

**TRIUMPH
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TRIUMPH



handbook

IMPORTANT

IN THE INTERESTS OF SAFETY, THE IMPORTANCE OF MAINTAINING CORRECT TYRE PRESSURES CANNOT BE OVER EMPHASISED. PRESSURES SHOULD BE CHECKED AT LEAST EVERY TWO WEEKS OR 1000 MILES (1,600 KM.), AND MAINTAINED IN ACCORDANCE WITH RECOMMENDATIONS GIVEN ON PAGE 26

Triumph



Handbook

Issued by
TRIUMPH MOTOR CO. LTD.
COVENTRY, ENGLAND

A member of the British Leyland Motor Corporation



TRIUMPH TR 6

Introduction

DESIGNED AND BUILT to give a long and consistent trouble-free service, your TR.6 incorporates a petrol injection system which provides high engine performance, economy and efficiency.

The TR.6 also embodies many new safety features, the very presence of which will add to your confidence.

Read carefully the contents of this book which gives, in the simplest possible terms, information vital to the proper operation, care and regular maintenance of the car.

Because of the complexity and sensitivity of the petrol injection system owners are strongly urged to make use of the Maintenance Voucher Scheme operated by Triumph Dealers and described in a separate booklet supplied with the car. This will ensure that the petrol injection system is correctly serviced by trained personnel.

Important

In all communications relating to Service or Spares, please quote the Commission Number (Chassis Number) Paint and Trim Numbers

LOCATION OF COMMISSION AND UNIT NUMBERS

Commission, Paint and Trim Numbers—On Scuttle Panel (May be seen by lifting the bonnet)

Engine Number—On L.H. side of Cylinder Block

Gearbox Number—On R.H. side of Housing

Rear Axle Number—On Hypoid Housing Flange

Note: L.H. and R.H. refers to Left-hand and Right-hand side of the vehicle from the driving position.

STANPART

Spare Parts Service

Replacement parts are not supplied from the factory direct to the general public, but are directed through Distributors who, in turn, supply their Dealers.

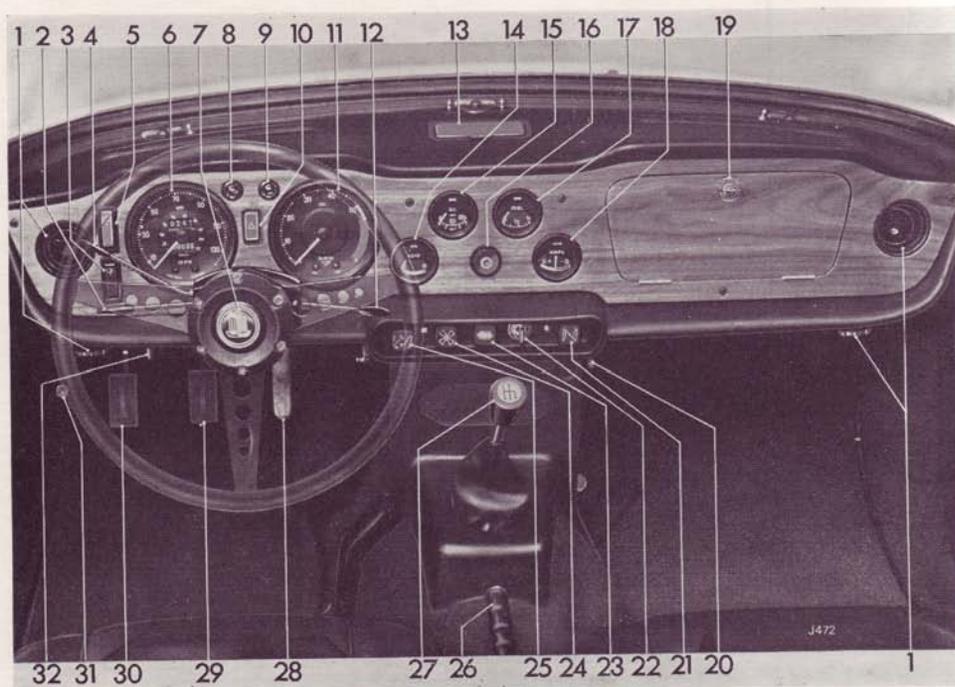
Genuine spare parts are marketed under the trade mark "Stanpart" and carry the same guarantee as the original part. The same high quality material is used and the strictest accuracy maintained during manufacture. You are advised, therefore, to insist on the use of these parts should replacements be necessary. Remember, parts which do not carry the trade mark "Stanpart" will invalidate the guarantee if fitted to your vehicle.

The descriptions and illustrations appearing in this book are not binding. The MANUFACTURER, therefore, reserves the right — whilst retaining the basic features of the Models herein described and illustrated — to make at any time, without necessarily bringing this book up-to-date, any alteration to units, parts or accessories deemed convenient for improvement or for any manufacturing or commercial reason.

*List
of
Sections*

	Page
Introduction	3
Location of unit numbers	4
Controls, Instruments and Indicators	6
Safety Harness	14
Seats	15
Locks and Keys	16
Soft Top	18
Tonneau Cover and Hard Top	20
Care of Bodywork	21
Wheels and Tyres	22
Cooling System	27
Electrical System	30
Starting the Engine	42
Driving from New	43
Routine Servicing	44
Regular Maintenance	45
Petrol Injection System	62
Lubrication Chart	64
Lubrication Summary	65
Recommended Lubricants	66
General Specification	68
Index	71

CONTROLS, INSTRUMENTS AND INDICATORS



KEY (Figs. 2 and 3)

1. Fresh-air vent
2. Turn-signal control
3. Windscreen washer switch
4. Overdrive switch (optional)
5. Windscreen wiper switch
6. Speedometer
7. Horn-push
8. Hazard warning indicator *
9. Brake-line failure indicator *
10. Hazard warning switch *
11. Tachometer
12. Lighting switch
13. Ashtray
14. Temperature gauge
15. Oil pressure gauge
16. Instrument illumination rheostat
17. Fuel gauge
18. Ammeter

*L.H. Steering only

Fig. 2

CONTROLS, INSTRUMENTS AND INDICATORS

19. Glove-box lock
20. Scuttle-vent control
21. Cold-start mixture control
22. Ignition/starter switch
23. Heat control
24. Blower switch
25. Air distribution control
26. Handbrake lever
27. Gear-shift lever
28. Throttle pedal
29. Brake pedal
30. Clutch pedal
31. Headlight dipper
32. Trip release control
33. High-beam indicator
34. Turn-signal indicator
35. Low oil pressure indicator
36. No-charge indicator
37. Odometer
38. Trip odometer

See
Fig. 7

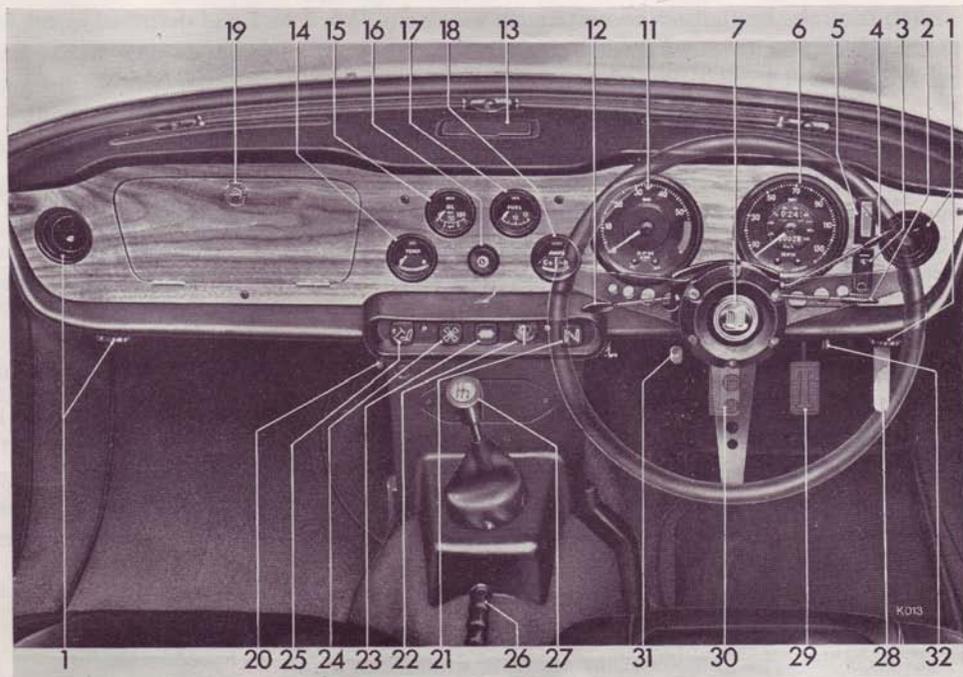


Fig. 3

CONTROLS, INSTRUMENTS AND INDICATORS

The controls, instruments and indicators shown on Figs. 2 to 7 and described in the following pages are positioned within easy reach of the driver to afford maximum ease of operation and minimum distraction. The bracketed figures in the text cross-refer with the key on pages 6 and 7.

Fresh-Air Vents (1)

The swivelling vents can be adjusted to admit cold air only in any chosen direction within the limits of movement. Each vent incorporates a valve, operated by a knob in the centre of the vent. To diminish or shut off the supply of air, turn the knob clockwise. The air flow may be boosted by use of the blower motor (See item 24).

Turn Signal Control (2)

Move the control lever upwards to operate the right-hand turn-signal lights or downwards to operate the left-hand turn-signal lights.

Windscreen Washer Switch (3)

Depress the upper portion of the switch to spray clean fluid onto the windscreen and switch on the wipers to disperse the mud. The washer switch will operate only when the ignition switch is turned 'ON'.

Overdrive Switch (4) (Optional)

When an overdrive unit is fitted to the vehicle the operating switch is mounted on the left-hand side of the steering column. Move the lever up to engage the overdrive and down to release it. Before using the control, refer to page 43.

Windscreen Wiper Switch (5)

Depress the upper portion of the switch to operate the wipers at slow speed, or depress the lower portion to operate them at high speed. Select the mid-position to switch off, when the wipers will automatically return to the parked position at the base of the windshield. The wipers will operate only when the ignition switch is turned 'ON'.

Speedometer (6)

Additional to indicating the road speed of the vehicle in miles and kilometres per hour, the instrument also combines the indicators and warning devices (33, 34, 37, 38. See Fig. 7).

Horn Push (7)

Press to operate the horns.

Hazard Warning Indicator (8) (L.H. Steering only)

When the 'hazard warning switch' (10) is operated the indicator will flash in unison with the exterior warning lights.

Brake-line Failure Indicator (9) (L.H. Steering only)

When the ignition switch is turned on the "brake line failure" and "low oil pressure" indicator lights glow faintly and are extinguished when the engine is running. Should failure of the front or rear brake lines occur, the indicator (9) will glow brightly.

A broken bulb filament is indicated by the warning light failing to glow when the ignition is turned on, before starting the engine.

Hazard Warning Switch (10) (L.H. Steering only)

If the vehicle is immobilised and constitutes a hazard to other vehicles, warning may be given by using the "hazard warning system". To operate, depress the lower portion of the switch (10) when all turn-signal lights will flash intermittently.

Tachometer (11)

The tachometer indicates the engine speed in revolutions per minute and combines two warning indicators (35, 36, See Fig. 7). The speed range within the coloured segments is subject to the "Recommended Speed Limits" mentioned on page 43.

Lighting Switch (12)

Move the lever downwards to the first position to illuminate the rear tail, licence plate, parking lights and side marker lights. Move the lever down to the second position to illuminate the headlights. (See "Headlight Dipper" 31).

Lifting the lever towards the steering wheel flashes the headlight high beams.

Ashtray (13)

An ashtray is provided in the centre of the fascia top. To empty, lift the assembly from the surround.

Temperature Gauge (14)

When the ignition switch is turned 'ON' the pointer moves slowly across the dial taking up to one minute to reach a true reading.

Normal operating temperature is reached when the pointer registers in the central sector of the dial. Should the pointer reach the highest mark, stop the engine immediately and check the level of coolant in the radiator. Refer to page 27.

Oil Pressure Gauge (15)

Oil pressure at 2,000 r.p.m. under normal operating conditions, should be 45-65 lbs/in² (3.2-4.6 Kg/cm²). Severe operating conditions, such as competition work, may cause the oil pressure to drop below 25 lb/in.² (1.8 Kg/cm²), indicating that the oil temperature is excessive. Under these circumstances fitment of an oil cooler may be necessary.

CONTROLS, INSTRUMENTS AND INDICATORS

Instrument Illumination Rheostat (16)

Turn the knob clockwise to illuminate the instruments. Further rotation of the knob diminishes the light intensity - operates only when the lighting switch is 'ON'.

Fuel Gauge (17)

The fuel gauge indicates the approximate contents of the fuel tank. When the ignition switch is turned 'ON' the pointer moves slowly across the dial taking up to one minute to reach a steady reading which it will maintain regardless of vehicle movement, until the ignition is switched 'OFF'.

Ammeter (18)

The ammeter indicates the rate of battery charge or discharge. The charging rate is indicated when the pointer moves to the left-hand side of 'Zero' and discharge, by movement to the right.

Glove Box Lock (19)

The glove-box may be unlocked by turning the key a quarter turn clockwise and opened by depressing the locking barrel.

Scuttle Vent Control (20)

Fresh air is admitted to the heater duct through the open scuttle ventilator. This is opened by pulling the lever (20) rearwards and closed by pushing it forwards. When the ventilator is closed, the heater unit recirculates air already in the vehicle.

Cold Start Mixture Control (21)

This control is used to enrich the fuel mixture for easy starting from cold. The control should not be used if the engine is warm, and may not be necessary in warm climates. Full instructions for use are given on page 42.

Ignition/Starter Switch (22)

The combined ignition and starter switch, Fig. 4 is operated by the key used for locking the driver's door. The switch has four positions: 4, auxiliary; 1, off (in which position the key may be withdrawn); 2, ignition; 3, start.

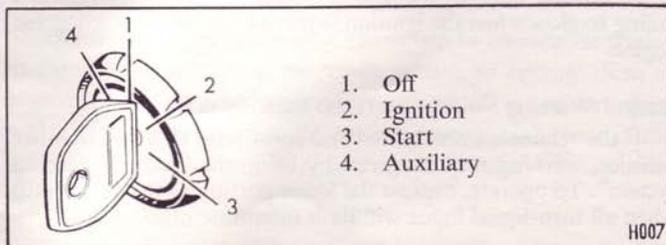


Fig. 4

With the key in the 'off' position, turn the key clockwise to switch on the ignition circuits.

Turning the key anti-clockwise to the auxiliary position permits the use of a radio when the vehicle is stationary and the ignition is switched off.

Heat Control (23)

The heat control operates a water valve which regulates the flow of water through the heater unit. The control may be set at any intermediate position as required. The water valve is closed when the control is pushed in; maximum heat is available when the control is pulled out.

Blower Switch (24)

The blower motor, operated by a switch (24) boosts the flow of air through the heater unit. Pull the switch to its first position to operate the blower motor at slow speed or to its second position for high speed operation. The blower will operate only when the ignition switch is turned 'ON'.

Air Distribution Control (25)

The air distribution control operates a 'flap' valve which directs air from the heater unit to the windscreen or to the windscreen and interior. The maximum volume of air is directed to the windscreen (for de-misting and de-frosting) when the control is pulled halfway out. When the control is pulled fully

out, air is distributed to the interior and to the windscreen. The 'flap' valve is closed when the control is pushed fully in.

Handbrake Lever (26)

To apply the rear wheel brakes pull the handbrake lever upwards. To release the brakes, pull the lever slightly upwards, depress the button (arrowed, Fig. 5) and lower the lever while the button is depressed.



Fig. 5

CONTROLS, INSTRUMENTS AND INDICATORS

Gear Shift Lever (27)

Moving the gear shift lever from neutral, the gear positions are as follows (Fig. 6):

- 1st Move the lever left and forward
- 2nd Move the lever left and rearward
- 3rd Move the lever right and forward
- 4th (top) .. Move the lever right and rearward
- Reverse .. Move the lever sharply to the extreme right and rearward. Engage only when the vehicle is stationary

Always select neutral before starting the engine.



Fig. 6

Throttle, Brake and Clutch Pedals (28, 29 and 30)

These are conventional items which should require no further explanation

Headlight Dipper (31)

When the headlights are illuminated (see 'Lighting Switch' on page 9), the high beams may be lowered by pressing the dipper switch and releasing it. To return to the high beam position, again press the dipper switch and release it. The high beam position is indicated by a blue warning light (33) near the bottom of the speedometer dial.

Trip Release Control (32)

The trip odometer (38) may be reset to zero by pushing the knob (32) upwards and turning clockwise.

High Beam Indicator (33, Fig. 7)

The indicator glows blue when the headlight high beams are selected and is extinguished when the headlights are 'dipped'.

Turn Signal Indicator (34, Fig. 7)

Should the light fail to function when the control lever is operated, a broken bulb filament is indicated in the front or rear turn-signal lights at the side corresponding to non-operation of the indicator, or a broken filament in the indicator bulb.

CONTROLS, INSTRUMENTS AND INDICATORS

Low Oil Pressure Indicator (35, Fig. 7)

The centre indicator glows green when the ignition is switched on and is extinguished when the engine runs in excess of idling speed. Should the light remain on at normal running speeds, stop the engine and check the level of oil in the engine oil pan. If this is satisfactory, have the lubrication system checked immediately.

