TRIUMPH

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handbook

NORTH AMERICAN EDITION

TRIUMPH TR6 HANDBOOK



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TRIUMPH TR6

Introduction

Designed and built to give long and consistent trouble-free service, your TR6 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.

The TR6 complies with, and in many cases exceeds, all current Federal and State Regulations concerning Safety, Engine Crankcase Emission and Fuel Evaporative Control.

Because of these regulations, owners are strongly urged to read the Emission Control System, Maintenance and Warranty information in this handbook.

The operations carried out by your Dealer will be in accordance with the current recommendations and may be subject to revision from time to time.

These publications should be passed to each subsequent owner of the vehicle and the Servicing Details completed to ensure that the vehicle is kept within the Federal limits in respect of the Clean Air Act.

Important

In all communications relating to Service or Parts please quote the V.I.N. Number Paint and Trim Numbers

LOCATION OF VEHICLE IDENTIFICATION (V.I.N.) NUMBER

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

V.I.N., Paint and Trim Numbers—On rear door pillar (may be seen by opening driver's door). Also on a tag visible through the windscreen on the left hand windscreen pillar.

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

Gearbox Number—On L.H. side of Housing

Rear Axle Number-On Hypoid Housing Flange

The information contained herein applies to a range of vehicles and not to a specific vehicle. For the specification of a particular vehicle, an Owner should consult his Dealer.

The manufacturers reserve the right to vary their specifications with or without notice, and at such times and in such manner as they think fit. Major as well as minor changes may be involved in accordance with the Manufacturer's policy of constant product improvement.

Whilst every effort is made to ensure the accuracy of the particulars contained in this Handbook, neither the Manufacturer nor the Dealer, by whom this handbook is supplied, shall in any circumstances be held liable for any inaccuracy or the consequences thereof.

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UNIPART

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 "Unipart" and carry the same guarantee period 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 "Unipart" 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.

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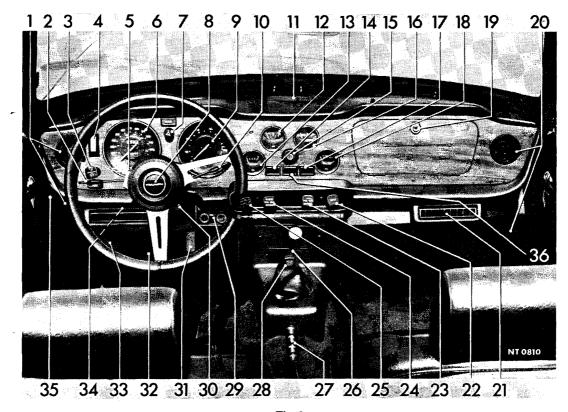


Fig. 2

KEY TO FIG. 2

Fresh-air vents	15.	Instrument illumination rheostat		Air conditioning (optional) c	control
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The controls, instruments and indicators shown on Figs. 2 and 6 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 page 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 center 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. See (38) Page 13.

Windshield Wiper/Washer Switch

Depress the switch to spray clean fluid onto the windshield and release the switch when sufficient fluid has been dispensed.

Turn the switch clockwise to operate the wipers at slow speed and turn the switch clockwise again to operate the wipers at high speed. Turn the switch fully anticlockwise to switch the wipers off, when they will automatically return to the parked position at the base of the windshield. The wipers and washer will only operate when the ignition switch is turned 'ON'.

Lighting Switch (4)

Depress the lower portion of the switch to the first position to illuminate the tail, license plate, parking lights and side marker lights.

Depress the switch again to the second position to illuminate the headlights. (See "Headlight Dipper", 10).

Overdrive Switch (5) (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 38.

Speedometer (6)

Additional to indicating the road speed of the vehicle in miles and kilometres per hour, the instrument also combines the turn signal and high beam warning lights and the total and trip odometers.

Hazard Warning Switch and Indicator (7)

If the vehicle is immobilised and constitutes a hazard to other vehicles, warning may be given by using the "hazard warning system". To operate, pull the switch (7) when all turn-signal lights will flash intermittently.

When the hazard switch is operated, a bulb in the switch will flash in unison with the exterior warning lamps.

Horn Push (8)

Press to operate the horns.

Tachometer (9)

The tachometer indicates the engine speed in revolutions per minute and combines two warning indicators (39, 40. See Fig. 5). The speed range within the colored segments is subject to the "Recommended Speed Limits" mentioned on page 38.

Headlight Dipper Switch (10)

When the headlights are illuminated (see 'Lighting Switch' on page 8), the high beams may be lowered by moving the lever down. To return to the high beam position, move the lever up.

The high beam position is indicated by a blue warning light (37) near the bottom of the speedometer dial.

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

Ashtray (11)

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

Oil Pressure Gauge (12)

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

Temperature Gauge (13)

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 49.

Brake-line Failure/Handbrake Warning Indicator (14)

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 (14) 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.

The warning light will also glow brightly, as a reminder to the driver, when the handbrake is applied, provided that the ignition switch is "ON".

Instrument Illumination Rheostat (15)

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 (16)

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'.

Seat Belt Warning Indicator (17)

A lamp and an audible warning system are actuated if an attempt is made to start the car without the seat belts in use. For full details of the system and correct starting sequence see page 37—'Driving the Car'.

Voltmeter (18)

This gauge is a battery condition indicator and registers the battery's state of charge. With the engine running above idling speed the indicator should register approximately 14 volts. A reading above 15 volts, which continues after 10 minutes running, is too high and should be investigated. A reading of 13 to 13.5 volts is too low unless the headlamps and other electrical equipment are in use.

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.

Fresh Air Vents (20)

See (1) page 8.

Air Conditioning Outlet (21)

This is an optional item and reference should be made to the manufacturer's literature when it is fitted.

Use of the Choke Control

Under cold ambient temperatures

Pull the choke control out fully to start the engine. As soon as the engine starts push the choke control in until the engine maintains an idling speed of approximately 1100 r.p.m. The choke control should be pushed in fully as soon as the engine will maintain normal running without its use.

Under warm ambient temperatures

Use full choke to fire engine, return to fast idle position when engine fires, where definite notch will be felt on the cable pull. After approximately one minute of engine running return the control knob to the fully in position.

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 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 windshield or to the windshield and interior. The maximum volume of air is directed to the windshield (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 windshield. The 'flap' valve is closed when the control is pushed fully in.

Gear Shift Lever (26)

Moving the gear shift lever from neutral, the gear positions are as follows:

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 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.

Hand Brake Lever (27)

To apply the rear wheel brakes pull the hand brake lever upwards. To release the brakes, pull the lever slightly upwards, depress the button (arrowed, Fig. 3) and lower the lever while the button is depressed.

The brake-line failure/handbrake warning indicator will glow brightly when the handbrake is applied, provided that the ignition switch is "ON".

Interior Light Switch (28)

The interior lamp is illuminated when the switch is pulled outwards.

The lamp is also automatically illuminated when either door is opened.

Air Conditioning Control Panel (29)

This is an optional item and reference should be made to the manufacturer's literature when it is fitted.



Fig. 3

Ignition, Starter and Steering Lock Switch (30)

The combined ignition/starter/steering lock switch is operated by a special key.

Incorporated in the switch is a "Key Warning System". The alarm system is fitted to encourage the driver to remove the ignition key from the lock before leaving the vehicle.

Separate keys are supplied for locking the driver's door. The switch has four positions (Fig. 4) as follows:

- 0 "OFF" in which position the key may be inserted or withdrawn (see Key Warning System, page 36).
- I "Auxiliary", in this position the ignition circuit is isolated to allow the use of a radio when the vehicle is stationary and the ignition is switched off.
- II "Ignition".
- III "Start" (Refer to "Starting the engine" on page 37).

Turn the key clockwise to II (Ignition) the ignition will be switched on.

To start the engine, the key should be turned a little more against spring pressure to III ("start"), as soon as the engine fires release the key which will return automatically under spring pressure to the ignition position (II).

1. To stop engine and engage steering lock

Turn the key in an anti-clockwise direction from the "ignition" position (II) to the "lock" position (0). This action stops the engine.

Removal of the key in this position automatically actuates the steering lock mechanism. (See Key Warning System, page 36).

If difficulty is experienced in removing the key, this can be rectified by simultaneous movement of the steering wheel.

The Key Warning System only functions when the ignition key is positioned in the switch and the driver's door is open. The "warning" denoted by a continuous buzzing sound will terminate when the driver's door is closed or the ignition key is completely removed. (See page 36).

2. To disengage Steering Lock and Start Engine

Insert the key and turn in clockwise direction. If difficulty is experienced in turning the key, this can be rectified by simultaneous movement of the steering wheel.

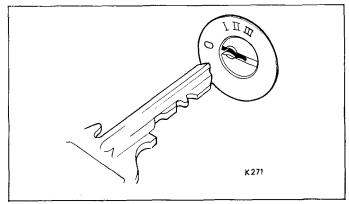


Fig. 4

Throttle, Brake and Clutch Pedals (31, 32 and 33)

These are conventional items which should require no further explanation.

Trip Reset Control (34)

The trip odometer (42) may be reset to zero by pushing the knob (34) upwards and turning anticlockwise.

Hood Release Control (35)

To open the hood, pull the control knob located below the parcel shelf at the left hand side of the car. This disengages the locking plate and allows the hood to rise sufficiently for the safety catch to be released using the fingers. See page 17.

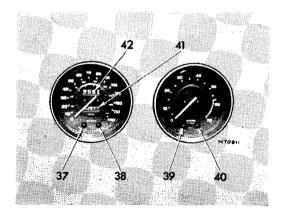


Fig. 5

E.G.R. Warning Light (36)

Refer to page 43 Emission and Evaporative Control System.

High Beam Indicator. (37, Fig. 5)

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

Turn Signal Indicator (38, Fig. 5)

Indicates the correct functioning of the turn signal lights when operated by the lever (2). A broken filament in a bulb on one side of the vehicle is denoted by the non-operation of the indicator light when the lever is in the relevant operating position. A defective flasher unit or broken filament in the indicator bulb will be indicated by no light response from the lever in both directional positions.

