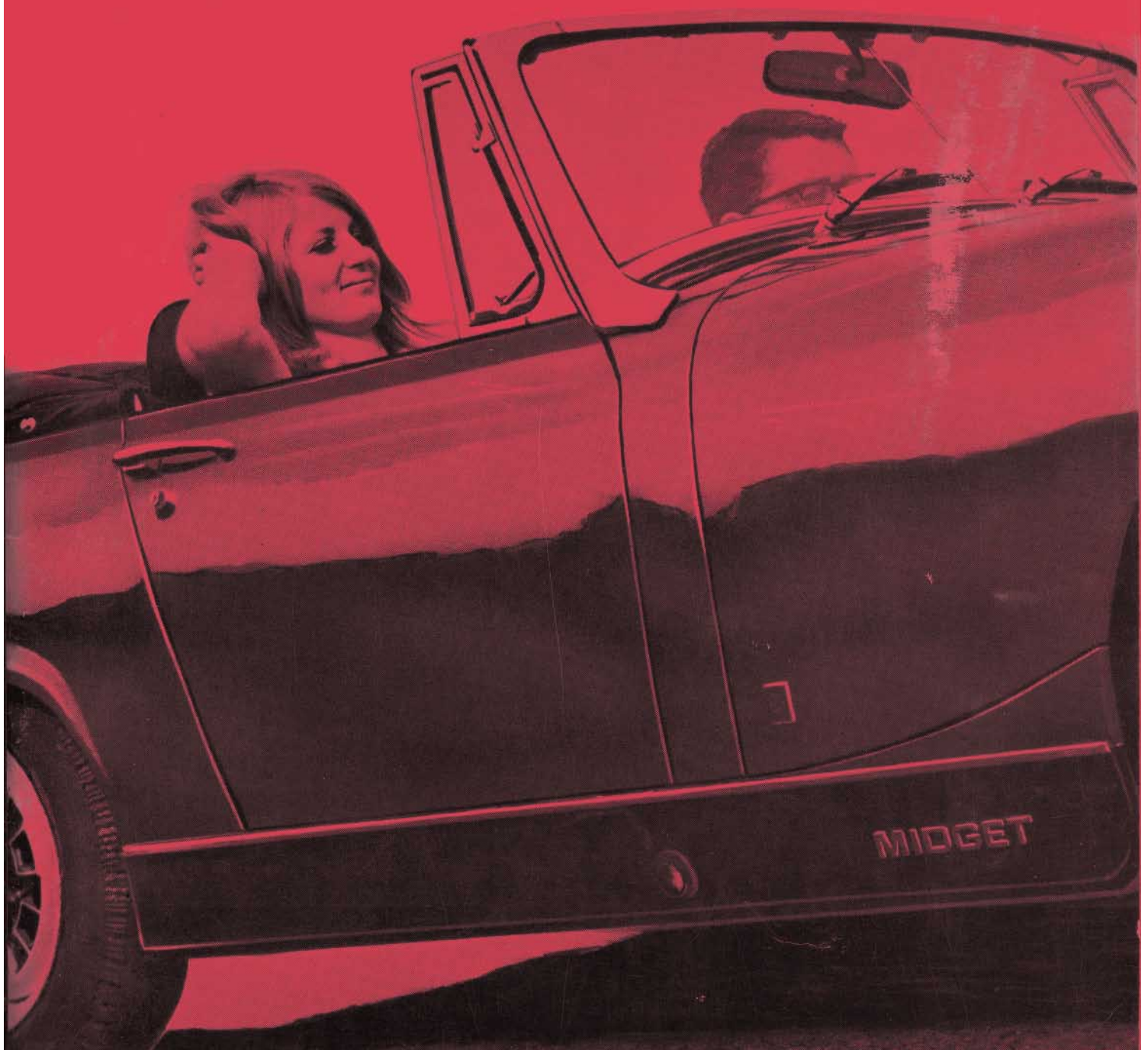




MIDGET

MARK III





MIDGET MARK III

(GAN 5UC)

STEERING-COLUMN LOCK

Note the key number and remove the label from the car immediately. Refer to page 6.

HANDBOOK

Publication Part No. AKD 7937



British Leyland (Austin-Morris) Limited
Longbridge, Birmingham, England

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FOREWORD

This Handbook provides an introduction to your car, together with information on the care and periodic maintenance required to combine trouble-free motoring with minimal running costs.

Claims for the replacement of parts under warranty must be submitted to the supplying Distributor or Dealer, or when this is not possible, to the nearest Distributor or Dealer, informing them of the vendor's name and address. Except in emergency, warranty work should always be carried out by an appointed Distributor or Dealer.

By keeping the Passport to Service, signed by the Distributor, Dealer, or vendor in the vehicle, you can quickly establish the date of purchase and provide the necessary details if adjustments are required to be carried out under warranty.

Regular use of the Passport to Service Maintenance Scheme is the best safeguard against the possibility of abnormal repair bills at a later date. Failure to have your car correctly maintained could invalidate the terms of the Warranty and may result in unsatisfactory operation of the emission control systems.

Safety features embodied in the car may be impaired if other than genuine parts are fitted. In certain territories, legislation prohibits the fitting of parts not to the vehicle manufacturer's specification. Owners purchasing accessories while travelling abroad should ensure that the accessory and its fitted location on the car conform to mandatory requirements existing in their country of origin.

Your Distributor or Dealer is provided with the latest information concerning special service tools and workshop techniques. This enables him to undertake your service and repairs in the most efficient and economic manner.

Further details on Service Parts will be found under 'SERVICE' on page 60. Please note that references to right- or left-hand in this Handbook are made when viewing the car from the rear.

Specification details set out in this Handbook apply to a range of vehicles and not to any particular vehicle. For the specification of any particular vehicle owners should consult their Distributor or 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 Distributor or Dealer, by whom this Handbook is supplied, shall in any circumstances be held liable for any inaccuracy or the consequences thereof.

Emission Controls

Your car is fitted with emission controls and devices required by the United States Clean Air Act and regulations issued by the Environmental Protection Agency.

Please read carefully the Emission Control Systems section of this Handbook which contains information on the emission systems fitted to your car and the recognition of symptoms of possible malfunctions which could affect emissions.

It is imperative that you familiarize yourself with the contents of this section, and ensure that the car you have purchased will remain in compliance with the requirements of the Clean Air Act.



All maintenance checks and adjustments showing this sign should be entrusted to your Austin MG Dealer.

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CONTROLS

Fig. 1

CONTROLS Pedals

(1) (2) (3) The pedals are arranged in the conventional positions.

The brake pedal operates the dual hydraulic braking system applying the brakes on all four wheels, also when the ignition is switched on bringing the stop warning lights into operation.*

Hand brake (4) The hand brake is of the pull-up lever type, operating mechanically on the rear wheels only. To release the hand brake pull the lever upwards slightly, depress the button on the end of the lever and push the lever down.

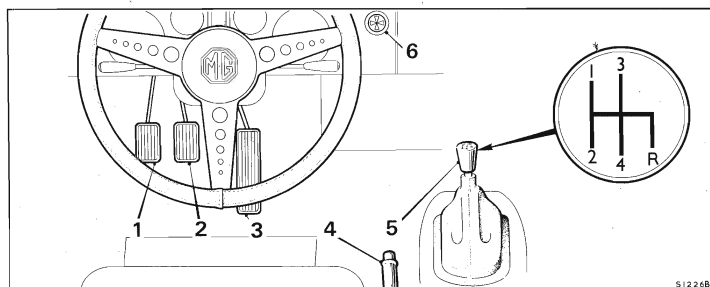
Gear lever (5) The gear positions are indicated on the lever knob. To engage reverse gear move the lever to the right in the neutral position until resistance is felt, apply further side pressure to overcome the resistance and then move it backwards to engage the gear. Synchromesh is provided on second, third, and fourth gears.

The reverse lights operate automatically when reverse is selected with the ignition switched on.

Mixture control (choke) (6) Pull out the knob to enrich the fuel/air mixture to assist starting when the engine is cold. Lock the control in the desired position by turning the control knob clockwise.*

*Also see 'RUNNING INSTRUCTIONS'

Fig. 1



4

WARNING SYSTEMS

Anti-theft Warning buzzer. A combined ignition and steering lock with warning buzzer is fitted to the car. The warning buzzer will sound if the driver's door is opened while the key is in the steering lock. The buzzer will not operate if the key is removed from the lock.