No-Charge Indicator (36, Fig. 7)

The indicator glows red when the ignition is switched on and is extinguished when the engine is running. Should the red light remain on whilst driving, a fault is indicated in the battery charging system which should be rectified without delay.

Odometer (37, Fig. 7)

The figures within the aperture below the centre of the speedometer dial show the total mileage of the vehicle and may be used as a guide for periodic lubrication and maintenance.

Trip Odometer (38, Fig. 7)

The figures within the aperture above the centre of the speedometer dial may be used to record the distance of each journey, provided that the figures are initially set at zero. (See 'Trip Release Control', 32).

Radio Controls

For operating instructions see the radio leaflet provided with the set.

Sun Visors

Two adjustable sun visors, padded to reduce the risk of impact injury, may be unclipped from the rear view mirror bracket

and swung to eliminate side glare. The passenger's sun visor incorporates a vanity mirror.

Interior Lamp

The interior lamp mounted on the transmission tunnel is operated automatically when either door is opened, or manually by the switch located on the unit.

Rear View Mirror

The anti-glare device incorporated in the rear view mirror is operated by moving downwards the lever located on the rear of the mirror.

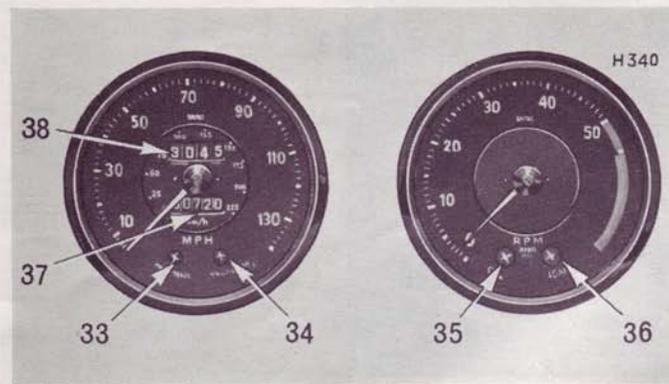


Fig. 7

SAFETY HARNESS

Safety harness anchorage points built into the vehicle are shown on Figs. 8 and 9.

Fitting the Harness

Remove the shoulder strap anchor bolt, crimped washer and collar from each wheelarch; pass the bolt through the strap attachment, fit the crimped washer and collar, as shown on Fig. 10, and refit to the vehicle. Fit the latched hook of the lap strap to the eye bolt (Fig. 9), and note that the shoulder strap will have a half twist when fitted to the wheelarch.

Using the Harness

Pass the buckle end of the belt around the hips and the shoulder strap over the shoulder adjacent to the door. Fasten the belt by pushing the locking plate into positive engagement with the buckle. This is denoted by a 'click'. To release the harness depress the centre panel.

Harness Adjustment

The belt should be adjusted so that the hand will pass between the strap and the chest. The lap strap should be reasonably tight with the buckle resting on the hip nearer the centre of the vehicle.

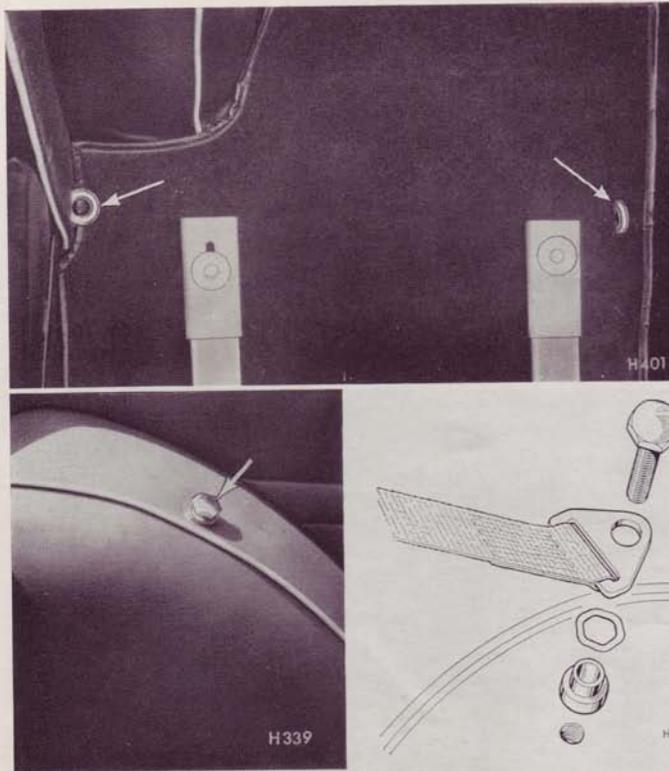


Fig. 8 (left) Fig. 9 (upper) Fig. 10 (right)

Adjustment to lower half of belt:

Relieve any tension on the belt and pull the belt over the roller in the buckle, the roller has a self-locking action which, once adjusted, will retain its position.

Adjustment to upper half of belt:

Pull the slide on the lower part of the lap strap upwards to shorten and downwards to lengthen.

Cleaning

Badly stained safety belts can be dry cleaned. The cleaner should be advised of the nature of staining. Belts subjected to normal soiling can be cleaned with soap, or proprietary brand detergents dissolved in hot water.

SEATS**Seat Adjustment (Fig. 11)**

The driver's and passenger's seats are adjustable for leg reach by moving the lever at the front of each seat and sliding the seat to the desired position. Allow the lever to re-engage in the nearest adjustment notch. Both seats will tilt forward to provide access to the rear compartment, when the lever at the outboard side of the seat back is depressed (Fig. 12).

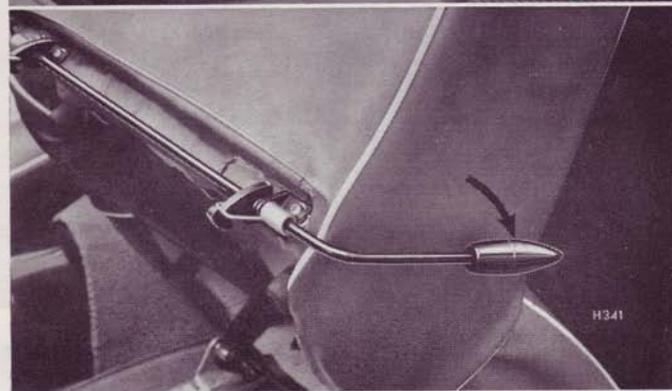


Fig. 11 (upper)

Fig. 12 (lower)

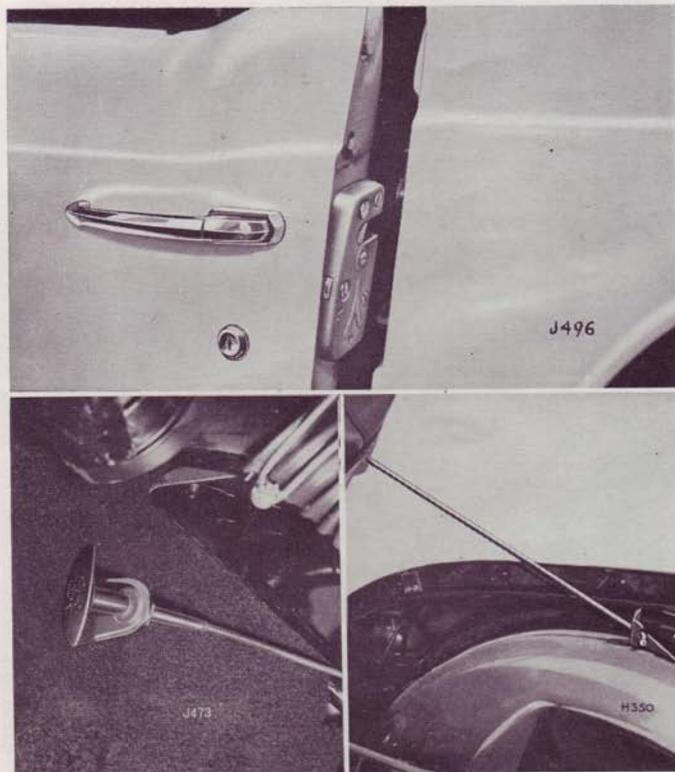


Fig. 13 (left) Fig. 14 (upper) Fig. 15 (right)

LOCKS AND KEYS

The vehicle is provided with two sets of keys, the spare set being obtained from the selling dealer. One key is used to operate the ignition and door locks; the other is used for the trunk locker and glove box.

Door Locks (Fig. 14)

“Anti-burst” locks are fitted to both doors and are operated by a pushbutton on the outside or by pulling the remove-control lever on the inside. To lock the door from the inside, push the lever forwards; to lock the door from the outside, insert the key and turn it a quarter turn away from the shut face. The key will return under the influence of spring loading to a vertical position when it may be withdrawn.

Lubrication

Once a month, particularly during freezing weather, apply a few drops of thin machine oil into the latch and key slots.

IMPORTANT: Do not apply grease to the lock cylinders.

Bonnet Release (Fig. 13)

To open the bonnet pull the control situated below the left-hand side of the facia. The bonnet will rise sufficiently to enable the fingers to be inserted under the rear edge to give access to the safety catch. The bonnet can then be released and raised to a near vertical position, where it will be supported by a stay. Disengage the stay from its recess before closing the bonnet (Fig. 15).

Luggage Locker (Fig. 17)

To open the luggage compartment lid, depress the unlocked plunger and raise the lid to its limit before lowering it on to the telescopic support.

Close the lid by raising it slightly to release the catch (arrowed, Fig. 16) in the telescopic support, lower, and press down firmly to close, lock the lid by turning the key a half turn counter-clockwise.

Fuel Filler Cap (Fig. 18)

The fuel filler cap, located forward of the luggage locker lid, is opened by depressing the catch on the side of the cap. Press the cap to close.



Fig. 16 (left)

Fig. 17 (upper)

Fig. 18 (right)

SOFT TOP

The soft top is made from P.V.C. material, and is supported by a hinged frame. The assembly folds down into the rear of the car and is protected by a soft top cover.

Lowering the Soft Top

Release the soft top header rail from the windscreen frame by turning the catch levers in the direction as shown in Fig. 19.

Push the header rail, rearwards and slightly upwards, while knocking the soft top side support (arrowed Fig. 20) downwards, until the assembly begins to fold. Continue lowering the frame and pull the fabric flat over the luggage compartment lid (Fig. 21).

Fold the fabric forwards over the soft top frame and turn the ends of the fabric inwards (Fig. 22). Ensure, that the Vybak windows are free from distortion and that the fabric is clear of the frame.



Fig. 19



Fig. 20



Fig. 21

Soft Top in the Down Position

Retain the soft top in position by fitting the cover as follows:

Attach the cover to the outer fasteners and continue working towards the centre. Attach each strap to its respective fastener on the back wall of the floor well.

Raising the Soft Top

Unfasten and remove the soft top cover. Fold the sides of the fabric outwards and pull rearwards over the trunk lid. Lifting the front header rail, raise the assembly sufficiently to allow the

fabric to lie evenly over the soft top frame. Secure the fasteners (three each side, Fig. 23) to the body.

Secure the soft top header rail on the windscreen frame, by turning the catch levers inwards towards the centre of the car.

Opening Rear Window (Fig. 24)

To open the rear window, release the zip-fastener and roll the panel downwards. Retain the rolled panel in position by attaching the straps to the press fasteners located on the back wall of the rear compartment.



Fig. 22



Fig. 23



Fig. 24

TONNEAU COVER—HARD TOP

Tonneau Cover (Optional)

The tonneau cover provides weather protection for the vehicle interior when the soft top is lowered. It incorporates press-studs for securing to the car and a zip fastener which permits access to either or both of the front seats.

Hard Top (Optional) (Figs. 25, 26, 27)

A hard top is available in kit form for fitment to soft top models, and may be removed and replaced as required.

Figs. 25 to 27 show the hard top attachments.



Fig. 25

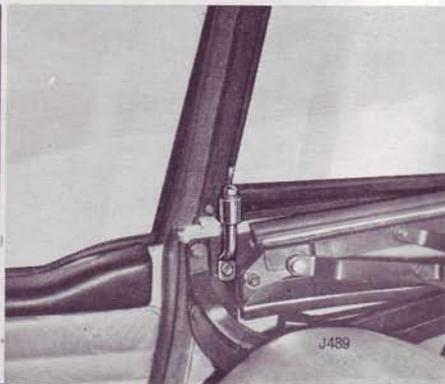


Fig. 26



Fig. 27

CARE OF BODYWORK

Washing

Avoid using a dry cloth to wipe dust from the paintwork and plated surfaces. Dust is an abrasive and if removed in this way it will scratch the polished surfaces. Wash the vehicle frequently with plenty of running water and a clean soft sponge. Soften and, if possible, remove the mud with water before using the sponge. When all dirt is removed, sponge off and dry with a clean damp chamois leather. Never wash or polish the vehicle under a hot sun.

Removing Grease and Tar

Remove grease or tar by sparing use of white spirit, but do not apply this to rubber, particularly windscreen wiper blades.

Glass Surfaces

Glass is easily scratched. This can be avoided by always using a damp chamois leather which is specially reserved for use on glass only. If silicone polishes have been used on the body, take care that the polish does not come in contact with the glass. It is extremely difficult to remove and causes the windscreen wipers to smear.

Chromium Plating

Frequent washing and thorough drying is recommended, especially during the winter months when there is likelihood of corrosion through contamination with road salt.

Polishing

After a period of use, the formation of traffic film will cause the paintwork to lose some of its lustre, even though the vehicle has been carefully and regularly washed. The original brilliance may be restored after washing by using a reputable non-abrasive cleaner and polish.

Being the most durable, wax preparations are preferable, but where these are used regularly the old wax must first be removed with a cleaner before further application of new wax. The frequency at which polishing is necessary will depend upon local conditions of air pollution.

Care of Interior, Soft Top and Tonneau Cover

Brush and clean the inside of your car each time you wash and polish the outside of it. Use a vacuum cleaner where possible and ensure complete removal of all dust from the interior and trim.

Wash the Upholstery (and exterior fabric) with luke-warm non-caustic soapy water. Do not use detergents or household cleaners as these may cause damage. Remove all traces of suds with a clean damp cloth and thoroughly dry the upholstery with a dry duster or towel.

Wipe the facia and instrument panel with a damp cloth only. Wax or other polishes should not be used inside the car.

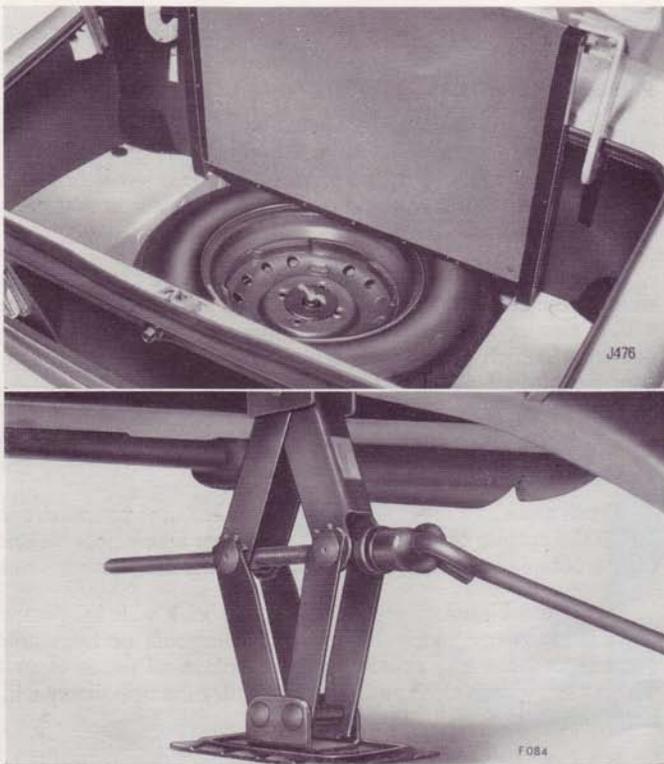


Fig. 28 (upper)

Fig. 29 (lower)

WHEELS AND TYRES

Spare Wheel and Lifting Jack (Fig. 28)

The tools and spare wheel are housed under the luggage compartment floorboard.

To remove the spare wheel, turn the nylon fastener, raise the floorboard and unscrew the retaining nut.

The Jack (Fig. 29)

Locate the head of the jack under a chassis member (rearwards of the front wheel or forwards of the rear wheel).

Assemble the handle into the jack and turn it to lift the required wheel from the ground.

Wheel Changing Procedure (Pressed Steel Wheels)

1. Firmly apply the handbrake and chock the wheel diagonally opposite the one being lifted.
2. Remove the spare wheel from the luggage compartment and make sure that its tyre pressure is correct.
3. Using the special lever provided in the tool kit, lever off the wheel trim as shown in Fig. 30 and slightly loosen the wheel nuts, Fig. 31.
4. Place the jack in position and lift the wheel clear of the ground. Should it be necessary to lift the vehicle whilst it is on sloping ground, exercise the greatest care.
5. Completely remove the wheel nuts, exchange the road wheels and replace the nuts.
6. Lower the jack, give the wheel nuts a final tighten and refit the nave plate by placing its edge over the wheel projections and giving the plate a sharp tap with the hand to spring it into position.

NOTE: Occasionally apply a smear of grease or oil to the threads and inner faces of the wheel nuts.

