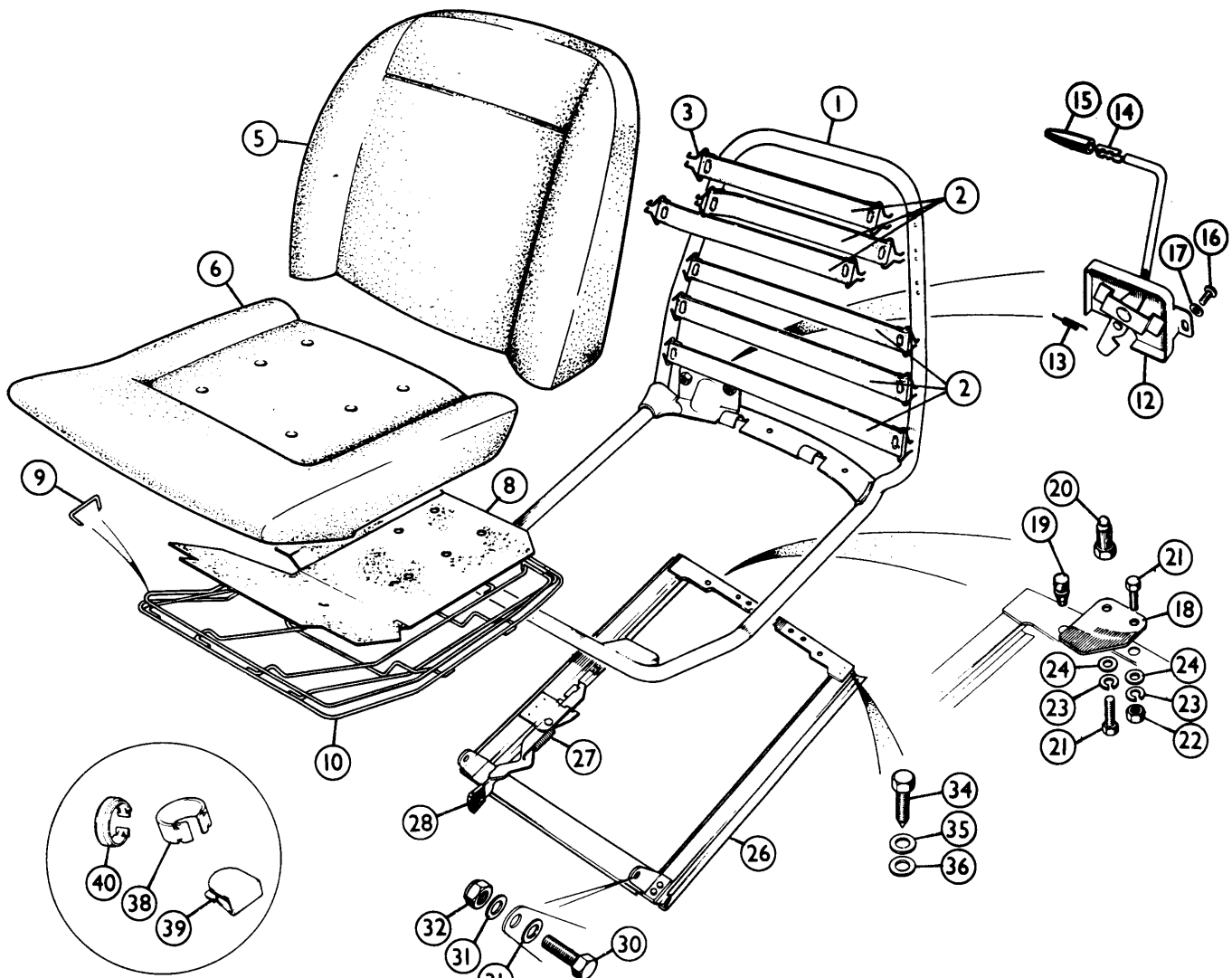
Rear Quarter Trim

Each quarter panel and wheel arch cover set includes both 'B' post covers, both quarter panels and both wheel arch covers, plus clips, screws and cup washers to fit.

20	TKP7611	QTR TRIM & WHEEL ARCH COVER SET, Black	1	Mk IV, 1500 to FH113678
	TKP7621	QTR TRIM & WHEEL ARCH COVER SET, Black	1	1500 from FH113679
	TKP7614	QTR TRIM & WHEEL ARCH COVER SET, Beige	1	
	TKP7612	QTR TRIM & WHEEL ARCH COVER SET, Matador red	1	
	TKP7613	QTR TRIM & WHEEL ARCH COVER SET, Chestnut	1	
	TKP7619	QTR TRIM & WHEEL ARCH COVER SET, New tan	1	
	TKP7617	QTR TRIM & WHEEL ARCH COVER SET, Shadow blue	1	
	TKP7618	QTR TRIM & WHEEL ARCH COVER SET, Grey	1	
21	ANK5046A	CLIP, retaining	4	
22	AD606053	SCREW, retaining quarter panel	6	
23	CD24152	CUP WASHER	6	
NI	TSK401	SCREW KIT (Trim panels)	1	

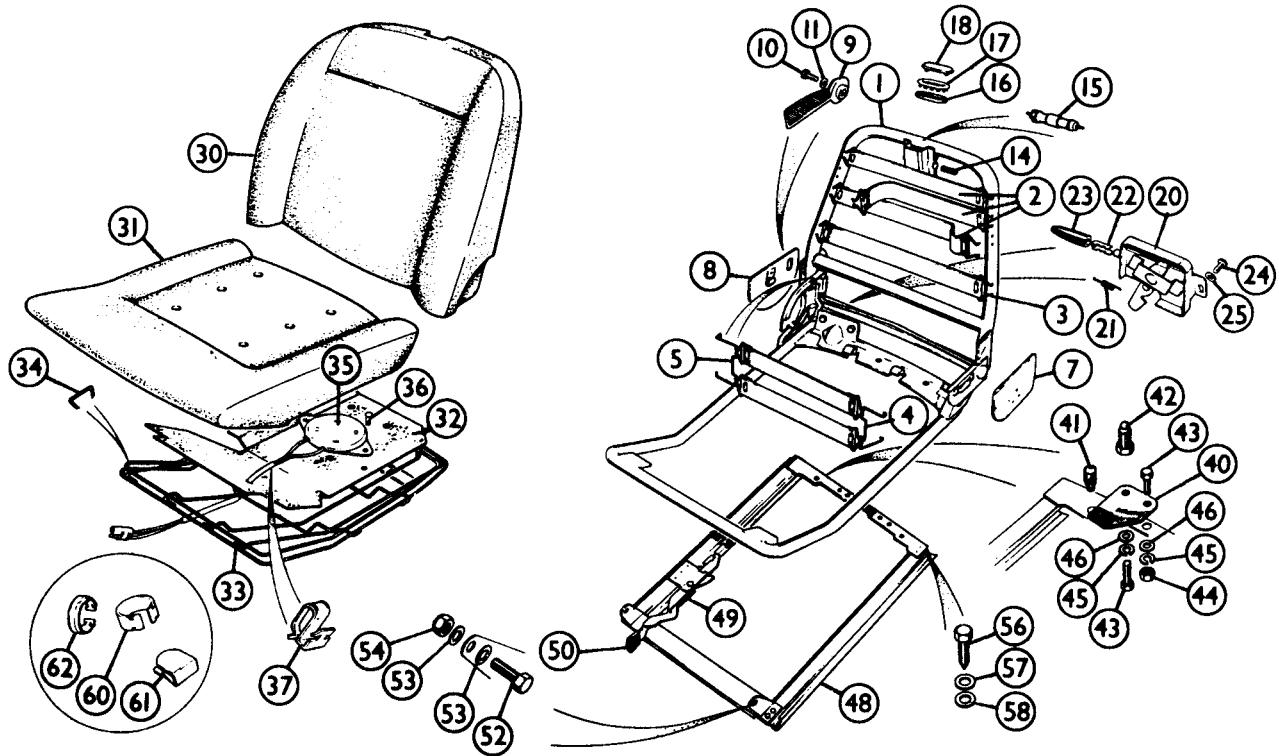


138 | Seat Foams & Frames (Non Reclining)



Ill. No	Part Number	Description	Qty. Req.	Details
Seat Components, Non-Reclining				
<i>For Seat Belts please refer to Accessories</i>				
1	913711	SEAT FRAME, LH	1	
	913712	SEAT FRAME, RH	1	
2	GAC6121X	WEBBING KIT	2	for one seat
3	621340	CLIP, web to frame	24	
5	913767	SQUAB FOAM, LH	1	
	913768	SQUAB FOAM, RH	1	
6	913847	BASE FOAM, LH	1	including board (item 8)
	913848	BASE FOAM, RH	1	
8	818951	BOARD, cushion base, LH	1	
	818961	BOARD, cushion base, RH	1	
9	561785	HOG RING, cover attaching	64	
10	911273	WIRE BASKET, cushion, LH	1	
	911274	WIRE BASKET, cushion, RH	1	
12	724024	CATCH, tilt restraining, LH	1	
	724025	CATCH, tilt restraining, RH	1	
13	624618	SPRING, for safety catch	2	
14	621776	FERRULE, 'clawed'	2	seat release knob
15	621458	KNOB, tilt restraining lever	2	
16	AR610042	SCREW, self tapping	4	catch to seat frame (Alternatives)
	PT504	SCREW, 10-32 UNF threaded	4	
17	WL700101	WASHER, locking	4	
18	630801	STRIKER PLATE	2	restraint lever
19	624828	BUFFER, rubber	4	
20	630803	PEG, striker locating	2	replacement type
21	HU506	SCREW, strike plate	2/4	
22	HN2005	NUT, striker plate	2/4	

Ill. No	Part Number	Description	Qty. Req.	Details
23	WL700101	WASHER, locking	4	
24	WP124	WASHER, plain	4	
<i>Seat adjuster slides were supplied by two companies to Triumph. They were manufactured by either A. W. Chapman (AWC) or Hallam, Sleigh & Cheston (HSC), and are completely interchangeable as assemblies.</i>				
26	820535	SEAT SLIDE, LH (AWC)	1	
	818943	SEAT SLIDE, LH (HSC)	1	
	820536	SEAT SLIDE, RH (AWC)	1	
	818944	SEAT SLIDE, RH (HSC)	1	
27	626373	LEVER SPRING	2	AWC type only
	623200	LEVER SPRING	2	HSC type only
28	626370	RUBBER CAP, for adjusting lever	2	
30	SH605071	SCREW, seat pivot to slide	4	
31	GHF301	WASHER, plain	8	
32	GHF222	NUT, nyloc	4	
34	GHF101	SCREW,	8	slide & seat to floor
35	GHF300	WASHER, plain	8	
36	WP48	WASHER, backing	8	3/8" internal diameter
38	AHH9303	CIRCULAR CLIP	8	3/4" diameter
39	GHF1500	EDGE CLIP	12	
40	BD21962	TUBULAR CLIP	4	



Ill. No	Part Number	Description	Qty. Req.	Details
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Reclining Seat Components

For Seat Belts please refer to Accessories

To FH50000, only cars for the German market were fitted with reclining low back seats. There was no provision on these seats to fit head restraints. Customers re-covering this type of seat will need to fit a blanking plug in the cover where a head restraint would usually fit. (The plug part number is BD36610A)

1	913731	SEAT FRAME, reclining, LH	1	Germany only to FH50000 all markets from FH50001
	913732	SEAT FRAME, reclining, RH	1	
	916401	SEAT FRAME, reclining, LH	1	
	916402	SEAT FRAME, reclining, RH	1	
2	GAC6121X	WEBBING KIT (per seat)	2	1 kit for one seat
3	621340	CLIP, web to frame	24	
4	624607	WIRE CLIP, LH seat	1	
	624608	WIRE CLIP, RH seat	1	
5	624725	WIRE CLIP	2	
7	624893	BOARD, inner side, LH seat	1	
	624894	BOARD, inner side, RH seat	1	
8	624887	BOARD, outer side, LH seat	1	
	624888	BOARD, outer side, RH seat	1	
9	717105	HANDLE, reclining mechanism	2	
10	PT504	SCREW, handle	2	alternatives
	PMP308	SCREW, handle	2	
	53K205	SCREW, handle	2	
11	WL700101	WASHER, locking	2	Rollers are not interchangeable
14	CZA7413	ROLLER, friction metal type	2	
15	ZKC1271	ROLLER, friction nylon type	2	head restraint stalk eyelet
16	CZA4263	REINFORCING WASHER	2	
17	CZA4500	EYELET, for head restraint stalk	2	
18	BD36610A	BLANKING PLUG, black only	a/r	when head restraint not fitted
20	716143	CATCH, seat tilt restraining, LH	1	
	716144	CATCH, seat tilt restraining, RH	1	
21	624618	SPRING	2	
22	621776	FERRULE, 'clawed'	2	seat release knob
23	621458	KNOB, tilt restraining lever	2	
24	AR610042	SCREW, self tapping	4	alternative screws for catch to seat frame
	PMP308	SCREW, Chrome (10-32 UNF)	4	
	PT504	SCREW, Black (10-32 UNF)	4	
25	WL700101	WASHER, locking	4	
30	912983	SQUAB FOAM, LH	1	Germany only to FH50000 all markets from FH5000
	912984	SQUAB FOAM, RH	1	
	917599	SQUAB FOAM, LH	1	
	917600	SQUAB FOAM, RH1	1	

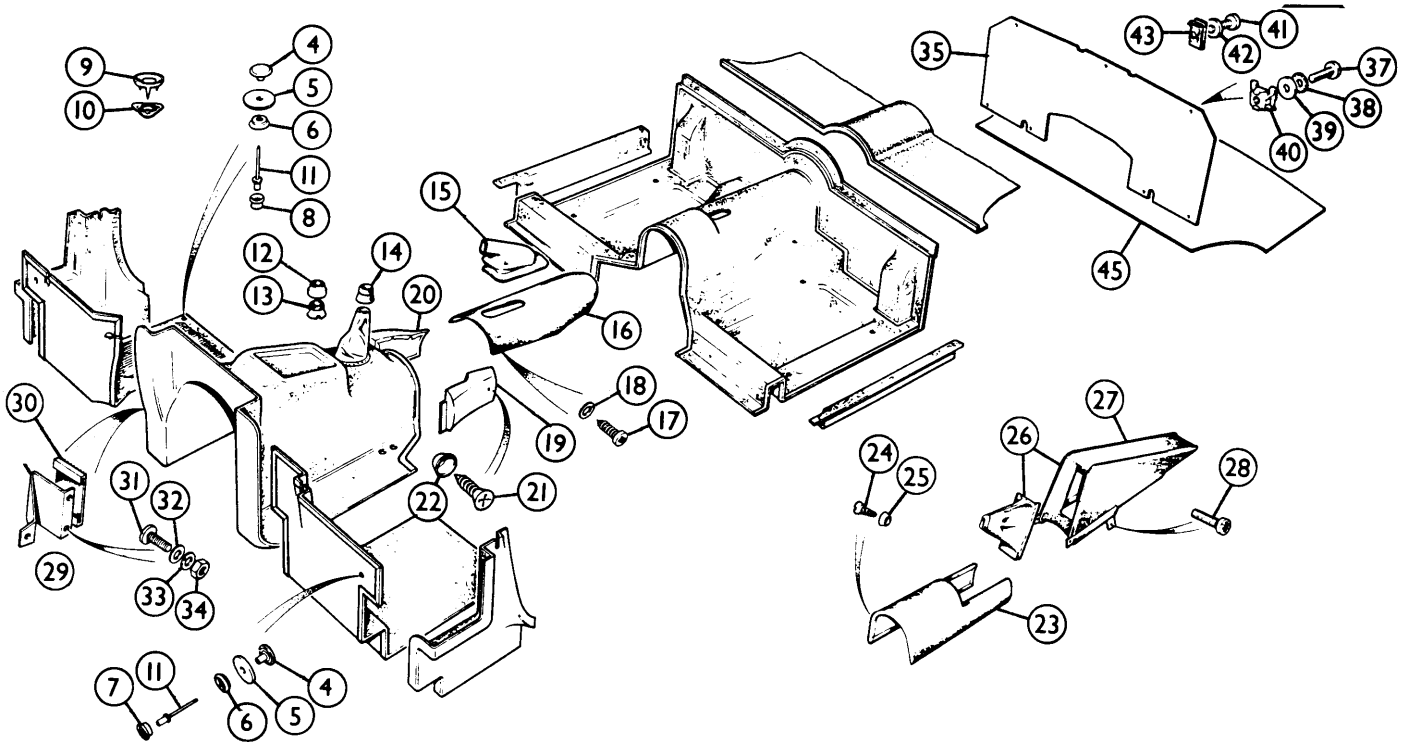
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31	913847	BASE FOAM, LH, (inc. item 32)	1	Germany only to FH50000 all markets from FH50001
	913848	BASE FOAM, RH, (inc. item 32)	1	
	917629	BASE FOAM, LH, (inc. item 32)	1	
	917630	BASE FOAM, RH, (inc. item 32)	1	
32	818951	BOARD, cushion base, LH	1	
	818961	BOARD, cushion base, RH	1	
33	911273	WIRE BASKET, LH	1	cushion, supporting
	911274	WIRE BASKET, RH	1	
34	561785	HOG RING, cover attaching	64	
35	158534	SWITCH & SENSOR PAD	2	seat belt warning, if fitted.
36	BRP906	RIVET, sensor pad locating	4	
37	615837	CLIP, wiring locating	2	
40	630801	STRIKER PLATE	2	tilt restraint lever catching
41	624828	BUFFER, rubber	4	
42	630803	PEG, striker	2	replacement type
43	HU506	SCREW, striker plate	2/4	
44	HN2005	NUT, striker plate	2/4	
45	WL700101	WASHER, locking	4	
46	WP124	WASHER, plain	4	

Seat adjuster slides were supplied by two companies to Triumph. They were manufactured by either A. W. Chapman (AWC) or Hallam, Sleight & Cheston (HSC), and are completely interchangeable as assemblies.