Recommended procedure. When leaving the car unattended:

Set the hand brake.

Lock the steering by removing the key from the ignition steering lock.

Lock the car doors and remove the key.

Brakes **Pressure failure.** The light glows when the brake pedal is depressed if a loss of pressure has occurred in the front or rear hydraulic braking system. To test the warning lamp bulb, electrical supply, and serviceability of the electrical wiring to the operating valve, press the test-push (1), on the lower end of the warning light mounting plate.*

Fig. 1

Seat Belt Warning (Later cars) A seat belt warning system is fitted to the later cars. This consists of a warning light (1) illuminating the words 'FASTEN BELTS' and a warning buzzer.

Fig. 2

The warning system operates when the ignition is switched on (position 'II' on the ignition switch), a forward or reverse gear selected and either the driver's or passenger's seat belt is not fastened by the wearer.

PRECAUTION: A heavy parcel placed on the passengers' seat may operate the warning system. To prevent this happening fasten the passenger's seat belt.

* Also see 'RUNNING INSTRUCTIONS'

Fig. 1

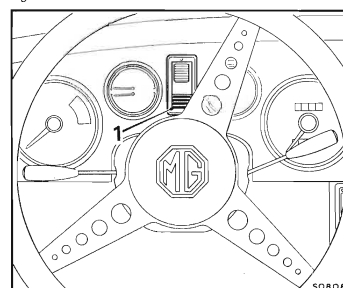
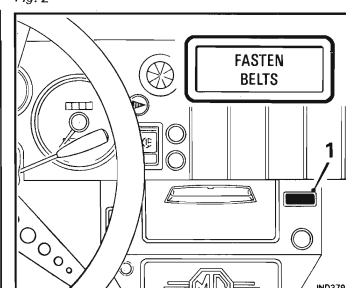


Fig. 2



5

LOCKS

It is most important that owners **MAKE A NOTE OF THE KEY NUMBERS IMMEDIATELY** on taking delivery of the car and at the same time consult their Distributor or Dealer regarding steering lock key replacements.

Keys Identification. To reduce the possibility of theft, locks are not marked with a number. Owners are advised to make a note of the numbers stamped on the keys, on the numbered tag supplied, or on a label stuck to the windscreen. The driver and passenger door locks use a common key. The luggage compartment and steering locks are operated by separate keys.

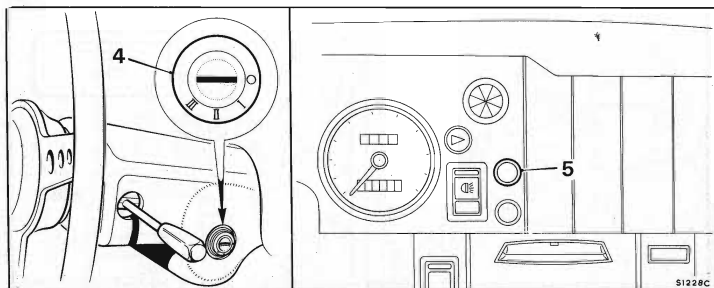
Steering The lock face is marked 'O' (off), 'I' (auxiliary), 'II' (ignition), 'III' (start). To
Fig. 1 lock the car steering the key must be removed from the lock (4).

To remove the key from the lock, turn the key to position 'I', press the key in, and while maintaining pressure turn anti-clockwise to position 'O' and withdraw the key. The steering lock is set during withdrawal of the key and rotation of the steering-wheel engages the lock.

Under no circumstances must the key be moved from the 'I' position towards the 'O' position **WHEN THE CAR IS IN MOTION**. The car may be towed for recovery with the key in the lock at position 'I'.

WARNING.—The lock fitted to the steering-column works in conjunction and is integral with the ignition starter switch. The designed operating sequence prevents the engine being started with the steering **LOCKED**. **Serious consequences** may result from alterations or substitution of the ignition start switch which would permit the engine to be started with the **LOCK ENGAGED**. Under no circumstances must the ignition switch or the ignition engine start function be separated from the steering lock.

Fig. 1



Ignition and starter

Insert the key in the lock, and turn to position 'I'. In this position the ignition is off but electrical items not wired through the ignition switch may be operated, viz. radio. Turn the key to position 'II' to switch on the ignition; further movement to 'III' operates the starter.

The fuel gauge or direction indicators will not operate unless the ignition switch is at position 'II'.

To remove the key from the lock, turn the key to position 'I', press the key in, and while maintaining pressure turn anti-clockwise to position 'O' and withdraw the key.

(5) **Ignition warning light (red).** The ignition warning light serves the dual purpose of reminding the driver to switch off the ignition and of acting as a no-charge indicator. The light should glow when the ignition is switched on, and go out and stay out at all times while the engine is running above normal idling speed.

Doors

The door key can only be inserted or withdrawn when the key and key slot (1) are vertical. Forward key movement locks, opposite unlocks. To lock the doors from inside the car, turn the locking lever (2), downwards.

Luggage compartment

The luggage compartment lid is locked by turning the key (3) clockwise one half turn.

Fig. 2

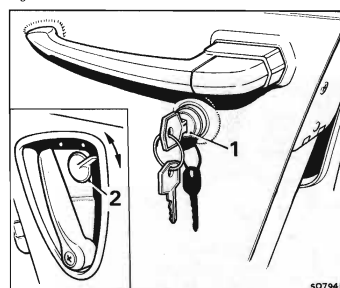
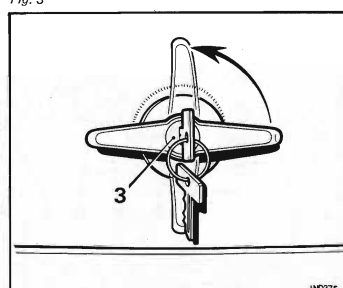


Fig. 3



INSTRUMENTS AND SWITCHES

Instruments (1) **Speedometer.** In addition to recording the road speed this instrument also records the total distance (3), and the distance travelled for any particular trip (2). To reset the trip recorder, push the knob (4), upwards and turn it clockwise, ensure that all the counters are returned to zero.

Fig. 1

(5) **Tachometer.** The instrument indicates the revolutions per minute of the engine and assists the driver to use the most effective engine speed range for maximum performance in any gear.*

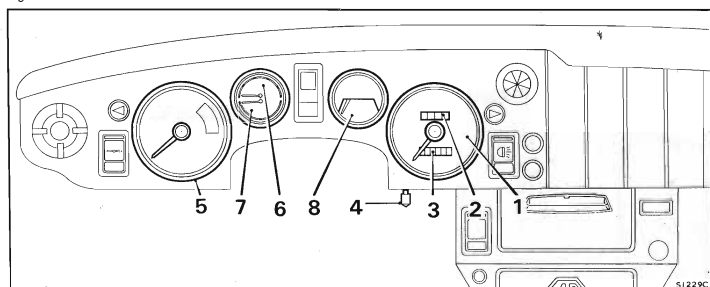
(6) **Oil.** The gauge indicates the pressure of the oil in the engine lubrication system.*

(7) **Water.** The gauge is marked 'C' (cold), 'N' (normal), and 'H' (hot), indicating the temperature of the coolant as it leaves the cylinder head.*

(8) **Fuel.** When the ignition is switched on the gauge indicates approximately the amount of fuel in the tank.*

* Also see 'RUNNING INSTRUCTIONS'.

Fig. 1



Switches (1) **Lighting switch.** Press the lower end of the switch rocker to the first position to operate the parking and tail lamps and to the second position to operate the headlamps.

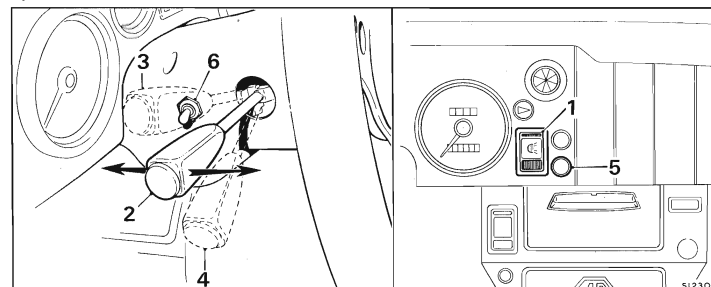
Fig. 2

(2) **Headlamp low beam—(4) Flasher.** With the headlamps switched on at the lighting switch, move the lever down away from the steering-wheel to operate the high beam (3), lifting the lever towards the steering-wheel from the low-beam position will flash (4), the headlamp high-beams irrespective of whether the lighting switch is on or off.