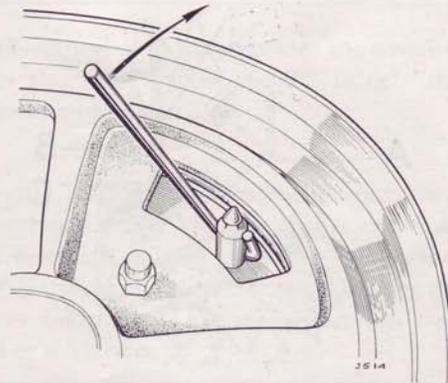


Fig. 30 (upper) Fig. 31 (lower)

WHEELS AND TYRES

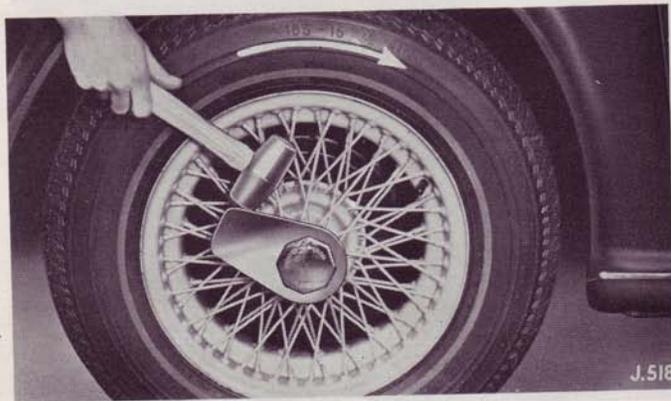
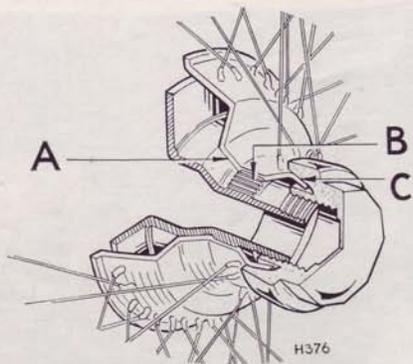


Fig. 32 (upper) Fig. 33 (lower)

Wire Spoke Wheels (Optional) (Fig. 32)

Before fitting a wheel, ensure that the following are undamaged, cleaned and coated with special P.B.C. GREASE provided in the tool kit:*

- (A) Adaptor taper and mating wheel hub taper
- (B) Splines
- (C) Wheel hub outer taper and large wheel nut taper

Slide the wheel on to the adaptor and pushing against the wheel hub centre to maintain concentric location, simultaneously screw on the retaining nut by hand until the wheel is felt to seat on the adaptor taper.

Restraining the wheel with one hand, continue to tighten the wheel with a spanner. Grip tyre at diametrically opposite areas of its circumference and attempt to rock the wheel on its adaptor. If free play (other than that due to hub bearing clearance) is apparent, release centre lock nut and re-tighten whilst pushing wheel onto adaptor.

Lower the wheel to the ground and finally tighten (Fig. 33).

Check that each wheel retaining nut tightens in the opposite direction to the wheel rotation. The foregoing instructions apply each time a wheel is removed and replaced.

IMPORTANT: Splined adaptors must be fitted to the correct side of the vehicle—left-hand threaded adaptors to the right-hand side and right-hand threaded adaptors to the left-hand side (as viewed from the driver's seat).

NOTE: Tubed tyres must be used with wire wheels.

* PBC GREASE IS OBTAINABLE IN 4½ OZ (127 gm) TUBES UNDER PART NUMBER 513317.

Wheel Alignment

The correct front and rear wheel alignment is 0° to $\frac{1}{16}$ " (1.6 mm.) toe-in (kerb condition). Excessive misalignment caused by kerb impact or other accidental damage will result in severe tyre wear and faulty steering.

Tyre Wear

The characteristics of tyres vary considerably and, therefore, when new tyres are fitted all four must be of the correct type and rating.

Occasionally remove flints and other road matter from the treads and examine the tyres for sharp fins, flats and other irregularities. An upstanding sharp fin on the edge of each pattern rib is a sure sign of road wheel misalignment (Fig. 34).

Fins on the inside of the pattern ribs indicate toe-in. Fins on the outside edges indicate toe-out. Sharp pattern edges may also be caused by road camber, even when wheel alignment is correct. In such cases, it is better to make sure by having the track checked with an alignment gauge.

"Spotty" tread wear or flats, can result from grabbing brakes or unbalanced wheel assemblies. Your Triumph Dealer will check the action of the brakes and re-balance the tyres if required. The original degree of balance is not necessarily maintained, and it may be affected by uneven tread wear, by repairs, by tyre

removal and refitting, or by wheel damage and eccentricities. The vehicle may also become more sensitive to unbalance due to normal wear of moving parts.

Tyres

Wheels and tyres of correct types and pressures, are an integral part of the vehicle's design. Thus the regular maintenance of the tyres contributes not only to the safety but to the designed functioning of the vehicle, as road holding, steering and braking are especially vulnerable to the use of incorrectly pressurised, badly fitted or worn tyres.



Fig. 34



Fig. 35

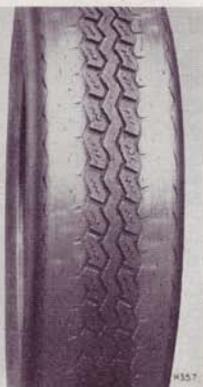


Fig. 36

WHEELS AND TYRES

Pressures

Adjust tyre pressures in accordance with the recommendations given below. These pressures are satisfactory for sustained speeds up to 130 m.p.h. (210 km.h.).

NOTE: Should the vehicle be tuned to increase its maximum speed, or be used for racing, consult the respective tyre company regarding the need for tyres of full racing construction.

Never bleed a warm tyre but always adjust the pressures whilst the tyres are cold, i.e., before a run. As the tyres warm up their pressures will increase.

To prolong tyre life, avoid severe braking, sudden changes of direction at speed, and driving over or against high kerbstones, as this can result in severe damage to the tyre walls. Examine the tyres occasionally and remove flints or other road matter which may have become embedded in the treads.

Cleaning

Wipe off any oil or grease which may be on the tyres by using a cloth moistened in petrol. The tyres should then be washed, using only soap and water.

Wheel Run-out and Ovality

The maximum tolerances for both run-out and ovality are as follows:

Press steel wheels	0.070" (0.18 mm.)
Wire spoke wheels	0.060" (0.15 mm.)

Excessive run-out and ovality will result in severe tyre wear and faulty steering.

Minimum average spoke torque (Wire wheels only)	Outer rim spokes		Inner rim spokes	
	lb.in.	kg.cm.	lb.in.	kg.cm.
	55	63.8	40	46.5

RECOMMENDED TYRE PRESSURES

Tyres 165HR - 15 SP Sport (tubeless or tubed)
or 165HR - 15 XAS (tubed only)

PRESSURES	Front		Rear	
	lb/in ²	kg/cm ²	lb/in ²	kg/cm ²
Up to 100 m.p.h. (160 k.p.h.)	22	1.54	26	1.82
Over 100 m.p.h. (160 k.p.h.)	28	1.96	32	2.24

COOLING SYSTEM

The pressurised "no loss" cooling system incorporates a translucent plastic overflow reservoir (Fig. 40) which collects excess coolant from the radiator as the coolant in the system expands with heat. Depression created as the system cools, causes the coolant to flow back from the reservoir into the radiator. The fluid level, which is visible through the translucent reservoir, should be maintained at least half full when cold.

Draining

To drain the system, move the heat control (23) Fig. 2, to the hot position, remove the radiator filler cap (Fig. 38) and open the tap at the rear right-hand side of the cylinder block (Fig. 39), and the tap at the bottom of the radiator (Fig. 37).

NOTE. See "Caution", page 45.

Flushing

Efficient cooling is maintained by thoroughly flushing the system once each year before adding anti-freeze. When carrying this out, it is advantageous to remove the drain tap completely and to use plenty of clean running water.

Allowing anti-freeze solution to remain in the system throughout the summer period affords anti-corrosion protection. The solution, however, should be changed at the beginning of each winter period as the inhibitor becomes exhausted.

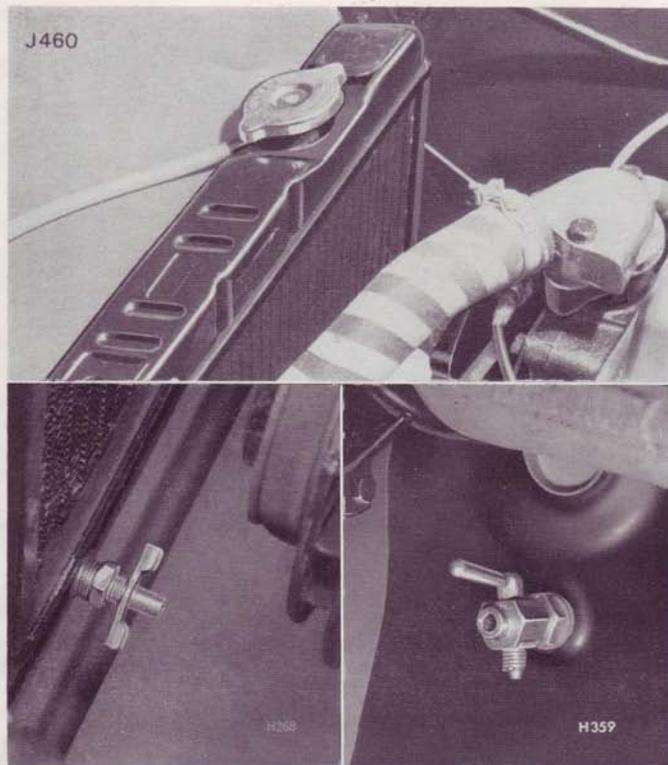


Fig. 37 (left) Fig. 38 (upper) Fig. 39 (right)

COOLING SYSTEM

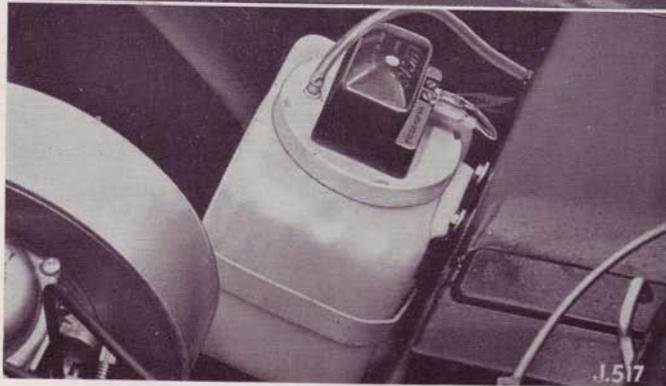
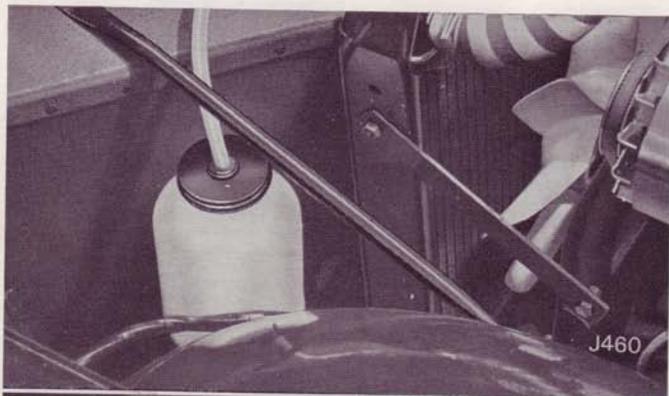


Fig. 40 (upper)

Fig. 41 (lower)

Filling

Close both drain taps, open the heater control fully and remove the radiator filler cap. Fill the cooling system with clean (soft) water and run the engine at approximately 1,500 r.p.m. for 1 or 2 minutes. Top-up the radiator and replace the filler cap. Completely fill the plastic overflow reservoir with clean water.

Windscreen Washer (Fig. 41)

Examine the water level in the plastic windscreen washer container. If required, lift off the cap and replenish the container with clean water. Under freezing conditions, fill the screen-washer container with a mixture of methylated spirits (alcohol) and water, the recommended proportions being 1 part alcohol to 2 parts water. This may then be used to disperse ice and snow from the windscreen. Do not use anti-freeze solution in the windscreen washer as this may discolour the paintwork and damage the wiper blades and sealing rubber.

Frost Precautions

The car heater cannot be completely drained by normal methods. Therefore frost damage will not be prevented by merely draining the radiator.

For your protection during freezing weather, an approved anti-freeze solution should be added to the coolant in the radiator.

Because of the searching effect of these solutions, advise your dealer to check the system for leaks before adding the anti-freeze.

At certain temperatures glycol water solutions adopt a "mushy" state with a viscosity which impairs circulation and can immobilise or damage the water pump. Therefore, consult the following chart before adding anti-freeze, for the degree of frost protection required.

ANTI-FREEZE CONCENTRATION	25%	30%	35%
<i>Complete Protection</i> Vehicle may be driven away immediately from cold	10°F. (-12°C.)	3°F. (-16°C.)	-4°F. (-20°C.)
<i>Safe Limit</i> Coolant in mushy state. Engine may be started and vehicle driven away after short warm-up period	0°F. (-17°C.)	-8°F. (-22°C.)	-18°F. (-28°C.)
<i>Lower Protection Limit</i> Prevents frost damage to cylinder head, block and radiator .. Engine should NOT be started until thawed out.	-14°F. (-26°C.)	-22°F. (-30°C.)	-28°F. (-33°C.)

KEY TO WIRING DIAGRAM—RIGHT HAND STEERING

CAUTION : THIS VEHICLE IS FITTED WITH A NEGATIVE EARTH ELECTRICAL SYSTEM. ENSURE THAT THE BATTERY EARTH LEAD IS ALWAYS CONNECTED TO THE BATTERY NEGATIVE TERMINAL. THE ALTERNATOR — AND POSSIBLY SOME ACCESSORIES — CONTAIN POLARITY SENSITIVE COMPONENTS THAT MAY BE IRREPARABLY DAMAGED IF SUBJECTED TO INCORRECT POLARITY.

- | | | |
|--|---|--------------------------------|
| 1. Alternator | 20. Panel rheostat | 40. Windscreen wiper switch |
| 2. Ignition warning light | 21. Instrument illumination | 41. Windscreen wiper motor |
| 3. Ammeter | 22. Connector block | 42. Windscreen washer switch |
| 4. Battery | 23. Horn | 43. Windscreen washer pump |
| 5. Ignition/starter switch | 24. Horn push | 44. Voltage stabilizer |
| 5A. Ignition/starter switch—
radio supply connector | 25. Cubby box illumination | 45. Temperature indicator |
| 6. Petrol pump | 26. Cubby box illumination switch | 46. Temperature transmitter |
| 7. Starter motor | 27. Transmission tunnel lamp | 47. Fuel indicator |
| 8. Ignition coil | 28. Transmission tunnel lamp door
switch | 48. Fuel tank unit |
| 9. Ignition distributor | 29. Luggage boot lamp | 49. Stop lamp switch |
| 10. Column light switch | 30. Luggage boot lamp switch | 50. Stop lamp |
| 11. Dip switch | 31. Turn signal flasher unit | 51. Heater switch |
| 12. Main beam warning light | 32. Turn signal switch | 52. Heater motor |
| 13. Main beam | 33. L.H. Flasher lamp | 53. Oil pressure warning light |
| 14. Dip beam | 34. L.H. Flasher repeater lamp | 54. Oil pressure switch |
| 15. Fuse box | 35. R.H. Flasher lamp | |
| 16. Front parking lamp | 36. R.H. Flasher repeater lamp | |
| 17. Rear marker lamp | 37. Turn signal warning light | |
| 18. Tail lamp | 38. Reverse lamp switch | |
| 19. Plate illumination lamp | 39. Reverse lamp | |

COLOUR CODE

- | | |
|-----------|-----------------|
| N. Brown | L/G Light Green |
| U. Blue | W. White |
| R. Red | Y. Yellow |
| P. Purple | S. Slate |
| G. Green | B. Black |

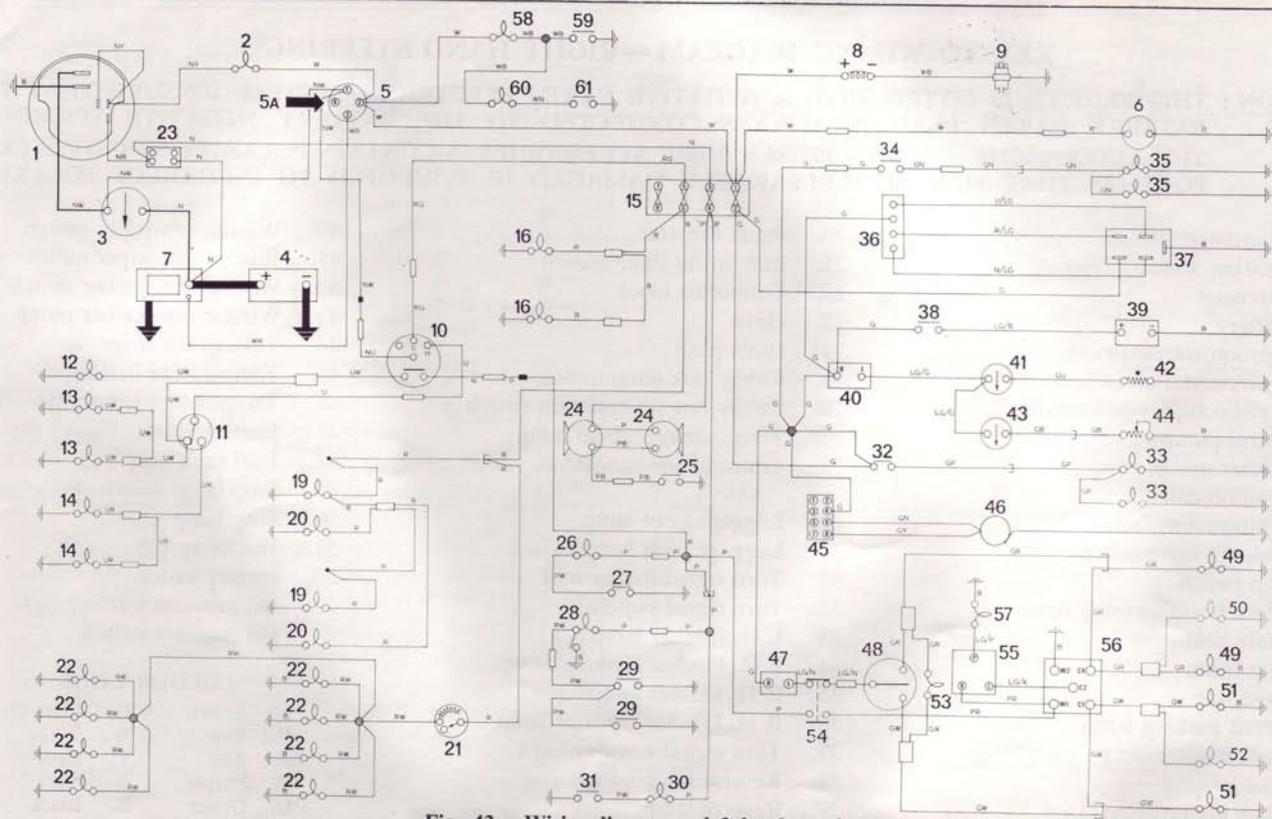


Fig. 43. Wiring diagram — left-hand steering

KEY TO WIRING DIAGRAM—LEFT HAND STEERING

CAUTION : THIS VEHICLE IS FITTED WITH A NEGATIVE EARTH ELECTRICAL SYSTEM. ENSURE THAT THE BATTERY EARTH LEAD IS ALWAYS CONNECTED TO THE BATTERY NEGATIVE TERMINAL. THE ALTERNATOR — AND POSSIBLY SOME ACCESSORIES — CONTAIN POLARITY SENSITIVE COMPONENTS THAT MAY BE IRREPARABLY DAMAGED IF SUBJECTED TO INCORRECT POLARITY.