Oil Pressure Warning Light (39, Fig. 5)

The center indicator glows orange 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.

Ignition Warning Light (40, Fig. 5)

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 (41, Fig. 5)

The figures within the aperture below the center 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 (42, Fig. 5)

The figures within the aperture above the center 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 Zero Control', 34.)

Radio Controls

The radio aeriel fitted to the left front wing is raised by pulling the protruding tip upwards. The aeriel should always be lowered before the car is put through an automatic car wash plant.

Two radio speakers are fitted in the facia consol for connection to an approved radio receiver. Refer to the radio leaflet supplied with the set for operating instructions.

Sun Visors

Two adjustable sun visors, padded to reduce the risk of impact injury, may be unclipped from the centre support brackets and swung to eliminate side glare. The passenger's sun visor incorporates a vanity mirror.

Rear View Mirror (See page 20)

SAFETY HARNESS

Safety harness anchorage points are built into the vehicle and automatic, reel type safety belts are fitted before the car is delivered.

Using the Harness

Ensure that the buckle unit is conveniently situated by the side of the seat and pass the seat buckle over the shoulder nearest to the car door. With the lap and body belts passing across the body, plug the belt buckle into the nearest centre buckle unit. This is denoted by a positive 'click'.

To release the harness depress the marked panel on the centre buckle unit.

Seat Belt Warning System

The seat belt warning device will operate if an attempt is made to start the car without the seat belts in use. For full details see page 37 "Driving the Car".

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 detergents dissolved in hot water.

Inertia Reel Mechanism Check

Every 10,000 km (6000 miles), carry out the following road check to ensure that the safety harness inertia reel mechanisms for both driver and passenger continue to operate satisfactorily.

IMPORTANT. Road tests must only be carried out under maximum safe road conditions, i.e. level, dry road with no following or oncoming traffic of any kind.

(a) With the safety harness fitted to driver and passenger as previously described, start the engine and accelerate the vehicle to approximately 24 km/h (15 m.p.h.). Ensuring that it is safe to do so, brake sharply.

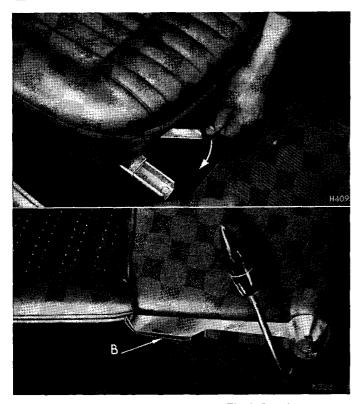


Fig. 1 (upper)

Fig. 2 (lower)

(b) The safety harness should automatically lock, holding both driver and passenger securely in position.

It is important when braking that the reaction of both driver and passenger is normal, i.e. the body must not be thrown forward in anticipation, thus causing a 'snatching' action of the reel which will not operate the locking mechanism. The harness is locked by retardation of the car, not by body movement.

SEATS

The seats are of the bucket type and have adjustable headrests to prevent the effects of backlash in an accident. The seats are pivoted at the front and secured at the rear by a spring loaded lever A (Fig. 2) which prevents the seat lifting during an accident. The lever, when moved forwards allows the seat to be tilted and access to be gained to the rear of the driving compartment.

To clean the seats refer to page 21 "Care of Bodywork".

Adjustments

The seats are adjustable for leg reach (fore and aft movement) and squab angle (back of the seat rake).

Leg reach adjustment

This is adjusted by moving the lever (Fig. 1) situated at the front of the seat and sliding the seat to the position required. Release the lever and try to slide the seat to ensure that the lever is correctly located and the seat is secure.

Squab angle adjustment

Sit in the seat, lift the lever B (Fig. 2) and assume the desired posture, release the lever.

LOCKS AND KEYS

Keys

The following keys are supplied with each new TR6.

- 2 Ignition keys.
- 2 Door keys.
- 2 Glove locker and trunk locker keys.

In addition, an ignition key identification disc is supplied and must be submitted to your Triumph dealer when new ignition keys are required. As the disc is the only record of the ignition keys it should be kept in a safe place.

Door Locks

"Anti-burst" locks are fitted to both doors and are opened by a push button on the outside or by a remote control lever on the inside.

To lock the door, insert the key and turn forward a quarter turn. To unlock a door turn the key rearward a quarter turn.

Ignition/Steering Lock and Key Warning System

See page 12 for operation.

Lubrication of Exterior Locks

Once a month, particularly in sub-zero temperatures, apply a few drops of light machine oil to the latch and key slots. Do not apply grease to lock cylinders.

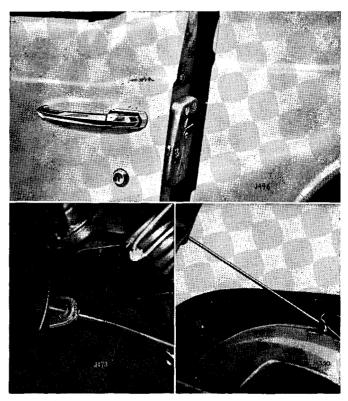


Fig. 1 (left)

Fig. 2 (upper)

Fig. 3 (right)

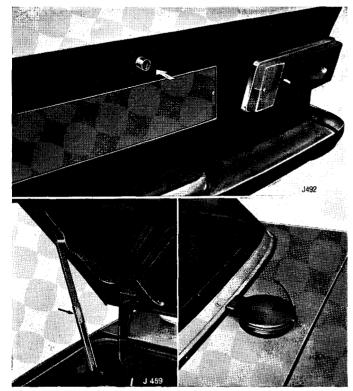


Fig. 4 (left)

Fig. 5 (upper)

Fig. 6 (right)

Hood Release (Fig. 1)

To open the hood pull the control situated below the lefthand side of the facia. The hood will rise sufficiently to enable the fingers to be inserted under the R.H. rear edge to give acces to a near vertical position, where it will be supported by a stay. Disengage the stay from its recess before attempting to close the hood

Trunk Locker (Figs. 4 and 5)

To open the deck lid, depress the unlocked plunger (Fig. 5) 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. 4) in the telescopic support and lower the lid, which may be locked by turning the key a half turn counter-clockwise.

Fuel Filler Cap (Fig. 6)

The fuel filler cap, located forward of the trunk lid, is opened by lifting the catch at the side of the cap. Press the cap to close.

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 windshield frame by turning the catch levers in the direction as shown in Fig. 1.

Release the fasteners (five) securing the hood material to the rear crossframe.

Release the fasteners (six) below each of the rear quarter windows (Fig. 5).

Push the header rail, rearwards and slightly upwards, while knocking the soft side support (arrowed Fig. 2) downwards until the assembly begins to fold. Continue lowering the frame and pull the fabric flat over the deck lid (Fig. 3).

Fold the fabric forwards over the soft top frame and turn the ends of the fabric inwards (Fig. 4). Ensure, that the Vybak windows are free from distortion and that the fabric is clear of the frame.

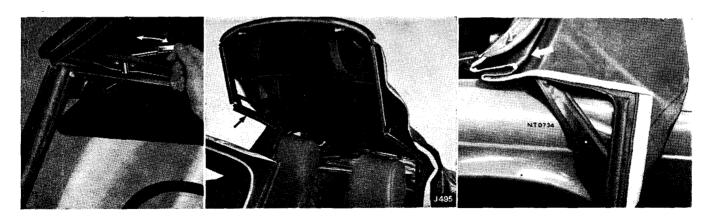


Fig. 1

Fig. 2

Fig. 3

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 center. 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 deck lid. Lifting the front header rail, raise the assembly sufficiently to allow the fabric to lie evenly over the soft top frame.

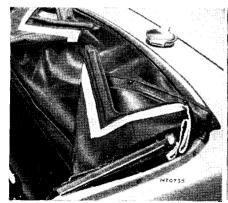
Secure the soft top header rail on the windshield frame, by turning the catch levers inwards towards the center of the car.

Secure the soft top to the body using the fasteners below each quarter window (Fig. 5).

Secure the fasteners securing the inside hood material to the rear cross frame.

Opening backlight (Fig. 6)

To open the backlight, 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.





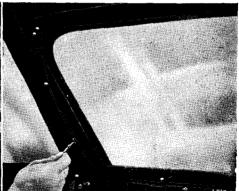


Fig. 4

Fig. 5

Fig. 6

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. 7, 8, 9)

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

Figs. 7 to 9 show the hard top attachments.

Rear view mirror

The fully adjustable interior mirror mounted on a breakaway support may be dipped to reduce the glare from following vehicles. To operate the dipping mechanism move the catch rearward

If, through impact, the mirror stem is pulled out of the mounting, it may be replaced as follows:

Take out the two screws and remove the mounting plate and carrier from the screen header rail. Slide the mirror stem into the carrier, replace the end blocks and secure the assembly to the header rail.

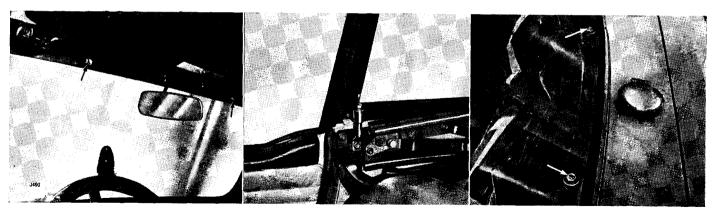


Fig. 17

Fig. 8

Fig. 9

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.

When using an automatic car wash ensure that the radio aerial is fully retracted.

Removing Grease and Tar

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

Inflammability

The car conforms to State and Federal laws on flammability. To preserve this condition do not clean interior other than as described above.

Tires

Wheels and tires, of correct types and pressures, are an integral part of a vehicle's design. Thus the regular maintenance of the tires 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 tires.

Pressures

Adjust tire pressures in accordance with the recommendations given below. These pressures are satisfactory for sustained speeds up to 112 m.p.h. (180 km.h.).

	Front	Rear
185 SR15 G800	20 lb/in. ²	24 lb/in. ²
185 SR15 X	(1·40 kg/cm ²)	(1.68 kg/cm ²)

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

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

To prolong tire 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 tire walls. Examine the tires 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 tires by using a cloth moistened in gasoline. The tires should then be washed, using only soap and water.