48	820535	SEAT SLIDE, LH (AWC)	1	alternatives
	818943	SEAT SLIDE, LH (HSC)	1	
	820536	SEAT SLIDE, RH (AWC)	1	alternatives
	818944	SEAT SLIDE, RH (HSC)	1	
49	626373	LEVER SPRING	2	AWC type only HSC type only
	623200	LEVER SPRING	2	
50	626370	RUBBER CAP, for adjusting lever	2	
52	SH605071	SCREW, seat pivot to slide	4	
53	GHF301	WASHER, plain	8	
54	GHF222	NUT, nyloc	4	
56	GHF101	SCREW, slide & seat to floor	8	
57	GHF300	WASHER, plain	8	
58	WP48	WASHER, backing	8	3/8" internal diameter
60	AHH9303	CIRCULAR CLIP	8	3/4" diameter
61	GHF1500	EDGE CLIP	12	
62	BD21962	TUBULAR CLIP	4	

140 | Carpet Sets & Boot Trim



iii. Part No	Part Number	Description	Qty. Req.	Details
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Carpet Sets & Boot Trim

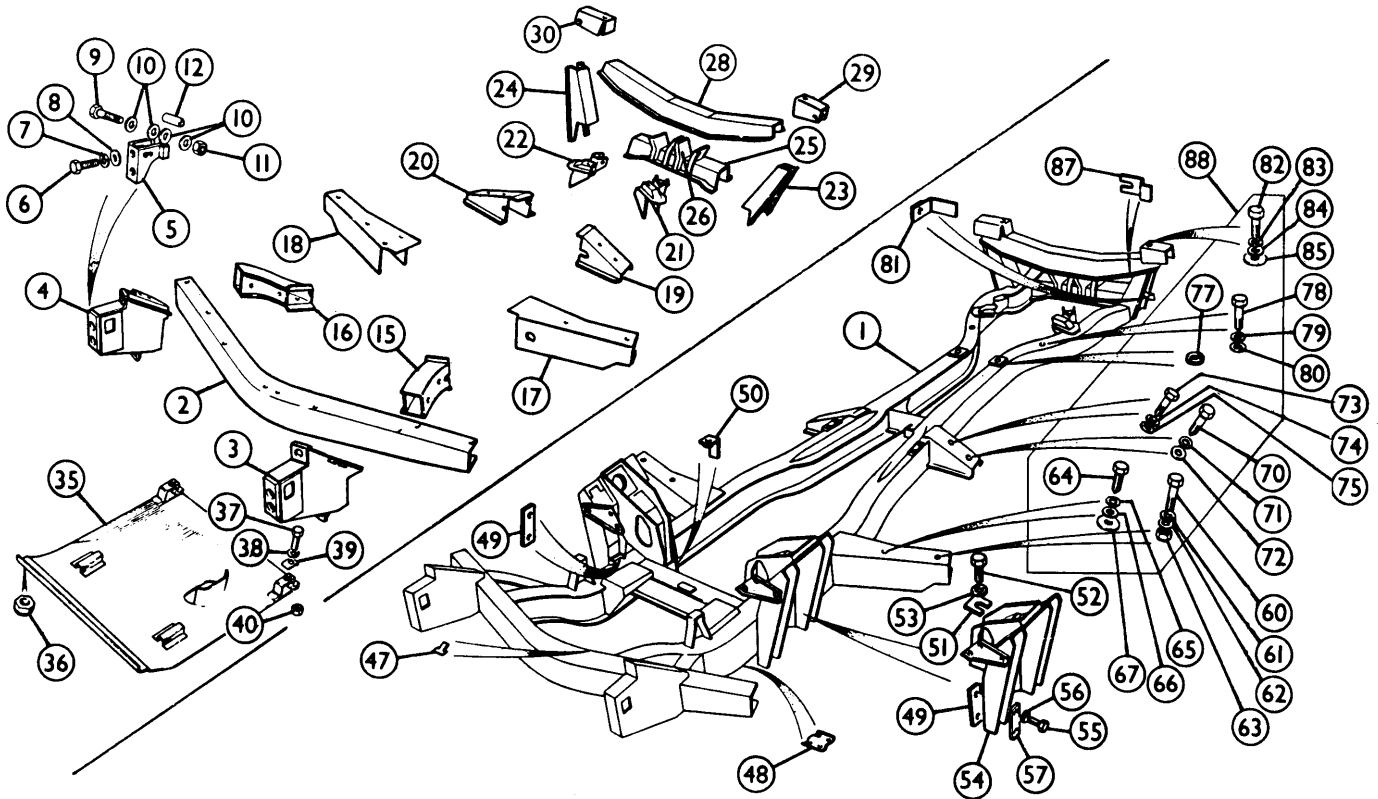
Spitfire carpets have always posed a problem for 'aftermarket' suppliers. The severely contoured floor of the cockpit necessitates a moulded carpet and to produce such a thing you need a mould, and quite a large one at that. Several of them in fact. Unfortunately moulding quality carpet is also of different construction compared to conventional 'laying' type, which adds to the complexity of production.

During the 1960's and 70's different specifications of carpet were in use to the ones marketed these days (which have to be flame resistant and rot-proof as well as mouldable). Even the type of construction has changed, so with the problems caused by trying to match new carpets with faded old ones, it can only be recommended to change complete sets. The good news is that moulded carpets are really easy to fit! The material currently used is tufted and as close to the original as can be found, and the sets fit both Mk IV's and 1500's.

1	CSA6611	CARPET SET, Black, moulded, Complete with fitted gear lever gaiter, ferrule, heel mats & rear deck carpet moulding	1	
		Universal carpet sets (CAR1) are tailored to suit tighter Spitfire rebuild budgets and are available in Black (other colours may be available to special order). They are non-moulded but include gear lever gaiter, handbrake gaiter and both heel mats.		
	CAR1	CARPET SET, Black (complete with gear lever gaiter, handbrake gaiter & heel mats)	1	non-moulded
4	569254	BUTTON, 'durable dot'	6	
5	WP126	WASHER, supporting socket	6	
6	7H9866	METAL SOCKET, 'durable dot'	6	
7	610624	METAL STUD, 'durable dot'	2	footwell carpet to bulkhead
8	554021	PLASTIC STUD, 'veltex'	4	footwell and cross member carpets to floor
9	14G8736	SPIKE RING	a/r	'invisible' alternative
10	CD23803	FASTENER	a/r	to items 4, 5 & 6
11	RU608123	RIVET, retaining stud	8	
12	618944	FERRULE, gaiter, chrome	1	Mk IV (all)
13	618945	INSERT, threaded	1	Mk IV non overdrive
	619812	INSERT, threaded	1	Mk IV overdrive
14	ZKC301	FERRULE, gaiter, black	1	1500
15	705789	GAITER, handbrake lever	1	
16	712536X	MOUNTING BOARD, less gaiter	1	Mk IV, 1500 to FH80000
17	AB608031	SCREW, self tapping	4	
18	WC702102	WASHER, plain	4	
19	726481	KNEE PAD, LH	1	Mk IV &
20	726491	KNEE PAD, RH	1	1500 to FH113678
	XKC2916PA	KNEE PAD, LH	1	1500
	XKC2917PA	KNEE PAD, RH	1	from FH113679
21	AD608063	SCREW, retaining knee pad	2	
22	CD24153	WASHER, cupped	2	

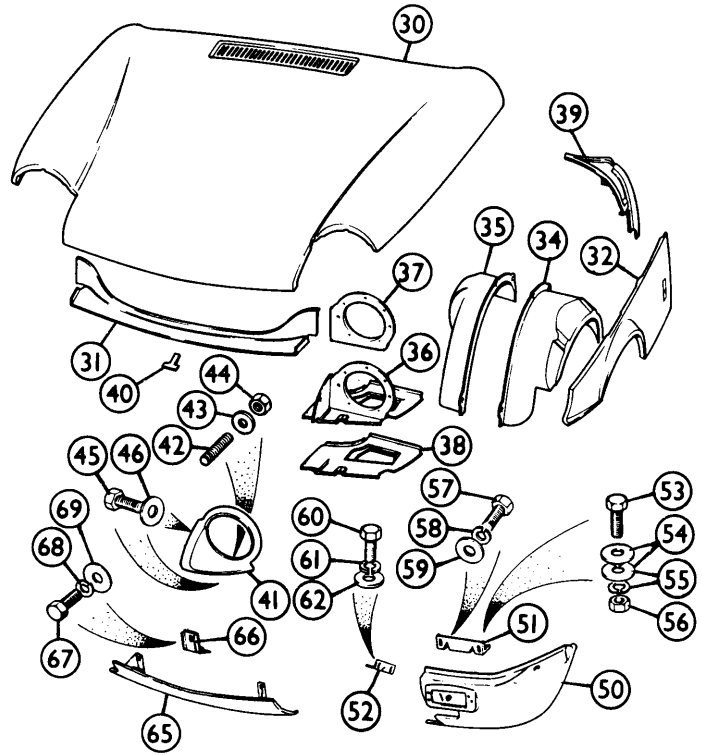
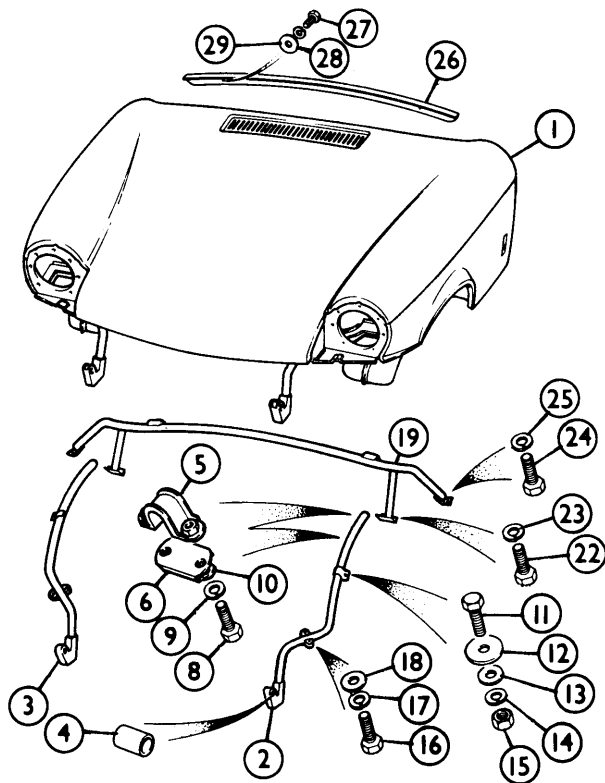
iii. Part No	Part Number	Description	Qty. Req.	Details
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23	822821	CENTRE COVER, Black	1	1500 from FH80000 to FH113678
	WKC3626PA	CENTRE COVER, Black	1	1500 from FH113679
	822824	CENTRE COVER, Beige	1	1500 from FH80000
24	AD610053	SCREW, centre cover	4	
25	625549	CUP WASHER, black	4	
26	822781	GAITER, Black (armrest & handbrake assembly)	1	1500 from FH80000 to FH113678
	XKC2887PA	GAITER, Black (armrest & handbrake assembly)	1	1500 from FH113679
	822784	GAITER, Beige (armrest & handbrake assembly)	1	1500 from FH80000
27	822801	COVER, armrest, Black	1	1500 from FH80000 to FH113678
	XKC2888PA	COVER, armrest, Black	1	1500 from FH113679
	822804	COVER, armrest, Beige	1	1500 from FH80000
The change of the black vinyl grain in the trim on 1977 & future Spitfires is visually very obvious. Special care should be taken to ensure that replacement items are of a grain which matches the original items to be retained in the car.				
28	GHF421	SCREW, retaining armrest	4	
29	613362	FOOT REST	1	
30	611822	RUBBER PAD, foot rest	1	positioned on driver's side of gearbox
31	PMZ308	SCREW	3	tunnel, FH-D only
32	WP31	WASHER, plain	3	
33	WL700101	WASHER, locking	3	
34	HN2005	NUT	3	
35	818885	BOARD, fuel tank cover (boot)	1	Mk IV; without boot lamp aperture
	YKC1431	BOARD, fuel tank cover (boot)	1	1500; with boot lamp aperture
37	509141	SCREW, trim board	7	
38	WE702101	WASHER, shakeproof	7	alternative to 41, 42 & 43
39	PWZ203	WASHER, plain	7	usually fitted to MkIV
40	FZ34044	CLIP NUT	7	
41	AB608054	SCREW, self tapping	7	
	509161	SCREW, UNF (alternative)	7	alternative to
42	PWZ203	WASHER, plain	7	37, 38, 39 & 40
43	FU25449	NUT, spire	7	usually fitted to 1500
45	809716	MAT, boot floor (original) Black	1	'hardura' felt material



Ill. No	Part Number	Description	Qty. Req.	Details
Chassis Frame				
	403066	CHASSIS FRAME	1	to FH60000
	PKC58	CHASSIS FRAME	1	from FH60001
	PKC117	CHASSIS FRAME	1	from FH75001
2	216684	CROSS MEMBER, front	1	Mk IV
	SBP144	CROSS MEMBER, front	1	1500
3	312510	SUPPORT, pivot bracket, LH	1	to FH60000
	RKC363	SUPPORT, pivot bracket, LH (pivot bracket with strengthened mounting)	1	from FH60001
4	312509	SUPPORT, pivot bracket, RH	1	to FH60000
	RKC362	SUPPORT, pivot bracket, RH (pivot bracket with strengthened mounting)	1	from FH60001
5	715805	BRACKET, adjusting pivot	2	
6	SH605071	SCREW, pivot bracket to support	4	
7	GHF332	WASHER, locking	4	
8	GHF315	WASHER, plain	4	
9	BH606151	BOLT, bonnet pivot tube mounting	2	
10	GHF302	WASHER, plain	8	
11	GHF273	NUT, nyloc; thin	2	
12	624509	BUSH, pivot tube mounting	2	
15	218527	GUSSET, front, LH	1	
16	218526	GUSSET, front, RH	1	
17	209399	OUTRIGGER, front, LH	1	
18	209398	OUTRIGGER, front, RH	1	
19	134400	OUTRIGGER, intermediate, LH	1	
20	134399	OUTRIGGER, intermediate, RH	1	
21	219152	BRACKET, LH (rear axle mounting to hand brake guide)	1	
22	219153	BRACKET, RH (rear axle mounting to hand brake guide)	1	
23	218982	BRACKET, shock absorber, LH	1	
24	219037	BRACKET, absorber, RH	1	
25		CROSS MEMBER, rear	1	not available separately
26	132435	BRACKET	2	rear axle mounting, rear
28	208943	CROSS MEMBER	1	rear shock abs mounting
29	132819	BRACKET, LH	1	rear body & shock abs mountings (fitted to rear shock abs cross member)
30	132754	BRACKET, RH	1	
35	312183	RADIATOR SKID SHIELD	1	
36	GHF272	NUT, nyloc	4	
37	SH606091	SCREW	2	

Ill. No	Part Number	Description	Qty. Req.	Details
38	GHF333	WASHER, locking	2	
39	144326	CLAMP PLATE, plate to chassis	2	
40	GHF202	NUT	2	
47	122747	CLAMP, for wiring	7	
48	155309	MOUNTING PLATE, spring	2	
49	129650	PLATE, tapped	2	suspension turret mounting
50	132105	BRACKET, LH	1	inner suspension
	132104	BRACKET, RH	1	support
51	128356	SHIM	a/r	front susp' camber adjustment
52	SH606091	SCREW	2	
53	WP20X	WASHER, plain	2	
54	305746	SUSPENSION TURRET, LH	1	
	305747	SUSPENSION TURRET, RH	1	
55	GHF103	SCREW, brackets to frame	8	
56	118977A	WASHER, locking	8	
57	123203	PLATE, strengthener	2	
60	BH605281	BOLT	2	
61	GHF315	WASHER, plain	2	
62	WP19	WASHER, plain	2	
63	GHF222	NUT, nyloc	2	
64	SH605101	SCREW, body	2	
65	GHF332	WASHER, locking	2	
66	GHF315	WASHER, plain	2	
67	613178	MOUNTING, block	2	
70	BH605241	BOLT	2	
71	GHF332	WASHER, locking	2	
72	GHF315	WASHER, plain	2	
73	BH605161	BOLT	2	
74	GHF332	WASHER, locking	2	
75	GHF315	WASHER, plain	2	
77	608836	WASHER, rubber (packing)	2	
78	BH605281	BOLT	2	
79	GHF332	WASHER, locking	2	
80	GHF315	WASHER, plain	2	
81	159733	BRACKET	2	rear brake hose mounting
82	GHF106	BOLT, rear body mounting	2	
83	GHF333	WASHER, locking	2	
84	WM59	WASHER, plain	2	
85	613178	MOUNTING BLOCK, rubber	2	
87	152602	MOUNTING	1	three way brake pipe union
88	574245	BODY MOUNTING KIT	1	



Ill. No	Part Number	Description	Qty. Req.	Details
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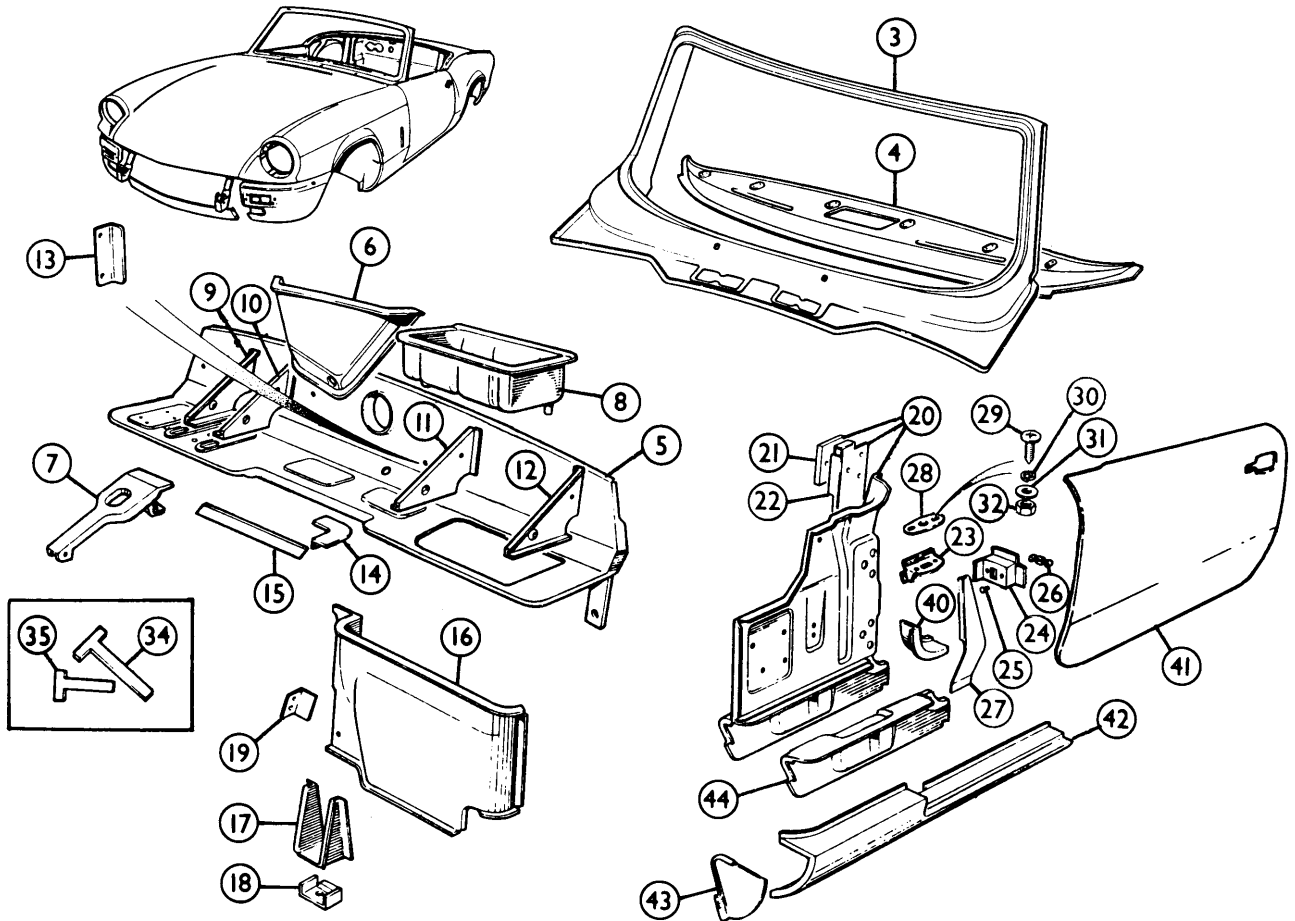
Bonnet & Front Valance

See also 'Performance & Tuning' in Accessories.