- | | | |
|--|--|--------------------------------------|
| 1. Alternator | 25. Horn push | 48. Turn signal switch |
| 2. Ignition warning light | 26. Cubby box illumination | 49. L.H. Flasher lamp |
| 3. Ammeter | 27. Cubby box illumination switch | 50. L.H. Flasher repeater lamp |
| 4. Battery | 28. Transmission tunnel lamp | 51. R.H. Flasher lamp |
| 5. Ignition/starter switch | 29. Transmission tunnel lamp door switch | 52. R.H. Flasher repeater lamp |
| 5A. Ignition/starter switch—
radio supply connector | 30. Luggage boot lamp | 53. Turn signal warning light |
| 6. Petrol pump | 31. Luggage boot lamp switch | 54. Hazard switch |
| 7. Starter motor | 32. Stop lamp switch | 55. Hazard flasher unit |
| 8. Ignition coil | 33. Stop lamp | 56. Hazard relay |
| 9. Ignition distributor | 34. Reverse lamp switch | 57. Hazard warning light |
| 10. Column light switch | 35. Reverse lamp | 58. Brake line failure warning light |
| 11. Dip switch | 36. Windscreen wiper switch | 59. Brake line failure switch |
| 12. Main beam warning light | 37. Windscreen wiper motor | 60. Oil pressure warning light |
| 13. Main beam | 38. Windscreen washer switch | 61. Oil pressure switch |
| 14. Dip beam | 39. Windscreen washer pump | |
| 15. Fuse box | 40. Voltage stabilizer | |
| 16. Front parking lamp | 41. Temperature indicator | |
| 19. Tail lamp | 42. Temperature transmitter | |
| 20. Plate illumination lamp | 43. Fuel indicator | |
| 21. Panel rheostat | 44. Fuel tank unit | |
| 22. Instrument illumination | 45. Heater switch | |
| 23. Connector block | 46. Heater motor | |
| 24. Horn | 47. Turn signal flasher unit | |

COLOUR CODE

- | | |
|-----------|-----------------|
| N. Brown | L/G Light Green |
| U. Blue | W. White |
| R. Red | Y. Yellow |
| P. Purple | S. Slate |
| G. Green | B. Black |

ELECTRICAL

FUSE SYSTEM

The fuse box is mounted on the left-hand side of the engine bay. The unit contains three operational fuses, one fuse available for use to protect an accessory circuit and has provision to house two spares. The fuses are protected by a pull-off cover.

Failure of a particular fuse is indicated when all the circuits protected by it become inoperative. If a new fuse fails establish the cause and rectify the fault before fitting a second replacement.

Fuse

Manufacturer	Lucas
Rating	35 amp.
Lucas Part No.	188218
Stanpart No.	58465

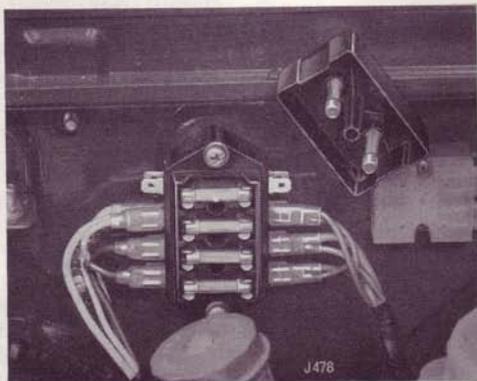


Fig. 44

Circuits

The top fuse is not used on a standard production vehicle. It may be employed in service to protect an accessory circuit.

The fuse fed by a white cable from the ignition/starter switch protects the following circuits:

- Turn signal circuit
- Reverse lamp circuit
- Windscreen wiper circuit
- Windscreen washer circuit
- Temperature indication circuit
- Fuel indication circuit
- Stop lamp circuit
- Heater circuit.

The fuse fed by a brown cable from the battery protects the following circuits:

- Horn circuit
- Cubby box illumination circuit
- Headlamp flasher circuit
- Transmission tunnel lamp circuit
- Luggage boot lamp circuit
- Hazard warning circuit—left-hand steer only.

The fuse fed by a red/green cable from the column light switch protects the following circuits:

- Front parking lamp circuit
- Tail lamp circuit
- Plate illumination lamp circuit
- Instrument illumination circuit.

CHARGING SYSTEM

CAUTION: THE ALTERNATOR CONTAINS POLARITY SENSITIVE COMPONENTS. REFER TO "CAUTION" ON PAGE 31.

DO NOT MAKE OR BREAK ANY CONNECTIONS IN THE CHARGING CIRCUIT—INCLUDING THE BATTERY LEADS—WHILE THE ENGINE IS RUNNING OR DAMAGE TO COMPONENTS MAY OCCUR. THE ALTERNATOR MUST ONLY BE RUN WITH ALL THE CHARGING CIRCUIT CONNECTIONS MADE OR WITH THE ALTERNATOR MULTI-SOCKET CONNECTORS DISCONNECTED.

HIGH VOLTAGES MAY DAMAGE SEMI-CONDUCTOR DEVICES. REMOVE ALTERNATOR MULTI-SOCKET CONNECTORS BEFORE PERFORMING ANY ELECTRIC ARC WELDING ON THE VEHICLE.

Alternator

The Lucas 15ACR alternator—which contains its own control unit—is driven by a vee belt which should be adjusted as detailed on page 52. The field winding rotor runs on two "lubricated for life" ball bearings. (No routine lubrication is required).

Ignition Warning Light

The three "field winding supply" diodes enable a circuit similar to a conventional generator warning light circuit to be employed. If the warning light remains illuminated during normal running a fault is indicated.

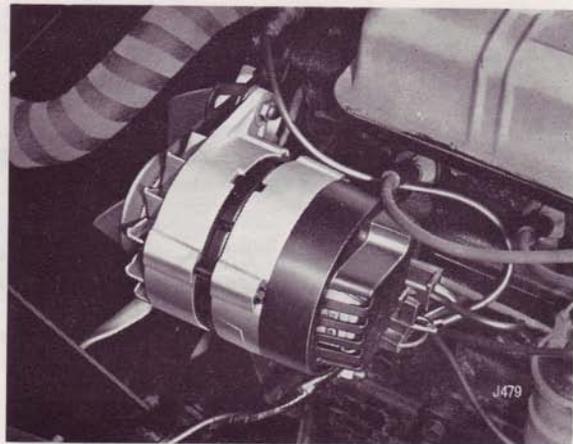


Fig. 45

BATTERY

CAUTION: REFER TO "CAUTIONS" ON PAGES 31 AND 35.

A conventional battery is located on the bulkhead. Battery data is given on page 69.

Ensure that the battery top and terminals remain clean and dry. Coat terminals with petroleum jelly (Vaseline) to prevent corrosion.

Check electrolyte level monthly and if required replenish with pure water as detailed on page 46. If electrolyte has been spilled clean the affected area with a cloth moistened with ammonia to neutralize the acid and prevent acid corrosion.

Ensure that the battery is always firmly clamped in position by the retaining assembly. When fitting battery leads do not hammer terminals to terminal posts. Such action may damage battery.

The battery will deteriorate rapidly if left in a discharged condition. If the unit is reduced to a low state of charge it should be recharged at the first opportunity.

BULB CHART

Lamp	Watts	Lucas Part No.	Stanpart No.	
Headlamps —				
L.H. Dip	60/45	54521872	512231	*
R.H. Dip — Normal	45/40	410	510218	
France	45/40	411	510219	
U.S.A.	50/40	54522231	—	*
Front flasher lamps	21	382	502379	
Front parking lamps	6	989	59467	
Flasher repeater lamps	4	233	518220	
Rear flasher lamps	21	382	502379	
Tail/stop lamps	5/21	380	502287	
Reverse lamps	21	382	502379	
Plate illumination lamps	6	207	57591	
Luggage boot lamp	3	256	57599	
Transmission tunnel lamp	6	254	59897	
Cubby box illumination	2·2	987	59492	
Instrument illumination	2·2	987	59492	
Warning lights	2·2	987	59492	

* Sealed beam light unit

HEADLAMPS

On a vehicle fitted with sealed beam light units a filament failure necessitates replacement of the unit.

Renew Sealed Beam Light Unit

Insert a large screwdriver behind rim adjacent to clip as shown on Fig. 46. Twist screwdriver to release rim from clip. Lift rim from upper retainers.

NOTE: TO AVOID BEAM AIMING DO NOT DISTURB BEAM AIMING SCREWS A AND B.

Remove three screws 1, 2 and 3 to release retaining rim and sealed beam light unit. Pull connector from sealed beam light unit. Renew unit and secure in position.

Ensure clip projection on rim is not bent. Position rim so clip components are aligned. Locate rim behind upper retainers and push to engage clip.

Beam Aiming

Remove and install rim as detailed above. Screw A positions the beam in the horizontal plane. Screw B controls beam height.

Beam aiming can best be accomplished using equipment such as Lucas "Beamsetter" or "Lev-L-Lite". This service is available at Triumph distributors or dealers and will ensure maximum road illumination with minimum discomfort to other road users.



Fig. 46

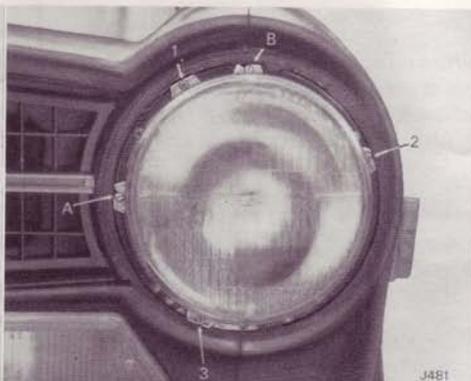


Fig. 47



Fig. 48

LAMPS—BULB RENEWAL

Bulb renewal for the majority of lamps is conventional. Remove lens by unscrewing required screw/screws. Renew bulb and re-assemble.

Rear flasher, tail/stop and reverse lamps

Open luggage boot lid. Remove carpet. Remove spare wheel cover. Remove six screws and withdraw appropriate trim panel. Pull appropriate bulb holder from lamp base. Renew bulb and re-assemble.

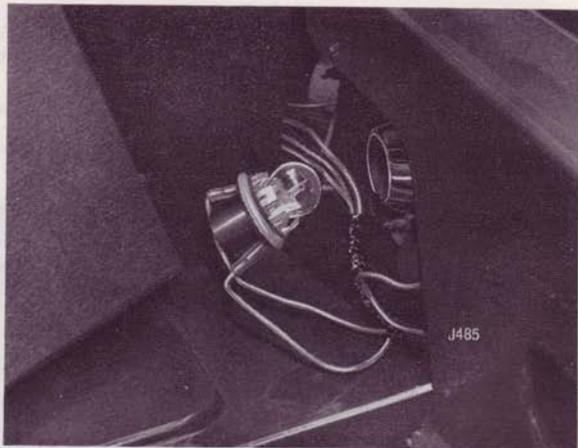


Fig. 49

ELECTRICAL

Luggage Boot Lamp

Open luggage boot lid. Detach lens and base by removing two screws. Renew festoon bulb and re-assemble.

Transmission Tunnel Lamp

Remove lens by unscrewing two screws. Carefully renew festoon bulb and re-assemble.

Cubby Box Illumination

Open cubby box lid. Carefully unscrew bulb from holder. Renew bulb.

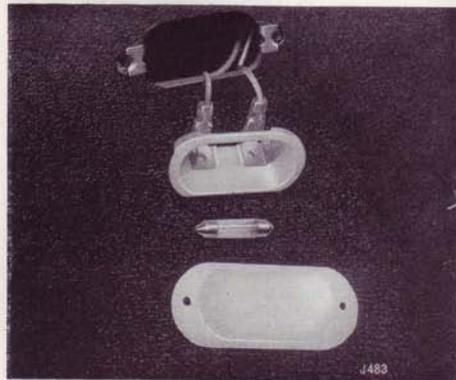


Fig. 50

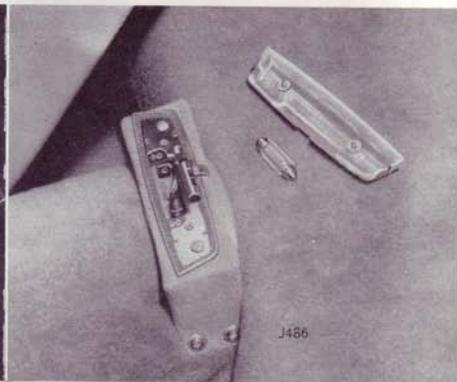


Fig. 51



Fig. 52

Instrument Illumination

Pull bulb holder—which is a component of the main harness—from instrument. Unscrew bulb from holder. Renew bulb and re-assemble. Note speedometer and tachometer each contain two illumination bulbs.

Warning Lights

Pull bulb holder—which is a component of the main harness—from instrument or housing. Unscrew bulb from holder. Renew bulb and re-assemble.

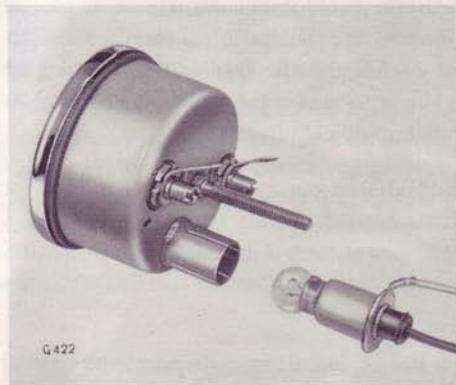


Fig. 53

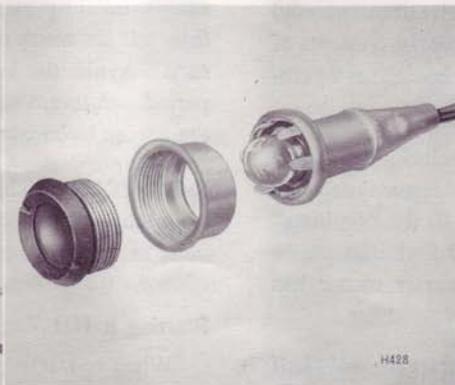


Fig. 54

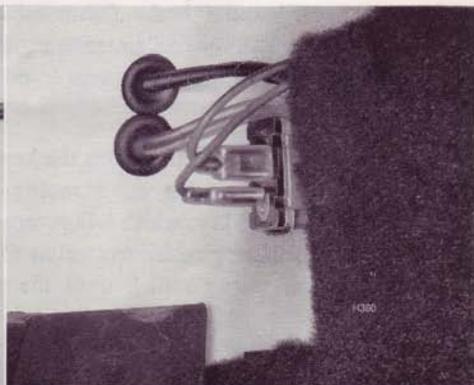


Fig. 55

TURN SIGNAL FLASHER UNIT—RENEWAL

Locate unit attached to clip secured to bulkhead end panel adjacent to passengers feet. Pull unit from clip. Disconnect electrical connectors. Connect electrical connectors to new unit and insert into clip.

NOTE: Fig. 55 shows L.H. steering condition.

STARTING THE ENGINE

Preparation

Check, and if necessary top up, the radiator water level and the engine oil level.

Apply the handbrake and ensure that the gear shift lever is in the "Neutral" position. In cold weather pull the "cold start" control fully out; in warm weather pull to the mid-position. In hot climates, do not use the control. Insert the ignition key and turn it to the "Ignition" position, causing the "no charge", "low oil pressure" and "brake failure" L.H. steering only) indicator lights to glow, the fuel gauge to register the contents of the fuel tank and the temperature gauge to register the temperature of the engine coolant.