(5) **Headlamp high-beam warning lamp (blue).** The warning lamp glows when the headlamps are switched on and the beam is in the raised position. The lamp goes out when the beam is lowered.

(6) **Panel lamp.** When the sidelamps are switched on the instruments may be illuminated by moving the switch knob downwards.

Fig. 2



Instruments and Switches

Switches (1) **Direction indicators.** The switch is self-cancelling and operates the indicators only when the ignition is switched on. A visual warning of a front or rear bulb failure is given by the warning lamp and the serviceable bulb on the affected side giving a continuous light when the indicator is switched on.

Fig. 3

(2) **Direction indicator warning lamp (green).** The arrow-shaped lamps show the direction selected and operates with the flashing direction indicators.

(3) **Hazard warning.** To use the direction indicators as hazard warning lights, press the lower end of the switch rocker; all direction indicators and the warning lamp (4), will operate together, irrespective of whether the ignition is switched on or off.

(5) **Horn.** The horn is sounded by pressing the centre disc of the steering-wheel.

(6) **Windscreen wiper.** Move the switch lever down to operate the windscreen wipers at slow speed; further movement in the same direction will operate the wipers at fast speed. The wiper blades park automatically when the switch lever is returned to the off position.

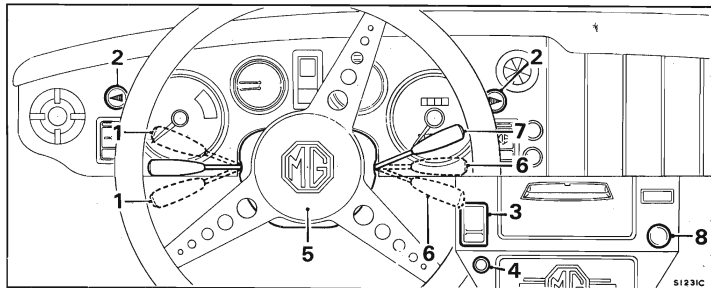
(7) **Windscreen washer.** Press the knob on the end of the switch lever to operate the windscreen washer. When the windscreen is dirty, operate the washer before setting the wipers in motion.

In cold weather the washer reservoir should be filled with a mixture of water and a recommended washer solvent to prevent the water freezing. On no account should radiator anti-freeze or methylated spirits (denatured alcohol) be used in the windscreen washer.

(8) **Cigar-lighter.** To operate, press the knob fully in. When ready for use it will automatically partially eject itself and may then be withdrawn for lighting.

Full operating instructions are supplied with the radio (if fitted).

Fig. 3



10

BODY FITTINGS

DRIVING MIRRORS

External The mirror head is adjustable from the driving position when the window is open. To obtain the maximum rear vision the mirror and arm must be retained in the position shown.

Fig. 1

Interior The mirror stem with anti-dazzle head is designed to break away from the mounting bracket on impact. The stem may be refitted in the mounting bracket as follows. Align the stem ball (1) with the bracket cup (2), ensuring that the small protrusion (3) on the stem aligns with the indent of the mounting bracket. Give the stem a smart tap with a soft instrument to join the two components.

Fig. 2

Anti-dazzle. To reduce mirror dazzle, pull the lever (4) away from the windscreen.

Windows and ventilators Rotate the handle on each door to open and close the windows. The ventilation panels adjacent to each window may be opened after releasing the catch.

Luggage compartment To open, press the lock plunger and raise the lid. When fully raised the support stay will automatically spring into engagement and the lid will be held in the open position. Opening the lid automatically switches on the courtesy light.

To close, raise the lid slightly, push the catch on the support stay forward to release the locking mechanism and lower the lid. Closing the lid automatically switches off the courtesy light.

Head restraint The vertical position of the head restraint may be adjusted.

To lower, push the head restraint down towards the seat.

To raise, place both hands under the restraint pad and lift the head restraint up away from the seat.

Fig. 1

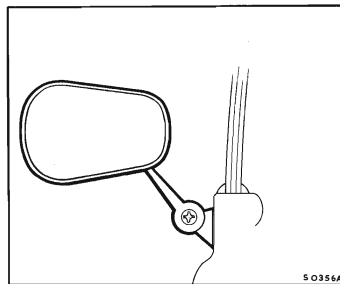
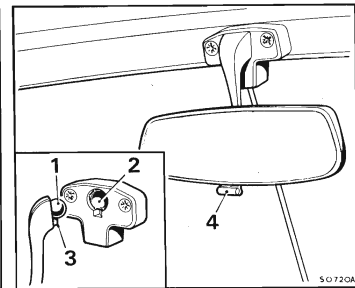


Fig. 2



11

Body Fittings

Cubby box To open. Press the button (1) and lower the flap.
To lock. Insert the key and turn clockwise.
To unlock. Turn the key anti-clockwise.

Hard top Fitting. Lower the hood.

Fig. 3 and 4 Position the hard top on the car and engage the toggle fastener tongues in their sockets on the windscreen rail. Check that the rubber sealing strip is correctly positioned forward of the rail. Fasten the toggle links and lock them with the securing brackets (inset, Fig. 3). Fit the bolts into both side-fixing brackets and tighten them down gently and evenly until the hard top seals at both sides and the rear. Do not tighten the bolts hard down.

Check the width of the gap between the flanges of the side-fixing brackets (see Fig. 4), remove the bolts and fit packing washers between the flanges to the thickness of the gap.

Refit and tighten the securing bolts.

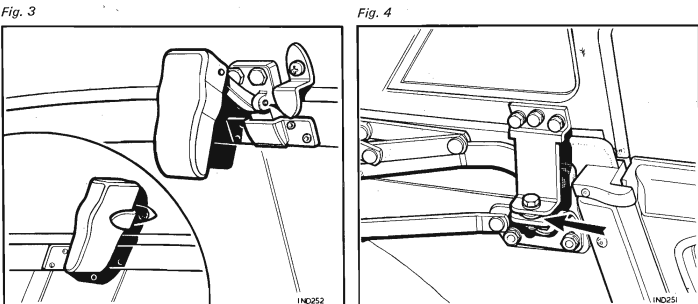
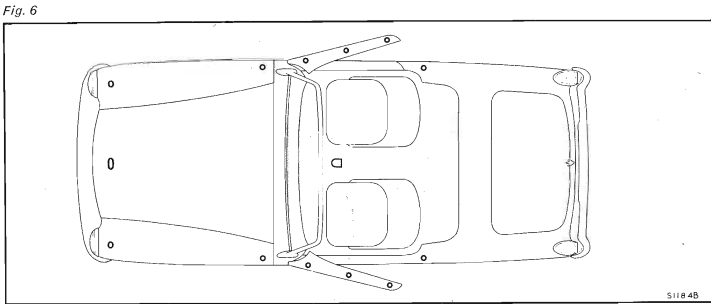
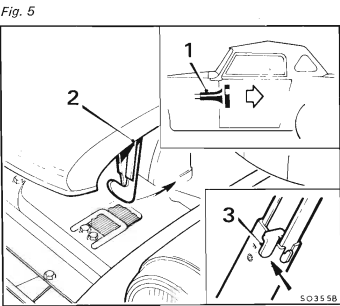
Bonnet To raise the bonnet, pull the knob (1) located inside the car on the left-hand side below the fascia panel.
Fig. 5

Press the safety catch (2) under the front of the bonnet and raise the bonnet. When fully raised the support stay will automatically spring into engagement and the bonnet will be held in the open position.

To close, raise the bonnet slightly, push the catch (3) on the bonnet stay rearwards to release the locking mechanism and lower the bonnet. Apply light pressure with the palms of the hands at the front corners of the bonnet and press down quickly; undue force is not necessary and may cause damage. The safety catch and lock will be heard to engage.