1	WKC3450	BONNET (supplied with bonnet irons, but not headlamp covers)	1	
2	911107	BONNET IRON, LH	1	
3	911108	BONNET IRON, RH	1	
4	624508	PIVOT SLEEVE	2	Pivot sleeves are supplied welded to each bonnet iron. The part that wears most is the bush (624509) in each pivot; see chassis frame for details.
5	607869	CLAMP BRACKET	4	
6	607711	CLAMP PLATE	4	
8	GHF117	SCREW, clamp plate	8	
9	GHF331	WASHER, locking	8	
10	GHF301	WASHER, plain	8	
11	GHF117	SCREW, bonnet iron to arch	2	
12	GHF314	WASHER, plain	2	1" external diameter
13	PWZ204	WASHER, plain	2	0.75" external diameter
14	GHF331	WASHER, locking	2	
15	GHF200	NUT	2	
16	GHF117	SCREW, front mounting	4	
17	GHF331	WASHER, locking	4	
18	PWZ204	WASHER, plain	4	
19	WKC3414	BONNET SUPPORT	1	This also has additional pick up points for supports which are only used on USA spec cars.
22	SH604041	SCREW, support to wheel arch	4	
23	GHF331	WASHER, locking	4	
24	SH604041	SCREW, support to wing lip	4	
25	GHF331	WASHER, locking	4	
NI	TT7364	BONNET LOCKS, pair	1	These TriumphTune bonnet locks are fitted in front of the bonnet catch & lever with the inner chrome section to lock the bonnet when down. The pair of locks offer far greater security for those valuable under bonnet components.
26	722631	SUPPORT, bonnet rear	1	to mid 1977 (change point not known)
27	GHF117	SCREW	2	
28	GHF331	WASHER, locking	2	
29	WM57	WASHER, plain	2	
30	WKC1653	CENTRE PANEL, bonnet	1	
31	815010	FRONT REINFORCEMENT PANEL	1	
32	909663	FRONT WING, LH	1	original
	909664	FRONT WING, RH	1	
	TS32L	FRONT WING, LH	1	reproduction
	TS32R	FRONT WING, RH	1	
34	909351	WHEEL ARCH, outer, LH	1	original
	909352	WHEEL ARCH, outer, RH	1	

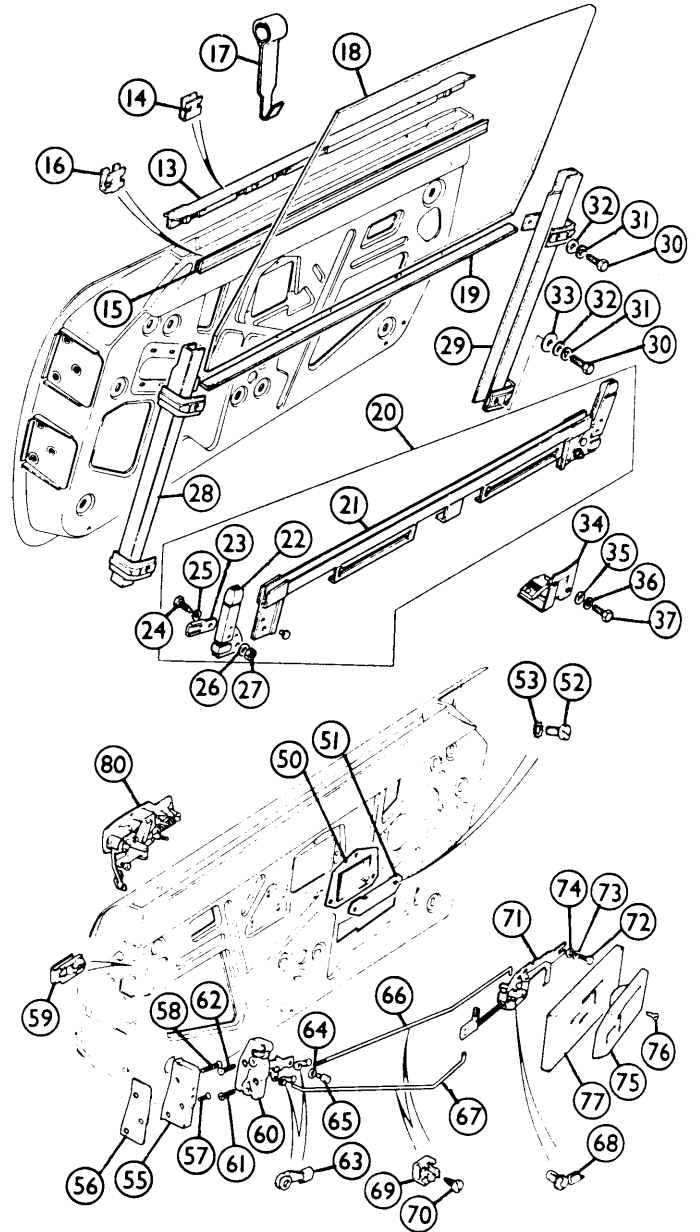
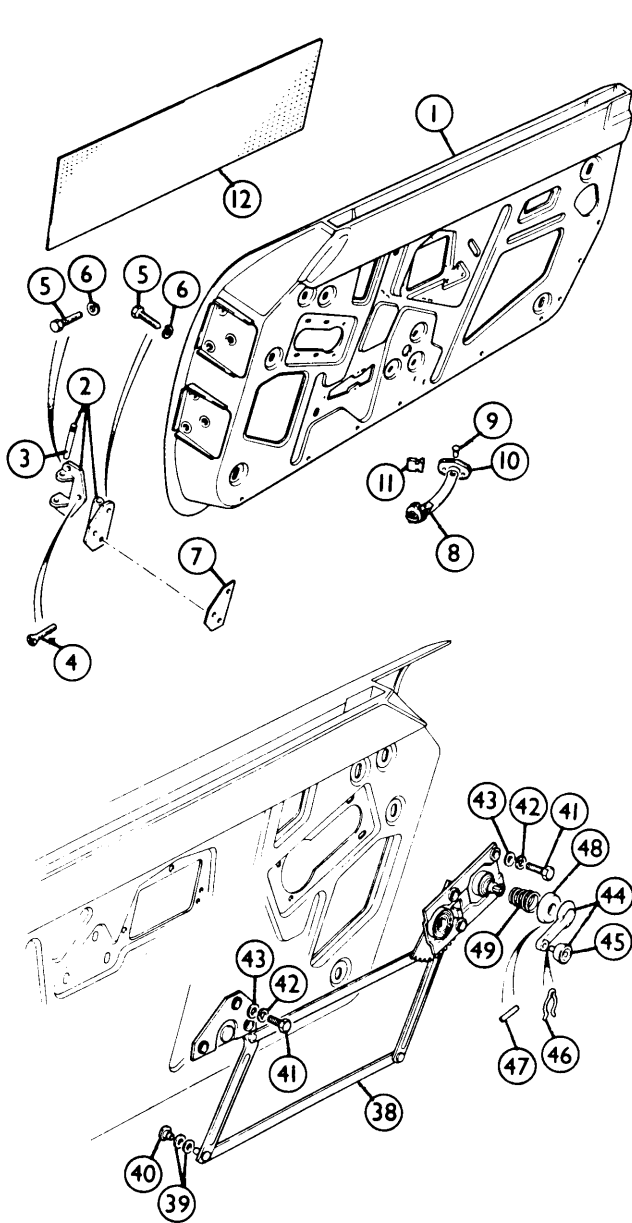
Ill. No	Part Number	Description	Qty. Req.	Details
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(34)	TS36L	WHEEL ARCH, outer, LH	1	reproduction
	TS36R	WHEEL ARCH, outer, RH	1	
35	909797	WHEEL ARCH, inner, LH	1	
	909798	WHEEL ARCH, inner, RH	1	
36	818871	H/LAMP PANEL & SUPPORT, LH	1	(includes items 37 & 38)
	818872	H/LAMP PANEL & SUPPORT, RH	1	
37	818871A	HEADLAMP PANEL, LH	1	
	818872A	HEADLAMP PANEL, RH	1	
38	TS39L	SUPPORT PANEL, lower, LH	1	
	TS39R	SUPPORT PANEL, lower, RH	1	
39	WKC4815	MOUNTING, bonnet locator, LH	1	
	WKC4816	MOUNTING, bonnet locator, RH	1	
40	603559	CLIP, wiring	4	across front return panel
41	911101	HEADLAMP COVER, diecast, LH	1	primed finish
	911102	HEADLAMP COVER, diecast, RH	1	
42	106765R	STUD, headlamp cover securing	2	cut to fit
43	WM57	WASHER, plain	2	
44	GHF200	NUT	2	
45	SH604031	SCREW, headlamp cover	4	
46	GHF300	WASHER, plain	4	
50	815391	QUARTER VALANCE, LH	1	genuine
	815392	QUARTER VALANCE, RH	1	
	TS31L	QUARTER VALANCE, LH	1	reproduction
	TS31R	QUARTER VALANCE, RH	1	
	815391FK	BRACKET KIT, quarter valance	2	one of each items 51 & 52
51	624419	SUPPORT BRACKET (quarter valance to front chassis crossmember)	2	
52	624590	SUPPORT BRACKET (quarter valance to bonnet pivot bracket)	2	
53	SH605051	SCREW, bracket to chassis	4	
54	GHF315	WASHER, plain	8	above & below chassis member
55	GHF332	WASHER, locking	4	
56	GHF201	NUT	4	
57	SH605051	SCREW,	4	bracket to qtr valance
58	GHF332	WASHER, locking	4	
59	GHF315	WASHER, plain	4	
60	GHF117	SCREW,	8	bracket to qtr valance
61	GHF331	WASHER, locking	8	
62	WM57	WASHER, plain	8	
65	715889	FRONT VALANCE CENTRE	1	
66	624601	BRACKET, front valance centre	1	not applicable when spoiler
67	SH604051	SCREW, front valance mounting	4	is fitted
68	GHF331	WASHER, locking	4	
69	WM57	WASHER, plain	4	



Ill. No	Part Number	Description	Qty. Req.	Details
Centre Body Panels				
3	815397	WINDSCREEN FRAME	1	
4	908521	FASCIA TOP PANEL	1	
5	813945	BULKHEAD PANEL	1	RHD
	813944	BULKHEAD PANEL	1	LHD
6	813946	PLENUM CHAMBER, heater entry	1	
7	809785	SUPPORT, steering column	1	RHD
	809786	SUPPORT, steering column	1	LHD
8	806707	BATTERY BOX	1	RHD
	807030	BATTERY BOX	1	LHD
9	621707	BRACKET, outer, RHD	1	to (c) FH80000
	613685	BRACKET, outer, LHD	1	
10	612981	BRACKET, inner, RHD	1	
	612706	BRACKET, inner, LHD	1	
11	613687	BRACKET, battery, inner	1	
12	613686	BRACKET, battery, outer	1	
13	621686	BRACKET, overdrive relay	1	by battery box (if fitted)
14	611665	CORNER SUPPORT, bulkhead	2	
15	619482	CENTRE SUPPORT, bulkhead	1	
16	818785	FRONT PANEL, bulkhead, LH	1	RHD models
	818786	FRONT PANEL, bulkhead, RH	1	LHD models
	809740	FRONT PANEL, bulkhead, LH	1	
	818780	FRONT PANEL, bulkhead, RH	1	
1				
7	607621	BRACKET, body mounting	2	
18	607637	STRENGTHENER, body mounting	2	
19	615706	BRACKET, valance	2	weld to bulkhead
20	912979	'A' POST, LH	1	RHD; includes items
	912980	'A' POST, RH	1	21, 22, 23, 24, 27
	912977	'A' POST, LH	1	LHD; includes items
	912978	'A' POST, RH	1	21, 22, 23, 24, 27

Ill. No	Part Number	Description	Qty. Req.	Details
21	607610	HINGE PLATE, tapped	4	
22	716149	HINGE PLATE SUPPORT, LH	1	
	716150	HINGE PLATE SUPPORT, RH	1	
23	612616	BRACKET, bonnet location	2	
24	613350	BRACKET, check strap, LH	1	
	613351	BRACKET, check strap, RH	1	
25	556141	RIVET, retaining clip	4	
26	603344	RETAINING CLIP, check strap	2	
27	715982	BONNET SLIDE, LH	1	
	715983	BONNET SLIDE, RH	1	
28	612617	LOCATOR PLATE	2	bonnet cone
29	ULC1757	SCREW, pan head	4	
30	WL700081	WASHER, locking	4	
31	WM54	WASHER, plain	4	
32	UCN116L	NUT, plain	4	
34	622150	CLIP, retaining wiring	4	
35	603559	CLIP, retaining wiring	10	
40	TS10L	'A' POST LOWER CORNER, LH	1	
	TS10R	'A' POST LOWER CORNER, RH	1	
41	TS12L	DOOR SKIN, LH	1	
	TS12R	DOOR SKIN, RH	1	
42				
	903097	OUTER SILL, LH, genuine	1	
	903098	OUTER SILL, RH, genuine	1	
	TS16L*	OUTER SILL, LH, aftermarket	1	
	TS16R*	OUTER SILL, RH, aftermarket	1	
*Unlike genuine items, aftermarket sills do not have the front upper radius that fits around the corner of the bulkhead.				
43	706422	END PLATE, sill, LH	1	
	706423	END PLATE, sill, RH	1	
44	TS52L	'A' POST, lower repair, LH	1	
	TS52R	'A' POST, lower repair, RH	1	



Ill. No	Part Number	Description	Qty. Req.	Details
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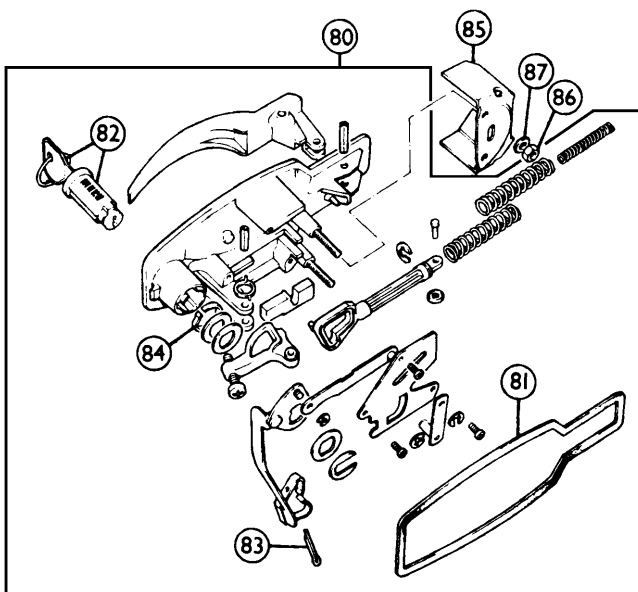
Doors & Fittings

1	915361	DOOR SHELL, LH	1	
	915362	DOOR SHELL, RH	1	
	TS12L	DOOR SKIN, LH	1	
	TS12R	DOOR SKIN, RH	1	
2	607824	HINGE (& Pin)	4	
3	607823	HINGE PIN	4	
4	SF605061	SCREW, hinge to door	4	
5	SH605071	SCREW, hinge to door & 'A' post	20	
6	GHF332	WASHER, locking	20	
7	610042	HINGE PACKING	4	
<i>Use sealant when fitting the packing pieces to ensure against water ingress.</i>				
8	613024	CHECK STRAP, door	2	
9	613239	PIN KIT, (clevis pin, washer & clip)	2	
<i>While the check straps were originally attached by rivets, the clevis pin arrangement offered here is more satisfactory (and easier to install).</i>				
10	602821	SEAL, check strap	2	
11	613169	CLIP, seal to 'A' post	4	
12	CHM228	PAD, sound deadening	2	
13	612792	WEATHERSTRIP, outer	2	door glass
14	613169	CLIP, outer	14	weather strip to door
15	612806	WEATHERSTRIP, inner	2	door glass
16	GHF1582	CLIP, inner	10	weather strip to door

Ill. No	Part Number	Description	Qty. Req.	Details
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17	GAC9994X	HOOKEED TOOL	1	for fitting weatherstrip clips
<i>Apart from preventing water entering the door shells, new weatherstrips are a very efficient anti-rattle system for the door glasses.</i>				
18	WKC4647	DOOR GLASS	2	
19	617166	RUBBER STRIP	2	between glass & channel
20	706789	CHANNEL, lower, LH	1	
	706790	CHANNEL, lower, RH	1	
21	TS57L	CHANNEL ONLY, LH	1	
	TS57R	CHANNEL ONLY, RH	1	
22	619509	GUIDE BLOCK & STIFFENER	4	
23	613326	SPACER BLOCK	4	
24	613049	SCREW, guide block fitting	4	
25	GHF331	WASHER, locking	4	
26	GHF300	WASHER, plain	4	
27	JN2107	HALF NUT	4	
28	706781	CHANNEL, window, front, LH	1	
	706782	CHANNEL, window, front, RH	1	
29	709387	CHANNEL, window, rear, LH	1	
	709388	CHANNEL, window, rear, RH	1	
30	SH604051	SCREW, front & rear channels	8	
31	GHF331	WASHER, locking	8	
32	WP139	WASHER, plain, small	8	
33	GHF314	WASHER, plain, large	4	on lower bolts only
34	613378	STOP BRACKET, lower	2	door drop glass
35	PWZ203	WASHER, plain	4	

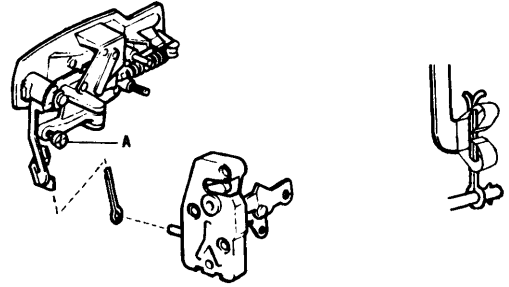
Ill. No	Part Number	Description	Qty. Req.	Details
36	WL700101	WASHER, locking	4	
37	HU505	SCREW, attaching stop bracket	4	
38	911271	REGULATOR, window winder, LH	1	
	911272	REGULATOR, window winder, RH	1	
39	607902	WASHER, leather	8	both sides of lower channel
40	607867	CLIP, regulator stud	4	
41	SH604041	SCREW, regulator	14	
42	GHF331	WASHER, locking	14	
43	GHF300	WASHER, plain	14	
44	621811	HANDLE, window winder	2	
45	621768	PLASTIC KNOB	2	
46	NKC513	CIRCLIP, retaining knob	2	
47	ALH1527	PIN, locating handle	2	
48	623843	ESCUTCHEON, black, (handle)	2	
49	603382	SPRING, escutcheon tensioning	2	
50	716011	ESCUTCHEON	2	interior door handle
51	624634	FINGER PULL, stainless	2	
52	PT504	SCREW	6	
53	WE702101	WASHER, shakeproof	6	
55	CZA3310	STRIKER PLATE, RH	1	
	CZA3311	STRIKER PLATE, LH	1	
56	BHH341	PACKING, striker plate, 0.064"	a/r	
	BHH342	PACKING, striker plate, 0.032"	a/r	
	ZKC6167	PACKING, striker plate, 0.010"	a/r	
57	ZKC38	SCREW, countersunk, short	4	
		(striker plate to 'B' post middle & lower positions)		
58	ZKC37	SCREW, long,	2	striker plate to 'B' post, upper
59	518454X	CAGED NUT, 1/4" UNF	2	
60	914695	DOOR LOCK, LH	1	
	914696	DOOR LOCK, RH	1	
61	ZKC37	SCREW, long, lock to door	2	lower position only
62	ZKC36	SCREW, short, lock to door	4	middle & upper positions
63	GHF1180	CLIP & BUSH,	4	rod securing
64	WP3	WASHER, plain	2	
65	630079	PIN	2	rod securing
		(remove when adjusting operating rod)		
66	819809	ADJUSTABLE ROD, lock operating	2	
67	819807	ROD, remote control, LH	1	lock mechanism
	819808	ROD, remote control, RH	1	
68	937609	CLIP & BUSH, rod securing	2	
69	364480	ROD GUIDE	4	
70	577064	SCREW, guide securing	4	
71	819801	HANDLE, door (interior), LH	1	
	819802	HANDLE, door (interior), RH	1	
72	SH604041	SCREW, securing door handle	6	
73	GHF331	WASHER, locking	6	
74	GHF300	WASHER, plain	6	
75	819803	BEZEL, interior handle, LH	1	
	819804	BEZEL, interior handle, RH	1	
76	509278	SCREW, bezel securing	2	
77	632104	FOAM PACKING	2	



Ill. No	Part Number	Description	Qty. Req.	Details
80	915633	HANDLE, exterior, Chrome, LH	1	to (c) FH10020
	915634	HANDLE, exterior, Chrome, RH	1	
	915633/4	HANDLES, pair, Chrome	2	
	YKC2837	HANDLE, exterior, Black, LH	1	from (c) FH10021
	YKC2838	HANDLE, exterior, Black, RH	1	
	YKC2837/8	HANDLES, pair, Black	1	

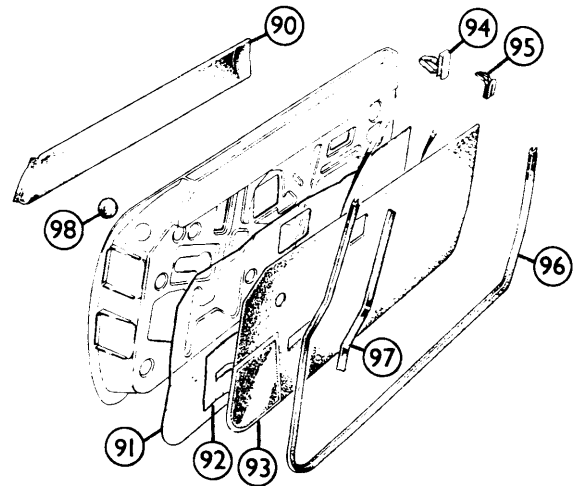
While door handles are available individually, it is preferable to replace them in pairs to ensure that one key still operates both doors.