From the "Ignition" position, turn the key clockwise against spring pressure to operate the starter motor. Immediately the engine fires, release the key, which will return to the "Ignition" position. Should the engine fail to start at the first attempt, do not re-operate the starter switch until the starter motor has come to rest.

As soon as the engine starts, push the cold start control "half in" (cold climates), or "fully in" (warm climates) and warm the engine at an idling speed of approximately 1,500 r.p.m. This will

cause the "no charge", "low oil pressure" and "brake failure" indicator lights to be extinguished, thus indicating satisfactory performance of the generating, lubricating and braking systems. Should an indicator light remain on, stop the engine and establish the cause. Failure to do so may result in serious damage.

After starting the engine, cylinder wear is minimised if the engine is warmed up quickly by driving away when the indicator lights are extinguished. Maintain an engine speed of approximately 1,500 r.p.m. until the "cold start control" can be pushed fully in. In warm climates, use of the control may be unnecessary. Avoid the use of full throttle during the warming-up period. A thermostat incorporated in the cooling system enables the engine to be warmed up quickly from cold.

IMPORTANT. The 'cold start control' must not be used for a longer period than necessary.

Starting a Hot Engine

When re-starting a hot engine, depress the accelerator pedal to about one-third of its travel before operating the starter switch. The cold start control should not be used.

DRIVING FROM NEW

Running-in

The importance of correct running-in cannot be over-emphasised for during the first few thousand miles of motoring, particularly the first thousand, all working surfaces of the vehicle, including clutch and brakes are "bedding-in" and the eventual performance of the vehicle is affected by the care it receives during its early life.

Most important, avoid the use of full throttle, particularly at low road speeds and when the engine is cold. Running-in should be progressive and no harm will result from allowing the engine to "rev" fairly fast for short periods provided that it is thoroughly warm and not pulling hard.

Use up to about half-throttle initially and select a lower gear as necessary to avoid overloading the engine. As the engine becomes increasingly responsive, wider throttle openings can be used, but the engine should not be subjected to full throttle in any gear, until at least 1,000 miles (1,600 km), have been covered and even then, full throttle should be used only for short periods which may be gradually extended as running-in progresses.

Maximum Engine Speeds

Owners are advised not to drive the car at engine speeds over 5,500 r.p.m., indicated by the beginning of the red segment on the

tachometer, and to avoid over-revving, particularly in the lower gears.

Recommended Fuel

The "TR6" engine is designed to operate on fuels having a minimum octane rating of 100 (5 star*) (Research Method).

*(100 octane fuel) Equivalent to British Standard (5 star) rating.

Overdrive Unit (when fitted)

An overdrive unit serves as a convenient method of providing, at will, a numerically lower overall gear ratio to reduce engine speed and wear, and to effect fuel economy.

Greatest benefit will accrue from judicious use of the overdrive, the governing factor being that the vehicle continues to run easily without sign of engine laboring, combined with the minimum amount of throttle opening necessary to maintain this condition.

Do not change from overdrive at engine speeds in excess of 4,000 r.p.m. This corresponds approximately with peak revs. in normal gears. Damage can result from overdrive disengagement at higher engine speed.

ROUTINE SERVICING

The lubricants listed on pages 66 and 67 have maintained a high standard of quality over many years and are approved only after extensive tests in collaboration with the oil companies concerned. In countries where these oils are unobtainable, use similar oils having the same characteristics. The use of only high grade lubricants is vitally important and cannot be over-emphasised.

Engine

When a new car is delivered, the engine oil pan contains a quantity of special oil, sufficient for the running-in period. Should the level fall below the low mark on the dipstick, the oil pan may be topped-up with any of the approved lubricants.

At the "Free Service", the running-in oil is drained and the oil pan replenished to the level of the high mark on the dipstick, with one of the approved oils.

Transmission, Overdrive and Rear Axle

Rear axles, transmission and overdrive units fitted to new cars are filled with a special oil, formulated to give all necessary protection to new gears. This oil should not be drained but may be topped up with any of the approved oils.

Braking System

In addition to adjustment and examination/renewal of shoes and pads at the intervals recommended in the following pages, it is strongly recommended that the brake fluid be renewed and

that the braking system be overhauled every 36,000 miles (60,000 km.) or 3 years (whichever is sooner).

Overhauling the brake system involves dismantling, examining and renewal of all seals and defective items.

Owners are urged to seek the assistance of any Triumph Distributor or Dealer who will be pleased to estimate for the work which is of such a nature that it should be entrusted only to skilled workshop personnel.

Preventive Maintenance

To ensure continued efficiency and prolonged vehicle life, the maintenance voucher scheme, produced by Standard-Triumph engineers, offers a carefully designed plan of lubrication requirements and adjustment checks at pre-determined periods.

Operated by all Triumph dealers, and specifically recommended to owners wishing to obtain the greatest pleasure from their motoring, the scheme involves the use of a series of Maintenance Vouchers contained in a booklet supplied with the car. Service operations appropriate to mileage or periods of time are listed on pages preceding the vouchers.

The space provided on the counterfoil of each voucher should be filled in by the dealer to constitute proof of regular servicing, should this be required when making a claim under the warranty, or when selling the vehicle.

REGULAR MAINTENANCE

Periodic Checks

Engine—Daily

Prior to starting out on a long run, or every 250 miles (400 km.), check the engine oil level and, if necessary, add oil until the level reaches the high mark on the dipstick.

Before checking the level, make sure that the car is standing on level ground. The dipstick, located on the left-hand side of the crankcase (Fig. 56) may then be withdrawn, wiped clean and pushed fully home before withdrawing it for reading. Should the level be at the lower mark on the dipstick, 2 pints (1.14 litres) will be required for topping up via the cap (Fig. 57).

Radiator Water Level—Weekly (Fig. 38)

The level of water, visible through the translucent plastic reservoir mounted forward of the radiator, should be maintained at least "half-full" by adding soft water, when required, via the screwed cap.

Should the reservoir be allowed to empty, remove the radiator filler cap, completely fill the radiator, as described on page 27.

CAUTION. If the engine is hot, avoid danger from scalding by exercising extreme care when removing the radiator filler cap. Turn it a half-turn and allow pressure to be fully released before completely removing the cap.

Screen Washer

Examine the water level in the plastic windscreen washer container. If required, unscrew the cap and replenish the container with clean water. (Refer to page 41).

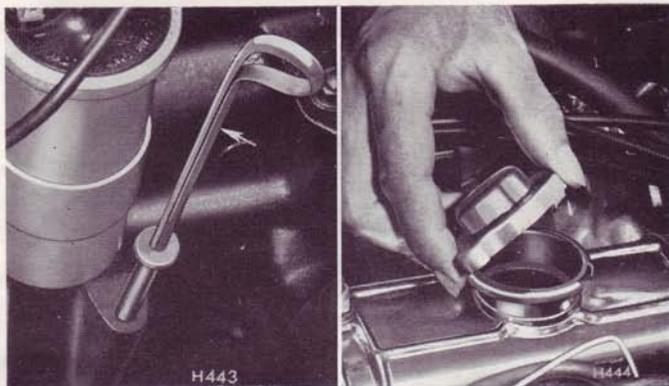


Fig. 56

Fig. 57

REGULAR MAINTENANCE

Brake Master Cylinder (1, Fig. 58)

Every week check the level of fluid in the brake master cylinder reservoir. The fluid level is visible through the translucent casing of the reservoir, do not remove the cap. A gradual lowering of the level over a long period is caused by brake pad wear and does not require topping-up. A sudden appreciable drop in the level must be investigated, the cause ascertained and rectified immediately.

On no account allow the level to drop below the danger line on the side of the casing (see Fig. 82).

To avoid dirt entering the system ensure that the reservoir is clean externally before removing the cap. Use only new fluid

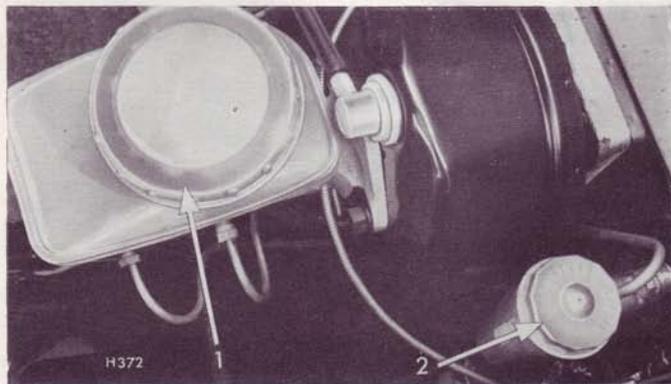


Fig. 58

taken from a sealed container and re-seal the container after use. Replace the reservoir cap immediately after filling.

Tyres

The maintenance of correct tyre pressures is an important factor governing tyre life, steering behaviour, braking, and riding comfort. It is, therefore, important that tyre pressures are checked regularly at periods not exceeding two weeks, and the losses, due to diffusion, are made good. Correct tyre pressures are given on page 26.

Adjust the pressures whilst the tyres are cold, i.e. before a run. As the tyres warm up their pressures increase. A warm tyre bled to the recommended pressure will be under-inflated when cold.

Battery

Examine the level of the electrolyte in the cells and, if necessary, add distilled water via the filler orifices to bring the level up to the top of the separators.

CAUTION. Never use a naked light when examining the battery. The mixture of oxygen and hydrogen given off by the battery is dangerously explosive.

Clutch Master Cylinder (2, Fig. 58)

Every month, check the level of fluid in the clutch master cylinder. To prevent dirt entering the system, clean the cap and surrounding area prior to removing the cap. Top-up the fluid until it is level with the line on the side of the reservoir.

1,000 MILES (1,600 KM.) (Free Service)

The engine oil sump is initially filled at the factory with a special running-in oil which should be drained after completing the first 1,000 miles (1,600 km.) and refilled with one of the high grade oils recommended. During this period many of the components, including the brakes, fan belt, gaskets, studs and nuts, settle down, thus necessitating slight adjustment and an overall check.

The owner is, therefore, urged at the completion of this period to return the vehicle to the selling dealer who will perform the following operations free-of-charge, except for oil and grease.

ENGINE

- Coolant—Check level
- Oil sump—Drain and refill
- Accelerator control linkage and pedal fulcrum—
Oil and adjust idling speed
- Mounting bolts—Check tightness
- Cylinder head—Check tightness
- Manifold—Check tightness
- Valves—Adjust rocker clearances
- Fan belt—Adjust tension
- Oil filter—Check for oil leaks
- Distributor—Lubricate and adjust points

TRANSMISSION

- Gearbox, Overdrive—Check level and top-up
- Rear axle—Check level and top-up
- Universal joint coupling bolts—Check tightness
- Rear drive shafts—Grease

STEERING AND SUSPENSION

- Front wheel alignment—Check with aid of tracking equipment
- Rear wheel alignment—Check by condition of tyre tread
- Steering unit attachments and "U" bolts—
Check for tightness
- Tie rods and levers—Check for tightness
- Lower steering swivels—Oil
- Upper ball joints—Grease

BRAKES AND CONTROLS

- Handbrake cable and linkage—Lubricate
- Hydraulic pipes—Check for leaks, chafing and for hose clearance
- Master cylinder—Check level and top-up
- Brake shoes and handbrake cable—Adjust as necessary

ELECTRICAL EQUIPMENT

- Battery—Check and adjust electrolyte level.
Check charging rate

- Alternator and starter motor—Check fixing bolts for tightness
- Headlights—Check alignment and adjust if required
- Lights, heater, windscreen washer, wipers and warning equipment—Check operation

WHEELS

- Wheel nuts or wire wheel extension nuts—Check tightness
- Tyres—Check and adjust pressures

BODY

- Door strikers, locks and hinges—Oil and check operation
- Body mounting bolts—Check tightness
- Door handles, controls and windscreen—Wipe clean

REGULAR MAINTENANCE

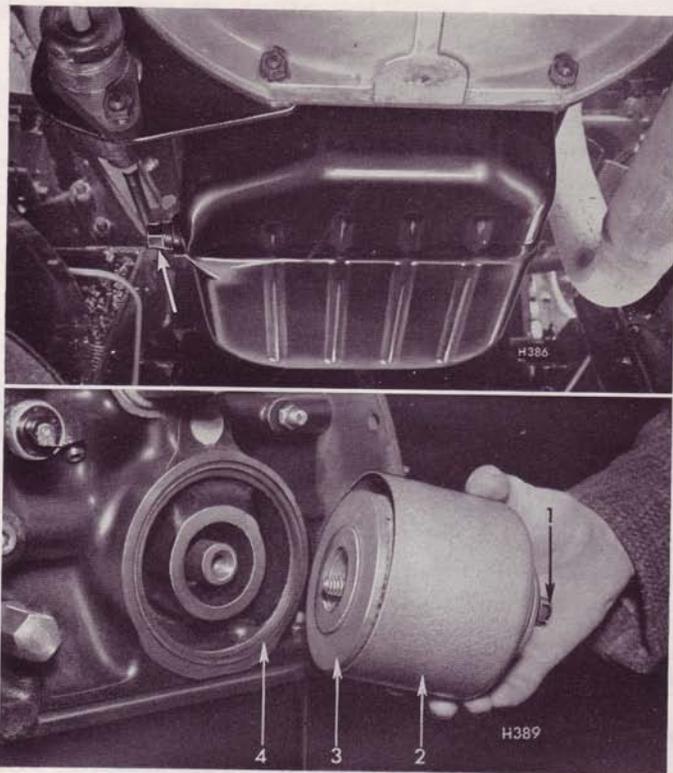


Fig. 59 (upper) Fig. 60 (lower)

Engine Oil Sump (Fig. 59)

Every 6,000 miles (10,000 km.), remove the plug (arrowed) to drain the oil. Refit the plug and refill to the correct level via the filler cap (Page 45, Fig. 57). Reduce this period according to the severity of the following unfavourable conditions.

1. Dusty roads.
2. Short journeys involving frequent stop/start driving, particularly during cold weather when greater use is made of the choke control.

If the vehicle is used for competition or sustained high speed work, the use of higher viscosity oil is recommended because of increased oil temperature.

Oil Filter Element (Fig. 60)

Every 12,000 miles (20,000 km.), unscrew the securing bolt (1), remove the container (2) and discard the element (3). Wash out the container and insert a new element.

Renew the sealing ring (4), ensuring that it is correctly located in the cylinder block and re-attach the filter assembly by tightening the bolt (1) sufficiently to ensure an oil-tight joint.

Where an oil cooler is fitted it will be necessary to disconnect the oil cooler pipe prior to removing the filter.

Air Cleaner (Figs. 61 and 62)

Every 6,000 miles (10,000 km.), or more frequently in dusty conditions, clean the paper element in the air cleaner. To do this proceed as follows:

Remove the nut and bolt fastenings (Fig. 62) attaching the cleaner brackets to their mountings. Remove the centre retaining nut (1, Fig. 62), take off the cover (2) and remove the element (3).

Clean between the folds of the element with a soft brush or low pressure air line.

Refit the element, cover and unit by reversing the above procedure.

Every 12,000 miles (20,000 km.) renew the paper element using the method described above.

Valve Seat Attention

Every 6,000 miles (10,000 km.) have the compression pressures checked by your Triumph Dealer. Providing that the engine is functioning satisfactorily, and the compression pressures of all the cylinders are equal, you are advised not to disturb the engine.

The need for decarbonising arises when the build-up of carbon, a product of combustion, becomes excessive. If premium grade fuels and high quality lubricants are used, carbon deposit is so minimised that frequent decarbonising is unnecessary. Carbon removal may, therefore, be restricted to occasions when the cylinder head is removed for attention to the valves and seats.

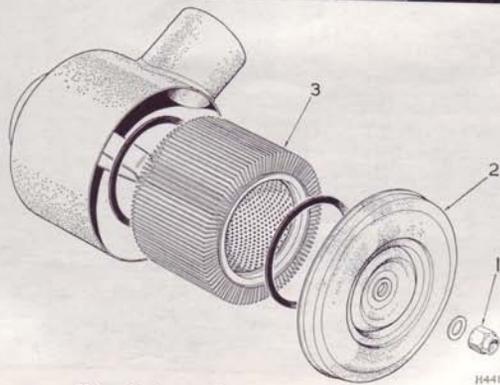


Fig. 61 (upper)

Fig. 62 (lower)

REGULAR MAINTENANCE

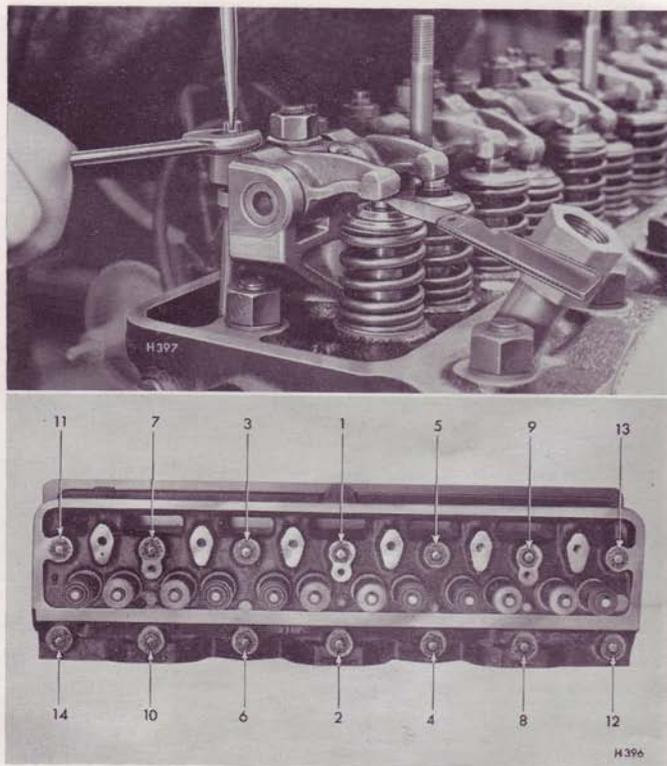


Fig. 63 (upper) Fig. 64 (lower)

Valve Clearances—Adjustment (Fig. 63)

Every 12,000 miles (20,000 km.), remove the rocker cover and turning the engine clockwise, check and adjust the valve clearances to 0.010" (0.25 mm.) if required, in the following sequence while the engine is cold:

Adjust Nos. 1 and 3 valves with Nos. 10 and 12 valves open	
" " 8 and 11 " " " 2 and 5 " "	
" " 4 and 6 " " " 7 and 9 " "	
" " 10 and 12 " " " 1 and 3 " "	
" " 2 and 5 " " " 8 and 11 " "	
" " 7 and 9 " " " 4 and 6 " "	

Refit the rocker cover.