Drain points The body and doors are provided with drain holes to allow rain-water and condensation to flow freely from the panels, thus preventing accumulated water from causing rust and corrosion. It is essential that the drain holes are kept clear and are not inadvertently blocked. When painting or applying underseal to the body underpanels or doors, temporarily seal or mask the drain holes to prevent the ingress of sealant. Periodically inspect the drain holes and clear any obstruction using a piece of stiff wire or a suitable tool.

Jacking up beneath the underfloor may deform the drain apertures; always use the jacking points provided.



Body Fittings

Hood (Soft top) It is most important that the instructions for raising, lowering, and folding the hood are carried out in the sequence given. Do not apply pressure to the frame-members other than the header rail; undue force is not necessary and should be avoided. Do not fold or stow the hood when it is wet or damp.

Lowering

- (1) Unclip the sun visors and move to one side. Release the press studs on the windscreen frame and hood hinge links (Fig. 7).
- (2) Release the hood from the self-fastening strip and the three lift-dot fasteners on each rear quarter panel.
- (3) Open the toggle catches on the windscreen rail (inset, Fig. 7).
- (4) Press the header rail rearwards to collapse the hinge links, at the same time keeping the hood material pulled out towards the rear away from the frame (Fig. 8).
- (5) Collapse the frame into its stowage position in the rear compartment and lay the hood material on the luggage compartment lid.
- (6) Fold the quarter-light inwards, on a line between the quarter-light and back-light (Fig. 9).

Fig. 7

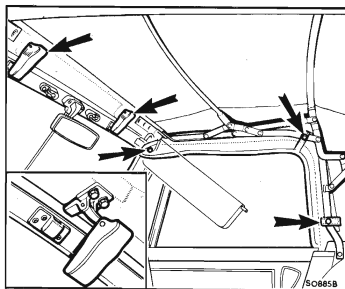


Fig. 8

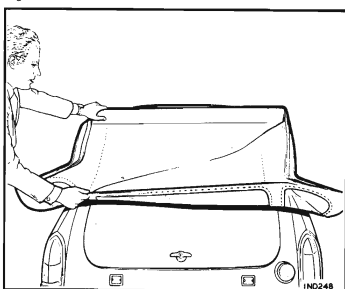


Fig. 9

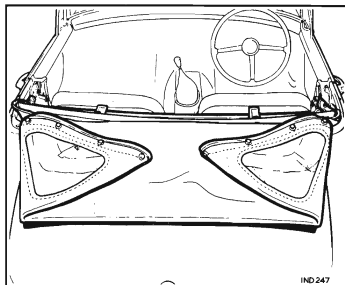
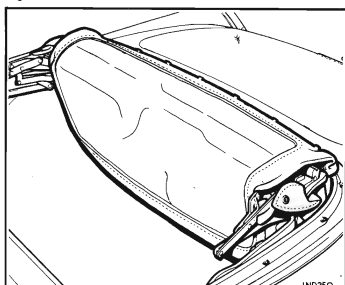


Fig. 10



- (7) Fold the hood over the frame into the rear compartment (Fig. 10).
- (8) Lay the hood cover over the hood and secure the rear edge with the lift-dot fasteners.
- (9) Arrange the cover and secure it at the sides with the fasteners provided at each quarter; secure the front edge to the cockpit rear panel with the four press studs (Fig. 11). Reposition the sun visors.

Raising

- (1) Remove the hood cover and open both doors.
- (2) Lift the hood over the frame and lay it on the luggage compartment lid.
- (3) Unfold the quarter-lights and pull the header rail forward and upwards at the point indicated by the label. Ensure that the hood material takes up its correct position as the frame is erected.
- (4) Engage the hood toggle fastener tongues in their sockets on the windscreen rail, check that the rubber sealing strip is correctly positioned forward of the rail, and fasten the toggle links.
- (5) Secure the hood with the fasteners on the rear quarters, windscreen side-posts, and frame hinge links.
- (6) Stow the hood cover.

Tonneau cover Fitting. Lay the cover over the cockpit and secure the rear edge and sides with the fasteners on the tonneau and quarter-panels.

Extend the cover forward and secure the front edge to the fasteners on the fascia panel top.

Usage. The centre zip allows the cover to be folded down to give access to the driving seat or both seats. Fold the cover down behind the seat and secure it with the fasteners to the heelboard (see Fig. 12). The short side zips permit the use of seat belts when the cover is folded down.

Removing. Reverse the fitting procedure.

Fig. 11

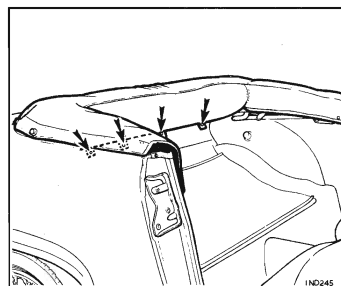
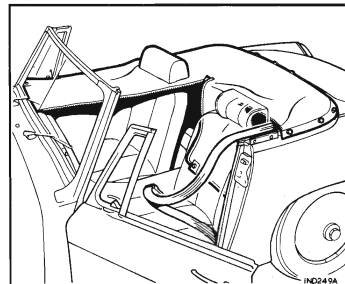


Fig. 12



SEATS AND SEAT BELTS

SEATS *Fig. 1*

Seat adjustment **Driving position.** Both seats are adjustable and can be moved easily into the most comfortable position. Move the lever (1) located beneath the front of the seat towards the centre of the car; hold the lever in this position while the seat position is adjusted. The locking pin is spring-loaded and will automatically lock the seat in the required position when the lever is released.

Seat back adjustment. The rake of the back or squab of the seats can also be adjusted. Ease the body weight from the seat back and move the lever (2), in the direction of the arrow. Release the lever and ensure that the seat back is fully locked in position; check by applying back pressure on the seat.

SEAT BELTS *Fig. 2*

To fasten *Later cars:* Lift the engagement tongue (1) and draw the belt from the automatic reel retractor over the shoulder and across the chest and push it into the locking clip (2) of the short belt nearest the wearer.

Early cars: Lift the magnetic buckle tongue (5) and engage the hook (6) into the hinged part of the tongue.

To release *Later cars:* Press the release button (3) on the short belt.

Early cars: Lift the magnetic buckle tongue (5).

Warning system *Later cars:* See page 5 for details of the seat belt warning system which provides an audible and visual warning reminder to the driver and passenger to fasten their seat belts.

Adjusting *Early cars:* Shorten or lengthen the short belt with the adjuster at the buckle until the buckle rests on the side of the wearer's hip as illustrated. With the diagonal adjuster at the sill, adjust the lap belt until the belt fits comfortably and there is just room to pass a hand between the diagonal belt and the chest. Slight readjustment may be necessary during use.

Wearing Never attempt to wear the belt other than as a complete diagonal and lap assembly. Do not try to use the belt for more than one person at any one time, even small children.

Ensure that the belt webbing is not twisted when in use, and that the belt is adjusted to the correct tightness.

Care of the belts *Later cars:* After releasing the belt allow the webbing to retract into the automatic reel. Ensure that while the belt is retracted the engagement tongue has not moved on the belt to a point near the sill mounting; this can be remedied by moving the tongue (1) and belt clip (4) towards the reel.

Early cars: When not in use, hook the buckle on the long belt into the stowing bracket (7) mounted on the hood hinge plate, and attach the magnetic buckle on the short belt to the seat frame. If at any time the webbing is unthreaded from the brackets and adjuster, ensure that it is rethreaded correctly as shown (8).

Do not attempt to bleach the belt webbing or re-dye it. If the belts become soiled, sponge with warm water using a non-detergent soap and allow to dry naturally. **Do not use caustic soap, chemical cleaners or detergents for cleaning; do not dry with artificial heat or by direct exposure to the sun.**

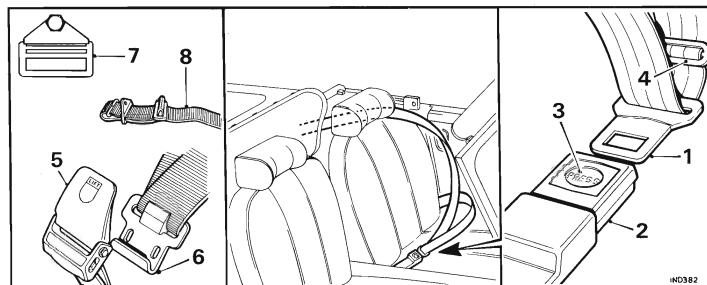
No unauthorized alterations or additions to the belts should be made. Inspect the webbing periodically for signs of abrasion, cuts, fraying, and general wear; pay particular attention to the fixing points and adjusters. Replace belts that are defective or have been subjected to severe strain in an accident.