The unlisted door lock components in the illustration simply show the relative positions of the available parts. When fitting a new door handle we suggest you shape the split pin (item 83) to fit the shaft & then refit to the exterior door handle.



Also, once installed, adjust screw 'A' to give clearance in the lock plate. The height of the split pin has to be adjusted to make the linkage work correctly between inner and outer locks, once correct, open tails of split pin slightly to lock into position.

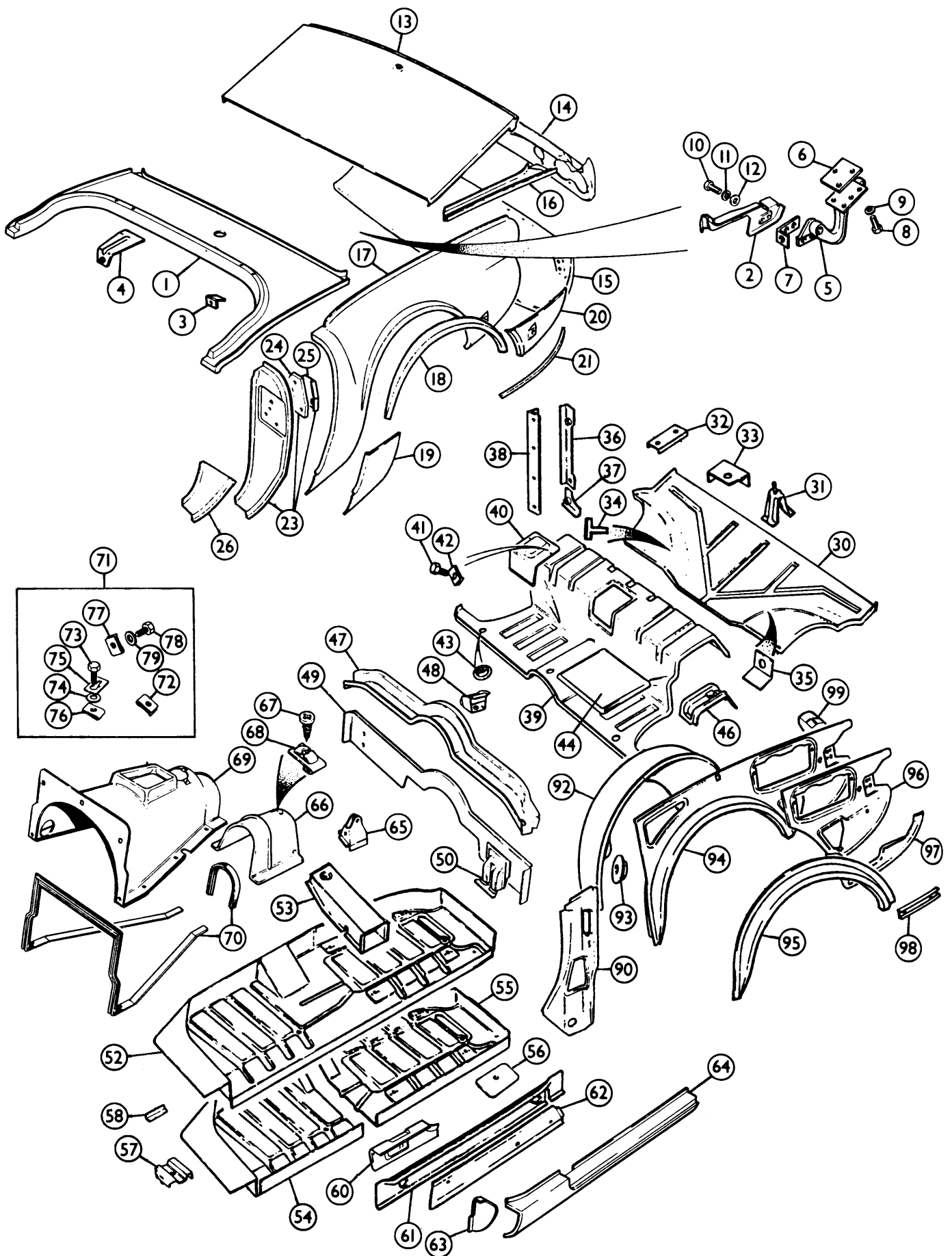
81	577473A	GASKET, handle to door	1	
82	576469	LOCK BARREL	2	single, with two keys
	576469P	LOCK BARRELS	1	matched pair, with two keys
83	GHF505	SPLIT PIN	2	
84	520049	SPRING RETAINER, lock barrel	2	
85	724192	CLAMP BRACKET, door handle	2	
86	GHF206	NUT	4	
87	WL700101	WASHER, locking	4	



90	727581	MOULDED COVER, waist rail	1	Black, LH
	727591	MOULDED COVER, waist rail	1	Black, RH
91	822559	WATER CURTAIN	2	
92	632200	WATER CURTAIN, inner handle	2	
93		TRIM PANEL, door lining	2	see page 137
94	GHF1230	CLIP, trim panel to door	28	
95	GHF1232	CLIP, top edge of trim to door	16	
96	631321	SEAL (pre-cut)	2	Black felt & rubber
	724031M	SEAL (per metre)	a/r	(alternatives)

While black was the only draught excluder colour originally used, we can satisfy proud owners of cars with interiors in colours other than black with the following. By the way, when ordering draught excluder which is sold by the metre, five metres are required for two door apertures.

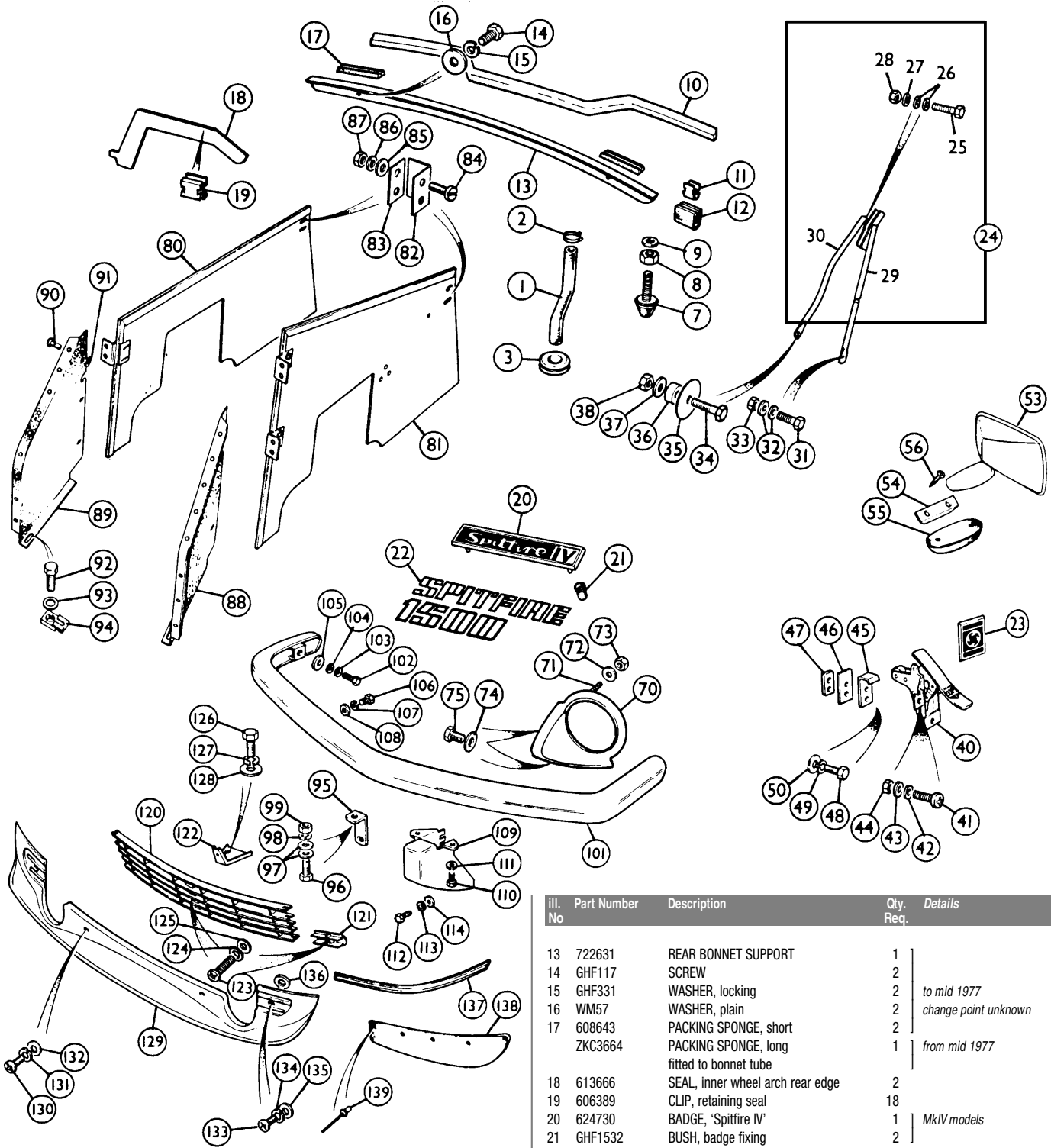
DER5001M	SEAL, Red, felt/rubber	a/r	(per metre)	
DEL3220M	SEAL, Blue, woven/rubber	a/r		
KGF817M	SEAL, Grey, nylon/rubber	a/r		
97	620403	SEAL	2	(front edge of door glass fitted to windscreen frame)



Ill. No	Part Number	Description	Qty. Req.	Details
Rear Body Panels				
1	815398	CENTRE DECK	1	
2	814733	BRACKET, hinge, LH	1	
	814734	BRACKET, hinge, RH	1	
3	624564	BRACKET, fuel tank trim	3	
4	715567	BRACKET, deck to fuel tank	1	centre mounting
5	YKC1355	HINGE, LH	1	
	715526	HINGE, RH	1	
6	630767	PACKING, hinge to boot lid	a/r	
7	ZKC1267	BRACKET, boot lamp switch	1	
8	SH605051	SCREW, boot lid	6	
9	GHF332	WASHER, locking	6	
10	SH605061	SCREW, hinge	4	
11	GHF332	WASHER, locking	4	
12	WP139	WASHER, plain	4	
13	911327	BOOT LID, genuine	1	
	911327z	BOOT LID, reproduction	1	
14	716182B	LIGHT PANEL	1	
15	908970	LOWER PANEL, genuine	1	
16	813893	DRAIN CHANNEL, LH	1	
	813894	DRAIN CHANNEL, RH	1	
17	WKC2466	REAR WING, LH	1	Genuine
	WKC2467	REAR WING, RH	1	
17	TS33L	REAR WING, LH	1	reproduction
	TS33R	REAR WING, RH	1	
18	SBP137	LIP REPAIR, rear wing	1	LH
	SBP138	LIP REPAIR, rear wing	1	RH
19	TS20L	REPAIR Panel, sill extension	1	LH
	TS20R	REPAIR Panel, sill extension	1	RH
20	TS21L	REPAIR Panel, lower rear wing	1	LH
	TS21R	REPAIR Panel, lower rear wing	1	RH
21	715821	BEADING, rear lower wing	2	
		(weld to flange between wing and rear lower panel)		
23	813365	'B' POST, LH	1	
	813366	'B' POST, RH	1	
24	619099	TAPPED PLATE, 'B' post	1	LH
	619100	TAPPED PLATE, 'B' post	1	RH
25	618274	RETAINER, for tapped plate	1	LH
	618275	RETAINER, for tapped plate	1	RH
26	SBP152	'B' POST LOWER REPAIR	1	LH
	SBP153	'B' POST LOWER REPAIR	1	RH
30	815279	BOOT FLOOR PANEL	1	genuine
	TS30	BOOT FLOOR PANEL	1	reproduction
31	627196	BRACKET, spare wheel mount	1	
32	615810	SUPPORT, lower bumper	2	
		(included as part of boot floor panel TS30)		
33	613478	BRACKET, RH exhaust support	1	
34	603559	CLIP, wiring harness	4	
35	613579	RETAINER, tank board	4	
36	715673	Mounting, fuel tank, LH	1	
	715674	Mounting, fuel tank, RH	1	
37	613658	Mounting, fuel tank, lower, LH	1	
	613659	Mounting, fuel tank, lower, RH	1	
38	621438	BRACKET	2	wheel arch to top deck
39	903132	REAR SEAT PAN	1	
40	613812	PANEL, centre (axle cover)	1	
41	7H8505	SCREW, panel retaining	2	
42	FU2585	CLIP	2	
43	ZKC2538	BLANKING PLUG, metal & plastic	3	paint drain
	CFP1000	BLANKING PLUG, plastic	3	(alternatives)
44	CHM228	PAD, sound deadening	1	one per car
46	706159	REINFORCEMENT, LH	1	body
	706160	REINFORCEMENT, RH	1	mounting
47	807104	SUPPORT PANEL, heel-board	1	
48	631592	BRACKET, handbrake relay	1	
49	903134	HEEL-BOARD PANEL	1	
50	623796	BRACKET, radius arm	2	

The Spitfire floor panel was originally a one piece pressing (908900); it is now offered in two halves. Full length floor panels have a return lip designed for fitment to the inner sills, as original. Half length floor panels are designed to repair the existing floor and fit to inner sills as required without having to necessarily replace the inner sill section.

Ill. No	Part Number	Description	Qty. Req.	Details
53	TS25	CROSS MEMBER, floor	2	
54	TS23L	FLOOR, half length, front, LH	1	
	TS23R	FLOOR, half length, front, RH	1	
55	TS24L	FLOOR, half length, rear, LH	1	
	TS24R	FLOOR, half length, rear, RH	1	
56	615980	ANCHOR NUT, seat belt	2	
57	612527	STRENGTHENER, front floor, LH	1	
	612528	STRENGTHENER, front floor, RH	1	
58	612577	Strengtheners, front floor	2	
60	TS52L	'A' POST, lower section, LH	1	
	TS52R	'A' POST, lower section, RH	1	
61	806638	INNER SILL PANEL, LH	1	
	806639	INNER SILL PANEL, RH	1	
62	806634	BAFFLE PLATE, LH	1	
	806635	BAFFLE PLATE, RH	1	
63	706422	END PLATE, sill LH	1	
	706423	END PLATE, sill RH	1	
64	903097	OUTER SILL, genuine, LH	1	
	903098	OUTER SILL, genuine, RH	1	
	TS16L	OUTER SILL, reproduction, LH	1	
	TS16R	OUTER SILL, reproduction, RH	1	
65	624406	BRACKET, hand brake	1	
66	XKC1486	COVER, front prop' shaft joint	1	1500 models
		BL always listed the above part for 1500 models but did not admit to a production modification on the main floor assembly (i.e.: it was a cut to fit joint) for 1500 single rail models.		
67	AB608031	SCREW, cover retaining	3	
68	GHF712	SPIRE NUT	3	
69	XKC1673	GEARBOX COVER, board	1	original
	TT7325	GEARBOX COVER, fibre-glass	1	aftermarket
70	713569GS	SEAL SET, gearbox cover	1	universal
71	YKC1673FK	FITTING KIT, gearbox cover	1	includes hardware only
72	FU25698	SPIRE NUT, gaiter retainer	4	
73	YH6507	SCREW, gearbox cover	8	
74	PWZ203	WASHER, plain	8	
75	608383	PLATE, shaped, gearbox	8	
76	FU2549	SPIRE CLIP, fitted to floor	8	
77	GHF712	SPIRE CLIP, gearbox cover	3	front
78	YH7406	SCREW, gearbox cover	3	upper
79	PWZ203	WASHER, plain	3	
90	715885	STRENGTHENER, LH	1	inner
	715886	STRENGTHENER, RH	1	'B' post
92	718716	INNER ARCH, LH	1	each arch includes
	718717	INNER ARCH, RH	1	1 x item 93
93	621112	CAPTIVE NUT, safety belt	2/4	(quantity of 2 for static seat belts; 4 for inertia reel)
94	909661	INNER WING & ARCH, LH	1	
	909662	INNER WING & ARCH, RH	1	
95	TS50L	ARCH REPAIR, inner wing, LH	1	
	TS50R	ARCH REPAIR, inner wing, RH	1	
96	SBP161	REAR REPAIR, full height, LH	1	inner wing
	SBP162	REAR REPAIR, full height, RH	1	
97	TS51L	REAR REPAIR, lower half, LH	1	
	TS51R	REAR REPAIR, lower half, RH	1	
98	624397	SUPPORT, rear bumper	2	
99	714990	BRACKET, boot lid stay	1	



iii. No	Part Number	Description	Qty. Req.	Details
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Front Body Exterior Trim & Fittings

1	612970	DRAIN TUBE	1	battery box to LH foot well
2	CS4012	CLAMP, hose securing	1	wire type
3	613025	GROMMET, drain tube to floor	1	
7	612962	CONE, bonnet locating	2	
8	NT605041	NUT, adjusting cone	2	
9	GHF315	WASHER, plain	2	
10	610675	SEAL, bulkhead to bonnet	1	
11	632030	CLIP, bonnet buffer	2	original
	613169	CLIP, bonnet buffer (deep)	2	alternative
12	632020	BONNET BUFFER	2	

The bonnet buffers are fitted to the rear edge of bonnet to restrict fore and aft movement when the vehicle is in motion.

iii. No	Part Number	Description	Qty. Req.	Details
13	722631	REAR BONNET SUPPORT	1	
14	GHF117	SCREW	2	
15	GHF331	WASHER, locking	2	to mid 1977
16	WM57	WASHER, plain	2	change point unknown
17	608643	PACKING SPONGE, short	2	
	ZKC3664	PACKING SPONGE, long	1	from mid 1977
		fitted to bonnet tube		
18	613666	SEAL, inner wheel arch rear edge	2	
19	606389	CLIP, retaining seal	18	
20	624730	BADGE, 'Spitfire IV'	1	MkIV models
21	GHF1532	BUSH, badge fixing	2	
22	YKC1454	DECAL, black	1	1500
	YKC1455	DECAL, aluminium	1	
23	725525	HOUSE BADGE, 'BL', (self adhesive, silver on blue)	2	alternatives
	CZH2717	HOUSE BADGE, 'BL', (self adhesive, blue on silver)	2	
Originally the Mk IV & the 1500 should only have used badge 725525, though some early models appear to have been released with the CZH2717 badge fitted.				
24	SBP154SS	BONNET STAY, stainless steel (supplied as a kit, with pivot bolt, ready to fit)	1	
25	BH604101	BOLT, pivot	1	
26	WP42	WASHER, spacing on pivot bolt	2	
27	GHF300	WASHER, plain	1	
28	GHF221	NUT, nyloc	1	
29	613751	STAY, bonnet, lower	1	
30	613045	STAY, bonnet, upper	1	
31	SH604041	SCREW,	1	lower stay to suspension turret

Ill. No	Part Number	Description	Qty. Req.	Details
32	GHF300	WASHER, plain	2	
33	GHF221	NUT, nyloc	1	
34	GHF101	SCREW, upper stay to inner arch	1	
35	GHF314	WASHER, plain, large	1	
36	AHH6939	SPACER	1	
37	GHF300	WASHER, plain	1	
38	GHF221	NUT, nyloc	1	
40	607663	BONNET CATCH	2	
41	PMZ308	SCREW, catch	6	
42	PWZ203	WASHER, plain	6	
43	WF703081	WASHER, shakeproof	6	
44	HN2005	NUT	6	
45	607664	CATCH PLATE, on bulkhead	2	
46	613474	PAD, sealing below plate	2	
47	609931	PLATE, tapped, inside bulkhead	2	
48	GHF117	SCREW	4	
49	GHF321	WASHER, shakeproof	4	
50	WP127	WASHER, plain	4	
	TT7364	BONNET LOCKS, pair	1	

These TriumphTune bonnet locks are fitted in front of the bonnet catch & lever with the inner chrome section to lock the bonnet when down. The pair offer far greater security for those valuable under bonnet components.