Cylinder Head Nuts (Fig. 64)

When required, tighten the cylinder head nuts in the order shown. Slacken them by reversing the sequence.

Sparking Plugs

Every 6,000 miles (10,000 km.) remove the sparking plugs for cleaning and reset the gaps to 0.25" (0.63 mm.). Clean the ceramic insulators and examine them for cracks or other damage likely to cause "H.T." tracking. Test the plugs and renew those which are suspect.

Every 12,000 miles (20,000 km.) renew all the sparking plugs. Ensure that they are of the correct type (page 68) and that the gaps are set to 0.25 in. (0.63 mm.).

Replace the H.T. leads in the order shown in Fig. 66.

Fuel Filter Element (Figs. 65 and 67)

Every 12,000 miles (20,000 km.) renew the element in the fuel filter which is situated adjacent to the spare wheel.

To do this proceed as follows:

Remove the spare wheel, place a shallow container beneath the filter. To prevent fuel draining from the tank, disconnect and plug the filter inlet pipe.

Unscrew the centre retaining bolt and lift off the element and lower casing.

Remove the sealing rings in the upper and lower casings (2 and 4) and the bolt sealing washer (1).

Fit the new element by reversing the above procedure, ensuring that the sealing rings are correctly seated and that the centre bolt and inlet pipe make leak-proof joints.

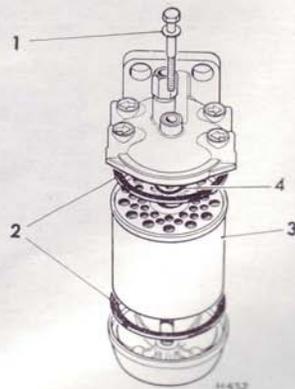
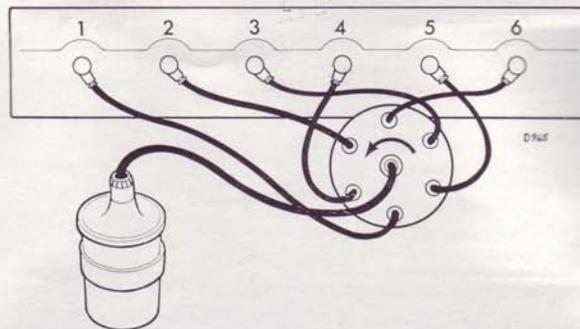


Fig. 65 (left) Fig. 66 (upper) Fig. 67 (right)

REGULAR MAINTENANCE

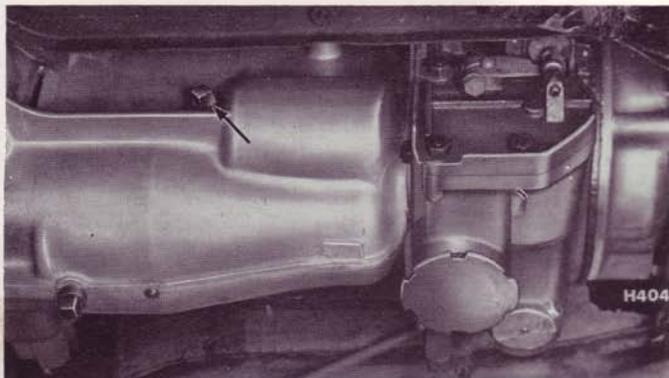


Fig. 68 (upper)

Fig. 69 (lower)

Transmission (Fig. 68)

Every 6,000 miles (10,000 km.) with the vehicle standing on level ground, remove the oil filler plug (shown arrowed), and top up the gearbox until the oil is level with the bottom of the filler plug threads. Allow surplus oil to drain away before refitting the plug and wiping clean. An oil transfer hole between the gearbox and overdrive unit provides a common oil level. Maintenance of the overdrive unit is thus limited to ensuring that the correct oil level is maintained in the gearbox.

Rear Axle (Fig. 69)

Every 6,000 miles (10,000 km.) remove the oil level plug (shown arrowed), and top-up the rear axle until the oil is level with the bottom of the filler plug threads. Allow surplus oil to drain before refitting the plug and wiping clean.

Fan Belt Adjustment (Fig. 72)

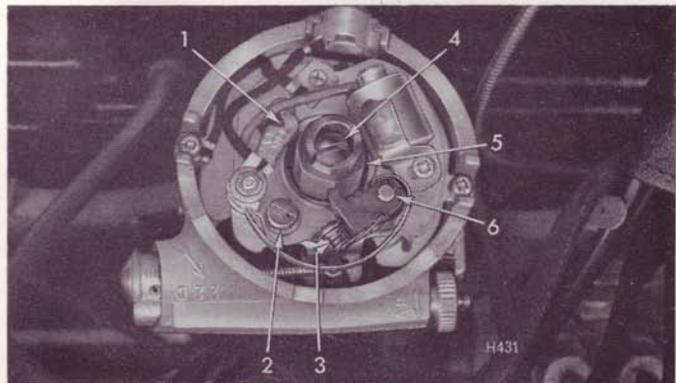
Every 12,000 miles (20,000 km.) slacken the pivot bolt nut (1) and the adjustment bracket bolt (2). Pivot the alternator away from the engine until the belt can be moved $\frac{1}{2}$ " — $\frac{3}{4}$ " (12 — 19 mm.) at the mid-point of its longest run. Maintaining the alternator in this position, tighten the bolt (2) and nut (1).

Ignition Distributor (Fig. 71)

Every 6,000 miles (10,000 km.) release the clips and remove the distributor cap and rotor arm. Smear the cam (5) lightly with oil and apply a few drops of thin oil to the screw (4), in the centre of the cam, and a single drop on the contact breaker pivot (6).

Turn the engine until the contact breaker lever is operating on the highest point of the cam lobe, i.e. gap at its widest. Slacken the fixed contact screw (2), insert a screwdriver into the "Vee"-shaped cut-out in the contact lever (1) and adjust the lever to obtain 0.015" (0.4 mm.) gap using a feeler gauge between the contacts (3), and retighten screw (2). Refit the rotor arm and cap.

Renew worn or damaged points when required.

**Exhaust System**

Every 12,000 miles (20,000 km.) check the complete exhaust system for leaks and immediately rectify defects.

Wheel Alignment

Every 6,000 miles (10,000 km.) check the front and rear wheel track alignment if tyre wear is uneven.

Electrical

Every 6,000 miles (10,000 km.) check the operation of all electrical equipment and adjust, if necessary, the headlamp settings.

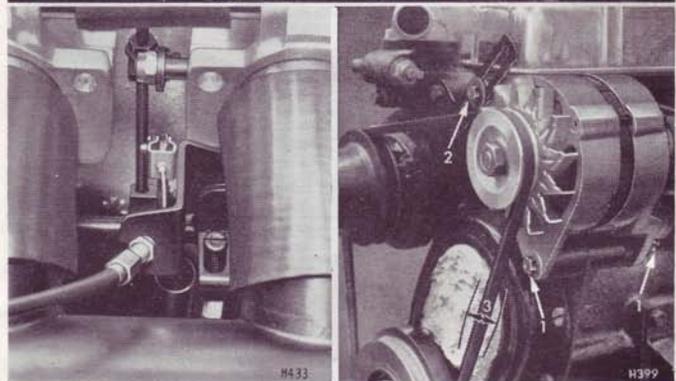


Fig. 70 (left)

Fig. 71 (upper)

Fig. 72 (right)

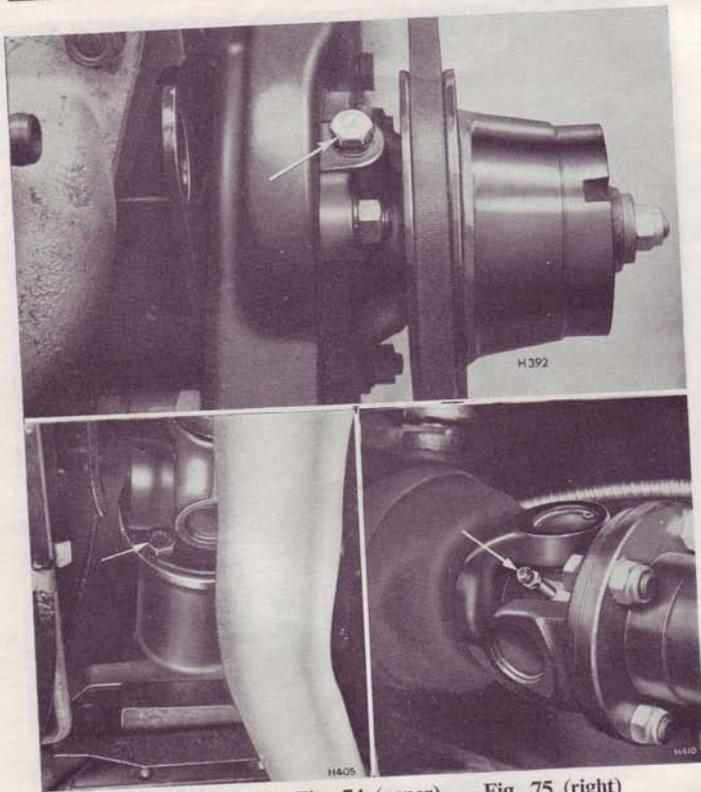


Fig. 73 (left)

Fig. 74 (upper)

Fig. 75 (right)

Water Pump (Fig. 74)

Every 12,000 miles (20,000 km.) remove the sealing plug from the water pump and replace it by a grease nipple ($\frac{1}{8}$ " Briggs taper). Apply a grease gun until grease exudes from a pressure release hole in the side of the water pump. Replace the sealing plug.

Propellor Shaft (Fig. 73)

Every 12,000 miles (20,000 km.) check the coupling bolts for tightness.

Inner Drive Shafts (Fig. 75)

Every 6,000 miles (10,000 km.) apply a grease gun filled with grease to the nipple (arrowed) and give 5 strokes only.

Every 12,000 miles (20,000 km.) check the coupling bolts for tightness.

Adjusting the Slow Running (Fig. 70)

Adjust the engine idling speed by tightening or slackening the slow running screw until the required idling speed is attained.

Front Hub Adjustment and Lubrication (Figs. 76 and 77)

Every 12,000 miles (20,000 km.) check and if necessary adjust the front hubs.

At major overhaul periods, re-pack the front hubs with grease.

Jack up the front of the car and remove one front road wheel. Unscrew two bolts (1) securing the caliper (2) to the mounting plate (3).

Lift the caliper from the disc, tying it to a convenient point to prevent it hanging by the attached hydraulic pipe. Note the number of shims fitted between the caliper and the vertical link.

When wire-spoked wheels are fitted, remove the splined hub extensions by detaching the nuts.

Remove the hub grease cap (4), withdraw the split pin (5) and remove the slotted nut (6) and "D" washer (7). Detach the hub assembly from the stub axle. Remove the outer (8) and inner (9) race from the hub (inset Fig. 77). Wash all trace of grease from the hub bearings. Pack the hub bearings with new grease, working it well into the rollers.

Re-assemble the hub and races to the stub axle, securing them with the "D" washer and slotted nut. Spin the hub and tighten the nut until resistance is felt to hub rotation, then slacken off the nut one half flat and fit a new split pin. Re-assemble the brake caliper unit to the vertical link, refitting any shims removed during dismantling. Re-assemble the splined hub extension (if fitted). Refit the road wheel and lower the jack.

Repeat the above operations with the opposite wheel hub.

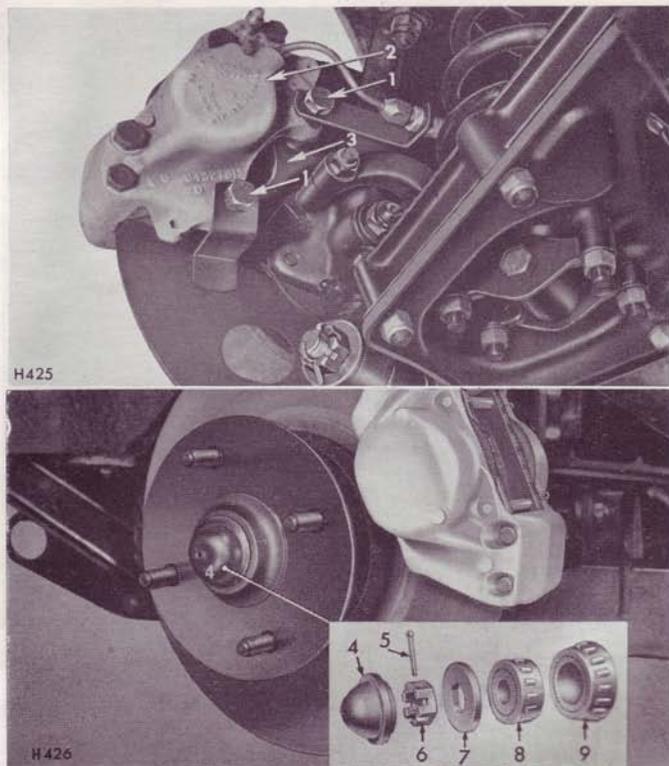


Fig. 76 (upper) Fig. 77 (lower)

REGULAR MAINTENANCE

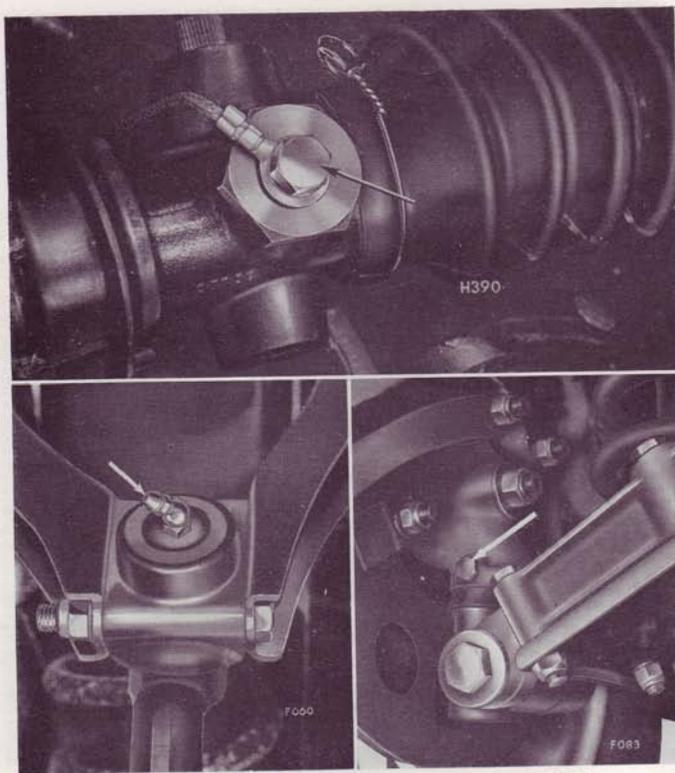


Fig. 78 (left) Fig. 79 (upper) Fig. 80 (right)

Steering Unit (Fig. 79)

Every 12,000 (20,000 km.) remove a sealing plug from the top of the steering unit and replace it by a grease nipple ($\frac{1}{8}$ " B.S.P. Parallel). Apply the grease gun and give 5 strokes only. Remove the nipple and refit the plug.

Lower Steering Swivel (Fig. 80)

Every 6,000 miles (10,000 km.) remove the plug (arrowed). Fit a grease gun until oil exudes from the swivel. Remove the nipple and refit the plug.

Upper Ball Joint (Fig. 78)

Every 6,000 miles (10,000 km.) apply a grease gun filled with grease to the nipple (arrowed). Pump the gun until grease exudes from the underside of the nylon washer retained by the grease nipple.

Tightness Check

Every 12,000 miles (20,000 km.) check and if necessary, tighten the steering unit attachments and "U" bolts, steering tie rods and levers.

Brakes

The brakes are hydraulically operated and vacuum-servo assisted. Self-adjusting disc brakes are fitted to the front: leading and trailing shoe drum brakes are fitted at the rear of the car. The handbrake lever is connected to the rear brakes only, by twin cables.

Every 6,000 miles (10,000 km.) check the condition of the front brake pads and adjust the rear brakes as necessary.

Every 12,000 miles (20,000 km.) chock the front wheels, jack up the rear of the car and remove both road wheels and brake drums. Examine the brake linings for wear and freedom from oil or grease. Renew worn or contaminated linings.

Using compressed air, blow all dust from the mechanism and, using a dry clean cloth, wipe the dust from the inside of the drums. Avoid touching the braking surfaces with greasy hands.