Fig. 1



16

Fig. 2



17

HEATING AND VENTILATING

HEATER The heating and ventilating system is designed to provide fresh air either heated by the engine cooling system or at outside temperature to the car at floor level and for demisting and defrosting to the windscreen.

Air distribution Two doors, located one at each side of the gearbox tunnel, control distribution of air between screen and car interior. To supply air to the car, open the doors; to boost the flow of air to the screen, close the doors.

Controls Heater (Fig. 1). A valve controlling the flow of coolant through the heater unit is fitted at the rear of the cylinder head. The valve is opened by turning it in an anti-clockwise direction when heating is required or shut off by turning clockwise when the system is to be used for cool air ventilation.

Air flow (Fig. 2). The knob (1) operates a valve in the air intake and controls the flow of air to the car interior. Turn the knob anti-clockwise from the 'OFF' position to open the valve, the valve is fully open when the knob is turned to the 'ON' position.

Booster. Press the lower end of the switch rocker (2) to boost the air flow.

Usage By varying the settings of the air flow control, opening or closing the air distribution doors, and utilizing the booster blower, a wide range of settings can be obtained for heating, when the heater valve is open, or for ventilating when the valve is shut, to suit prevailing conditions.

Fig. 1

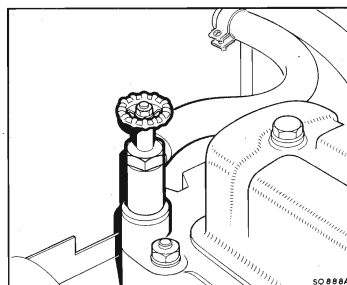
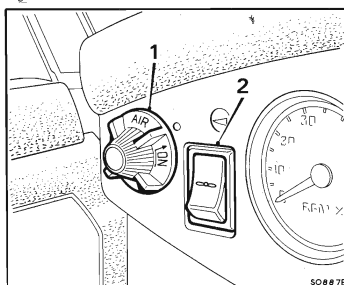


Fig. 2



RUNNING INSTRUCTIONS

Choice of fuel Always use fuel with an octane rating best suited to your engine (see 'GENERAL DATA').

Our 1972 Austin and MG engines have not been designed to operate on lead-free or clear gasolines and use of such fuels cannot be recommended as they could have a detrimental effect on engine components, resulting in loss of performance, excess exhaust emissions and, possibly, complete engine failure.

Starting Check that the gear lever is in the neutral position.

If the engine is cold, pull out the mixture control (choke). In extremely cold conditions it may be necessary to pull the control out to its fullest extent. Lock the control in the desired position by turning the control knob clockwise.

Switch on the ignition, check that the ignition warning light glows and that the fuel gauge registers, then operate the starter. **NOTE.**—After switching the ignition on, the fuel gauge needle moves slowly across the scale, taking some 30 seconds to reach the true reading. This slow reaction eliminates needle flutter.

As soon as the engine starts, release the ignition key and warm up the engine at a fairly fast speed (see 'Warming up'). Check that the oil pressure gauge is registering and that the ignition warning light has gone out. Release the mixture control from the locked position and push in the control as soon as the engine will run evenly without its use.

Starter Do not operate the starter for longer than five to six seconds.

To prevent damage the starter cannot be operated while the engine is running.

If after a reasonable number of attempts the engine should fail to start, switch off the ignition and investigate the cause. Continued use of the starter when the engine will not start, not only discharges the battery but may also damage the starter.

If the starter pinion fails to engage with the flywheel ring, or fails to disengage when the engine starts, the starter will emit a high-pitched whine; release the ignition key immediately. Should the starter pinion become jammed in mesh with the flywheel ring, turn the squared end of the armature spindle with a spanner.

Mixture control (choke) Always use the minimum setting for the shortest possible time.

As soon as possible after the engine has started, push the control completely in.

The fast idle speed is obtained by pulling the control out $\frac{1}{4}$ in. (6 mm.).

Warming up. Do not warm up an engine by allowing it to idle slowly or by leaving it to run with the mixture control (choke) pulled right out for long periods.

After the engine has been started with the aid of the choke, push the control in gradually as the engine warms, until only about $\frac{1}{4}$ in. of travel remains. With the mixture control in this position the engine will run at fast idle speed and attain its correct working temperature as quickly as possible.

Running Instructions

Driving the car onto the road while the engine is cold and the mixture (choke) control is partly pulled out is preferable to allowing the engine to idle, or run with the choke pulled out, in the garage or on the driveway prior to moving off.

Ignition warning light The light should glow when the ignition is switched on, and go out and stay out at all times while the engine is running above normal idling speed. Failure to do so indicates a fault in the battery charging system. Check that the fan belt is correctly tensioned before consulting your Distributor or Dealer.

Oil pressure gauge The gauge should register a pressure as soon as the engine is started up. The pressure may rise above 70 lb./sq. in. (4.92 kg./cm.²) when the engine is started from cold and as the oil is circulated and warmed the pressure should then drop to between 40 and 70 lb./sq. in. (2.81 to 4.92 kg./cm.²) at normal running speeds and to approximately 20 lb./sq. in. (1.4 kg./cm.²) at idling speed.

Should the gauge fail to register any pressure, stop the engine immediately and investigate the cause. Start by checking the oil level.

Temperature gauge Normal operating temperature is reached when the pointer is in the 'N' sector. Overheating may cause serious damage. Investigate any upward change in the temperature gauge reading immediately. Check coolant level and fan belt tension.

Running in The treatment given to a new car will have an important bearing on its subsequent life, and engine speeds during this early period must be limited. The following instructions should be strictly adhered to.

During the first 500 miles (800 km.):

DO NOT exceed 45 m.p.h. (72 km.p.h.).

DO NOT operate at full throttle in any gear.

DO NOT allow the engine to labour in any gear.

Tachometer For normal road work, and to obtain the most satisfactory service from your engine, select the appropriate gear to maintain engine speeds of between 2,000 and 4,500 r.p.m.

When maximum acceleration is required upward gear selections should be made when the needle reaches the yellow sector (5,500–6,300 r.p.m.). Prolonged or excessive use of the highest engine speeds will tend to shorten the life of the engine. Allowing the engine to pull hard at low engine speeds must be avoided as this also has a detrimental effect on the engine.

The beginning of the red sector (6,300 r.p.m.) indicates the maximum safe speed for the engine.

Never allow the needle to enter the red sector.

Wet brakes If the car has been washed, driven through water, or over wet roads for prolonged periods full braking power may not be available. Dry the brakes by applying the foot brake lightly several times, while the car is in motion. Keep the hand brake applied while using high pressure washing equipment.

Towing Should it become necessary to tow the car, use the towing eyes provided.

The car may be towed for recovery with the ignition steering lock key in the lock at position 'I'.

Testing brakes The warning light on the fascia panel will glow when the brake pedal is pressed if an excessive difference in pressure exists between the front and rear hydraulic systems as a result of a hydraulic failure or extreme lack of adjustment on the rear brakes.

To test the warning lamp bulb, electrical supply, and serviceability of the wiring to the operating valve, press the test-push on the bottom of the lamp mounting plate. The lamp will glow if the electrical system is operating satisfactorily. Release the test-push and apply normal foot pressure to the brake pedal; the lamp will remain off if the brakes are functioning satisfactorily. Check the brake warning system frequently.

If the warning lamp glows at any time except when the electrical system is being tested, whether during normal driving or when the brakes are being tested as above, the cause must be investigated by your Distributor or Dealer at the earliest possible opportunity.

Vehicle loading Due consideration must be given to the overall weight carried when fully loading the car. Any loads carried on a roof rack or downward load from a towing hitch must also be included in the maximum loading.

Towing The towing weight of 1,344 lb. (610 kg.) is the maximum that is permissible. When using bottom gear a gradient of up to 1 in 8 can be ascended while towing a weight not exceeding this figure. It may be necessary to adjust the maximum towing weight to comply with local conditions and regulations. The recommended downward load of a trailer or caravan on the towing hitch is 75 to 100 lb. (34 to 45 kg.), but this may be reduced or exceeded at the discretion of the driver. Any load carried on the roof or downward load from a towing hitch must also be included in the maximum loading of the vehicle.