53	GAM258X	MIRROR, flat, clear, RH	1	polished
	GAM259X	MIRROR, flat, clear, LH	1	
	GAM261X	MIRROR, flat, clear, RH	1	black
	GAM262X	MIRROR, flat, clear, LH	1	
	GAM215A	MIRROR, convex glass, RH	1	polished
	GAM216A	MIRROR, convex glass, LH	1	

These mirrors are all supplied with mounting plate, wedge and screws. Up to FH80000, mirrors were always installed by a PDI (pre-delivery inspection) team at each local Triumph dealership. This allowed the new owner an option regarding which mirrors should be fitted. From FH80001 onwards, only black mirrors were offered and these were fitted at the factory.

54	DZB5208A	WEDGE, mirror mounting	2	
55	CZA7164	PAD, mirror mounting	2	
56	AAU4809	SCREW, mirror mounting	4	
	YKC1097	SCREW, plated	2	
70	911101	HEADLAMP COVER, diecast, LH	1	primed finish
	911102	HEADLAMP COVER, diecast, RH	1	
71	106765R	STUD, headlamp cover securing	2	cut to fit
72	WM57	WASHER, plain	2	
73	GHF200	NUT	2	
74	GHF300	WASHER, plain	4	
75	SH604031	SCREW, retaining headlamp cover	4	

Be careful when fitting the SH604031 screws. They must not be allowed to 'bottom-out' inside the headlamp cover. (See our price guide for a replacement headlamp cover when you've cracked the casting!)

80	820715B	SIDE VALANCE, engine, RH	1	Mk IV style; will fit 1500 models
81	569924B	SIDE VALANCE, engine, LH	1	
	XKC1671	SIDE VALANCE, engine, RH	1	1500
	XKC1966	SIDE VALANCE, engine, LH	1	
82	615706	BRACKET, valance attachment	2	weld to bulkhead
83	615699	SUPPORT PLATE	2	
84	PT504	SCREW	4	
85	WC702101	WASHER, plain	4	
86	WL700101	WASHER, locking	4	
87	HN2005	NUT	4	

The nuts & bolts for attaching the radiator to the radiator support are shown on page 76.

88	706843	DEFLECTOR BOARD, radiator, LH	1	
89	706844	DEFLECTOR BOARD, radiator, RH	1	
90	562403	RIVET	6	
91	WM54	WASHER, plain	6	

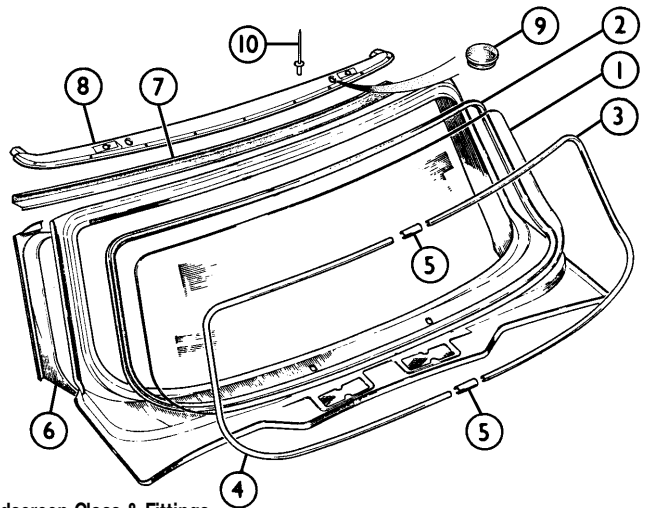
An alternative to the above radiator deflector board fittings (& easier to use), are the following three items;

	PT505	SCREW	6	deflector board to radiator support
	PWZ203	WASHER, plain	6	
	GHF220	NUT, nyloc	6	
92	GHF117	SCREW, retaining board	2	
93	GHF300	WASHER, plain	2	
94	518454X	CAGED NUT, fitted to chassis	2	
95	625886	BRACKET, Number plate	2	
96	SH605051	SCREW	2	
97	WP127	WASHER, plain	4	
98	GHF331	WASHER, locking	2	
99	GHF200	NUT	2	

Ill. No	Part Number	Description	Qty. Req.	Details
101	WKC2543	BUMPER BAR, front, new	1	
	WKC2543R	BUMPER BAR, front, recon'	1	
102	SH606101	SCREW,	2	bumper to quarter valance
103	GHF333	WASHER, locking	2	
104	GHF302	WASHER, plain	2	
105	2K9679	GASKET, bumper	2	
106	SH606071	SCREW, bumper to pivot bracket	2	
107	GHF333	WASHER, locking	2	
108	GHF302	WASHER, plain	2	
109	815277	UNDER-RIDER, plastic, LH	1	
	815278	UNDER-RIDER, plastic, RH	1	
110	SH604071	SCREW, under-rider to bumper	4	
111	GHF331	WASHER, locking	4	
112	SH604051	SCREW, under-rider to chassis	2	
113	GHF331	WASHER, locking	2	
114	WM57	WASHER, plain	2	
120	815026	FRONT GRILLE, Black (plastic)	1	
121	715863	GRILLE, outer section	1	Mk IV to FH60000
	715864	GRILLE, outer section	1	

Outer grille sections are required if a front spoiler has not been fitted.

122	624591	BRACKET	1	grille to chassis
123	PMZ312	SCREW, grille to mounting	3/1	
124	AUC2246	WASHER, locking	3/1	only one of each required when spoiler is fitted
125	PWZ203	WASHER, plain	3/1	
126	GHF117	SCREW, bracket to chassis	2	
127	GHF331	WASHER, locking	2	
128	WM57	WASHER, plain	2	
129	GLZ608	FRONT SPOILER, (abs plastic)	1	
	GLZ608FG	FRONT SPOILER, (fibre-glass)	1	
130	PMZ312	SCREW, front spoiler to chassis	2	
131	WL700101	WASHER, locking	2	
132	WM91	WASHER, plain	2	
133	SE604061	SCREW, spoiler outer	2	
134	AUC2246	WASHER, locking	2	
135	PWZ203	WASHER, plain, outer spoiler	2	
136	WM832	WASHER, spacing	2/4	spoiler to quarter valance (maximum 4 required)
137	716200	SEAL, quarter valance to bonnet	2	
138	725670	DEFLECTOR, plastic	2	Germany only
139	RU608253	RIVET, deflector to qtr valance	10	



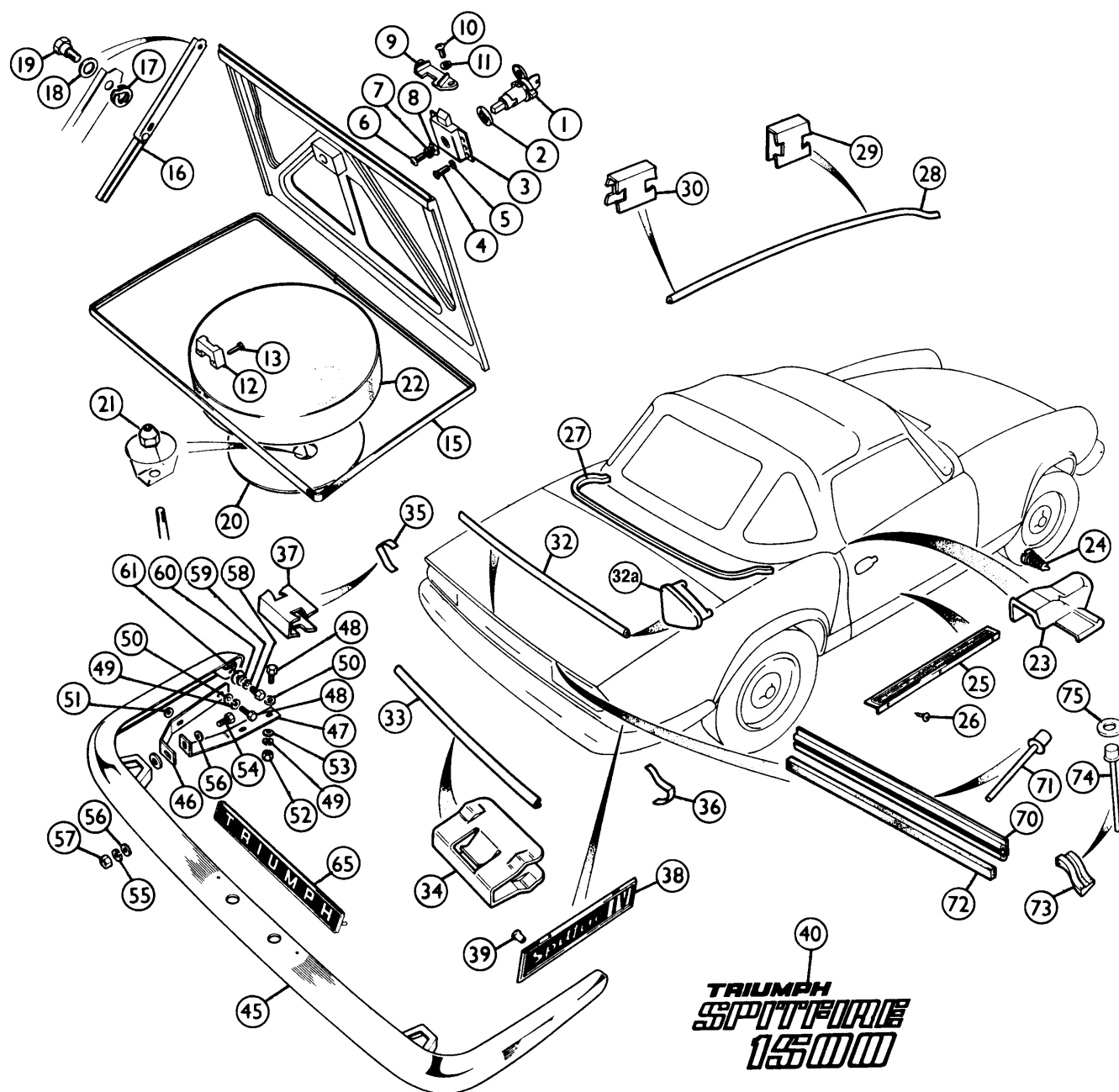
Windscreen Glass & Fittings

1	WKC4787	WINDSCREEN GLASS	1	laminated
	917669	WINDSCREEN GLASS	1	
2	909029	SEAL, rubber, glazing	1	laminated, tinted
3	917248	BEADING, plastic, LH	1	
4	917249	BEADING, plastic, RH	1	
5	ZKC2099	CONNECTOR	2	windscreen beading
	624701	FINISHER, Black, inner screen, LH	1	
6	624711	FINISHER, Black, inner screen, RH	1	
7	624691	FINISHER, Black, upper screen	1	
8	911106	WINDSCREEN CAPPING, alloy	1	

When refitting the capping, ensure that sealing compound is used between it and the top of windscreen frame. Retain the old capping as a pattern for the mounting rivet holes.

9	612976	PLUG, rubber, screen capping	2	required when hardtop not fitted
10	RU608123	RIVET, capping to screen		

150 | Rear/Side Body Trim & Fittings



iii. Part Number	Description	Qty. Req.	Details
Rear/Side Body Exterior Trim & Fittings			
1	722675 LOCK & BARREL	1	rotating lock cover
	729530 LOCK & BARREL	1	sliding lock cover
<i>Originally locks were available with a rotating cover for water protection. The lock design with a sliding cover in the keyhole is the only type currently supplied.</i>			
2	624729 GASKET, boot lock	1	
3	710290 LOCK ASSEMBLY (Latch)	1	
4	CMZ310 SCREW, countersunk, lock	4	
5	WK7605 WASHER, shake-proof	4	
6	576156 SCREW, lock barrel	1	
7	WS702001 WASHER, thackery	1	tensioning screw
8	PWZ203 WASHER, flat	1	
<i>If the retaining screw is too tight, the spring return of the lock will not operate smoothly.</i>			
9	619384 GUIDE PLATE (Lock)	1	
10	SE910201 SCREW	2	
11	WL700101 WASHER, locking	2	
12	619383 CATCH/STRIKER	1	
13	CX2508 SCREW	2	

iii. Part Number	Description	Qty. Req.	Details
15	ZKC3442 SEAL, boot lid aperture	1	
16	612473 BOOT STAY	1	
17	WS600061 WASHER, thackery	2	
18	WB110061 WASHER, plain	2	
19	612475 BOLT, shouldered, boot stay	2	
20	706807 BOARD, spare wheel	1	not suitable for centre lock wire wheels
21	113087 WHEEL NUT	1	fit flat side downwards
22	717601 COVER, spare wheel	1	for standard wheel and tyre
23	815137 'B' POST CAPPING, LH	1	
	815138 'B' POST CAPPING, RH	1	
24	AD608053 SCREW, capping retaining	2	
25	GAC6066X THRESHOLD PLATE	2	ribbed alloy
	TT7346* THRESHOLD PLATE	2	stainless steel
<i>*polished with laurel leaf design.</i>			
NI	TT7345 'OVER-SILL' KIT	1	
<i>These easy to fit 'over-sills' are brilliantly finished to enhance the outstanding appearance and clean lines of your Spitfire (or GT6).</i>			
26	575937 SCREW, self tapping	6	
27	624801 MOULDING, rear cockpit	1	plastic

Ill. No	Part Number	Description	Qty. Req.	Details
28	715693	SEAM MOULDING, Black	2	rear wing top edge
29	613766	CLIP, seam moulding	18	
30	613886	CLIP, seam moulding, rear	4	
32	715695	MOULDING, boot edge, Stainless	1	Mk IV
	YKC3778	MOULDING, boot edge, Black	1	1500
32a	ZKC3735	END CAP	2	1500
33	715697	MOULDING, Stainless (lower edge of rear light panel)	1	MkIV
	YKC1325	MOULDING, Black (lower edge of rear light panel)	1	1500
34	GHF1154	CLIP, rear mouldings	14	
35	815041	MOULDING, corner light panel, LH	1	MkIV
36	815042	MOULDING, corner light panel, RH	1	chrome
	XKC1502	MOULDING, corner light panel, LH	1	1500
	XKC1503	MOULDING, corner light panel, RH	1	black
37	613886	CLIP, corner moulding	8	

Moulding clips should always be attached to the car body, then the mouldings may be fitted. The clips holding the mouldings to the rear wing top edges (item 29) should be attached facing inwards and outwards alternately so that the mouldings may be sprung into place over them. Use plenty of flexible sealant when fitting mouldings nos. 32, 33, 35 & 36 to stop them from realising their potential as very efficient water traps.

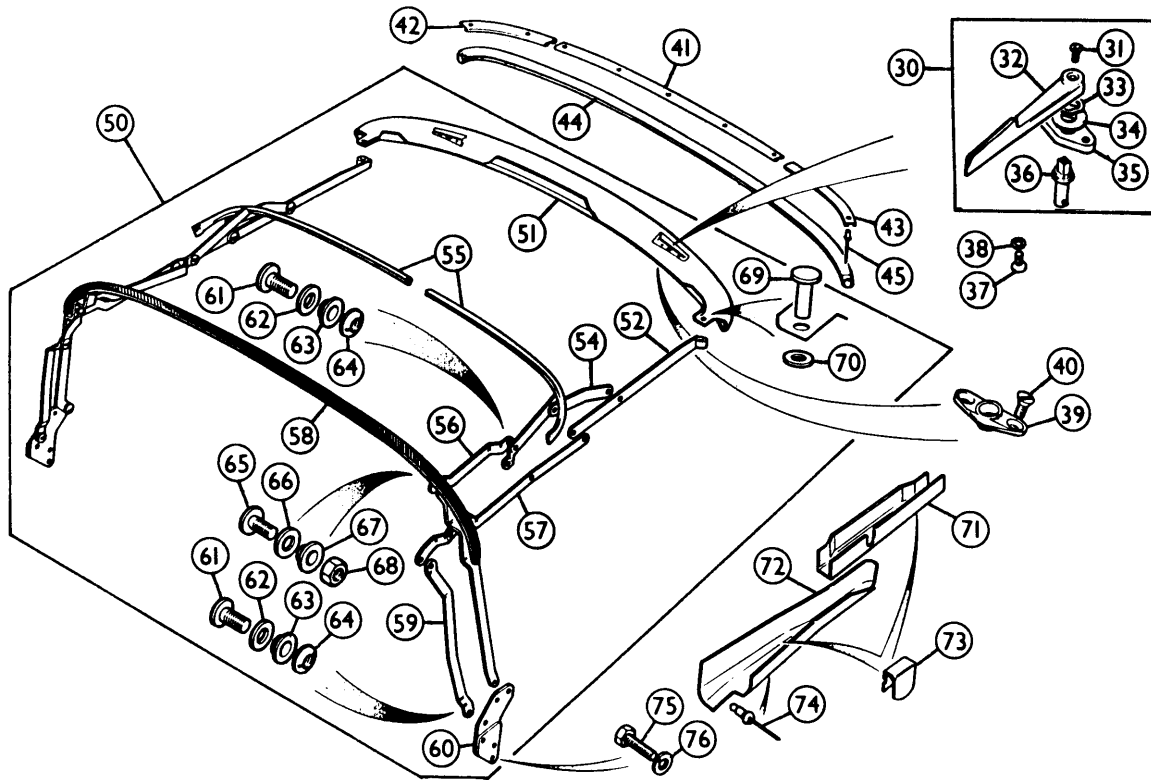
38	624733	BADGE 'Spitfire IV'	2	rear wing
39	GHF1532	BUSH, badge	4	
40	YKC1456	DECAL, 'Spitfire 1500' (boot lid)	1	Black
	YKC1457	DECAL, 'Spitfire 1500' (boot lid)	1	Silver
45	914698	BUMPER BAR (chrome plinth number plate lamp)	1	to approx. FH116000
	WKC3954	BUMPER BAR (two separate number plate lamps)	1	from approx. FH116001
46	715706	BRACKET, side strengthener	2	
47	715701	BRACKET, lower strengthener, LH	1	
	715702	BRACKET, lower strengthener, RH	1	
48	GHF105	SCREW, bracket	8	boot floor & body side
49	GHF333	WASHER, locking	8	
50	PWZ206	WASHER, plain (alternative)	8	bracket to screw head
51	PWZ206	WASHER, plain (alternative)	2	packing bracket to body side, 3.2mm thick
	GHF316	WASHER, plain (alternative)	2	packing bracket to body side, 2.5mm thick
52	GHF202	NUT, bracket to boot floor	4	
53	GHF302	WASHER, plain	4	nut to floor board
54	SH606121	SCREW, bumper to bracket, rear	2	
55	GHF333	WASHER, locking, under nut	2	
56	PWZ206	WASHER, plain,	4	screw to bracket & bumper
57	GHF202	NUT, bumper	2	
58	SH605061	SCREW, bumper to body side	2	
59	GHF332	WASHER, locking	2	
60	WP139	WASHER, plain	2	screw to body side
61	2K9679	GASKET, bumper to body panel	a/r	1.5mm thick
	601994	GASKET, bumper to body panel	a/r	3.5mm thick
65	626859	BADGE, 'Triumph' (fitted to number plate lamp plinth)	1	to approx. FH1156000
70	630578	RETAINER, protection moulding	1	
71	RU608123	RIVET, attaching retainer	13	
72	627900	PROTECTION MOULDING, rubber	1	
73	724028	MOULDING, corner protector, LH	1	Germany only
	724029	MOULDING, corner protector, RH	1	
74	569313	POP RIVET, corner moulding	6	
75	PWZ203	WASHER, plain	6	

Commission & Body No Plates

Authentic reproductions of the original commission and body number plates to complete your rebuild.