Refit the brake drums and road wheels, re-adjust the brakes and remove the jack.

Front Brakes—Renewing Friction Pads (Fig. 81)

When friction pads are reduced to $\frac{1}{8}$ " (3 mm.) thickness, or if they are of insufficient thickness to ensure safe braking for a further 6,000 miles (10,000 km.) renew them as follows:

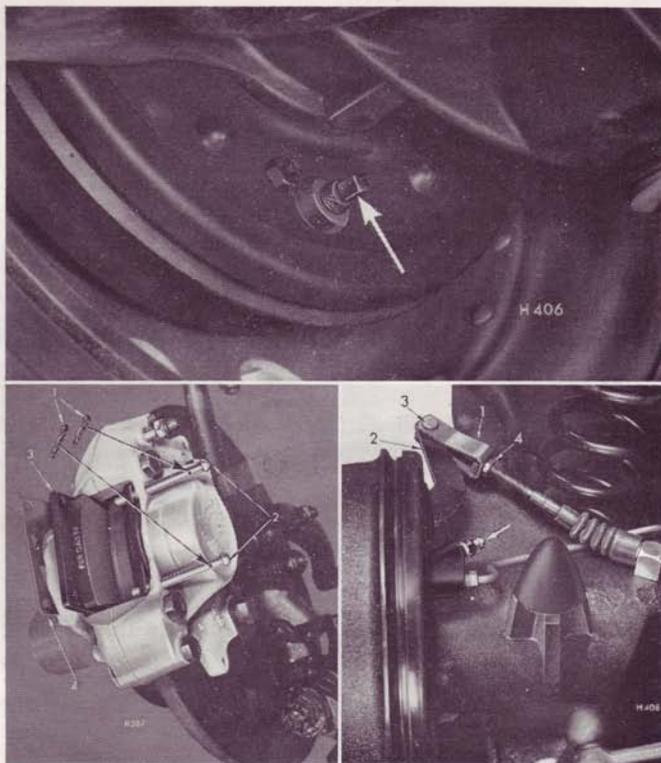


Fig. 81 (left)

Fig. 82 (upper)

Fig. 83 (right)

REGULAR MAINTENANCE

1. Apply the handbrake, jack up the front of the car and remove the front road wheels.
2. Release the retaining clips (1) and remove the pad retaining pins (2).
3. Lift the friction pads (3) and the anti-squeal plates (4) from the caliper.

IMPORTANT. Do not depress the brake pedal with the pads removed.

4. Clean the exposed faces of the pistons and the recesses into which the pads fit, then carefully push the pistons back into the calipers.

NOTE. This action will displace fluid back into the master cylinder reservoir. To prevent over-flowing, syphon off surplus fluid.

5. Fit the brake pads and anti-squeal plates, ensuring that the arrows on the plates are pointing in the direction of wheel rotation.
6. Insert the pad retaining pins and secure them with the spring clips.
7. Pump the brake pedal several times to adjust the brakes and check the level of fluid in the reservoir.
8. Replace the front wheels and remove the jack.

Rear Brakes—Adjusting (Fig. 82)

Each rear brake is provided with an adjuster which is accessible when the rear road wheel is removed. To adjust the shoes turn the adjuster clockwise until the shoes are hard against the drum, then slacken the adjuster by one notch increments until the drum is free to rotate.

Handbrake—Adjusting (Fig. 83)

The handbrake is automatically adjusted when the rear drum brakes are adjusted; however, remove slackness, accruing in the cables by the following procedure:

1. Release the handbrake, chock the front wheels, jack up the rear of the car and remove the rear road wheels.
2. Detach the fork end (1) from the lever (2) by removing the clevis pin (3) which is secured by a split pin.
3. Adjust the brake shoes hard against the drum.
4. Slacken the locknut (4) and turn the fork-end clockwise to reduce the effective length of the cable.
5. Adjust both cables equally until the clevis pins can be inserted without tension on the handbrake cables or the backplate levers.
6. Slacken the adjuster until the drums are free to rotate.
7. Tighten the locknut and replace the fork-end, clevis pin, split pin and washer. Apply a little grease around the fork ends, replace wheels and remove the jack.

HYDRAULIC SYSTEM

Description

The foot operated hydraulic braking system employs a tandem master cylinder for transmitting pressure to independent front and rear braking systems.

L.H. Steering Cars only

Both systems are connected to opposing sides of a pressure differential warning actuator (P.D.W.A.) which operates an electrical switch when a pressure drop on one side of the valve causes a shuttle to move from its mid-position. The P.D.W.A. switch operates a warning light on the facia (Fig. 2) which is series/parallel connected with the oil warning light. Thus when the brakes are working correctly, the brake warning light and the oil warning light are both extinguished as the engine speed is increased from idle (giving regular assurance that the brake warning light is functioning). In the event of a partial brake failure the brake warning system is earthed directly, causing the warning light to glow brightly.

Bleeding the Hydraulic Braking System

General

If air has entered either of the hydraulic braking systems then only the system affected need be bled. (L.H. steering cars—During bleeding, exercise care, as described in the following procedure, to avoid moving the shuttle from its mid-position. However, if the shuttle has moved during bleeding or subsequent to a fault

condition, centralise the shuttle by performing operations 5—9 below).

Preparation for Bleeding

Before commencing to bleed the brakes ensure that all the bleed nipples (Figs. 81 and 83) are clean and, taking care to avoid dirt entering the fluid reservoir, remove its filler cap and top-up with new hydraulic fluid. During the bleeding operation keep the level of fluid above the dividing partition in the reservoir. Do not use fluid bled from the system for topping-up. Use only new fluid from a sealed container, re-sealing the container after use.

Procedure

Commence with the brake, of the pair being bled, farthest from the master cylinder. If both systems are to be bled, bleed the rear brakes first. When bleeding the rear brakes, release the handbrake and turn the brake adjusters to lock the shoes against the drums. When the bleeding is completed adjust the brakes as detailed on page 58.

1. Attach a rubber tube of approx. $\frac{1}{4}$ " (6 mm.) bore to the brake bleed nipple allowing the other end of the tube to hang submerged in a jar containing a quantity of clean brake fluid
2. Unscrew the bleed-screw enough to allow the fluid to be pumped out (half a turn is normally sufficient).

REGULAR MAINTENANCE

3. Depress the brake pedal and allow it to return slowly noting that only a LIGHT pedal effort is required and the pedal must NOT be pushed through at the end of the stroke. (In addition on L.H. steering cars never "try" the pedal until all air has been dispelled and the system is fully bled, as either action will cause the shuttle to move and actuate the switch). Pausing between each depression of the pedal, continue pumping until all air has been dispelled from the bleed-screw (denoted by the absence of bubbles in the fluid being pumped into the jar).
4. With the pedal depressed, close the bleed-screw nipple and repeat the operation on the other brake.

L.H. Steering Cars only

Procedure for Re-centralising the P.D.W.A. Piston

If, for reasons described above, the P.D.W.A. shuttle requires to be re-centralised, adopt the following procedure.

5. Fit a rubber tube, as described in 1 above, to a brake bleed-screw at the opposite end of the car to that which has just been bled.
6. Open the bleed-screw.
7. Switch the ignition on but **DO NOT START THE ENGINE.** (The brake warning light will glow but the oil warning light will remain extinguished).

8. Exert a steady pressure on the brake pedal until the brake light dims and the oil light glows. (A click should be felt on the pedal as the shuttle returns to its mid-position).
9. Tighten the bleed-screw.

NOTE. If the pedal has been pushed too hard the shuttle will move to the other side of the valve, thus requiring the procedure to be repeated on a brake at the opposite end of the car.

Clutch and Brake Pipe Hoses

Every 6,000 miles (10,000 km.) examine and renew defective hoses. Ensure that pipes and hoses have adequate clearance to prevent chafing against other components, particularly when the steering is turned to "full lock" in either direction.

Bleeding the Clutch System (Figs. 58 and 84)

When a pipe joint has been disconnected, or part of the hydraulic clutch system dismantled, bleed all air from the system as follows:

1. Clean the neck and cap of the master cylinder.
2. Remove the cap and top-up with new hydraulic fluid. (At no time, during the subsequent operation, allow the level of fluid to fall below half full).

3. Clean the clutch cylinder nipple (Fig. 85) and attach to it a rubber tube of approx. $\frac{1}{4}$ " (6 mm.) bore allowing the other end of the tube to hang submerged in a jar containing a quantity of clean hydraulic fluid.
4. Unscrew the bleed nipple enough to allow fluid to be pumped out (a half turn is normally sufficient).
5. Depress the clutch pedal firmly and allow it to return unassisted. Pausing between each depression continue pumping until all air has been expelled from the system (denoted by the absence of bubbles in the fluid being pumped into the jar).
6. With the pedal depressed, close the bleed nipple.

Vacuum Servo Unit

The TR.6 is fitted with a brake servo unit, which, utilising engine manifold depression multiplies the effort applied to the brake pedal.

The servo unit is in direct line between the pedal and the master cylinder. The system is arranged so that if, for any reason, the servo system is inoperative braking can still be effected, though requiring greatly increased pedal effort.

CAUTION. For reasons given above, it is extremely dangerous to "coast" or manoeuvre the car without the engine running.

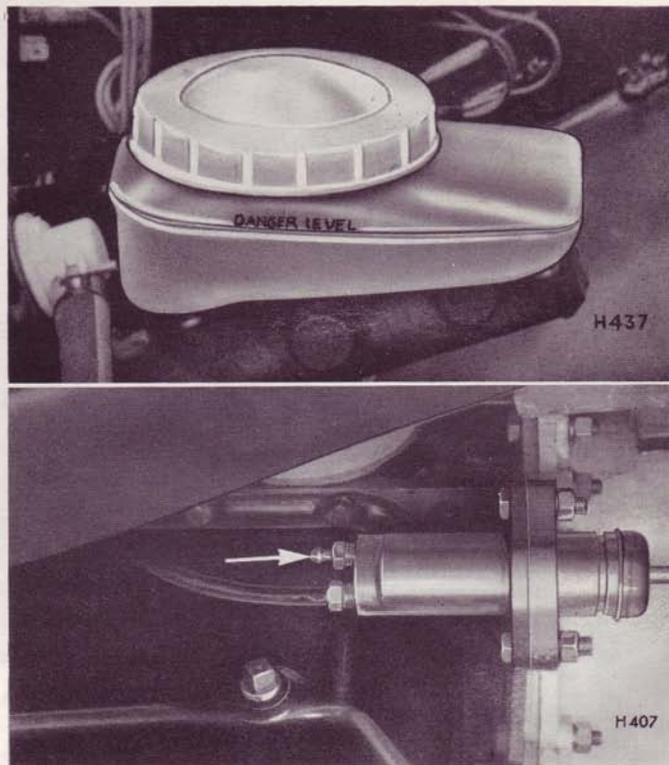


Fig. 84 (upper) Fig. 85 (lower)

REGULAR MAINTENANCE

PETROL INJECTION SYSTEM

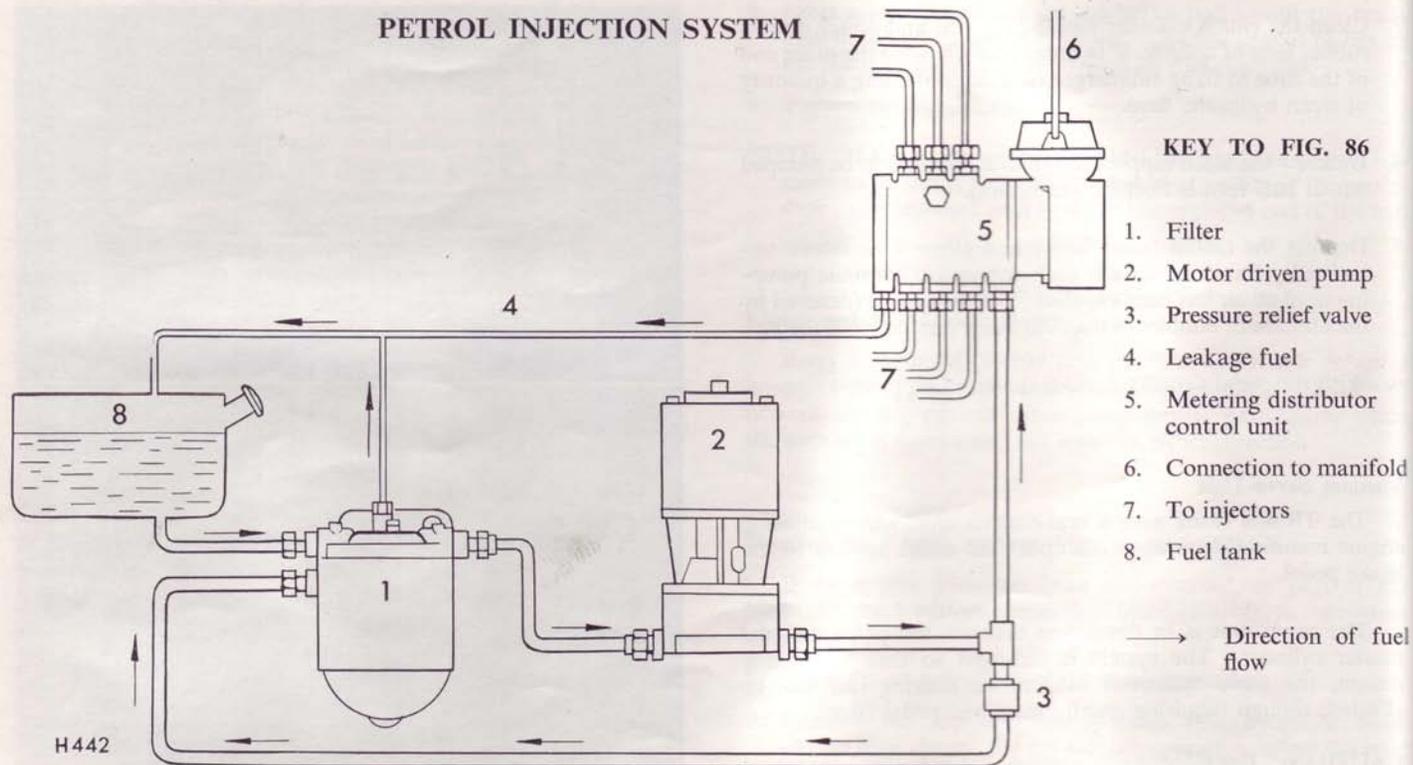


Fig. 86

General

On the TR.6 the conventional carburation system is replaced by a fuel injection system.

This system delivers precisely metered and timed quantities of fuel, in the form of a fine spray, to the air intakes via injectors. The mixture is then compressed and spark ignited by conventional means.

The design of the equipment used is such that all adjustments, with the exception of the slow running described on page 54, should be undertaken only by the skilled engineers employed by Triumph distributors or dealers.

Routine maintenance is restricted to changing the fuel filter elements (see page 51) and a unit overhaul at 36,000 miles (60,000 km.) which must be carried out by the Triumph distributors or dealers.

Description of the Circuit (Fig. 86)

A motor driven pump (2) draws fuel from the tank through a paper element filter (1). The pump pressurises the fuel, line pressure is maintained by a relief valve (3) which permits excess fuel to be returned to the tank. A metering distributor is sited adjacent to and driven in conjunction with the ignition distributor.

The metering distributor delivers accurately metered and timed fuel charges to each injector in turn. The fuel quantity is determined by an integrated mixture control unit actuated by manifold depression.