Tire Wear

The characteristics of tires vary considerably and, therefore when new tires are fitted, all four tires must be of the same type and rating. (185–15 radial ply).

Occasionally remove flints and other road matter from the treads and examine the tires 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. 1).

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 tires if required. The original degree of balance is not necessarily maintained, and it may be affected by uneven tread wear, by repairs, by tire 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.

Excessive wear in the center of the tread (Fig. 2) results from over-inflation, in which condition the fabric is more easily damaged.

Excessive wear at the outer edge of the tread (Fig. 3) results from under-inflation, a condition which causes excessive heating and premature tire failure.

Wheel Changing Procedure (Pressed Steel Wheels)

- 1. Place the vehicle on firm, level, ground if this is not possible exercise extreme caution.
- 2. Apply the handbrake.

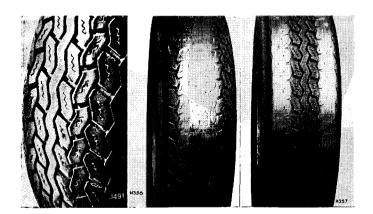


Fig. 1

Fig. 2

Fig. 3

- 3. Remove the spare wheel from below the luggage compartment floor (Fig. 5).
- 4. Check the spare wheel pressure and ensure that it is correct (i.e. Front 20 p.s.i. or Rear 24 p.s.i.).
- 5. With the tool provided slightly slacken the wheel nuts (Fig. 4.)
- Locate the head of the jack under a chassis member (rearward
 of the front wheel or forwards of the rear wheel (Fig. 6).
 Assemble the handle into the jack and turn to lift the wheel
 clear of the ground.

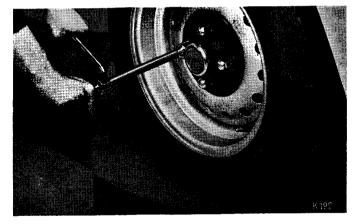


Fig. 4

WHEELS AND TIRES

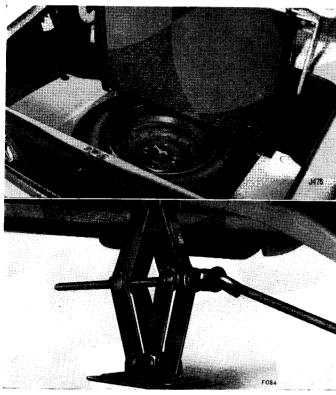


Fig. 5 (upper)

Fig. 6 (lower)

- Remove the wheel nuts and hub trim (Fig. 7) and lift off wheel.
- 8. Fit spare wheel and hub trim plate securing with wheel nuts. Ensure that the wheel nuts tighten without trapping the hub trim.
- 9. Lower wheel and remove jack.
- 10. Tighten wheel nuts securely and ensure that the wheel nuts are correctly positioned when fully tightened.
- 11. Stow tools and spare wheel in luggage compartment.

COOLING SYSTEM

The pressurised "NO LOSS" cooling system incorporates a translucent plastic overflow reservoir (Fig. 2) 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) page 10 to the hot position, lift the bonnet and disconnect the water hose at the bottom right hand side of the radiator before removing the radiator cap (Fig. 1).

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.

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 bottom hose 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 checked at the beginning of each winter period as the inhibitor becomes exhausted. See Page 27.

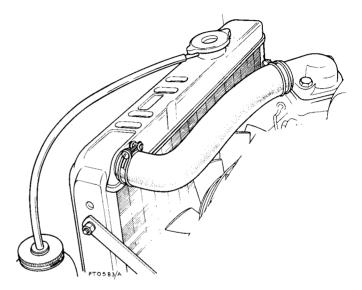


Fig. 1

Filling

Reconnect the bottom radiator hose, open the heat control (23) page 10 and remove the radiator cap (Fig. 1). Fill the cooling system with clean (soft) water and run the engine at approximately 1,500 r.p.m. for one or two minutes. Stop the engine and top up the radiator. Replace the radiator cap and half fill the plastic overflow reservoir with clean (soft) water.

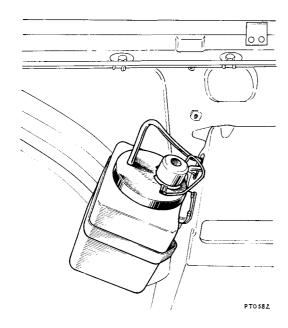


Fig. 2

Windshield Washer (Fig. 3)

Examine the water level in the plastic windshield washer container. If required, unscrew the cap and replenish the container with clean water. Under freezing conditions, fill the 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 windshield. Do not use anti-freeze solution in the windscreen washer as this may discolor 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 purap. Therefore, consult the following chart before adding anti-freeze, for the degree of frost protection required.

AN	ANTI-FREEZE CONCENTRATION			30%	35%	50%
SPE (60°	ECIFIC GRAVITY OF COOLANT AT 1 F)	5.5°C	1.039	1.048	1.054	1.076
AN	TI-FREEZE QUANTITY	PINTS (U.S.)	3.9	4.7	5.5	7.8
PROTECTION	Complete Car may be driven away immediately from	omplete ar may be driven away immediately from cold		-16°C 3°F	−20°C −4°F	-36°C -33°F
OF	Safe Limit Coolant in mushy state. Engine may be s after short warm-up period	tarted and driven away	–18°C 0°F	−22°C −8°F	−28°C −18°F	-41°C -42°F
DEGREE	Lower Protection Prevents frost damage to cylinder head, bloout before starting engine.	ock and radiator. Thaw	−26°C −14°F	-32°C -25°F	−37°C −35°F	– 47°C – 53°F

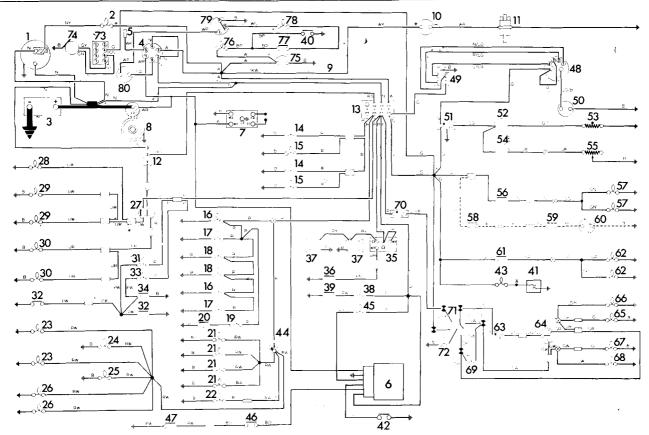


Fig. 1 Wiring Diagram

KEY TO WIRING DIAGRAM

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
2 3 4 5 6 7 8	Ignition warning light
3	Battery
4	Ignition/starter switch
5	Radio supply
6	Seat belt timer
7	Starter relay
8	Starter motor
9	Ballast resistor wire
0	Ignition coil
1	Ignition distributor
1 2 3 4 5 6 7	Master light switch
3	Fuse
4	Front parking lamp
5	Front marker lamp
6	Rear marker lamp
7	Tail lamp
8 9 0	Plate illumination lamp
9	Luggage boot lamp
0	Luggage boot lamp switch
1	Instrument illumination
1 2 3 4 5 6 7	Heater control identification light
3	Speedometer illumination
4	Wipe/wash switch identification light
5	Hazard switch identification light
6	Tachometer illumination
7	Headlight dipper switch
8	Main beam warning light
	Main beam
0	Dip beam
1	Key light

Door switch

33	Passenger light
34	Passenger light switch
35	Horn relay
36	Horn push
37	Horn
38	Cubby box illumination
39	Cubby box illumination switch
40	Handbrake switch
41	E.G.R. service warning counter
42	Drivers seat belt switch
43	E.G.R. service warning light
44	Panel lights rheostat
45	Fasten belts warning light
46	Door switch
47	Key switch
48	Windscreen washer/wiper switch
49	Windscreen wiper motor
50	Windscreen washer pump
51	Voltage stabilizer
52	Temperature indicator
53	Temperature transmitter
54	Fuel indicator
55	Fuel tank unit
56	Reverse lamp switch
57	Reverse lamp
58	Overdrive gear lever switch
59	Overdrive gearbox switch
60	Overdrive solenoid
61	Stop lamp switch
62	Stop lamp
63	Turn signal flasher unit
64	Turn signal switch

65	L.H. front flasher lamp
66	L.H. rear flasher lamp
67	R.H. front flasher lamp
68	R.H. rear flasher lamp
69	Turn signal warning light
70	Hazard flasher unit
71	Hazard switch
72	Hazard warning light
73	Heater switch
74	Heater motor
75	Battery condition indicator
76	Brake-line failure/handbrake warning indicator
77	Brake line failure switch
78	Oil pressure warning light
79	Oil pressure switch
80	Anti run on valve

COLOUR CODE

N.	Brown	LG	Light Green
U.	Blue	W.	White
R.	Red	Y.	Yellow
P.	Purple	S.	Slate
G.	Green	В.	Black
T/	Pink	Ο.	Orange

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
Unipart No		GFS 43

Circuits

The top fuse is not used on a standard production vehicle.

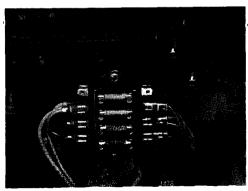


Fig. 2

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:

Stop lamp

Reverse lamp

Windscreen wiper

Windscreen washer

Temperature indication

Fuel indication

Heater

Turn signal

Seat belt warning

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

Horn

Headlamp flasher

Cubby box illumination

Key warning

Courtesy light

Hazard warning

Transmission tunnel lamp

Luggage boot lamp

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

Front parking lamp

Front marker lamp

Rear marker lamp

Tail lamp

Plate illumination lamp

Instrument illumination

CHARGING SYSTEM

CAUTION: THE ALTERNATOR CONTAINS POLARITY SENSITIVE COMPONENTS. REFER TO "CAUTION" ON PAGE 29.