CLEANING

Interior Clean the carpets with a semi-stiff brush or a vacuum cleaner preferably before washing the outside of the car. The most satisfactory way to give carpets a thorough cleaning is with **UNIPART Upholstery Cleaner**, diluted one part with eight parts warm water. Apply vigorously with a semi-stiff brush, and remove the surplus with a damp cloth or sponge. Carpets should not be cleaned by the 'dry-clean' process. The upholstery and roof lining may be treated with undiluted **UNIPART Upholstery Cleaner** spread thinly over the surface to be cleaned with a brush or cloth. Leave for five minutes, then wipe off with a moist sponge or cloth.

UNIPART Upholstery Cleaner can be used for cleaning and renovating all the usual upholstery materials, and rubber, but it should not be used on painted surfaces.

Body Regular care of the body finish is necessary if the new appearance of the car exterior is to be maintained against the effects of air pollution, rain, and mud.

Wash the bodywork frequently, using a soft sponge and plenty of water containing **UNIPART Car Shampoo**. Large deposits of mud must be softened with water before using the sponge. Smears should be removed by a second wash in clean water, and with the sponge if necessary. When dry, clean the surface of the car with a damp chamois-leather. In addition to the regular maintenance, special attention is required if the car is driven in extreme conditions such as sea spray or on salted roads. In these conditions and with other forms of severe contamination an additional washing operation is necessary which should include underbody hosing. Any damaged areas should be immediately covered with paint and a complete repair effected as soon as possible. Before touching-in light scratches and abrasions with paint, thoroughly clean the surface. Use petrol/white spirit (gasoline/hydrocarbon solvent) to remove spots of grease or tar.

The application of **UNIPART Car Polish** is all that is required to remove traffic film and to ensure the retention of the new appearance.

Bright trim Never use an abrasive on stainless, chromium, aluminium, or plastic bright parts and on no account clean them with metal polish. Remove spots of grease or tar with petrol/white spirit (gasoline/hydrocarbon solvent) and wash frequently with water containing **UNIPART Car Shampoo**. When the dirt has been removed polish with a clean dry cloth or chamois-leather until bright. Any slight tarnish found on stainless or plated components which have not received regular attention may be removed with **UNIPART Chrome Cleaner**. An occasional application of light mineral oil or grease will help to preserve the finish, particularly during winter, when salt may be used on the roads, but these protectives must not be applied to plastic finishes.

Windscreen If windscreen smearing has occurred it can be removed with **UNIPART Screen Cleaner**.

Hood To clean the hood it is only necessary to use soap and water, with a soft brush to remove any ingrained dirt. Frequent washing with soap and water considerably improves the appearance and wearing qualities of the hood, and it should be washed at least as often as the rest of the car.

Do not use caustic soaps, detergents, or spirit cleaners to clean the hood or the hood back-light.

UNIPART products mentioned above are obtainable from your Distributor or Dealer.

COOLING SYSTEM

Expansion tank and cap The expansion tank collects the coolant displaced by expansion when the engine is heated to normal running temperature. The displaced coolant is returned to the radiator when the system cools. The cap (1) on the expansion tank maintains the pressure in the cooling system to 15 lb./sq. in. maximum when the engine is running. If the system is hot, protect the hands against escaping steam, turn the cap anti-clockwise to the stop, wait until all pressure has escaped, press down and turn further until the cap can be lifted off.

Checking The coolant level must only be checked when the system is **cold**. Remove the expansion tank cap (1) to check the coolant level which must be maintained to the half-full point of the tank.

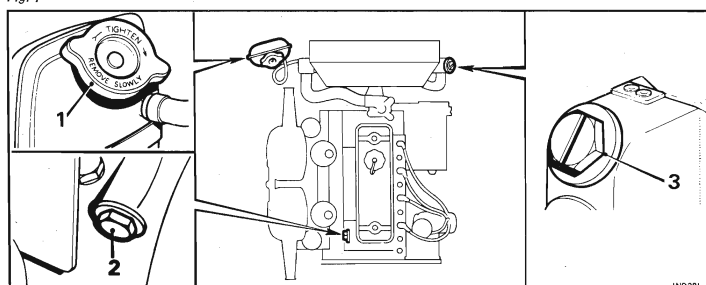
Draining To drain the cooling system, stand the car on level ground and remove the radiator filler plug (3). Slacken the hose clips and disconnect the bottom hose at its connection to the radiator. Remove the drain plug (2) on the engine cylinder block.

There is no provision for draining the heater or expansion tank.

Filling Refit the drain plug and open the heater valve. Fill the system through the radiator filler orifice and fit the filler plug. Top up the coolant on the expansion tank to the half-full point and refit the cap. Run the engine at a fast idle speed for 30 seconds, stop the engine and top up the system through the radiator filler.

Refit the filler plug and bottom hose and run the engine until normal operating temperature is reached. Stop the engine and allow the system to cool then top up the expansion tank to half-full.

Fig. 1



Cooling System

Frost precautions Anti-freeze can remain in the cooling system for two years provided that the specific gravity of the coolant is checked periodically and anti-freeze added as necessary. The specific gravity check should be carried out by an authorized Distributor or Dealer.

Only top up when the cooling system is at its normal running temperature in order to avoid losing anti-freeze due to expansion.

After the second winter the system should be drained and flushed. Refer to the instructions given for draining the cooling system, then clean out the system thoroughly by flushing water through the radiator passages using a hose inserted in the radiator filler orifice.

Before adding the recommended anti-freeze make sure that the cooling system is watertight; examine all joints and renew any defective hose.

We recommend owners to use UNIPART Frostbeat or Bluecol Anti-freeze to protect the cooling system during frosty weather and reduce corrosion to the minimum. We also approve the use of anti-freeze which conforms to specification B.S.3151 or B.S.3152.

The correct quantities of anti-freeze for different degrees of frost protection are:

Anti freeze	Commences to freeze		Frozen solid		Amount of anti-freeze		
	%	°C.	°F.	°C.	°F.	Pts.	U.S. Pts. Litres
25	—13	9	—26	—15	1½	2	.85
33½	—19	—2	—36	—33	2	2½	1.14
50	—36	—33	—48	—53	3	3½	1.17

WHEELS AND TYRES

Jacking up Fig. 1 The jack is designed to lift one side of the car at a time. Apply the hand brake, and block the wheels on the opposite side of that being jacked, use a wood block jammed tight against the tyre tread.

Remove the plug from the jacking socket located on the door sill panel and insert the lifting arm of the jack into the socket. **Make certain that the jack lifting arm is pushed fully into the socket and that the base of the jack is on firm ground.** The jack should lean slightly outwards at the top to allow for the radial movement of the car as it is raised.

WARNING. Do not work beneath the vehicle with the lifting jack as the sole means of support. Place suitable supports under the front side members or rear axle to give adequate support and safety while working.

Jack maintenance If the jack is neglected it may be difficult to use in a roadside emergency. Examine it occasionally, clean off accumulated dust, and lightly oil the thread to prevent the formation of rust.

WHEELS Preventive maintenance Owners are recommended to check wheel nuts on pressed type wheels for tightness each week. Take care not to overtighten (torque wrench setting 44 to 46 lb. ft. (6.08 to 6.36 kg. m.).

Pressed type Removing and refitting Fig. 3 Slacken the four nuts securing the road wheel to the hub; turn anti-clockwise to loosen and clockwise to tighten. Raise the car with the jack to lift the wheel clear of the ground and remove the nuts. Withdraw the road wheel from the hub. When refitting the road wheel locate the wheel on the hub, lightly tighten the nuts (1) with the wheel nut spanner (securing nuts (1) must be fitted with the **taper side towards the wheel**), and lower the jack. Fully tighten the wheel nuts, tightening them diagonally and progressively, at the same time avoid over-tightening.

The wheel centre trim (2) must be removed and fitted to the wheel in use. Replace the jack socket plug.