CNPSIV	Commission Plate	1	Mk IV
CNPS1500	Commission Plate	1	1500 to October 1979
TKC5766	Vehicle Identification Number Plate	1	1500 from October 1979
CRCP343	Body Number Plate (blank)	1	all models





Ill. No	Part Number	Description	Qty. Req.	Details
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Hood Frame

30	623470	HANDLE, (closing), RH	1	
	623469	HANDLE, (closing), LH	1	

Note: Currently, only the RH handle (623470) is available. It can easily be adjusted to recreate the LH assembly.

31	SF104123	SCREW, countersunk	2	
32	621757	TURN HANDLE	2	
33	621758	WASHER, tensioning	2	
34	WB112081	WASHER, plain	2	
35	624392	MOUNTING PLATE	2	
36	624360	LOCKING PIN	2	
37	RMP308	SCREW, countersunk	4	
38	WK7605	WASHER, shakeproof	4	
39	815135	CATCH PLATE, LH	1	] fitted to screen frame
	815136	CATCH PLATE, RH	1	
40	ZKC38	SCREW, countersunk	4	
41	713036	RETAINER, header rail seal, centre	1	
42	713037	RETAINER, header rail seal, LH	1	
43	713038	RETAINER, header rail seal, RH	1	
44	629584	SEAL, header rail	1	
45	RU608123	RIVET, retainer to header rail	9	
50	WKC1650	HOOD FRAME	1	

If fitting an old hood frame you must make sure that the links are all correctly formed & not distorted. Look also at the bushes; if they are worn unevenly, it suggests that part of the linkage in that area is incorrect. The answer is to keep checking & 'tweak' as necessary, or even replace the section.

Replace bushes & screws as necessary.

Remember the screws are not fitted tight but should be locked into the correct position using dome nuts.

51	814828	HEADER RAIL	1	
52	715874	CONTROL LINK, front, RH †	1	
	715873	CONTROL LINK, front, LH †	1	
54	624586	UPPER LINK, front	2	
55	815273	HOOD BOW, front	1	
56	624600	UPPER LINK, rear, RH	1	
	624599	UPPER LINK, rear, LH	1	
57	715870	LOWER LINK, rear, RH	1	
	715869	LOWER LINK, rear, LH	1	
58	815274	HOOD BOW, rear	1	
59	715872	VERTICAL LINK, RH	1	
	715871	VERTICAL LINK, LH	1	

Ill. No	Part Number	Description	Qty. Req.	Details
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60	715868	HINGE PLATE, RH	1	
	715867	HINGE PLATE, LH	1	
61	624569	SCREW, domed head	18	
62	624583	WASHER, plain, nylon	18	
63	624580	BUSH & SPACER, nylon	18	
64	624584	DOME NUT, locking	18	

65	624569	SCREW, domed head	2] rear upper links to rear hood bow only
66	624583	WASHER, plain, nylon	2	
67	624580	BUSH & SPACER, nylon	2	
68	JN2107	HALF NUT	2	

69	621465	RIVET, header rail to frame	2	
70	WC106041	WASHER, plain,	2	between header rail & frame

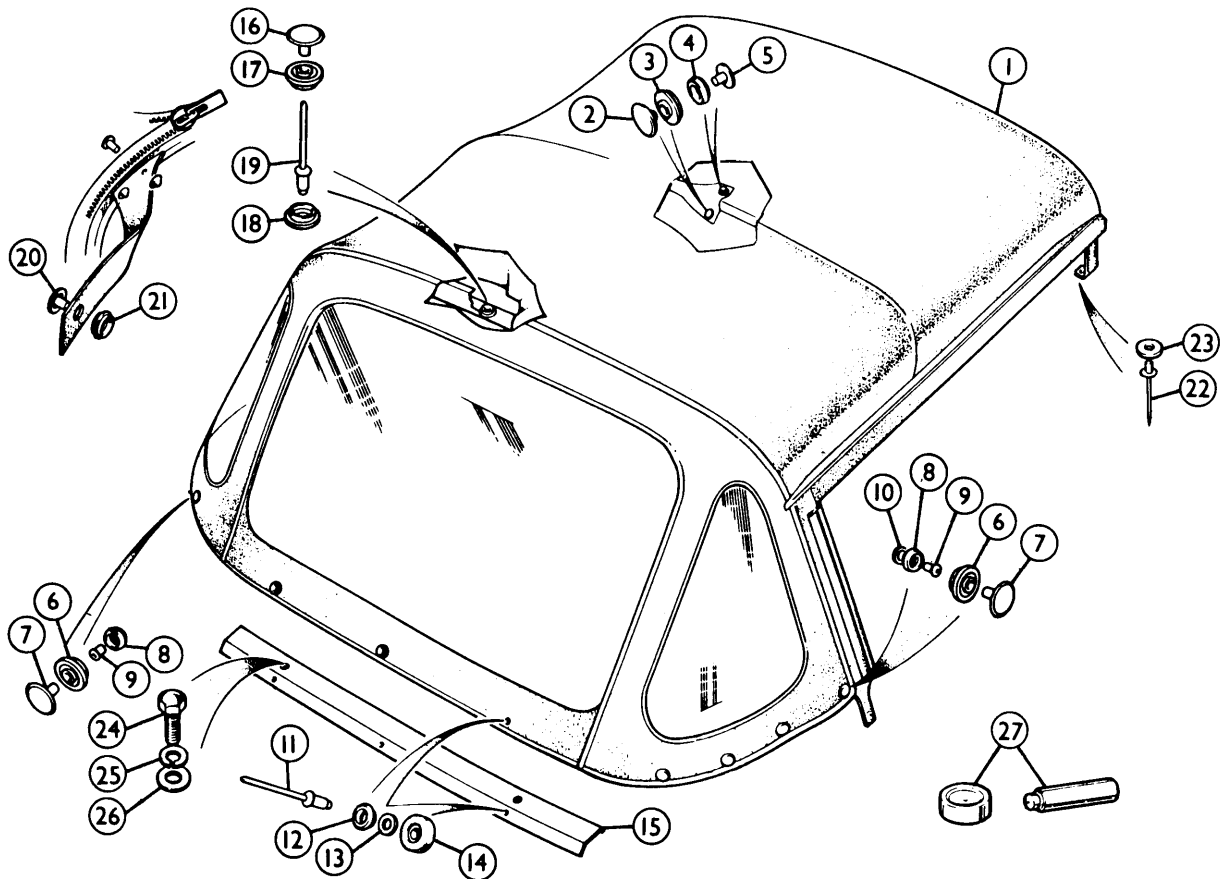
71	823224	COVER, hood linkage, RH, front	1	] to 1976 †
	823223	COVER, hood linkage, LH, front	1	
	YKC1712	COVER, hood linkage, RH, front	1	] from 1976 †
	YKC1711	COVER, hood linkage, LH, front	1	

72	818841	COVER, hood linkage, RH, rear	1	] to 1976 †
	818831	COVER, hood linkage, LH, rear	1	
	XKC1832	COVER, hood linkage, RH, rear	1	] from 1976 †
	XKC1831	COVER, hood linkage, LH, rear	1	

73	619859	CLIP, retaining cover	8	to 1976 †
74	RA612253	RIVET	8	from 1976 †

† Note: During 1976 there was a change to a new type of plastic trim fitted above the door glass (the exact change point is not known). These plastic covers were initially clipped, but 1976 on models had the covers held by pop-rivets. These covers can be interchanged; the choice of attachment falls to the owner and his/her cover and frame combination.

75	GHF101	SCREW, hinge plate to body	6	
76	505259	WASHER, locking	6	



Ill. No	Part Number	Description	Cty. Req.	Details
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Hoods

See also Accessories

The material used to produce original Triumph hoods is unfortunately no longer available. Our XKC1781 original style vinyl hoods are manufactured from the nearest possible equivalent material to that which Triumph cars were fitted with when new.

Sufficient plastic 'durable dot' sockets (fitting the original plastic studs on the car body) are supplied loose with each hood. When Spitfires were still in production the stud spacing on the body varied slightly from car to car. The spacing problem has obviously been accentuated over the years by cars undergoing varying degrees of repair or renovation, so the safest policy is to allow customers to fit the sockets to their new hoods.

To sum up, each XKC1781 hood is supplied fitted with the following:

1 x item 15; 4 x nos. 2, 3, 4, 5; 3 x nos. 11, 12, 13; 4 x nos. 16, 17.

The following is supplied loose to be fitted by the customer: 8 x nos. 6 and 7.

It is advised that the correct tool set (item 27) should be used to attach the loose durable dots.

1	XKC1781*	HOOD, Black, OE type Vinyl*	1	zip out rear window
	XKC1781DD	HOOD, Double Duck	1	
	XKC1781MH*	HOOD, Mohair*	1	

*Other colours available to special order.
*Other colours available to special order.

Happich, a superior Black (Mohair type fabric) hood is also available, again complete with all fittings. The material, chosen as original equipment by Jaguar and Lotus, comprises a spin died outer skin woven from polyester, and poly-acrylic fibres, a middle layer of synthetic rubber, and an abrasive resistant inner layer of cotton. Characteristics include resistance to creasing and colour loss. Stroll into your local Jaguar dealer and have a look!

	XKC1781H	HOOD, Black Happich	1	zip out rear window
2	7H9864	SILVER BUTTON, 'durable dot'	4	Hood to centre rail of frame
3	7H9866	METAL SOCKET, 'durable dot'	4	
4	610624	METAL STUD, 'durable dot'	4	
5	7H9868	BASE, holding stud to hood fabric	4	
6	713501	PLASTIC SOCKET, 'durable dot'	8	Rear quarter of hood to body
7	ZKC751	BUTTON, black, 'durable dot'	8	
	ZKC759	BUTTON, white, 'durable dot'	8	
8	713511	PLASTIC STUD, black, 'durable dot'	8	
	713519	PLASTIC STUD, white, 'durable dot'	8	
9	RU608253	RIVET	8	
10	509563	WASHER, plain, fitted to 'B' post cap	2	

Ill. No	Part Number	Description	Cty. Req.	Details
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11	GHF600	POP RIVET	3	Hood to rear retainer plate
12	713511	PLASTIC STUD, Black, 'durable dot'	3	
	713519	PLASTIC STUD, White, 'durable dot'	3	
13	509563	WASHER, plain, spacing	3	
14	631771	PAD, protection	3	

The pads glue to the underside of the retainer plate (15). They prevent the tail of the rivet (11) from marking the body paint work.

15	715842	RETAINER PLATE, rear	1	hood to rear rail of frame
16	ZKC751	BUTTON, Black, 'durable dot'	5	
	ZKC759	BUTTON, White, 'durable dot'	5	
17	713501	PLASTIC SOCKET, 'durable dot'	5	rear window retaining strap
18	713511	PLASTIC STUD, Black, 'durable dot'	5	
	713519	PLASTIC STUD, White, 'durable dot'	5	
19	GHF600	POP RIVET	5	attaches rear retainer plate
20	ZKC751	BUTTON, Black, 'durable dot'	2	
	ZKC759	BUTTON, White, 'durable dot'	2	
21	713501	PLASTIC SOCKET, 'durable dot'	2	
22	GHF600	POP RIVET, restrainer to header rail	2	
23	509563	WASHER, plain, spacing	2	
24	624818	BOLT, chrome, dome headed	2	
25	GHF332	WASHER, locking	2	
26	510524	WASHER, plain, chrome	2	

For cars which have had the original plastic studs on the bodywork replaced with the bright metal type (part no. 610624), the buttons and sockets on the rear corners of the hood should be replaced with the following parts ...

7H9864	SILVER BUTTON, 'durable dot'	a/r
7H9866	METAL SOCKET, 'durable dot'	a/r

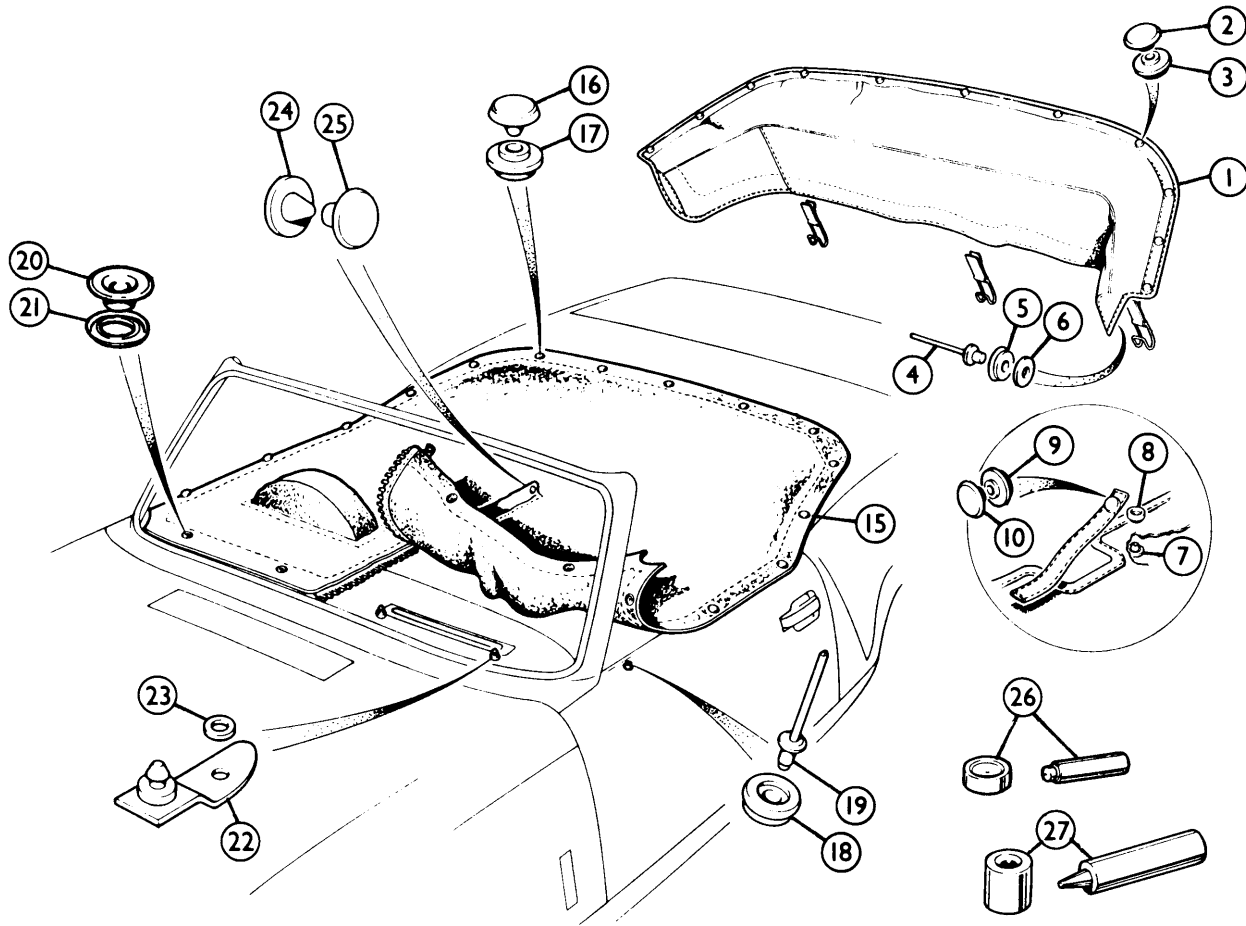
... because metal/plastic studs & sockets will not fit each other.

To make a tidy professional job of replacing either metal or plastic sockets in your hood you will require the following tool.

27	GAC5060X	DURABLE DOT TOOL, 2 piece	1
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Look after your Soft Top

See 'Car Care' in Accessories for full details.



Ill. No	Part Number	Description	Qty. Req.	Details
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Tonneau & Hood Stowage Covers

Hood Stowage Cover

There are two specific types of hood stowage covers, one for non hard-top cars, and the other for when a factory hardtop is fitted (and the hood is left folded in the car). The two types don't interchange, as the latter is shaped to match the inside ledge of the hardtop.

The original style hood cover includes wire hooks to fasten the cover to the hood frame.

Reproduction covers use durable dots on elastic straps.

1	822401	COVER, hood stowage, Black	1	original style
	822404	COVER, hood stowage, Beige	1	
	822401B	COVER, hood stowage, Black	1	aftermarket
	822404B	COVER, hood stowage, Beige	1	
	822431	COVER, hood stowage, Black	1	original style, for use with hardtop
	822434	COVER, hood stowage, Beige	1	
2	ZKC751	BUTTON, 'durable dot'	11	Black
	ZKC759	BUTTON, 'durable dot'	11	White (alternative)
3	713501	PLASTIC SOCKET, 'durable dot'	11	
4	GHF600	POP RIVET	2	
5	713511	PLASTIC STUD, 'durable dot'	2	Black
	713519	PLASTIC STUD, 'durable dot'	2	White (alternative)
6	WP103	WASHER, plain	2	
7	7H9868	BASE, holding stud to fabric	2	
8	610624	METAL STUD, 'durable dot'	2	hard top type
9	7H9866	METAL SOCKET, 'durable dot'	2	hood cover only
10	7H9864	SILVER BUTTON, 'durable dot'	2	
	822403	COVER, hood stowage, chestnut	1	original
	822433	COVER, hood stowage, chestnut	1	original, for hard top

Ill. No	Part Number	Description	Qty. Req.	Details
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Tonneau

15	822451	TONNEAU, Black, RHD	1	without head
	822461	TONNEAU, Black, LHD	1	restraint pouches
	822491	TONNEAU, Black, RHD	1	with head
	822501	TONNEAU, Black, LHD	1	restraint pouches
16	ZKC751	BUTTON, 'durable dot'	15	Black
	ZKC759	BUTTON, 'durable dot'	15	White (alternative)
17	713501	PLASTIC SOCKET, 'durable dot'	15	
18	713511	*PLASTIC STUD, 'durable dot'	6	Black
	713519	*PLASTIC STUD, 'durable dot'	6	White (alternative)
19	RU608123	*RIVET	6	*fitted on doors
20	618177	SAIL EYELET	4	front edge of
21	618178	SAIL EYELET RING	4	tonneau only
22	630513	BRACKET, outer	2	to hold sail eyelets
	630512	BRACKET, inner	2	
23	WP43	WASHER, spacing	4	demister outlet to bracket
24	563032	RIVET BASE	1	attaching zip
25	565756	RIVET CAP	1	fastener

For cars which have had the original plastic studs on the bodywork replaced with the bright metal type (part no. 610624), the buttons and sockets on the rear corners of the hood should be replaced with the following parts ...