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.

Alternator

The Lucas 18ACR alternator—which contains its own control unit—is driven by a vee belt which should be adjusted as detailed on page 57. 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.

BATTERY

CAUTION: REFER TO "CAUTIONS" ON PAGE 29.

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 distilled water as detailed on page 50. 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

Light	 		Watts	Lucas Part No.	Manufacturers Part No.	-
Headlights R.H. Dip—U.S.A	 		50/40	54522231		
Front parking and flasher lamps			5/21	380	502287	
Front marker lamps			4	222	501436	
	 		4	222	501436	
Rear flasher lamps			21	382	502379	1
PR 11/ : 1	 		5/21	380	502287	
Reverse lamps	 		21	382	502379	ł
Plate illumination lamps	 		6	207	57591	1
Luggage boot lamp	 	٠.	3	256	57599	
Transmission tunnel lamp	 		6	254	59897	
Courtesy light	 		2.2	987	59492	ļ
Cubby box illumination	 		2.2	987	59492	
Instrument illumination	 		2.2	987	59492	1
	 		2.2	987	59492	l
Seat belt warning light	 		2	281	513000	1

^{*} Sealed beam light units.

HEADLAMPS

Beam Aiming

Insert a large screwdriver behind rim adjacent to clip as shown on Fig. 3. Twist screwdriver to release rim from clip. Lift rim from upper retainers. 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 dealers, and will ensure maximum road illumination with minimum discomfort to other road users.

Filament Failure

In the event of a filament failure the sealed beam light unit must be replaced. Insert a large screwdriver behind rim adjacent to clip as shown on Fig. 3. Twist screwdriver to release rim from clip. Lift rim from upper retainers. Remove three screws 1, 2 and 3 (Fig. 4) to release retaining rim and sealed beam light unit. Pull connector from light unit Renew light unit and reassemble.

Front Marker Lamps (Fig. 5)

Remove the two screws securing the lens cover to gain access to the affected bulb.

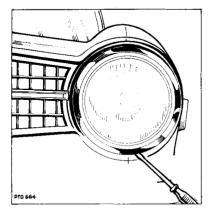


Fig. 3

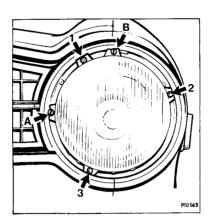


Fig. 4

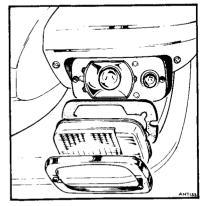


Fig. 5

LAMPS—BULB RENEWAL

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

Interior Lamp

Located under the passenger side facia and secured to the facia by a plastic clip. Disengage the lamp from the clip, and remove the bulb by pressing it towards the holder and turning it a quarter turn.

Key Illumination Lamp

Located near the ignition/starter key lock.

Remove the bulb holder from its securing bracket by upwards pressure and unscrew the bulb anti-clockwise.

Instrument Illumination and Warning Lamps

Working from behind the instrument, pull bulb holder—which is a component of the main harness—from instrument. Unscrew bulb from holder, renew bulb and reassemble.

Note that the speedometer and tachometer each have two illumination bulbs.

Brake-line Failure/Handbrake Warning, Seat Belt Warning and E.G.R. Service Indicators

Should difficulty be experienced in reaching the rear of the lamp to replace a bulb, the lamp itself may be carefully prised out from the facia, using a suitable tool.

Cubby Box Illumination (Fig. 6)

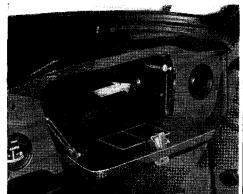
Open cubby box lid. Carefully unscrew bulb from holder. Renew bulb.

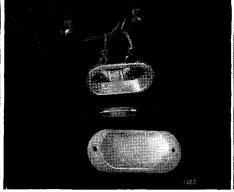
Luggage Boot Lamp (Fig. 7)

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

Rear marker, rear flasher, tail/stop and backup lamps (Fig. 8)

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 reassemble.





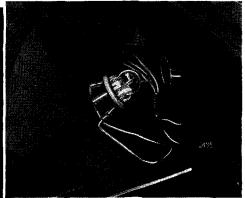


Fig. 6

Fig. 7

Fig. 8

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.

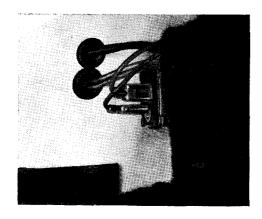


Fig. 9

KEY WARNING SYSTEM

This system is designed to encourage the driver to remove the ignition key from the lock before leaving the vehicle. The system should prevent encouragement of theft but is not intended as a comprehensive anti-theft device.

If the driver's door is opened while the ignition key is in the lock an audible buzzer will sound. Removing the key or closing the door will cause the buzzing to cease.

The buzzer is housed in a cylindrical container located adjacent to the courtesy light.

Associated with the key warning system is the courtesy light which illuminates the lock to facilitate key entry and the transmission tunnel lamp. The left-hand door switch contains two individual contact sets. One set controls the supply to the buzzer and courtesy light while the second set provides an earth return for the transmission tunnel lamp circuit. The single function right-hand door switch provides an earth return for the transmission tunnel lamp circuit. Refer to wiring diagram for full circuit information.

Emission
Control System
Warranty
for 1976 models



British Leyland Motors Inc. 600 Willow Tree Road, Leonia, New Jersey 07605

Warranty Applicable to the Emission Control System

British Leyland Motors Inc., 600 Willow Tree Road, Leonia, New Jersey 07605, warrants to the ultimate purchaser and each subsequent purchaser of the vehicle that it has been designed, built and equipped so as to conform at the time of sale with all U.S. emission standards applicable at the time of manufacture, and that it is free from defects in materials and workmanship which would cause it not to meet these standards for five years from the first retail delivery of the vehicle or 50,000 miles, whichever occurs first. Failures which result from lack of proper maintenance or from misuse or abuse of the vehicle or engine are not covered by this Warranty.

Like any other piece of complicated machinery, the car will need regular attention and service to make sure that the Emission Control Systems continue to function properly. This is the owner's responsibility. The manufacturer cannot guarantee that emissions will not rise to unacceptable levels if maintenance of the Systems is not carefully and regularly carried out.

The Warranty guarantees the Emission Control Systems to be free of "defects". Ordinary wear and tear on the vehicle and the engine, sufficient to require replacement of parts and components at regular Maintenance Intervals as specified in the Handbook, is not evidence of a "defect". For example, spark plugs, catalytic converter and muffler will require replacement; engine valves, an important component of the Emission Control System, should be checked and adjusted where necessary as specified in the instructions. Full details are in the Handbook or Manual. The manufacturer cannot accept responsibility for any condition claimed to be a "defect" if it results from a failure to follow the manufacturer's service instructions.

Failure of the Emission Control Systems may also result from misuse or abuse. Operation of the car at excessive speeds, or overloaded, or under heavy dust condition, may adversely affect the functioning of the Emission Control Systems, as may racing the car, or fire or accident caused to the car. If the car is operated only on short trips, or is not, generally speaking, driven each day for at least several miles, some components of the Emission Control Systems may deteriorate more rapidly than would otherwise be expected, and this does not show a "defect".

When replacement parts are used, it is essential that they be of proper design and performance specifications. For example, use of the wrong spark plugs may seriously prejudice emission levels. British Leyland Dealers are fully trained and equipped to use proper parts, either manufactured by or approved by British Leyland. Any failure resulting from the use of non-approved replacement parts will not be considered a "defect", and the warranty will be void.

The "Passport to Service" contains blanks to be filled in as maintenance of the system is done at recommended intervals. It is extremely important that this record be kept up to date so that it may be consulted if any question arises about the continued validity of the Emission Control Warranty.

If replacement of any component at the manufacturer's cost is necessary under the Emission Control Warranty, the work (including parts and labour) should be performed by an authorised British Leyland Dealer, unless written approval has first been secured from British Leyland for use of another service facility.

Regular maintenance of the systems may be done by an authorized British Leyland Dealer or by other established and qualified service facilities. Authorized Dealers will, of course, be fully equipped and trained to keep the systems in proper running order, and will have approved spare parts that can be used. If service work is done by other service facilities, it is recommended that copies of the repair orders be kept to show that the services were properly performed and approved replacement parts were used.

Because of local legal requirements, or because of engine characteristics, some cars are equipped with catalytic converters as part of the Emission Control Systems. Catalytic converters are used to reduce carbon monoxide and hydrocarbon emissions through the exhaust system.

If you see a label reading "UNLEADED GASOLINE ONLY" OR "UNLEADED FUEL ONLY" on your fuel gauge or near it on the dashboard, you have a Catalytic converter equipped car. Damage caused by the use of leaded fuel or by driving the vehicle with a persistent misfiring of the engine will not be covered by this Warranty.

SEAT BELT WARNING SYSTEM

Your 1976 Triumph is fitted with a seat belt warning system which will, when used correctly, be of major benefit and minimum inconvenience to the driver and may save lives.

The basis of the system is to warn you both audibly and visually to wear your safety belt whilst driving the car.

A seat belt warning light, located on the facia, and an electric buzzer will operate for a period of a maximum 8 seconds when the ignition is switched on and the driver's seat belt is not coupled.

Immediately the belt is coupled the buzzer will cease to operate, but the warning light will remain illuminated for the complete 8 seconds.

PREPARING TO DRIVE

When seated in the car with the seat belts fastened it is good practice to check the gauges and warning lights before driving off.

Switch on the ignition and check that the ignition and oil pressure warning lights glow, and the fuel gauge registers. NOTE: After switching the ignition on, the fuel gauge needle moves slowly across its scale taking some thirty seconds to reach a steady reading. This slow reaction eliminates needle flutter.

Starter—Operate the starter and as soon as the engine starts, release the ignition key and warm up the engine at a fairly fast idling speed.

Do not operate the starter for longer than five to six seconds and wait until the engine has stopped before re-using the starter. If after a few attempts the engine fails to start, switch off the the igntion and investigate the cause. Continued use of the starter will not only discharge the battery but may also damage the starter.