LUBRICATION CHART

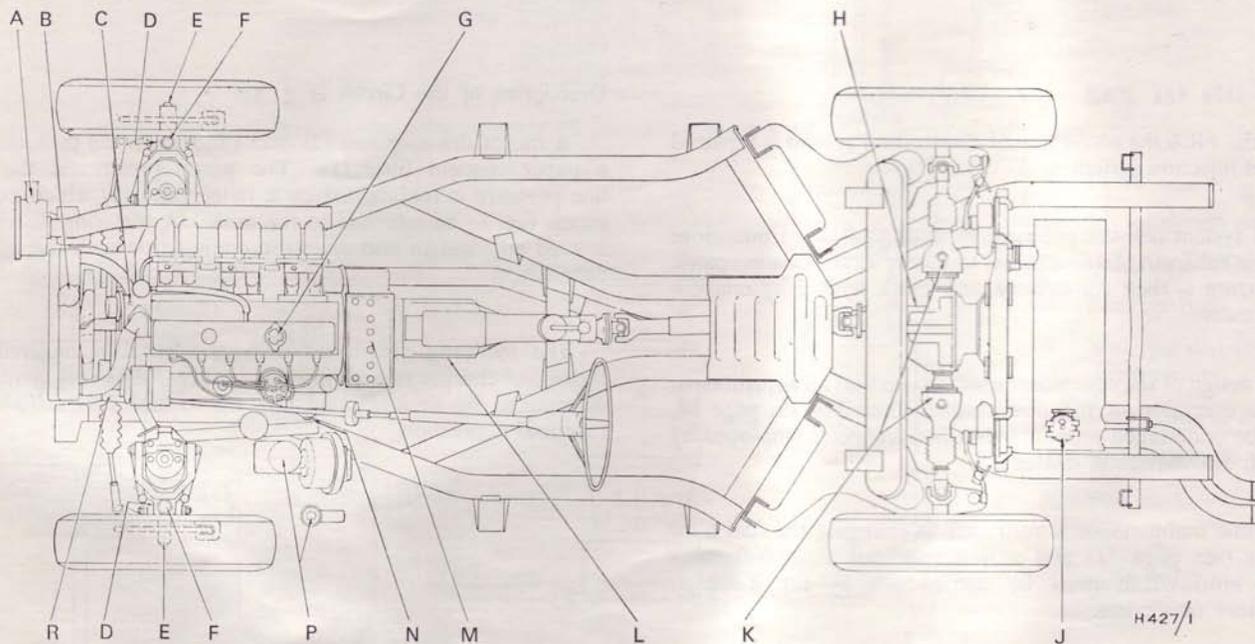


Fig. 87

LUBRICATION SUMMARY

Chart Ref.	Items	Details	Page Ref.		Intervals × 1000			
					Miles	Kms.	Miles	Kms.
A	Air cleaner	Clean	49	—	6	10		
		Renew	49	—			12	20
B	Radiator	Top-up	45	Weekly				
C	Water pump	Grease	54	—			12	20
D	Lower steering swivels	Grease	56	—	6	10		
E	Front hubs	Adjust	55	—			12	20
F	Upper ball joints	Grease	56	—	6	10		
G	Engine oil sump	Top-up	45	Daily				
		Drain and refill	48	—	6	10		
H	Rear axle	Top-up	52	—	6	10		
J	Fuel filter	Change element	51	—			12	20
K	Drive shafts	Grease	54	—	6	10		
L	Transmission	Top-up	52	—	6	10		
M	Battery	Top-up	46	Monthly				
N	Oil filter	Renew element	48	—			12	20
P	Master cylinder — Clutch	Top-up	46	Monthly				
	Master cylinder — Brake	Check	46	Weekly				
R	Steering unit	Grease	56	—			12	20

RECOMMENDED LUBRICANTS (BRITISH ISLES)—ANTI-FREEZE SOLUTIONS

(The products recommended are not listed in order of preference)

COMPONENT	BP	CASTROL	DUCKHAM'S	ESSO	MOBIL	PETROFINA	REGENT	SHELL	
ENGINE AND OIL CAN	Super Visco-Static 20W/50	Castrol GTX	Duckham's Q20-50	Uniflo	Mobiloil Super or Mobiloil Special 20W/50	Fina Super Grade Motor Oil SAE 20W/50	Havoline Motor Oil 20W/50	Shell Super Motor Oil 20/50	
GEARBOX AND OVERDRIVE REAR AXLE	Gear Oil SAE 90 EP	Castrol Hypoy	Hypoid 90	Esso Gear Oil GP 90/140	Mobilube GX 90	Fina Pontonic MP SAE 90	Multigear Lubricant EP90	Shell Spirax 90EP	
FRONT & REAR HUBS REAR CABLES GREASE GUN	Energrease L2	Castrollease LM	Duckham's LB 10	Esso Multigear Grease H	Mobilgrease MP	Fina Marson HLT2	Marfak All-Purpose	Shell Retinax A	
CLUTCH AND BRAKE RESERVOIRS	CASTROL GIRLING BRAKE AND CLUTCH FLUID, CRIMSON. WHERE THIS PROPRIETARY BRAND IS NOT AVAILABLE OTHER FLUIDS WHICH MEET SAE 70R3 SPECIFICATION MAY BE USED								
APPROVED ANTI-FREEZE SOLUTIONS	Smith's Bluecol	BP Anti-Frost	Castrol Anti-Freeze	Duckham's Anti-Freeze	Esso Anti-Freeze	Mobil Permazone	Fina Thermidor	Regent PT Anti-Freeze	Shell Anti-Freeze
	WHERE THESE PROPRIETARY SOLUTIONS ARE NOT AVAILABLE, OTHERS WHICH MEET BSI 3151 or 3152 SPECIFICATION MAY BE USED								

RECOMMENDED LUBRICANTS (OVERSEAS)—ANTI-FREEZE SOLUTIONS

(The products recommended are not listed in order of preference)

COMPONENT	AIR TEMP.		API DESIGNATION	BP	CASTROL	DUCKHAM'S	ESSO	MOBIL	PETROFINA	SHELL	TEXACO CALTEX
	°C.	°F.									
** ENGINE & OIL CAN	Over 30	Over 80	MM or MS	* Super Visco Static	Castrol GTX or Castrol XL	Q20-50	Esso Extra Motor Oil 20W/40	Uniflo	Fina Super Grade Motor Oil SAE 20W/50	Shell Super Motor Oil 100	Havoline 20W/40
	0 to 30	30 to 80	MM or MS								
	Below 0	Below 30	MM or MS		Castrolite	Q5500	Esso Extra Motor Oil 10W/30		Mobiloil Super	Fina Super Grade Motor Oil SAE 10W/30	Shell Super Motor Oil 100 or 101
GEARBOX AND O/DRIVE REAR AXLE STEERING SWIVELS	over 0	over 30	GL 4	Gear Oil SAE 90 EP	Castrol Hypoy	Duckham's Hypoid 90	Esso Gear Oil GP 90	Mobilube GX 90	Fina Pontonic MP SAE 90	Shell Spirax 90 EP	Multigear Lubricant EP 90
	below 0	below 30	GL 4	Gear Oil SAE 80 EP	Castrol Hypoy Light	Duckham's Hypoid 80	Esso Gear Oil GP 80	Mobilube GX 80	Fina Pontonic MP SAE 80	Shell Spirax 80 EP	Multigear Lubricant EP 80
FRONT AND REAR HUBS BRAKE CABLES GREASE GUN				Energrease LZ	Castrolase LM	Duckham's LB 10	Esso Multi-Purpose Grease H	Mobilgrease MP	Fina Marson HTL 2	Shell Retinax A	Marfak All Purpose
<p>**WHERE CIRCUIT RACING OR OTHER SEVERE COMPETITIVE EVENTS ARE CONTEMPLATED IT IS ADVISABLE, IN VIEW OF THE INCREASED OIL TEMPERATURE ENCOUNTERED, TO USE OILS OF HIGH VISCOSITY</p> <p>*OILS MARKED THUS ARE AVAILABLE IN MULTIGRADE FORMS WITH VISCOSITY CHARACTERISTICS APPROPRIATE TO THE AMBIENT TEMPERATURE RANGE IN INDIVIDUAL MARKETS.</p>											
CLUTCH AND BRAKE RESERVOIRS	<p>CASTROL GIRLING BRAKE AND CLUTCH FLUID CRIMSON. WHERE THIS PROPRIETARY BRAND IS NOT AVAILABLE, OTHER FLUIDS WHICH MEET SAE 70R3 SPECIFICATION MAY BE USED</p>										
APPROVED ANTI-FREEZE SOLUTIONS	Smith's Bluecol	BP Anti-Frost	Castrol Anti-Freeze	Duckham's Anti-Freeze	Esso Anti-Freeze	Mobil Permazone	Fina Thermidor	Shell Anti-Freeze	Startex		
	<p>WHERE THESE PROPRIETARY SOLUTIONS ARE NOT AVAILABLE, OTHERS WHICH MEET BSI 3151 or 3152 SPECIFICATION MAY BE USED</p>										

GENERAL SPECIFICATION

Engine

Number of cylinders	6	
Bore of cylinders	2.94 in.	74.7 mm.
Stroke of crankshaft	3.74 in.	95 mm.
Cubic capacity	152 in.	2498 c.c.
Piston area	40.7 in ²	263 cm. ²
Compression ratio	9.5 : 1	
Valve rocker clearances (cold)	0.010 in.	0.25 mm.
Valve timing	Inlet and exhaust equally open at T.D.C.	

Lubrication (Engine)

Pump	High capacity eccentric lobe type
Filter	Full flow type with replaceable cleaner

Cooling System

	Pressurised "no loss" system incorporating a translucent plastic overflow bottle
Circulation	"Vee" belt driven pump
Fan	8 blades, 12.5 in. dia. (31.68 cms.)

Fuel System

Pump	Lucas fuel injection
Manifolds	Lucas electric lift pump Three twin inlet manifolds with six throttle valves

Air cleaner
Crankcase breathing

Replaceable paper element
Closed circuit — controlled by emission valve between rocker cover and manifold

Ignition System

Coil	Lucas HA12
Distributor	Lucas 22D6
Contact breaker gap	0.015 in. (0.4 mm.)
Rotation	Anti-clockwise
Firing order	1 - 5 - 3 - 6 - 2 - 4
Sparking plugs	Champion N9Y
Gap	0.025 in. (0.63 mm.)
Ignition timing (static)	11 degrees B.T.D.C.

Electrical System

Voltage	12
Polarity	Negative earth
Fuses—fuse box	35 amp.
Battery—type	Lucas C9
—capacity @ 20 hr. rate	60 amp. hour
—plates per cell	9
—normal charge rate	5 amps.

GENERAL SPECIFICATION

Alternator—type	Lucas 15ACR—with integral control unit
—nominal output	28 amps.
Starter motor	Lucas M418G—pre-engaged type
Flasher unit	Lucas 8FL. 4·1A
Hazard flasher unit (L.H.S. only)	Signal — Stat 180
Fuel and temperature indication	Smiths bi-metal resistance. 10 volt system
Oil pressure indication	3 to 5 lb. in. ²
switch operating pressure	(0·2 to 0·35 Kg/cm. ²)

Transmission

Clutch	Diaphragm type 8½ in. dia. (21·5 cm.)				
Gearbox	Four forward ratios/and one reverse Synchronesh on all forward ratios				
	Top	3rd	2nd	1st	Rev.
Ratios	1·00	1·33	2·01	3·14	3·22
Overall ratios	3·45	4·59	6·94	10·83	11·11
Overdrive	Laycock de Normandie				
Ratio	·82				
Rear axle	Semi-floating axle shafts, three piece casing. Hypoid bevel gears 3·45 : 1 ratio				

Wheels

Steel disc type with simulated magnum trims. Rim section 5·5J.
Wire wheels—centre locking nut type (optional) used with tubed tyres. Rim section 5·5K.

Tyres

Refer to page 26

Brake System

Girling hydraulic direct acting servo and tandem master cylinder operating front and rear brakes independently

Front	Caliper disc 10⅝ in. dia. (27·62 cm.)	
Rear	Drums 9 in. dia. (22·9 cm.) 1¼ in. (4·45 cm.)	
Front lining area	20·7 in. ²	174·2 cm. ²
Front swept area	233 in. ²	1483·8 cm. ²
Rear lining area	60·5 in. ²	419·3 cm. ²
Rear swept area	99 in. ²	638·7 cm. ²
Total lining area	81·2 in. ²	522·8 cm. ²
Total swept area	332 in. ²	2130·0 cm. ²
Maximum retardation	·98 G	

Chassis Data

Frame

Channel steel pressing of box section side members braced by a cruciform member

GENERAL SPECIFICATION

Wheelbase	7 ft. 4 in.	2240 mm.
Track—front	4 ft. 1½ in.	1251 mm.
—rear	4 ft. ¾ in.	1239 mm.
Ground clearance	6 in.	152 mm.
Turning circle	33 ft.	10·1 m
Steering unit	Rack and pinion 3¼ turns lock to lock	

Suspension

Front	Low periodicity independent system. Patented bottom bush and top ball joint wheel swivels. Coil springs controlled by telescopic dampers. Taper roller hub bearings.		
Rear	Semi-trailing arm independent suspension with coil springs controlled by piston dampers. Mounted on frame through rubber bushed pivots and with rubber insulation of the spring		

Capacities

	Imperial	Metric	U.S.A.
Fuel tank	11¼ galls.	51 litres	13·5 galls.
Engine sump	8 pints	4·52 litres	9·64 pints
Gearbox from dry	2 pints	1·13 litres	2·4 pints
Gearbox and overdrive	3½ pints	2·0 litres	4·2 pints
Rear axle	2½ pints	1·42 litres	3·0 pints
Cooling system (inc. water bottle) with heater	11 pints	6·2 litres	13·2 pints

Exterior Dimensions

Overall length	12 ft. 9⅝ in.	3902 mm.
Width	4 ft. 10 in.	1470 mm.
Height with hood erected (unladen)	4 ft. 2 in.	1270 mm.
Height with hood folded (unladen)	3 ft. 10 in.	1170 mm.

Weight (approx.)

Dry (excluding extra equipment)	19¼ cwt.	938 kg.
Complete (including fuel, oil water and tools)	20¼ cwt.	1034 kg.
Maximum gross vehicle weight	24 cwt.	1226 kg.

Road Speed Data

Engine speed at a road speed of:	O/D		O/D		O/D		
	Top	Top	3rd	3rd	2nd	2nd	1st
10 m.p.h.	386	471	514	626	777	947	1479
10 k.p.h.	240	296	319	393	482	896	940

Road speed at 1,000 r.p.m. 21·21 m.p.h.

Road speed at 2,500 ft/min. (762 m/mm.) piston speed in top gear 85 m.p.h.

INDEX

	<i>Page</i>		<i>Page</i>		<i>Page</i>
Air cleaner	49	Commission Numbers	4	Fuel filler cap	17
Air distribution control	11	Contact breaker points	53	Fuel filter	51
Alternator	35	Cooling system	27	Fuel gauge	10
Ammeter	10	Cylinder head nuts	50	Fuel—Recommended	43
Anti-freeze	29			Fuse box	34
Ashtray	9			Fuse circuits	34
		Dimensions	70		
Battery	36, 46	Dipstick	45	Gear lever	12
Beam aiming	38	Disc brake pad	57	General specification	68
Bleeding the brakes	59	Distributor	53	Glove box lock	10
Bleeding the clutch	60	Driving from new	43		
Blower switch	11			Handbrake—Adjusting	58
Brakes—Maintenance	57	Electrical	30	Handbrake lever	11
Brake master cylinder	46, 61	Electrical checks	53	Hardtop	20
Bulb chart	37	Electric arc welding	35	Hazard warning indicator	9
Bulb renewal	39	Engine—Daily check	45	Hazard warning switch	9
		Engine oil sump	48	Headlights	38
		Exhaust system	53	Headlight dipper	12
Capacities	70			Heater control	11
Care of Bodywork	21	Facia panel	6, 7	High beam indicator	12
Charging system	35	Fan belt adjustment	52	Hood	18
Chassis data	69	Firing order	68	Horn push	9
Clutch and brake pipe hose	60	Flasher repeater lamps	39	Hydraulic system	59
Clutch master cylinder	46	Front brake pads	57		
Controls, instruments and indicators	8	Front flasher lamps	39	Ignition distributor	53
Cold start mixture control	10	Front hub adjustment	55	Ignition/starter switch	10
		Front parking lamps	39	Inner drive shafts	54
		Frost precautions	29		

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INDEX

	<i>Page</i>		<i>Page</i>		<i>Page</i>
Air cleaner	49	Commission Numbers	4	Fuel filler cap	17
Air distribution control	11	Contact breaker points	53	Fuel filter	51
Alternator	35	Cooling system	27	Fuel gauge	10
Ammeter	10	Cylinder head nuts	50	Fuel—Recommended	43
Anti-freeze	29	Dimensions	70	Fuse box	34
Ashtray	9	Dipstick	45	Fuse circuits	34
Battery	36, 46	Disc brake pad	57	Gear lever	12
Beam aiming	38	Distributor	53	General specification	68
Bleeding the brakes	59	Driving from new	43	Glove box lock	10
Bleeding the clutch	60	Electrical	30	Handbrake—Adjusting	58
Blower switch	11	Electrical checks	53	Handbrake lever	11
Brakes—Maintenance	57	Electric arc welding	35	Hardtop	20
Brake master cylinder	46, 61	Engine—Daily check	45	Hazard warning indicator	9
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Controls, instruments and indicators	8	Front hub adjustment	55	Ignition distributor	53
Cold start mixture control	10	Front parking lamps	39	Ignition/starter switch	10
		Frost precautions	29	Inner drive shafts	54

INDEX

	<i>Page</i>		<i>Page</i>		<i>Page</i>
Instruments and indicators	8	Rear axle	52	Tightness check	56
Instrument illumination	41	Rear brake—Adjusting	58	Tonneau cover	20
Instrument illumination rheostat	10	Rear flasher and tail/stop lamps	39	Transmission	52
Jacking of car	22	Recommended speed limits	44	Trip odometer	13
Lamps	39	Regular maintenance	45	Trip release control	12
Lighting switch	9	Reverse lamps	39	Turn signal control	8
List of sections	5	Routine servicing	44	Turn signal indicator	12
Locks and keys	16	Running-in	43	Tyres	25, 26
Low oil pressure indicator	13	Safety harness	14	Upper ball joints	56
Lower steering swivel	56	Screen washer	28, 45	Vacuum servo	61
Lubricants—Recommended	66, 67	Scuttle vent control	10	Valve rocker clearance	50
Lubrication chart	64	Sealed beam light unit	38	Valve seat attention	49
Lubrication summary	65	Service, 1,000 miles (1.600 km.)	47	Warning lights	41
No charge indicator	13	Slow running	54	Washing	21
Odometer	13	Soft top	18	Water pump	54
Oil filter element	48	Spare wheel	22	Weights	70
Oil pressure gauge	9	Sparking plugs	51, 68	Wheel alignment	25, 53
Overdrive switch	8	Speed limits	43	Wheels and tyres	23
Overdrive unit	43	Speedometer	8	Windscreen washer	28
Periodic checks	45	Starting the engine	42	Windscreen washer switch	8
Petrol injection system	62	Steering unit	56	Windscreen wiper switch	8
Propellor shaft	54	Sun visors	13	Wire wheels	24
Radiator	27, 45	Tachometer	9	Wiring diagrams	30, 32
Radio controls	13	Temperature gauge	9		
		Throttle, brake and clutch pedals	12		



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