Fig. 1

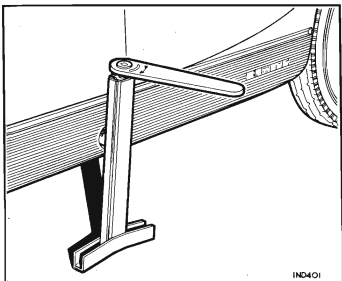
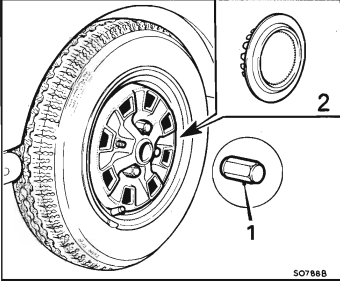


Fig. 2



Brakes

Hand brake The hand brake is automatically adjusted with the rear brakes. If there is excessive movement of the hand brake lever, consult your Distributor or Dealer.

Lubrication Charge the nipples on the hand brake balance lever (2) and hand brake cable (1) with one of the recommended greases.
Fig. 5

Preventive maintenance In addition to the recommended periodical inspection of brake components it is advisable as the car ages, and as a precaution against the effects of wear and deterioration, to make a more searching inspection and renew parts as necessary.

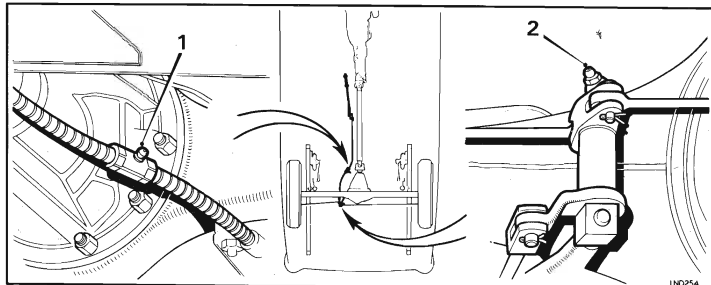
It is recommended that:

- (1) Disc brake pads, drum brake linings, hoses, and pipes should be examined at intervals no greater than those laid down in the Passport to Service.
- (2) Brake fluid should be changed completely every 18 months or 18,000 miles whichever is the sooner.
- (3) All fluid seals in the hydraulic system should be renewed, and all flexible hoses should be examined and renewed if necessary every 3 years or 36,000 miles (60,000 km.) whichever is the sooner. At the same time the working surface of the piston and of the bores of the master cylinder, wheel cylinders, and other slave cylinders should be examined and new parts fitted where necessary.

Care must be taken always to observe the following points:

- (a) At all times use the recommended brake fluid.
- (b) Never leave fluid in unsealed containers. It absorbs moisture quickly and this can be dangerous if used in the braking system.
- (c) Fluid drained from the system or used for bleeding is best discarded.
- (d) The necessity for absolute cleanliness throughout cannot be over-emphasized.

Fig. 5



ELECTRICAL

POLARITY The electrical system is **negative ground**.

Alternator The following precautions must be observed to prevent inadvertent damage to the alternator and its control equipment.

Polarity. Ensure that the correct battery polarity (**negative ground**) is maintained at all times; reversed battery or charger connections will damage the alternator rectifiers.

Battery connections. The battery must never be disconnected while the engine is running.

Battery The battery must be kept clean and dry, and the terminals should be smeared with petroleum jelly. The vehicle must be level when the electrolyte in the cells is being checked.
Fig. 1

More frequent topping-up of the electrolyte levels may be necessary in hot weather or when long journeys are made.

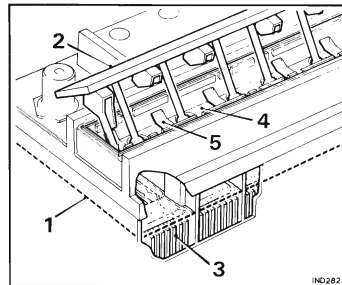
DO NOT USE A NAKED LIGHT WHEN CHECKING THE LEVELS.

NOTE.—Do not leave the battery in a discharged state for any length of time. When not in regular use have the battery fully charged, and every fortnight give a short refresher charge to prevent permanent damage to the battery plates.

'Pacemaker' (Type A9, AZ9, A11, AZ11). The electrolyte levels (1) are visible through the translucent battery case or may be checked by fully raising the vent cover (2) and tilting it to one side. The electrolyte level in each cell must be maintained so that the separator plates (3) are just covered. To avoid flooding, the battery must not be topped up within half an hour of it having been charged from any source other than the generating system fitted to the car.

To top up the levels raise the vent cover and pour distilled water into the trough (4) until all the rectangular filling slots (5) are full and the bottom of the trough is just covered. Press the cover firmly into position; the correct quantity of distilled water will automatically be distributed to each cell. In extremely cold conditions, run the engine immediately after topping-up to mix the electrolyte.

Fig. 1



Electrical

FUSES The fuses are housed in a fuse block (1) mounted in the engine compartment body adjacent to the battery.

Fig. 2

Fuse 2 and 3 protects the side and tail lamps.

Fuse 4 protects the circuits which operate only when the ignition switch is on, viz. stop lamps, reverse lamps.

Fuse 5 protects the equipment which operates independently of the ignition switch, viz. horns, interior lamp, cigar-lighter.

Two spare fuses (6) are provided and it is important to use the correct replacement fuse. The fusing value, current rated 17 amp. (35 amp. blow rated), is marked on a coloured slip of paper inside the glass tube of the fuse.

Line fuses **Auxiliary equipment.** The 35 amp. line fuse (7) protects the windscreen wiper, windscreen washer, heater blower motor and radio, which operate when the ignition switch is in position 'I'.

Hazard warning. The 35 amp. line fuse (8) protects the hazard warning lamps.

Radio. A separate additional line fuse protects the radio (if fitted). See the instructions supplied with the radio for the correct fuse ratings.

Blown fuses The units which are protected by the fuses can be identified from the wiring diagram. A blown fuse is indicated by the failure of all the units protected by it, and is confirmed by examination of the fuse when withdrawn.

Before renewing a blown fuse inspect the wiring of the units that have failed for evidence of a short-circuit or other fault.

Accessories If an electrical accessory is being fitted and is required to operate irrespective of the ignition circuit it should be connected to terminal 5 on the fuse block; if it is required to operate only when the ignition is switched on, connect to terminal 4.

HEADLAMPS
Light unit

Fig. 3

To remove a light unit, remove the outer rim retaining screw (1) and withdraw the outer rim (2). Unscrew the three inner rim retaining screws (3), remove the inner rim (4), withdraw the light unit (5), and disconnect the three-pin plug (6).

To fit a light unit, connect the three-pin plug, position the light unit in the headlamp body ensuring that the three lugs formed on the outer edge of the light unit engage in the slots formed in the body, and fit the inner retaining rim. Refit the outer rim.

Beam setting Two adjusting screws are provided on each headlamp for setting the main beams. The screw (7) is for adjusting the beam in the vertical plane, and the screw (8) is for horizontal adjustment. The beams must be set in accordance with local regulations; resetting and checking should be entrusted to your Distributor or Dealer, who will have special equipment available for this purpose.

Fig. 2

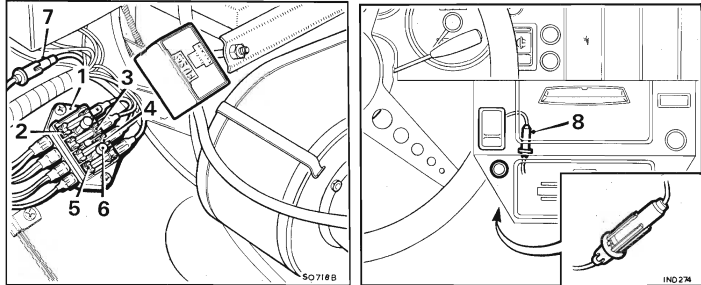
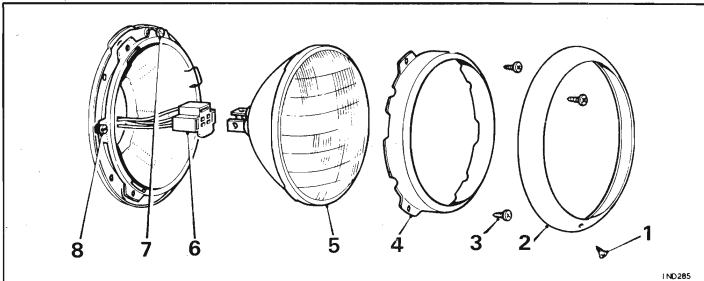


Fig. 3



Electrical

LAMPS
Parking and direction indicator lamps
Fig. 4

To gain access to the parking and direction indicator bulb, unscrew the two retaining screws (1) and withdraw the rim (2) and lens (3).