7H9864	SILVER BUTTON, 'durable dot'	a/r
7H9866	METAL SOCKET, 'durable dot'	a/r

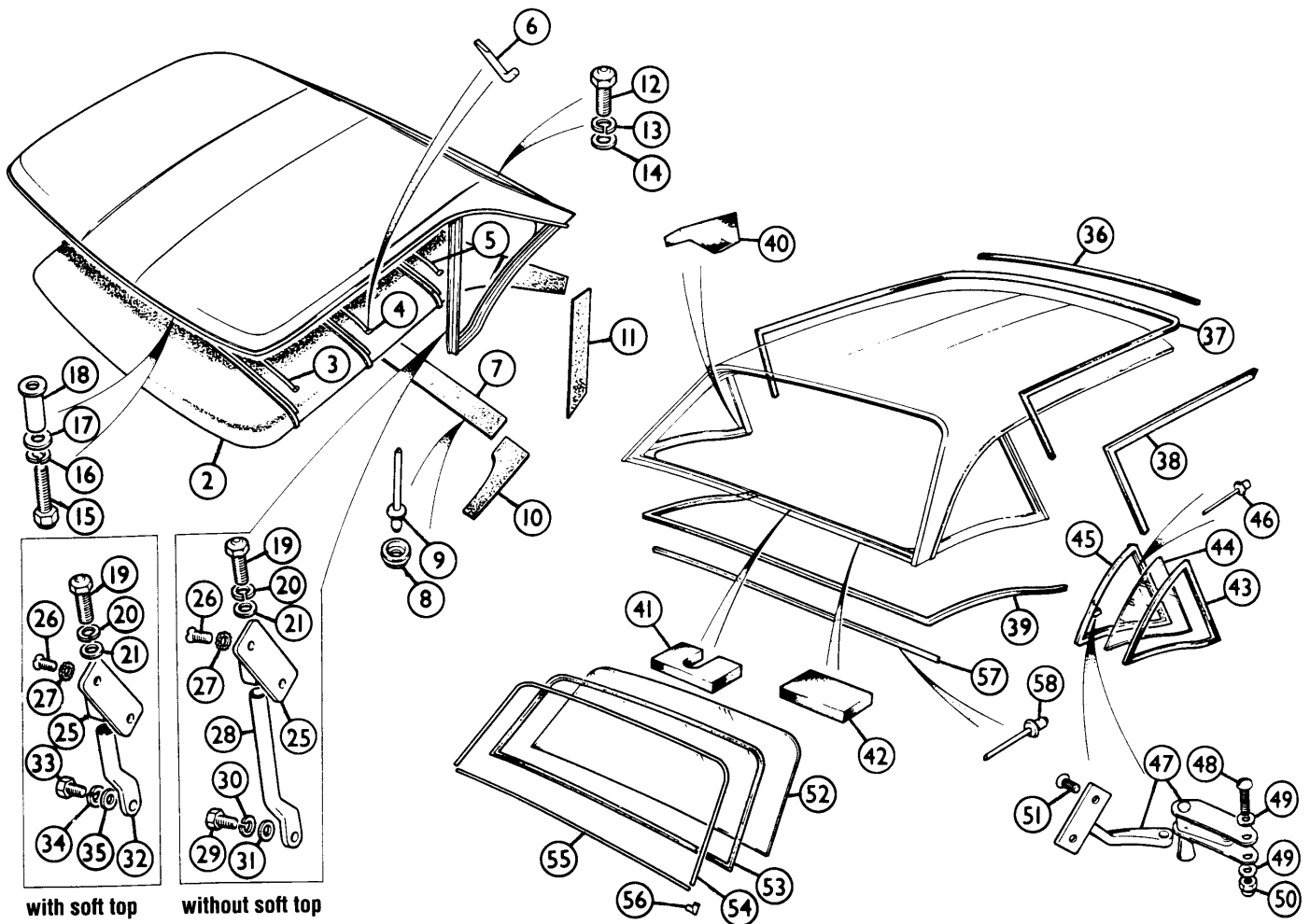
... because metal/plastic studs & sockets will not fit each other.

To make a tidy professional job of replacing either metal or plastic sockets in your hood cover or tonneau, you will require the following tool;

26	GAC5060X	DURABLE DOT TOOL, 2 piece	1
We also have a tool for attaching sail eyelets to the tonneau.			
27	GAC5062X	SAIL EYELET TOOL, 2 piece	1

Look after for your Tonneau & Stowage

See 'Car Care' in Accessories for full details.



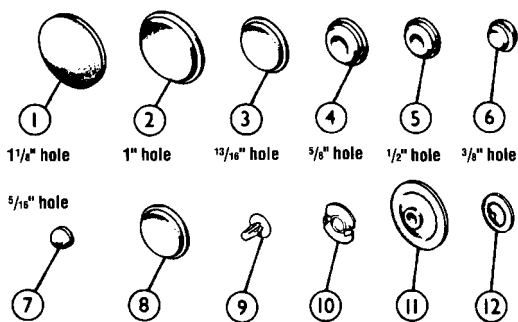
with soft top without soft top

Ill. No	Part Number	Description	Qty. Req.	Details
Hardtop				
	NKC344	HARDTOP	1	
2	726549	HEADLINING	1	
	726549B	HEADLINING KIT	1	includes 2, 7, 10, 11
3	725084	LISTING RAIL, front	1	
4	725085	LISTING RAIL, middle	1	
5	725086	LISTING RAIL, rear	1	
6	607745	END CATCH, listing rails	6	
7	632234	COVER, rear shelf centre	1	
8	713511	STUD, plastic, 'durable dot' Black	3	hood cover fixing
9	GHF600	POP RIVET	3	
10	726524	COVER, rear shelf, LH side	1	
	726534	COVER, rear shelf, RH side	1	
11	632244	COVER, LH 'B' post	1	
	632254	COVER, RH 'B' post	1	
12	624818	BOLT, dome headed, chrome	2	
13	GHF332	WASHER, locking	2	
14	510524	WASHER, plain, chrome	2	
15	622888	BOLT, black, dome head	2	front hardtop fitting
16	GHF332	WASHER, locking	2	
17	517263	WASHER, plain	2	
18	624825	DISTANCE TUBE	2	
19	624818	BOLT, dome headed, chrome	2	
20	GHF332	WASHER, locking	2	
21	510524	WASHER, plain, chrome	2	
25	716025	MOUNTING BRACKET, LH	1	
	716026	MOUNTING BRACKET, RH	1	
26	512135	SCREW, countersunk	4	
27	510397	WASHER, locking	4	
28	624873	BRACKET, hardtop mounting, LH	1	when hood frame not fitted; brackets attach to hood frame
	624874	BRACKET, hardtop mounting, RH	1	
29	GHF101	SCREW	2	attach to hood frame
30	GHF331	WASHER, locking	2	mounting points
31	GHF300	WASHER, plain	2	

Ill. No	Part Number	Description	Qty. Req.	Details
32	624720	BRACKET, hardtop to hood frame	2	when hood frame is still fitted; brackets attach to tapped points in hood frame
33	624817	SCREW, tie bar mounting	2	
34	GHF332	WASHER, locking	2	attach to tapped points in hood frame
35	510524	WASHER, plain, chrome	2	
36	629584	SEAL, header rail	1	
37	630961	SEAL, rubber and felt	1	fitted around hard top
38	716184	SEAL, door glass, RH	1	
	716183	SEAL, door glass, LH	1	
39	624831	SEAL, rubber & felt	1	lower edge
40	624747	SEAL PAD, 'B' post, LH	1	
	624748	SEAL PAD, 'B' post, RH	1	
41	624746	MOUNTING RUBBER	2	
42	624876	MOUNTING RUBBER	2	
43	818811	SEAL, quarter light, RH	1	
	818801	SEAL, quarter light, LH	1	
44	XKC3629	GLASS, quarter light	2	
45	XKC3628	FRAME, quarter light, RH	1	
	XKC3627	FRAME, quarter light, LH	1	
46	560026	POP RIVET	6	
47	624812	HINGE ASSEMBLY, RH	1	
	624811	HINGE ASSEMBLY, LH	1	
48	574132	MOUNTING SCREW	2	hinge to top
49	519912	WASHER, plain	4	
50	574133	NUT, dome head	2	
51	508566	SCREW, countersunk	4	
52	XKC3641	GLASS, rear	1	
53	911040	SEAL, rubber, rear glass	1	
54	613962	SEAL MOULDING, upper	1	
55	613963	SEAL MOULDING, lower	1	
	613955	SEAL MOULDING, one piece	1	alternative seal mouldings
56	630642	CORNER CAPPING	2	
57	818498	MOULDING, hardtop rear edge	1	
58	BD267061	RIVET, rear edge moulding	5	

156 | Plugs & Grommets - Body Paint/Colour Codes

Ill. No	Part Number	Description	Qty. Req.	Details
1	RFN218	PLUG, 1 1/8"	2	} seat pan
2	600399	PLUG, 1"	3	
	600399	PLUG, 1"	4	main floor
	600399	PLUG, 1"	3	boot floor
	600399	PLUG, 1"	2	rear wheel arch outer
	600399	PLUG, 1"	2	heel-board cross member
	600399	PLUG, 1"	2	lower rear valance
3	600421	PLUG, 1 3/16"	1	main floor
	600421	PLUG, 1 3/16"	4	door
4	RFN210	PLUG, 5/8"	2	heel-board cross member
5	RFR208	PLUG, 1/2"	4	inner sill panel
	RFR208	PLUG, 1/2"	2	bulkhead
	RFR208	PLUG, 1/2"	1	rear valance
	RFR208	PLUG, 1/2"	1	A post
	RFR208	PLUG, 1/2"	2	rear wing
6	CD27769	PLUG, 3/8"	4	heel-board
7	ADA803	BUFFER, 3/16"	1	fascia shelf panel
8	ZKC1234	PLUG, radio aerial hole	1	rear wing
9	631018	BUTTON, snap fixing	2	rear bumper holes, Italy only
10	ZKC191	PLUG, metal & plastic	1	floor
11	602037	GROMMET	1	rev counter cable
12	061917	GROMMET	1	heater valve cable
	061917	GROMMET	1	number plate lamp cable
	061917	GROMMET	1	choke cable



Paint & Colour Codes

Moss Classic Car Colours

Moss Europe has a division (called 'Classic Car Colours') that specialises in the production of spray & touch-up paints. If there is sufficient demand to 're-instate' a colour, we will do our utmost to include it in our range

Here is a list of the colours used on the Spitfire Mk IV & 1500.

The colours are carefully blended to be an exact match to the original paint as used by the factory, but it is worth observing that your car may well have faded from its original colour over the years. For this reason before you start, we recommend that you do a test spray of any aerosol on a piece of old metal or a carefully selected area of the car where a mis-match will not be noticed. The boot or spare wheel area is often a convenient place to do your testing.

We can supply paint in either aerosol or brush-on format. The aerosols come in 300ml cans and the brush-on paints are available in 125ml cans with a brush in the cap (except for engine and chassis paints, which are supplied in 500ml tins).

Colour Codes to 1976

The Triumph paint code will be found stamped on the commission number plate of your car and the last digit indicates the base reference colour.

For example, 1 = Black, 2 = Red, 3 = Brown, 4 = Yellow, 5 = Green, 6 = Blue, 7 = Purple, 8 = Grey, 9 = White

Colour Codes from 1976

A three letter coding system was introduced in 1976, and can be found on the commission number plate (to 1979) or the Vehicle Identification Number (from 1979). In this system, the first letter denotes the base reference colour; e.g. A = Brown, C = Red, F = Yellow, H = Green, J = Blue, N = White, P = Black.

Colour		TR Code	Year	Aerosol	Touch-up
Reds	Signal	32	71-72	CCRD32	CCRD32TU
	Pimento	72	71-75	CCRD72	CCRD72TU
	Magenta	92	73-74	CCRD92	CCRD92TU
	Carmin	82/CAA	73 on	CCRD209	CCRD209TU
	Flamenco	CAD	76-78	CCRD133	CCRD133TU
	Vermilion	CAE	78 on	CCRD118	CCRD118TU
Browns	Sienna	23	71-74	CCBG23	CCBG23TU
	Maple	83	75	CCBG73	CCBG73TU
	Russet	93/AAE	76 on	CCBG205	CCBG205TU
Yellows	Saffron	54	71-74	CCYL54	CCYL54TU
	Mimosa	64	73-75	CCYL64	CCYL64TU
	Topaz	84	75-76	CCYL84	CCYL84TU
	Inca	94/FAB	76 on	CCYL207	CCYL207TU
Greens	Laurel	55	71-72	CCGN55	CCGN55TU
	Emerald	65	71-74	CCGN65	CCGN65TU
	British Racing Green	75	75-76	CCGN75	CCGN75TU
	Java	85/HAB	75-78	CCGN85	CCGN85TU
	Brooklands	HAE	76 on	CCGN169	CCGN169TU
Blues	Wedgwood	26	71-72	CCBU26	CCBU26TU
	Valencia	66	71-72	CCBU66	CCBU66TU
	Ice	116	71-72	CCBU116	CCBU116TU
	Mallard	106	71-74	CCBU106	CCBU106TU
	Sapphire	96	71-74	CCBU96	CCBU96TU
	French	126	73-76	CCBU126	CCBU126TU
	Delft	136	75-76	CCBU136	CCBU136TU
	Tahiti	146/JAE	75-78	CCBU65	CCBU65TU
	Pageant	JAG/JNA	78 on	CCBU224	CCBU224TU
Maroons	Damson	17	71-74	CCRD17	CCRD17TU
Greys	Slate	68	71-72	CCGR68	CCGR68TU
Whites	White	19/NAB	71-78	CCWT19	CCWT19TU
	Leyland White	NAF	78 on	CCWT243	CCWT243TU
Other Paints	Black Gloss	11/PAA		CCSB1	CCSB1TU
	Black Satin		71 on	CCSB2	CCSB2TU
	Primer (High Build)			CCP1	CCP1TU
	Wheel Silver		71 on	CCWP1	CCWP1TU
	Engine Paint (Black)		71 on	CCEP4	CCEP4BR
	*Chassis Paint (Black)				CCCB1BR

General Hardware & Fixings

Following is a listing of the common fasteners used on MG cars. These fasteners are for general use and are not intended to replace those listed for specific applications elsewhere in this catalogue. To aid identification by terminology, a screw is threaded for its full length. A bolt is only part threaded with a plain unthreaded shank area between the head and the thread. The part number two letter prefix of SH means that the item is a Screw with a Hexagon head. The prefix BH means a Bolt with a Hexagon head. The first number defines the thread type, UNF = 6, UNC = 5. The second and third numbers give the thread diameter in increments of 1/16", e.g. 04 = 1/4", 05 = 5/16", 10 = 5/8". The fourth and fifth digits show the length in increments of 1/8", e.g. 04 = 1/2", 16 = 2", 23 = 2 7/8". The last digit defines finish, 1 = zinc plated. This coding system is only applicable to bolts and screws; nuts & washers are coded by a similar system that follows some of the above principles.

Bolts and Set Screws

3/16" UNF

Hexagon Headed 3/16" A.F. Spanner Size

Bolt	Length	Set Screw
	3/8"	HU503
	1/2"	HU504
	5/8"	HU505
	3/4"	HU506
	7/8"	HU507
	1"	HU508

1/4" UNF

Hexagon Headed 1/4" A.F. Spanner Size

Bolt	Length	Set Screw
	3/8"	SH604031
	1/2"	SH604041
	5/8"	SH604051
	3/4"	SH604061
	7/8"	SH604071
BH604081	1"	SH604081
BH604091	1 1/8"	SH604091
BH604101	1 1/4"	SH604101
BH604111	1 3/8"	SH604111
BH604121	1 1/2"	SH604121
BH604141	1 3/4"	SH604141
BH604161	2"	SH604161
BH604181	2 1/4"	
BH604201	2 1/2"	
BH604241	3"	

5/16" UNF

Hexagon Headed 1/2" A.F. Spanner Size

Bolt	Length	Set Screw
	3/8"	SH605031
	1/2"	SH605041
	5/8"	SH605051
	3/4"	SH605061
	7/8"	SH605071
	1"	SH605081
BH605091	1 1/8"	SH605091
BH605101	1 1/4"	SH605101
BH605111	1 3/8"	SH605111
BH605121	1 1/2"	SH605121
BH605141	1 3/4"	SH605141
BH605151	1 7/8"	SH605151
BH605161	2"	SH605161
BH605181	2 1/4"	SH605181
BH605201	2 1/2"	SH605201
BH605221	2 3/4"	SH605221
BH605241	3"	SH605241

3/8" UNF

Hexagon Headed 9/16" A.F. Spanner Size

Bolt	Length	Set Screw
	3/8"	SH606031
	1/2"	SH606041
	5/8"	SH606051

3/8" UNF continued

	3/4"	SH606061
	7/8"	SH606071
BH606081	1"	SH606081
BH606091	1 1/8"	SH606091
BH606101	1 1/4"	SH606101
BH606111	1 3/8"	SH606111
BH606121	1 1/2"	SH606121
BH606141	1 3/4"	SH606141
BH606161	2"	SH606161
BH606181	2 1/4"	SH606181
BH606201	2 1/2"	SH606201
BH606221	2 3/4"	
BH606241	3"	
BH606281	3 1/2"	
BH606321	4"	

7/16" UNF

Hexagon Headed 5/8" A.F. Spanner Size

Bolt	Length	Set Screw
	5/8"	SH607051
	3/4"	SH607061
	7/8"	SH607071
	1"	SH607081
	1 1/8"	SH607091
	1 1/4"	SH607101
	1 3/8"	SH607111
BH607121	1 1/2"	SH607121
BH607141	1 3/4"	SH607141
BH607161	2"	SH607161
BH607181	2 1/4"	SH607181
BH607201	2 1/2"	
BH607241	3"	

1/2" UNF

Hexagon Headed 3/4" A.F. Spanner Size

Bolt	Length	Set Screw
	1/2"	SH608041
	3/8"	SH608051
	1"	SH608081
	1 1/2"	SH608121
	1 3/4"	SH608141
BH608141	1 3/4"	SH608141
BH608161	2"	
BH608181	2 1/4"	
BH608201	2 1/2"	SH608201
BH608241	3"	

1/4" UNC

Hexagon Headed 7/16" A.F. Spanner Size

Bolt	Length	Set Screw
	3/8"	SH504031
	1/2"	SH504041
	5/8"	SH504051
	3/4"	SH504061
	7/8"	SH504071
	1"	SH504081
BH504091	1 1/8"	SH504091
	1 1/4"	SH504101
BH504111	1 3/8"	SH504111
BH504121	1 1/2"	SH504121
BH504141	1 3/4"	SH504141
BH504161	2"	
BH504181	2 1/4"	SH504181
BH504201	2 1/2"	

5/16" UNC

Hexagon Headed 1/2" A.F. Spanner Size

Bolt	Length	Set Screw
	3/8"	SH505031
	1/2"	SH505041
	5/8"	SH505051
	3/4"	SH505061
	7/8"	SH505071
	1"	SH505081
	1 1/8"	SH505091
BH505101	1 1/4"	SH505101
BH505111	1 3/8"	SH505111

5/16" UNC continued

BH505121	1 1/2"	SH505121
BH505141	1 3/4"	SH505141
BH505161	2"	
BH505181	2 1/4"	
BH505201	2 1/2"	SH505201
BH505241	3"	