DRIVING RECOMMENDATIONS

Oil pressure warning light (green)—The warning light should go out soon after the engine is running. If the light continues to glow, stop the engine immediately and investigate the cause. Start by checking the oil level. This warning light glows dimly on vehicles fitted with tandem braking systems.

Ignition warning light (red)—The warning light should go out immediately the engine is started. If this does not occur, an incorrectly adjusted or broken fan belt, or other fault in the charging system is indicated.

Cold start control—See page 10 for details.

Temperature gauge—When the engine is running, the gauge indicates the temperature of the coolant leaving the cylinder head. As overheating can cause serious damage, the reading should be be noted, and after the initial rise in temperature during the any sudden change in the reading calls for immediate investigation.

Running-in

The importance of correct running-in cannot be too strongly emphasised, for during the first few thousand miles of motoring, the working surfaces of a new engine are bedding down.

When driving from new, avoid placing heavy loads upon the engine, such as using full throttle at low speeds or when the engine is cold. Running-in should be progressive, and no harm will result from the engine being allowed to "rev" fairly fast for short periods provided that it is thoroughly warm and not pulling hard. Always select a lower gear if necessary to relieve the engine of load.

Full power should not be used until at least 1,000 miles (1,600 km.) have been covered and even then, it should be used only for short periods at a time. These periods can be extended as the engine becomes more responsive.

Recommended Speed Limits

Owners are advised not to drive the car at engine speeds over 5,800 r.p.m., 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 91 (Research Method) i.e. Regular Fuel. See Emission Control System, page 40.

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 4,500 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 specified on page 66 are high quality and are approved only after extensive tests. The use of only high grade lubricants is very important and cannot be overemphasised.

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 "1000 mile 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 every 19,000 miles or 18 months (whichever is the sooner) and that the braking system be overhauled every 37,500 miles or 3 years (whichever is the 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 Rover Triumph 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 Summary produced by Triumph engineers, offers a carefully designed plan of lubrication requirements and adjustment checks at pre-determined periods.

The booklet "Passport to Service" is issued with every new car. By servicing as recommended and having the booklet stamped, the car will not only be kept in good running order but will have an enhanced re-sale value.

The operations carried out by your Dealer will be in accordance with the current recommendations and may be subject to revision from time to time.

EMISSION AND EVAPORATIVE CONTROL SYSTEM

All Triumph models entering the North American markets incorporate efficient emission control systems. These systems enable the vehicles to conform with all current Federal Regulations governing the emission of hydrocarbons, carbon monoxide, nitric oxide and the emission of fuel, by evaporation, from the fuel delivery system.

Fuel

The TR.6 (U.S.A.) performs efficiently on fuels of 91 octane (Regular Fuel). Note: The engine is not designed to use unleaded fuel, and whilst the occasional tankful will not cause damage, constant use of unleaded fuels will result in excessive wear which will affect the emission control system.

Emission Control Systems—Servicing

The importance of servicing at the correct intervals cannot be overstressed, improvements in design and manufacturing techniques count for nothing if the servicing standards are not upheld.

Routine servicing, carried out at the mileage intervals quoted in the Maintenance Summary helps to prevent deterioration of the systems.

Carburetters

The engine is fitted with two STROMBERG CDSE(V) 175 carburetters which are prime components of the emission system and great care is exercised during the manufacture and initial adjustment of these instruments. Adjustment of the carburetters

necessitates the use of specialised equipment and should be carried out by British Leyland Dealers.

Carburetter Controls

The throttle rod linkage will not require adjustments during normal operation. To ensure complete throttle closure a degree of 'lost motion' or slackness is incorporated into the linkage; no attempt must be made to adjust this out.

Carburetter Servicing Schedules

To maintain the carburetters at peak efficiency, regular servicing as detailed in the 'Maintenance Summary' is essential. The appropriate servicing operations should be performed by authorized dealers, who are trained in the use of the special equipment needed.

Crankcase Breathing (Fig. 1)

Crankcase breathing and evacuation of 'blow by' gases is achieved by utilizing the characteristic partial vacuum in the constant depression carburetters. By this method crankcase emissions are burned in the engine combustion process (Fig. 1). A wire gauze strainer in the engine top cover acts as an oil separator/flame trap.

Anti Run-on Valve (Fig. 1)

This valve prevents the 'running-on' of the engine after the ignition is switched off when, due to the heat of the engine, a condition of compression ignition is set up.

The method of achieving a cut off is by applying a slight 'vacuum' to the float chamber of the carburetters when the ignition is switched off.

System Description

With the ignition off a solenoid is activated which operates a valve that seals off the inlet to the bottom of the canister. With the inlet sealed a connection to the intake manifold applies a partial vacuum to the canister and consequently to the float chamber via an interconnecting pipe. The vacuum thus applied is sufficient to prevent fuel being drawn into the engine. When the engine has stopped and the oil pressure drops to zero, the solenoid is deactivated and the engine is thus ready again for operation.

Servicing

The system requires no servicing other than checking for deterioration and leak free connection of the system piping.

Function Checks

If the system is not working then it will be apparent by engine running-on. A system check can be made by applying current to the solenoid which, if working correctly, will stop the engine.

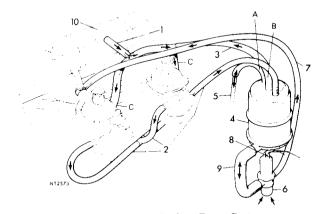


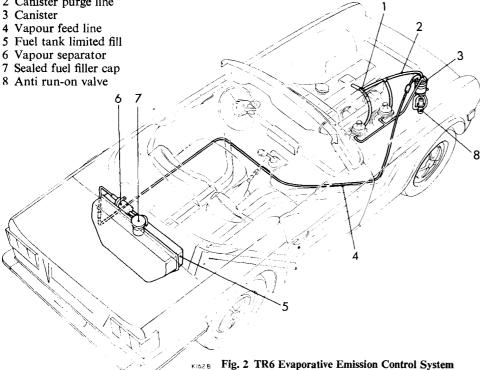
Fig. 1 Crankcase and Canister Purge System

- 1 Crankcase purge line
- 2 Carburetter float chamber vent pipe
- 3 Canister purge line
- 4 Charcoal canister
- 5 Fuel tank vent pipe 6 Anti run-on valve
- 7 Manifold vacuum line

- 8 Electrical connections for anti run-on valve
- 9 Purge air to canister
- 10 Flame arrestor
- A ½ in. restrictor
- B $\frac{3}{32}$ in. restrictor
- C %in. restrictor

EMISSION AND EVAPORATIVE CONTROL SYSTEM

- 1 Crankcase purge line
- 2 Canister purge line



- 1 Diaphragm
- 2 Spring
- 3 To Vaccum Source
- 4 Metering Pintle
- 5 Valve Seat
- 6 Production Adjustment-sealed after setting

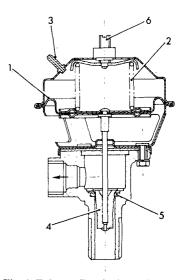


Fig. 3 Exhaust Gas Recirculation Valve

Evaporative control system

The evaporative control system uses an activated adsorption canister through which the fuel tank is vented. The following are features of the evaporative control system (see Fig. 2).

- (1) Both carburetter float chambers are vented to the engine during open throttle conditions and to the adsorption canister at closed throttle.
- (2) The constant depression of the carburetters is used to induce a purge condition through the adsorption canister via the running-on control valve. The crankcase breathing is also linked into the system.
- (3) A separator tank prevents fuel surges from reaching the canister and thus saturating the system.
- (4) The fuel filler cap is sealed to prevent evaporative losses.
- (5) The fuel tank filler tube extends into the tank to prevent complete filling and so allow for expansion of fuel in hot weather.

Warning: The use of compressed air to clean an adsorption canister or clear a blockage in the evaporative system is very dangerous. An explosive gas present in a partly saturated canister may be ignited by the heat generated when compressed air passes through the canister.

Servicing

Minimal servicing is required on the evaporation control system apart from renewing the adsorption canister at the specified interval, and checking visually the security of piping on the system.

Exhaust Gas Recirculation (E.G.R.) System System Description

To reduce the nitric oxides content in the exhaust, the peak combustion temperatures are lowered by recirculating a controlled quantity of the exhaust gases through the combustion process.

The E.G.R. valve is mounted on the cylinder head. A control signal, taken from a throttle edge tapping in the carburetter, gives no recirculation at idle or full load, but does allow an amount of recirculation, dependent on the vacuum signal and a metering profile on the valve, Fig. 3 under part load conditions.

Servicing

After the completion of the initial 1000 miles check the security of the E.G.R. valve operating lines. On the completion of subsequent 12,500 miles periods, a service indicator light, located on the facia will indicate that the following checks are necessary:

- (1) Security of the E.G.R. valve operating lines.
- (2) Operation of the E.G.R. valve.
- (3) Clean the valve and pipework
- (4) Reset the service indicator.

NOTE: It is recommended that this work is carried out by a British Leyland Dealer. An E.G.R. Service Repair Kit together with a Service Indicator Reset Key can be purchased from a British Leyland Dealer. Complete details on the servicing of the E.G.R. system are detailed in Repair Operation Manual Pt. No. 545277 obtainable from British Leyland Dealers.