3/8" UNC

Hexagon Headed 9/16" A.F. Spanner Size

Bolt	Length	Set Screw
	1/2"	SH506041
	3/4"	SH506061
	7/8"	SH506071
BH506081	1"	SH506081
	1 1/8"	SH506091
	1 1/4"	SH506101
BH506111	1 3/8"	SH506111
BH506121	1 1/2"	SH506121
BH506141	1 3/4"	
BH506161	2"	SH506161
BH506181	2 1/4"	
BH506201	2 1/2"	
BH506241	3"	SH506241

Screws

Self Tapping Screws

Pan Headed	Size	Length	Countersunk Headed
AB604021	No. 4	1/4"	AC604021
AB606021	No. 6	1/4"	
AB606031	No. 6	3/8"	
AB606041	No. 6	1/2"	AC606041
AB606061	No. 6	3/4"	AC606061
AB606081	No. 6	1"	AC606081
AB608041	No. 8	1/2"	AC608041
AB608061	No. 8	3/4"	AC608061
AB608081	No. 8	1"	
AB610041	No. 10	1/2"	AC610041
AB610061	No. 10	3/4"	AC610061
AB610081	No. 10	1"	AC610081
AB612041	No. 12	1/2"	AC612041
AB612061	No. 12	3/4"	
AB612081	No. 12	1"	AC612081
AB614061	No. 14	3/4"	AC614061
AB614081	No. 14	1"	AC614081

B = Pan Head

C = Countersunk Head

1st digit = thread type (coarse or fine)

2nd/3rd digit = diameter

4th/5th = length in 1/8" increments

6th = finish (1 = zinc plated)

Screws (Cross Slot)

Pan Headed	Size	Length	Countersunk Headed
PMZ204	No. 6 UNC	1/4"	CMZ204
PMZ208	No. 6 UNC	1/2"	CMZ208
PMZ304	No. 10 UNF	1/4"	CMZ304
PMZ305	No. 10 UNF	5/16"	CMZ305
PMZ306	No. 10 UNF	3/8"	CMZ306
PMZ307	No. 10 UNF	7/16"	CMZ307
PMZ308	No. 10 UNF	1/2"	CMZ308
PMZ310	No. 10 UNF	5/8"	CMZ310
PMZ312	No. 10 UNF	3/4"	CMZ312
PMZ314	No. 10 UNF	7/8"	
PMZ316	No. 10 UNF	1"	CMZ316

Screws (Cross Slot) continued

SE604041	1/4" UNF	1/2"	SF604041
SE604051	1/4" UNF	5/8"	SF604051
SE604061	1/4" UNF	3/4"	SF604061
SE604071	1/4" UNF	7/8"	SF604071
SE604081	1/4" UNF	1"	SF604081
SE604121	1/4" UNF	1 1/2"	SF604121
	1/4" UNF	1 3/4"	CMZ428
SE605061	5/16" UNF	3/4"	SF605061
SE605081	5/16" UNF	1"	SF605081

Nuts

Nuts: Plain

Full Nut	Thread Size	Spanner Size	Half Nut
HN2003	No. 6 UNF	5/16"	
HN2005	3/16" UNF	3/8"	
GHF206	3/16" UNF	5/16"	
HN2007	1/4" UNF	7/16"	NJ2107
HN2008	5/16" UNF	1/2"	JN2108
HN2009	3/8" UNF	9/16"	JN2109
HN2010	7/16" UNF	5/8"	JN2110
HN2011	1/2" UNF	3/4"	JN2111
HN2012	9/16" UNF	7/8"	JN2112
HN2013	5/8" UNF	15/16"	JN2113
HN2057	1/4" UNC	7/16"	JN2157
HN2058	5/16" UNC	1/2"	JN2158
HN2059	3/8" UNC	9/16"	JN2159

Nuts: Nyloc Self Locking

Full Nut	Thread Size	Spanner Size	Half Nut
YN2905	3/16" UNF	5/16"	
YN2907	1/4" UNF	7/16"	GHF271
YN2908	5/16" UNF	1/2"	TN3208
YN2909	3/8" UNF	9/16"	TN3209
YN2910	7/16" UNF	5/8"	TN3210
YN2911	1/2" UNF	3/4"	TN3211
YN2912	9/16" UNF	7/8"	TN3212
YN2913	5/8" UNF	15/16"	TN3213

Nuts: Self Locking, 'Aero' or all metal, 'Phillidas'

Full Nut	Thread Size	Spanner Size	Half Nut
AN3507	1/4" UNF	7/16"	
AN3508	5/16" UNF	1/2"	
AN3509	3/8" UNF	9/16"	
AN3510	7/16" UNF	5/8"	
AN3511	1/2" UNF	3/4"	

Nuts: Slotted

Full Nut	Thread Size	Spanner Size	Half Nut
ND606041	3/8" UNF	9/16"	LN2209
ND607041	7/16" UNF	5/8"	NL607041
ND608041	1/2" UNF	3/4"	LN2211
ND609041	9/16" UNF	7/8"	LN2212
ND610041	5/8" UNF	15/16"	NL610041

Nuts: Plain Brass - Manifold

Full Nut	Thread Size	Spanner Size
GHF261	5/16" UNF	1/2"
GHF262	3/8" UNF	9/16"
GHF270	5/16" UNC	1/2"
GHF269	3/8" UNC	9/16"

Spring/Spire Nut

Flat Type	Screw Size	'U' Type
GHF700	No. 6	GHF711
GHF701	No. 8	GHF712
GHF702	No. 10	GHF713
GHF703	No. 12	GHF714
GHF704	No. 14	

Captive Nuts

Captive nuts consist of a square nut & cage which we supply individually as required. Always match nut & cage A.F. sizes.

Part Number	Description	Thread Size
NQ2707	Nut, 7/16" AF	1/4"
NQ2708	Nut, 5/8" AF	5/16"
CN4	Nut, fits CN3 cage	1/4"
CN5	Nut, 1/2" AF	5/16"

Part Number	Description	Spanner (AF) Size
CN2	Cage, square	7/16"
CN3	Cage, oblong	7/16"
600032	Cage, square	1/2"

Washers

Shake-proof Washers

Internal Star	Hole Size	External Star
WF704061	No. 6	WE704061
WF702101	3/16"	WE702101
WF600041	1/4"	WE600041
WF600051	5/16"	WE600051
WF600061	3/8"	WE600061
WF600071	7/16"	WE600071
WF600081	1/2"	WE600081
WF600091	9/16"	WE600091
WF600101	5/8"	WE600101

Locking Washers

Spring Type

Single Coil	Hole Size	Double Coil
WL700061	No. 6	
WL700081	No. 8	
WL700101	3/16"	AJD7721
GHF331	1/4"	AJD7722
GHF332	5/16"	AJD7731
GHF333	3/8"	AJD7742
GHF334	7/16"	
GHF335	1/2"	
GHF336	5/8"	

Plain Washers

Standard Type	Hole Size	Repair Type
	No. 6	WP3
	No. 8	WP4
GHF306	3/16"	WP5
GHF300	1/4"	WP120
GHF301	5/16"	WP105
GHF302	3/8"	WP130
GHF303	7/16"	WM69
GHF304	1/2"	
	9/16"	WP12
	5/8"	PWZ110

Sealing Washers

Fibre Washer	Hole Size	Copper Washer
WF505	3/16"	
GHF342	1/4"	GHF361
GHF343	5/16"	GHF362
GHF344	3/8"	GHF363
GHF345	7/16"	GHF364
GHF346	1/2"	GHF365
GHF347	9/16"	
GHF348	5/8"	

Studs

Studs- UNF

A stud is a length of round bar threaded at both ends. The length of thread at each end of the stud may vary for specific applications. The following list is of studs have fine (UNF) threads at both ends.

Part Number	Diameter	Overall length
TE604081	1/4"	1"
TE604091	1/4"	1 1/8"
TE604101	1/4"	1 1/4"
TE605101	5/16"	1 1/4"
TE605111	5/16"	1 3/8"
TE605121	5/16"	1 1/2"
TE605131	5/16"	1 5/8"
TE605141	5/16"	1 3/4"
TE605151	5/16"	1 7/8"
TE605181	5/16"	2 1/4"
TE605201	5/16"	2 1/2"
TE605221	5/16"	2 3/4"
TE605251	5/16"	3 1/8"
TE605291	5/16"	3 5/8"
TE606101	3/8"	1 1/4"
TE606111	3/8"	1 3/8"
TE606121	3/8"	1 1/2"
TE606141	3/8"	1 3/4"
TE606151	3/8"	1 7/8"

Studs- UNF/UNC

Fine (UNF) threads at one end and course (UNC) at the other.

Part Number	Diameter	Overall length
TE504081	1/4"	1"
TE504131	1/4"	1 5/8"
TE505091	5/16"	1 1/8"
TE505111	5/16"	1 3/8"
TE505121	5/16"	1 1/2"
TE505131	5/16"	1 5/8"
TE505141	5/16"	1 3/4"
TE505151	5/16"	1 7/8"
TE505161	5/16"	2"
TE505181	5/16"	2 1/4"
TE505201	5/16"	2 1/2"
TE505221	5/16"	2 3/4"
TE505241	5/16"	3"
TE505261	5/16"	3 1/4"
TE505271	5/16"	3 3/8"
TE505281	5/16"	3 1/2"
TE505341	5/16"	4 1/4"
TE506101	3/8"	1 5/16"
TE506131	3/8"	1 5/8"
TE506141	3/8"	1 3/4"
TE506161	3/8"	2"
TE506201	3/8"	2 1/2"
TE506361	3/8"	3 1/2"

The following studs have course (UNC) threads at both ends.

Part Number	Diameter	Overall length
101442	3/8"	1 5/8"
058688	3/8"	1 11/16"
115696	3/8"	1 13/16"
058917	3/8"	1 15/16"
102474	3/8"	2 1/16"
107055	3/8"	2 3/8"

Dowels

Part Number	Dia.	Overall length	Part Number	Dia.	Overall length
DP204	1/8"	1/4"	DP414	1/4"	7/8"
DP205	1/8"	5/16"	DP508	5/16"	1/2"
DP306	3/16"	3/8"	DP514	5/16"	7/8"
DP407	1/4"	7/16"	DP608	3/8"	1/2"
DP408	1/4"	1/2"	DP610	3/8"	5/8"
DP410	1/4"	5/8"	DP610	3/8"	1 3/16"
DP411	1/4"	11/16"			

Clevis Pins

(Measured from under head to end)

Part Number	Length	Dia.	Part Number	Length	Dia.
108326	1/2"	1/8"	CLZ412	3/4"	1/4"
PJ8504	3/8"	3/16"	CLZ413	13/16"	1/4"
CLZ307	7/16"	3/16"	CLZ414	7/8"	1/4"
CLZ308	1/2"	3/16"	CLZ415	15/16"	1/4"
CLZ309	9/16"	3/16"	CLZ416	1"	1/4"
CLZ310	5/8"	3/16"	CLZ417	1 1/16"	1/4"
CLZ311	11/16"	3/16"	CLZ427	1 1/16"	1/4"
CLZ312	3/4"	3/16"		1/2"	5/16"
CLZ313	13/16"	3/16"		9/16"	5/16"
CLZ314	7/8"	3/16"	CLZ510	5/8"	5/16"
CLZ315	15/16"	3/16"	CLZ511	11/16"	5/16"
CLZ316	1"	3/16"	CLZ512	3/4"	5/16"
CLZ317	1 1/16"	3/16"	CLZ513	13/16"	5/16"
	3/8"	1/4"	CLZ514	7/8"	5/16"
	7/16"	1/4"	CLZ515	15/16"	5/16"
CLZ408	1/2"	1/4"	CLZ516	1"	5/16"
CLZ409	9/16"	1/4"	CLZ517	1 1/16"	5/16"
CLZ410	5/8"	1/4"	CLZ518	1 1/8"	5/16"
CLZ411	11/16"	1/4"			

Split Pins

Part Number	Length	Dia.	Part Number	Length	Dia.
GHF500	1 1/2"	1/16"	GHF504	2 1/4"	1/8"
GHF501	1 1/2"	5/64"	GHF505	2 1/4"	9/64"
GHF502	1 1/2"	3/32"	GHF506	2 1/4"	5/32"
GHF503	2 1/4"	7/64"	GHF513	3"	5/16"

Pipes, Hardware and Fittings

Brake & Fuel Pipe

Supplied in 25 foot rolls.

Part Number	Material	Diameter
MPKF125	Cupro-nickel	3/16"
MPKF225	Cupro-nickel	1/4"
MPKF325	Cupro-nickel	5/16"
EF125	Steel	3/16"
EF225	Steel	1/4"
EF325	Steel	5/16"

Male Pipe Nuts

Brass Part Number	Steel Part Number	Thread Size	Pipe Bore
AEHU1	TM606031	3/8" UNF	3/16"
AEHU2	TM110051	10mm x 1mm	3/16"
AEHU3	LK21994	3/8" BSF	3/16"
	BCA4370	7/16" UNF	3/16"
AEHU7	BHA4706	7/16" UNF	1/4"
	AUSU40A	1/2" UNF	5/16"

Female Pipe Nuts

Brass Part Number	Steel Part Number	Thread Size	Pipe Bore
AEHU1A	TN606031	3/8" UNF	3/16"
AEHU2A	SU2A	10mm x 1mm	3/16"
AEHU4A	SU4A	7/16" UNF	1/4"
	HU41A	1/2" UNF	5/16"

Bleed Screws

Part Number	Thread Size
556508A	3/8" UNF
608400A	10mm metric
27H7166	3/8" BSF

Pipe Clips

Part Number	Capacity
GHF1191	SINGLE, 3/16"
GHF1192	SINGLE, 1/4"
624155	DOUBLE, 3/16"

Grease Nipples

Part Number	Thread Size	Angle
UHN400	1/8" BSP	straight, short
UHN445	1/8" BSP	450 angle
LN30041	1/8" BSP	900 angle
144825	1/8" BSP	straight, long
056935	1/4" BSP	straight
125361	1/4" BSP	450 angle
056934	1/4" BSP	900 angle

Hose Clamps

Petrol Pipe Clips (Metric)

(*Enots' type)

Part Number	to suit diameter	Part Number	to suit diameter
GGT1108X	8mm	GGT1113X	13mm
GGT1109X	9mm	GGT1114X	14mm
GGT1110X	10mm	GGT1115X	15mm
GGT1111X	11mm	GGT1116X	16mm
GGT1112X	12mm	GGT1117X	17mm

Hose Clips ('Jubilee' type)

Mild Steel (Imperial)

Part Number	to suit diameter	Part Number	to suit diameter
GHC304	3/8" - 1/2"	GHC1015	1 3/8" - 2"
GHC405	7/16" - 5/8"	GHC1217	1 1/2" - 2 1/4"
GHC406	1/2" - 3/4"	GHC1622	2" - 2 3/4"
GHC507	5/8" - 7/8"	GHC2228	2 3/4" - 3 1/2"
GHC608	3/4" - 1"	GHC2632	3 1/4" - 4"
GHC709	5/8" - 1 1/8"	GHC3036	3 3/4" - 4 1/2"
GHC811	1" - 1 3/8"	GHC3340	4 1/8" - 5"
GHC913	1 1/8" - 1 5/8"		

Stainless Steel (Metric)

Part Number	to suit diameter	Part Number	to suit diameter
GHC10408	8 - 12 mm	GHC10416	32 - 50 mm
GHC10410	12 - 18 mm	GHC10417	46 - 60 mm
GHC10411	8 - 16 mm	GHC10418	50 - 70 mm
GHC10412	12 - 20 mm	GHC10419	60 - 80 mm
GHC10413	16 - 25 mm	GHC10420	70 - 90 mm
GHC10414	20 - 32 mm	GHC10421	80 - 100 mm
GHC10415	25 - 40 mm		

Hose Clips ('Supergrip' type)

(with single slotted hexagon head)

Part Number	to suit diameters	Part Number	to suit diameters
CS4009	7/16" - 9/16"	CS4023	1 1/4" - 1 7/16"
CS4011	1/2" - 11/16"	CS4024	1 5/16" - 1 1/2"
CS4012	3/16" - 3/4"	CS4025	1 3/8" - 1 9/16"
CS4013	5/8" - 13/16"	CS4026	1 7/16" - 1 5/8"
CS4014	11/16" - 7/8"	CS4028	1 9/16" - 1 3/4"
CS4016	3/4" - 1"	CS4029	1 5/8" - 1 13/16"
CS4017	13/16" - 1 1/16"	CS4030	1 11/16" - 1 7/8"
CS4018	7/8" - 1 1/8"	CS4032	1 7/8" - 2"
CS4020	1" - 1 1/4"	CS4034	1 15/16" - 2 1/8"
CS4022	1 1/8" - 1 3/8"	CS4036	2 1/16" - 2 1/4"

Hose Clips ('Supergrip' type) continued

(with single slotted hexagon head)

Part Number	to suit diameters	Part Number	to suit diameters
CS4037	2 1/8" - 2 5/16"	CS4041	2 3/8" - 2 3/16"
CS4038	2 3/16" - 2 7/16"	CS4042	2 7/16" - 2 5/8"
CS4039	2 1/4" - 2 7/16"	CS4048	2 13/16" - 3"
CS4040	2 5/16" - 2 1/2"	CS4052	3 1/16" - 3 1/4"

Original "Supergrip" clips were supplied with a with single slotted round-head screw. The modern replacement comes with a hexagon headed screw. For the authentic look we have resourced the original type screw, (sold separately).

CS4099 (round-head screw)

'P' Clips

Imperial

Part Number	Cable Dia.	Hole size	Part Number	Cable Dia.	Hole size
PCR207	1/8"	7/32"	PCR807	1/2"	7/32"
PCR307	3/16"	7/32"	PCR809	1/2"	9/32"
PCR309	3/16"	9/32"	PCR811	1/2"	11/32"
PCR311	3/16"	11/32"	PCR813	1/2"	13/32"
PCR407	1/4"	7/32"	PCR1007	5/8"	7/32"
PCR409	1/4"	9/32"	PCR1009	5/8"	9/32"
PCR411	1/4"	11/32"	PCR1011	5/8"	11/32"
PCR507	5/16"	7/32"	PCR1207	3/4"	7/32"
PCR509	5/16"	9/32"	PCR1209	3/4"	9/32"
PCR511	5/16"	11/32"	PCR1211	3/4"	11/32"
PCR607	3/8"	7/32"	PCR1407	7/8"	7/32"
PCR609	3/8"	9/32"	PCR1409	7/8"	9/32"
PCR611	3/8"	11/32"	PCR1411	7/8"	11/32"
PCR707	7/16"	7/32"	PCR1607	1"	7/32"
PCR709	7/16"	9/32"			
PCR711	7/16"	11/32"			

Metric

Part Number	Cable Diameter	Hole size
CP105081	8mm	5mm
CP108101	10mm	8mm
CP108121	12mm	8mm
CP106161	16mm	6mm
CP108165	16mm	8mm

Steel Balls

Part Number	Diameter
BLS106	3/16"
BLS108	1/4"
BLS110	5/16"
BLS112	3/8"
BLS28	7/16"

Pop Rivets

Open End Type

Part Number	Diameter
RA607096	2.9 x 5mm
RA608126	1/8" x 3/16"
RA608176	1/8" x 1/4"
RA608236	1/8" x 5/16"
RA608253	1/8" x 3/8"

Closed End Type

Part Number	Diameter
RU608123	1/8" x 3/8"
RU608313	1/8" x 1/2"
RU612123	3/16" x 5/16"

Part Number Length

GHF1265	3 1/2"
GHF1266	5 1/4"
RTC222A	6"
GHF1267	8 3/4"
GHF1268	11"

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