N.B. These service schedules are based on annual mileage of approximately 12,500 miles. Should the vehicle complete substantially less than this per annum, it is recommended that a 'C' and 'D' Service should be completed at six and twelve monthly intervals respectively.										A=1 B=3 C=0 D=1	ILEAGE x 1000 MILES =1 =3, 9, 16, 22, 28, 34, 41, 47 =6, 19, 31, 44 =12.5, 37.5 =25, 50			
										A	В	С	D	E
Engine														
Check/top up engine oil			, .) x		İ	
Check/top up cooling system										X	X	X	X	X
Check/adjust operation of all washers and	top up r	eservo	ir(s)							X	X	X	X	X
Renew engine oil										X	Ì	X	X	X
											ļ	X	X	X
Lubricate accelerator control linkage (and	pedal pi	vot)—	check o	peratio	n					X		X	X	X
Check cooling/heater systems for leaks and										X	X	X	X	X
Check for oil leaks										X	X	X	X	X
Check/adjust torque of cylinder head nuts/	bolts									X		ì	1	
Check driving belts, adjust or renew										X	ļ	ĺ	X	X
Check security of engine mountings										X				
Check/adjust carburetter idle settings										X		1	X	X
Fop-up carburetter piston dampers										X			X	X
Renew carburetter/air intake air cleaner ele	ment(s)											ì	X	X
Check/adjust deceleration by-pass valve										X		[X	X
Check security of EGR valve operating line	es									X				1
Check EGR system											}	{	X	X
Check/adjust choke settings (manual choke	s)									X		l	X	X
Check crankcase breathing and evaporative	loss sy	stems i	hoses fo	or secu	rity			• •		X	Ì	1		
Check crankcase breathing and evaporative	loss sys	tems.	Check	hoses/p	pipes ar	id restr	ictors f	or bloc	kage			ļ		
security and condition													X) X

N.B. These service schedules a vehicle complete substant Service should be complete.	ntially	less tha	ın this	per an	ınum,	it is rec	comme	nded th	nat a 'C	Should and	the 'D'	A=1 B=3 C=6	, 9, 16, , 19, 31 2.5, 37			
												Α_	В	С	D	E
Engine (continued)										_			,			
Renew adsorption canister																50 only
Renew fuel filter															X	X
Check/adjust valve clearances	• •				• •		• •			• •		X			X	X
Ignition																
Check security of distributor va	cuum	unit line	e and	operati	on of	vacuun	n unit					X				
Lubricate distributor															X	X
Check/adjust dwell angle and ig	nition	timing	using (electro	nic eq	uipmen	t					X			X	X
Check ignition wiring for fraying	g, chai	fing and	deter	ioratio	n				• •			X			X	X
Check operation of distributor v															X	X
Clean distributor cap, check for															X	X
Renew spark plugs															X	X
Check coil performance on oscil															X	X
Renew distributor points	• •	• •	• •	• •	• •	• •	• •	• •	• •		• • •				X	X
Transmission																
Check/top up gearbox oil												X		X	X	X
Check/top up rear axle/final dri	ve oil											X		X	X	X
Check for oil leaks												X	X	X	X	X
Check tightness of propellor sha	ft cou	nling be	olts												X	X
Check digitaless of properior sha	ni cou	Pinis C										X	X	X	l x	X

MAINTENANCE SUMMARY

N.B. These service schedules are based on annual mileage of approximately 12,500 miles. Should the vehicle complete substantially less than this per annum, it is recommended that a 'C' and 'D' Service should be completed at six and twelve monthly intervals respectively.										A=1 B=3 C=6 D=1	MILEAGE x 1000 MILES A=1 B=3, 9, 16, 22, 28, 34, 41, 47 C=6, 19, 31, 44 D=12.5, 37.5 E=25, 50				
											A	В	C	D	Е
Transmission (continued)					-										
Check/top up clutch fluid reservoir		• •	• •								X	X	X	X	X
Lubricate clutch pedal pivots														X	X
Check drive shaft coupling bolts												i]	X	X
Check drive shaft gaiters													ĺ	X	X
Steering and Suspension													Ì	ĺ	
Check steering rack/gear for oil/fluid !	eaks										X	X	X	X	X
Check security of suspension fixings											X		Ì	X	X
Check condition and security of steering			and g	gaiters							X	X	X	X	X
Check/adjust front (and rear) wheel all	ignmer	ıt									X		X	X	X
Adjust front hub bearing end-float													ĺ	X	X
Lubricate steering rack and pinion											(X	X	X
Lubricate steering swivels											X		X	X	X
Check shock absorbers for fluid leaks											X	X	X	X	X
Brakes													l	1	1
Inspect brake pads for wear and discs	for co	ndition										X	{		
Inspect brake linings/pads for wear, dr	rums/d	iscs for	cond	ition									X	X	X
Check/top up brake fluid reservoir											[X]	X	X	X	X
Check footbrake operation, adjust to a	nanufa	cturer'	s instr	uctions							X		X	X	X
Check handbrake operation, adjust to	manuf	acturer	's inst	ructions							X		X	X	X
														X	X
Lubricate handbrake mechanical linka	ge and	cable	guides										X	X	X
Check visually hydraulic pipes and uni					orros	ion					X	X	X	X	X
Check brake servo hose(s) for security											X	X	X	X	X

N.B. These service schedules are based on annual mileage of approximately 12,500 miles. Should the vehicle complete substantially less than this per annum, it is recommended that a 'C' and 'D' Service should be completed at six and twelve monthly intervals respectively.										A=1 B=3 C=6 D=1	MILEAGE x 1000 MILES A=1 B=3, 9, 16, 22, 28, 34, 41, 47 C=6, 19, 31, 44 D=12, 5, 37, 5 E=25, 50				
										A	В	C	D	Е	
Electrical															
Check function of original equipmer indicators						rns, wi	ipers an	nd war	ning	x x x x	x x x x	X X X X X	X X X X X X	X X X X X X	
Check condition of fuel filler cap seal		··						• •		^	Λ	2%	$\hat{\mathbf{x}}$	X	
Wheels and Tires Check/adjust tire pressures including s Check that tires comply with manufac Check tightness of road wheel fastenir Check tires for external cuts in tire fal Check tires for tread depth, visually for	eturer's speci ngs bric, exposu	 re of pl	 y or cor	d struc	 ture, l of ply	umps o	 or bulge	 s ture, lı	 imps	X X X	X X X	X X X	X X X	X X X	
or bulges			• •		• •	• •	• •	••			X	X	X	X	
* Important-If the tires do not confe	orm with leg	gal requi	irements	report	t to th	e owne	r.								

N.B. These service schedules are based on annual mile vehicle complete substantially less than this per Service should be completed at six and twelve n	annu	ım, i	t is rec	omme	nded th		A=1 B=3 C=6 D=1		22, 28, , 44	MILES 34, 41,	
							_A	B	<u>C</u>	D	E
Body Lubricate all locks and hinges (not steering lock) Check condition and security of seats and seat belts Check rear view mirror for cracks and crazing Check operation of all door, hood and trunk locks Check operation of seat belt warning system Check operation of window controls Check tightness of sub-frame/body mountings Ensure cleanliness of controls, door handles, steering with the stee						 	 X X X X X	x x x	x x x x	X X X X X	X X X X X X
Road Test Road/Roller test and check functions of all instrumenta Report additional work required	ke an	id cl					х	X	X X	XX	XX

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. 1) 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, 2·4 pints (U.S.A.) (1·14 litres) will be required for topping up via the cap (Fig. 2).

Brake Master Cylinder (1, Fig. 3)

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.

Do not allow the level to drop below the danger line on the side of the casing.

To avoid dirt entering the system ensure that the reservoir is clean externally before removing the cap. Use only new fluid taken from a sealed container and re-seal the container after use. Replace the reservoir cap immediately after filling.

Radiator Water Level—Weekly (Fig. 1 page 25)

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 25. 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.

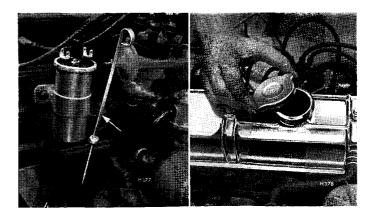


Fig. 1

Fig. 2

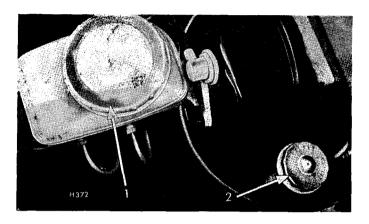


Fig. 3

Windshield Washer

Examine the water level in the plastic windshield washer container. If required, unscrew the cap and replenish the container with clean water. (Refer to page 26).

Battery-monthly

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. 3).

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—FREE SERVICE

The engine oil pan 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 operations recommended free-of-charge, except for lubricants.

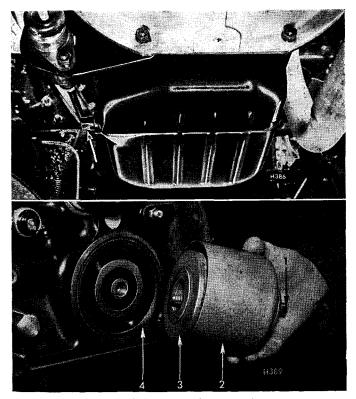


Fig. 4 (upper)

Fig. 5 (lower)

THE FOLLOWING OPERATIONS SHOULD BE CARRIED OUT AT THE INTERVALS RECOMMENDED IN THE MAINTENANCE SUMMARY

Engine Oil Pan (Fig. 4)

Remove the plug (arrowed), to drain the oil. Refit the plug and refill to the correct level, via the filler cap, (Fig. 2). Reduce this period according to the severity of the following unfavourable conditions.

- 1. Dusty roads.
- 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. 5)

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.

Air cleaner (Figs. 6 and 7)

At the intervals stated in the Maintenance Summary or more frequently where conditions of extreme dust prevail, unscrew six bolts (1) securing the container to the carburetor flanges, take off the cover plate (2) and lift out the elements (4), noting the positions of the rubber ring seals (5).

Clean out the container (6) and use a high pressure air line, or foot pump, to remove dust from between the folds of the paper element (4).

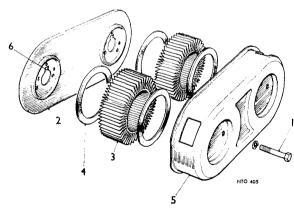


Fig. 6

Re-assemble the air cleaner, ensuring that the slot (7) in the cover plate (2) and gasket (8) and the vent and bolt holes, align with those in the carburetor flanges.

Renew the paper elements at the intervals recommended in the Maintenance Summary.

Compression Checks

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.

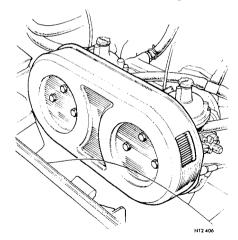


Fig. 7

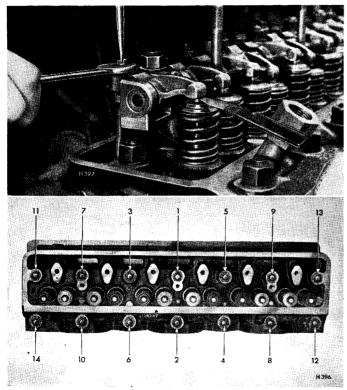


Fig. 8 (upper)

Fig. 9 lower)

The need for decarbonising arises when the build-up of carbon, a product of combustion, becomes excessive. If regular 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.

Valve Clearances—Adjustment (Fig. 8)

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. 9)

When required, tighten the cylinder head nuts in the order shown to a torque of 80 lb.ft. Slacken them by reversing the sequence.

Spark Plugs

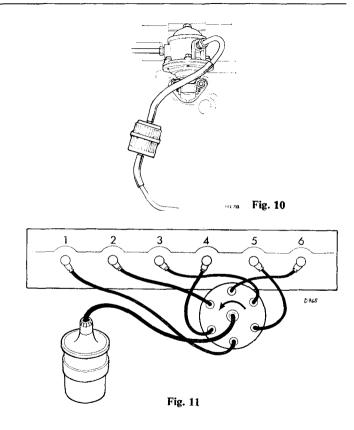
At the intervals recommended in the Maintenance Summary.

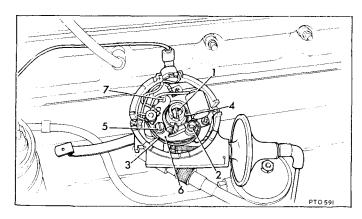
- (a) Remove spark plugs for cleaning and reset the gaps to 0.25" (0.63 mm.). Clean the ceramic insulators and examine them for cracks or other damage likely to cause "H.T." tracking. Test the plugs and renew those which are suspect.
- or (b) Renew all the spark plugs. Ensure that they are of the correct type (page 69) and that the gaps are set to 0.25'' (0.63 mm.).

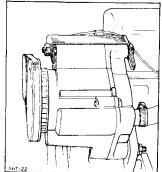
Replace plug leads in the order shown in Fig. 11, i.e. firing order 1, 5, 3, 6, 2, 4.

Fuel Filter (Fig. 10)

Renew the filter, ensure that the new filter is fitted according to the direction of flow as stated on the filter casing.







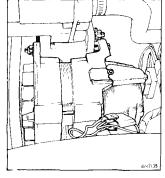


Fig. 12 (left)

Fig. 13 (upper)

Fig. 14 (right)

Carbon Canister (Fig. 1 page 41)

Remove the carbon canister as follows:—disconnect the three pipes from the top of the canister and the connection to the running on control valve from the bottom. Remove the nut and bolt on the securing strap and lift out the canister. When fitting a new canister ensure that all connections are leak free and that no pipes are kinked.

Engine Breather Pipes (Fig. 1 page 41)

Remove and clean the piping connecting the rocker cover to the carburetors and the carbon canister. Clean breather oil filter or rocker cover filter in clean fuel.

Ignition Distributor (Fig. 13)

Release the clips and remove the distributor cap and rotor arm. Smear the cam (4) lightly with oil and apply a few drops of thin oil to the screw (1), in the center of the cam, and a single drop on the contact breaker pivot (2).

Turn the engine until the contact breaker lever (3) is operating on the highest point of the cam lobe, i.e. gap at its widest. Slacken the fixed contact screw (5), insert a screwdriver into the "Vee"-shaped cut-out (7) in the contact lever (6) and adjust the lever to obtain 0.015'' (0.4 mm.) gap using a feeler gauge between the contacts and retighten screw (2). Refit the rotor arm and cap.

Renew worn or damaged points when required.

Carburettor Damper (Fig. 15)

Using an oil can, apply oil to the throttle and choke control linkages, and accelerator pedal pivot. Check that the carburettor slow running is correct.

Topping up the oil level.

- Slacken the carburettor air intake hose clip and detach the hose. Remove the two bolts, plain and rubber washers, securing the air cleaner to the carburettor. Lift off the air cleaner.
- Remove the carburettor damper assembly from the carburettor by unscrewing the hexagonal plug in the top of the carburettor.
- 3. Raise the piston by inserting a finger into the carburettor air intake hole. With the piston raised, top-up the hollow damper guide with a recommended engine oil, until the oil level is ⁴" below the top of the guide.
- 4. Release the piston and refit the damper assembly, screwing down the plastic plug.
- 5. To ensure correct location of the oil retaining cup in the damper guide, again raise and lower the piston.

NOTE: A certain amount of pressure will be felt when lifting the piston, but it is essential that the piston is lifted to its maximum height to ensure correct location of the oil retaining cup.

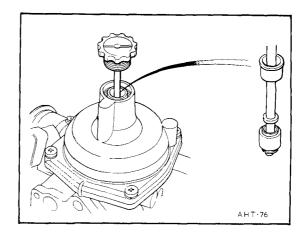


Fig. 15

Fan Belt Adjustment (Fig. 14)

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 $\frac{3}{4}''-1''$ (19—25 mm.) at the mid-point of its longest run. Maintaining the alternator in this position, tighten the bolt (2) and nut (1).

Air Pump Belt Adjustment (Fig. 12)

The belt should be sufficiently tight to drive the air pump without unduly loading the bearings.

To adjust the belt slacken the pivot bolt and the adjustment bracket bolt. Pivot the air pump away from the engine until the the belt can be moved laterally $+\frac{1}{4}$ " at the midpoint of its longest run. Maintaining the pump in its position, tighten the bolts.

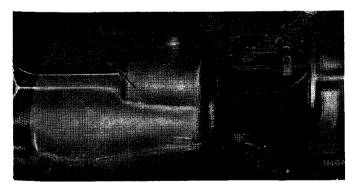


Fig. 16

Transmission (Fig. 16)

With the vehicle standing on level ground, remove the oil filler plug (shown arrowed), and top up the transmission 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 transmission and over-drive 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.

Final Drive (Fig. 17)

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.

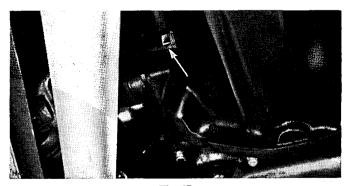


Fig. 17

Propellor Shaft

Check the coupling bolts for tightness.

Steering Unit (Fig. 19)

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. 20)

Remove the plug (arrowed) and fit a suitable nipple. Fit a grease gun charged with oil and stroke until *oil* exudes from the swivel. Remove the nipple and refit the plug.

Upper Ball Joint (Fig. 18)

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

Check and if necessary, tighten the steering unit attachments and "U" bolts, steering tie rods and levers.

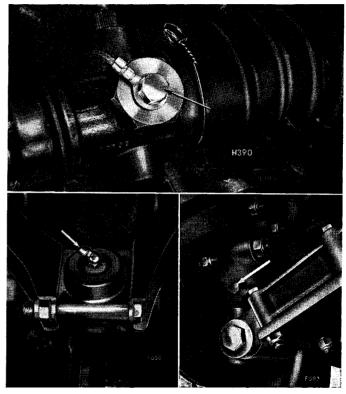


Fig. 18 (left)

Fig. 19 (upper)

Fig. 20 (right)

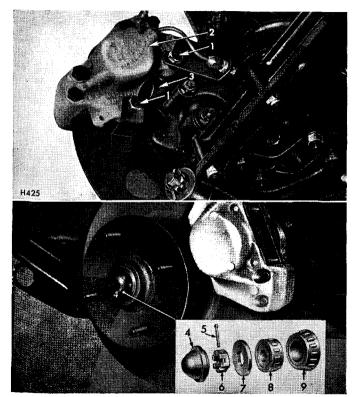


Fig. 21 (upper) Fig. 22 (lower)

Front Hub Adjustment and Lubrication (Figs. 21 and 22)

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 disc 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 outer (8) and inner (9) race from the hub (inset Fig. 23). 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.

Exhaust System

Check the complete exhaust system for leaks and immediately rectify defects.

Wheel Alignment

Check the front and rear wheel track alignment if tire wear is uneven. See page 22.

Electrical

Check the operation of all electrical equipment and adjust, if necessary, the headlight settings.

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.

At the Intervals Recommended in the Maintenance Summary

- (a) Check and adjust the brakes as necessary.
- (b) 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.

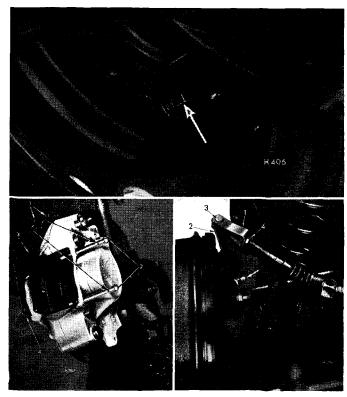


Fig. 23 (left)

Fig. 24 (upper)

Fig. 25 (right)

Front Brakes—Renewing Brake Pads (Fig. 23)

When brake 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:

- 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 brake pads (3) and the anti-squeal plates (4) from the caliper.

1MPORTANT. 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.
- Fit the brake pads and anti-squeal plates, ensuring that the arrows on the plates are pointing in the direction of wheel rotation.

- 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. 24)

Each rear brake is provided with an adjuster which is accessible when the rear road wheel is removed. To adjust the shoes, let the parking brake off, 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.

Parking Brake—Adjusting (Fig. 25)

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

- 1. Release the parking brake lever, 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.
- Adjust both cables equally until the clevis pins can be inserted without tension on the brake 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, and washer and fit a new split pin. Apply a little grease around the fork ends, replace wheels and remove the jack.

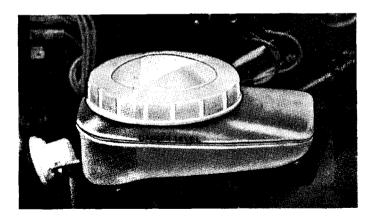


Fig. 26

Vacuum Servo Unit

The TR6 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.

HYDRAULIC SYSTEM

Description

The foot operated hydraulic braking system employs a tandem master cylinder for transmitting pressure to independent front and rear braking systems. 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 page 6) 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. The warning light will also glow brightly when the handbrake is applied, provided the ignition switch is "ON".

Bleeding the Hydraulic Braking System General

If air has entered either of the hydraulic braking systems then only the system affected need be bled. 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, page 64.

Preparation for Bleeding

Before commencing to bleed the brakes ensure that all the bleed nipples (Figs. 24 and 26) 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 the fluid above the dividing partition in the reservoir. Do not use fluid bled from the system for topping-up.

Use new fluid from a sealed container, resealing 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 bleeding is completed adjust the brakes as detailed on page 62.

- Attach a rubber tube of approx. 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).
- 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, 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.

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. Ensure that the car wheels are securely chocked and release the handbrake.
- 6. 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. 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

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.

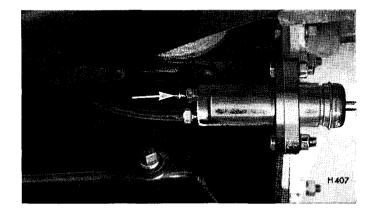


Fig. 27

Bleeding the Clutch System (Fig. 3 page 51 and Fig. 27 page 66)

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. Fig. 3 page 50).
- 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.)
- Clean the clutch cylinder nipple (Fig. 27) and attach to it a rubber tube of approx. ½" (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.

LUBRICATION SPECIFICATION

COMPONENT	TEMPERATURE RANGE	SERVICE CLASSIFICATION	S.A.E. VISCOSITY SPECIFICATION
	Above 14°F (-10°C)		SAE 10W/50; SAE 20W/50; SAE 10W/40; SAE 20W/40;
Engine	-5°F to 50°F (-20°C to + 10°C)	API S.E.	SAE 10W/30; SAE 10W/40; SAE 10W/50
	Below 14°F (-10°C)		SAE 5W/20; SAE 5W/30
Gearbox Overdrive and Final Drive	Above 30°F (0°C) Below 30°F (0°C)	API G.L.4	SAE 90 Hypoid SAE 80 Hypoid
Steering Rack Hubs & Chassis Grease Points	All	NLGI 2 Multipurpose Grease	
Brake and Clutch Fluid	All	DOT 3 (FMVSS116) and S.A.E. Specification J.1703d	
Antifreeze	Permanent type ethylene glycol base w	ith suitable inhibitor for	mixed metal systems
Windshield Washer	Windshield Washer Antifreeze Fluid (Proprietary Brands)	

Renew wiper blade

Lift the wiper arm and blade from the screen so that it falls into its service position. Simultaneously lift clip (A), tilt cage (B), Fig. 1 and gently pull the wiper blade from the arm.

Renew wiper blade and arm—Removal

Position a screwdriver between the nut and boss and impart a twisting action, Fig. 1. The clip will lift from the spindle groove and the assembly may then be removed by hand.

Refitting

Push new blade assembly onto spindle groove and locate in the park position by lightly pressing arm down towards the base of the windscreen. Insert a steel rule between the windscreen and wiper blade in order to establish setting distance as shown in Fig. 2. If adjustment is necessary to comply with dimension shown, the blade assembly should again be removed from the splined spindle and relocated to give required setting dimension.

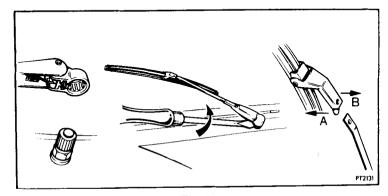


Fig. 1

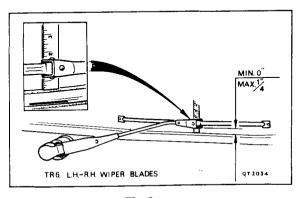


Fig. 2

TR6 1976 FEDERAL GENERAL SPECIFICATION

Engine			Fuel System	
Number of cylinders Bore of cylinders	6 74·7 mm.	2·94 in.	Pump	A.C. mechanically operated dia-
Stroke of crankshaft	95·0 mm. 2498 cm. ³	3·74 in. 152 in. ³	Carburetter	phragm type Stromberg 2×175 C.D.S.E.V. side
Cubic capacity Piston area	263 cm. ²	40.7 in. ²	Manifolds	draught Cast aluminium inlet manifold and
Compression ratio Valve rocker clearances	7.5:1		Air cleaners	cast iron exhaust manifold Replaceable paper elements
(cold) Valve timing	0.25 mm. Inlet and exhau	0.010 in. st equally open at	Crankcase breathing	Closed circuit breathing from rocker cover to constant depression cham-
, and o	T.D.C.	or oquan, open ar		bers of carburetters
Lubrication (Engine)				
Pump	High capacity ro	tor numn	Ignition System	
Filter	Full flow replaca		Coil	Lucas 15c6 with Ballast Resister wire
			Distributor-type contact gap	Lucas in harness 0.63 mm. 0.015 in. nominal
Cooling System			dwell angle	34-38°
		loss" system incor- lucent plastic over-	rotation—viewed on top of the rotor	Anti-clockwise
	flow bottle.		Firing order	1-5-3-6-2-4
Circulation	By impellor pur controlled flow	np thermostatically	Sparking plugs—type	N9Y (Champion) 0.63 mm. 0.025 in. nominal
Fan	13 blades, 14·5	in. dia. (368 mm.) m crankshaft pulley	gap Ignition timing—static idle	10° B.T.D.C. 4°

Electrical System		Transmission	
Voltage Polarity	12 Negative ground	Clutch	$8\frac{1}{2}$ in. (216 mm.) single dry plate diaphragm spring type
Fuses—fuse box Alternator—type —nominal output	35 amp. Lucas 18 A.C.R. 43 amps.	Transmission	Four forward ratios and one reverse synchromesh on all forward ratios. Overdrive available as optional equipment: Ratio 0.797: 1
Battery—type —capacity @ 20 hour rate —plates per cell	Lucas 57 amp. hour	Ratios Overall ratios	O/D O/D Top Top 3rd 3rd 2nd 1st Rev. 0.797 1.00 1.11 1.39 2.10 2.99 3.37 2.95 3.70 4.09 5.13 7.77 11.08 12.47
—normal charge rate Starter motor	5 amps. Lucas M100 pre-engaged type	Rear axle	Semi-floating axle shafts, three-piece casing. Hypoid bevel gears $3.7:1$ ratio
Turn signal flasher unit Hazard flasher unit Fuel and temperature indication	Lucas 8FL 3·6A Lucas 9FL 10A max Smiths bi-metal resistance 10 volt system	Wheels	Steel disc type, 15 in. dia. Rim section $5\frac{1}{2}J$.
Oil pressure indication- switch operating pressur	re 3—5 lb/in. ² (0·2-0·35 kg/cm. ²)	Tires	185 SR15. Red band, radial ply tubeless

GENERAL SPECIFICATION

Brake System			Suspension	
Front	Caliper disc 10 (276 mm. × 12	0.78 in. dia. $\times \frac{1}{2}$ in. 7 mm.)	Front	Independent, with upper and lower wishbones, coil springs and telescopic
Rear	Drums 9 in. dia. \times 44·5 mm.)	× 1 ³ / ₄ in. 228 mm.		direct acting hydraulic dampers. Anti-roll bar
Front lining area	133·6 cm. ²	20·7 in. ²	Rear	Independent with semi-trailing arms,
Front swept area	1500·0 cm. ²	233·0 in. ²		coil springs and piston hydraulic
Rear lining area	390·0 cm. ²	60·5 in. ²		dampers
Rear swept area	639·0 cm. ²	99·0 in. ²		
Total lining area	523·0 cm. ²	81·2 in. ²		
Total swept area	2139·0 cm. ²	332·0 in. ²		
Chassis Data				
Eromo	Channal staal ne	possing of how coation		

Frame		ressing of box section raced by a cruciform	Capacities	U. S .	Imperial	Metric
Wheelbase	2240 mm.	88 in.	Fuel tank	11·4 galls.	9·5 galls.	43.0 litres
Track—Front	1276 mm.	50¼ in.	Engine sump and oil filter	10.8 pints	9 pints	5·1 litres
Rear	1264 mm.	$49\frac{3}{4}$ in.	Gearbox from dry	2·4 pints	2 pints	1·1 litres
Ground clearance 2 up condition	152 mm.	6 in.	Gearbox and overdrive from dry	3·2 pints	2.66 pints	1·5 litres
Turning circle	10.4 metres	34 ft.	Rear axle from dry	2·7 pints	2·25 pints	1·3 litres
Steering unit	Steering turns nominal	lock to lock $3\frac{1}{4}$	Cooling system (inc. water bottle) with heater	er 13·2 pints	11 pints	6·2 litres

GENERAL SPECIFICATION

Exterior Dimensions			Road Speed Data									
Overall length	4155 mm.	163·6 in.	Engine speed at a road	\mathbf{O}/\mathbf{D}		\mathbf{O}/\mathbf{D}						
Width	.1470 mm.	58·0 in.	speed of:	Top	Top	3rd	3rd	2nd	1st			
Height with hood erected (unladen) Height with hood folder	1270 mm.	50∙0 in.	10 m.p.h. 10 km.p.h.	383 240	482 300	532 331	667 414	1009 627	1438 893			
(unladen)	1170 mm.	46·0 in.										
			Road speed at 1000 r.p.m. in top gear	20.7	m.p.h	ı .	33.	4 km.p	.h.			
Weight Kerb basic	2438 lb.	1106 kg.	Road speed at 1,000 r.p.m. in O/D top gear		m.p.h		42.	0 km.p	.h.			
Kerb including options Maximum gross vehicle	2624 lb.	1190 kg.	Road speed at 2,500 ft./min.									
weight Vehicle capacity weight	3042 lb. 434 lb.	1380 kg. 197·3 kg.	piston speed in top gear	83 m	ı.p.h.		134	km.p.	h.			