Stop, tail, and direction indicator lamps
Fig. 5

Remove the lens retaining screws (1) and slide the lens upwards to gain access to the direction indicator and stop/tail bulbs.

Number-plate lamp
Fig. 6

To renew a bulb, remove the two securing screws and lift off the lamp hood (1) and lens (2). When refitting, ensure that the lamp lens seal (3) is correctly positioned. Tighten the screws evenly and progressively to compress the seal.

Fig. 4

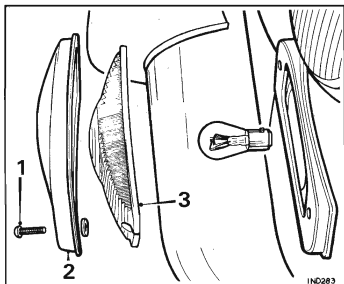


Fig. 6

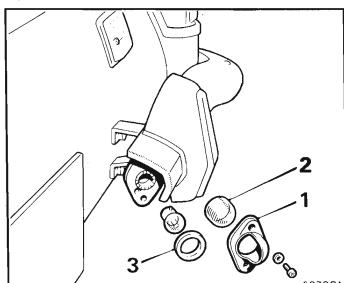


Fig. 5

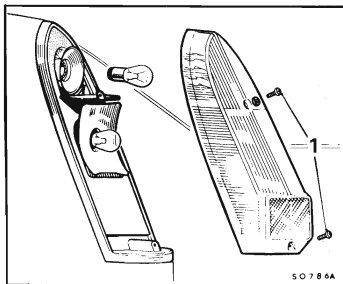
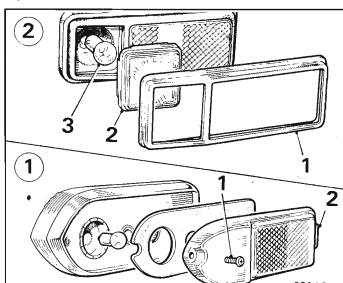


Fig. 7



Side marker lamps
Fig. 7

(1) **Front (amber).** To renew a bulb, remove the securing screw (1) and lift off the lamp lens, noting that one end is secured by a locating tab (2). When refitting, ensure that the sealing rubber is positioned correctly and that the lens tab (2) is located beneath the lamp body rim before refitting the securing screw.

(2) **Rear (red).** To gain access to the bulb (3), the rubber lips retaining the chrome bezel and lamp lens should be eased open with a screwdriver and the bezel (1), and lens (2), removed. When refitting ensure that the thick end of the wedge-shaped lens faces rearwards.

Reverse lamps
Fig. 8

To renew a bulb, remove the two securing screws and withdraw the lens. Press the bulb down towards the lower contact and withdraw it from the lamp. Fit one end of the new bulb into the hole in the lower contact, then press the top of the bulb into the lamp until the point of the cap engages in the hole in the upper contact.

Luggage compartment lamp
Fig. 9

The lens is held in the lamp by four locating lugs. To gain access to the bulb, gently squeeze the sides of the lens together and withdraw it from the lamp. The bulb may then be withdrawn from its contacts.

Fig. 8

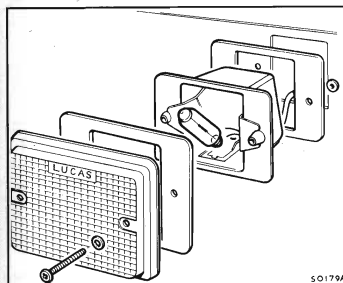
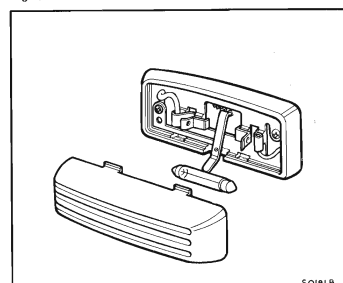


Fig. 9



Electrical

Warning and panel lamps Fascia. The warning and panel illumination lamps are located in the back of the fascia panel in the positions shown. The bulbs are housed in holders which are a press-fit into the back of the panel and are accessible from beneath the fascia.

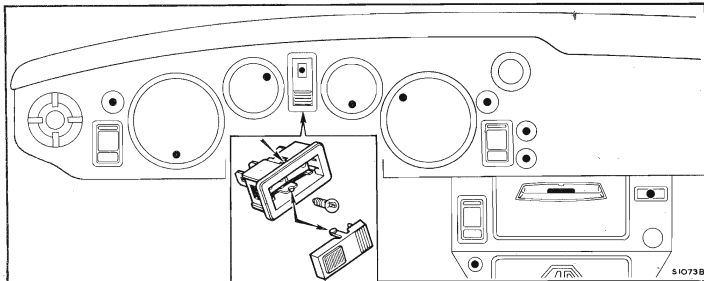
Fig. 10

Brake. To gain access to the warning lamp bulb, withdraw the holder and test push assembly from the fascia panel. Gently press the switch rocker pivot lugs (arrowed) inwards and withdraw the rocker from the casing.

Console. To renew the hazard warning or seat belt warning lamp bulb, remove the four console retaining screws and draw the console rearwards. The bulb holder can then be withdrawn from the warning lamp.

Replacement bulbs				Volts	Watts	Part No.
Headlamp—sealed beam	..	..	..	12	50/40	—
Sidelamp (with flasher)	..	..	..	12	5/21	GLB 380
Stop/tail	..	..	..	12	5/21	GLB 380
Reverse	..	..	..	12	18	BFS 273
Number-plate lamp	..	..	..	12	6	GLB 989
Direction indicator	..	..	..	12	21	GLB 382
Side marker lamp, front and rear	..	..	..	12	4	BFS 222
Ignition warning	..	..	..	12	2	GLB 281
Main beam	..	..	..	12	2	GLB 281
Direction indicator warning lamp	..	..	..	12	2.2	GLB 987
Brake warning lamp	..	..	..	12	1.5	GLB 280
Panel illumination lamp	..	..	..	12	2.2	GLB 987
Cigar-lighter illumination	..	..	..	12	2.2	BFS 643
Luggage compartment lamp	..	..	..	12	6	GLB 254
Courtesy lamp	..	..	..	12	6	GLB 254
Hazard warning lamp	..	..	..	12	2.2	GLB 987
Seat belt warning lamp	..	..	..	12	2	GLB 281

Fig. 10



WINDSCREEN WIPER

Arms To reposition a wiper arm, slacken the screw (1). Tap the screw head to release the splined locking wedge (2), and withdraw the arm.

Fig. 11

Blades To renew a wiper blade pull the wiper arm away from the windscreen, push the retainer (3) upwards and withdraw the blade from the arm with a gentle pull. Insert the end of the arm into the slotted spring fastener of the new blade, and push the blade into engagement with the arm.

Fig. 11

Washer The electric pump for the windscreen washer is mounted on the left-hand side of the engine compartment bulkhead. The fluid flow is indicated on the pump just above the fluid connections.

Fig. 12

FUEL PUMP Fuel is delivered to the carburettors by an S.U. electric fuel pump. The pump is situated beneath the luggage compartment on the right-hand side.

Fig. 11

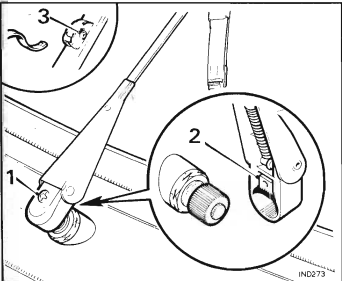
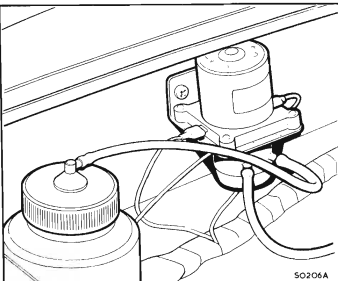


Fig. 12



WIRING DIAGRAM

KEY TO THE WIRING DIAGRAM

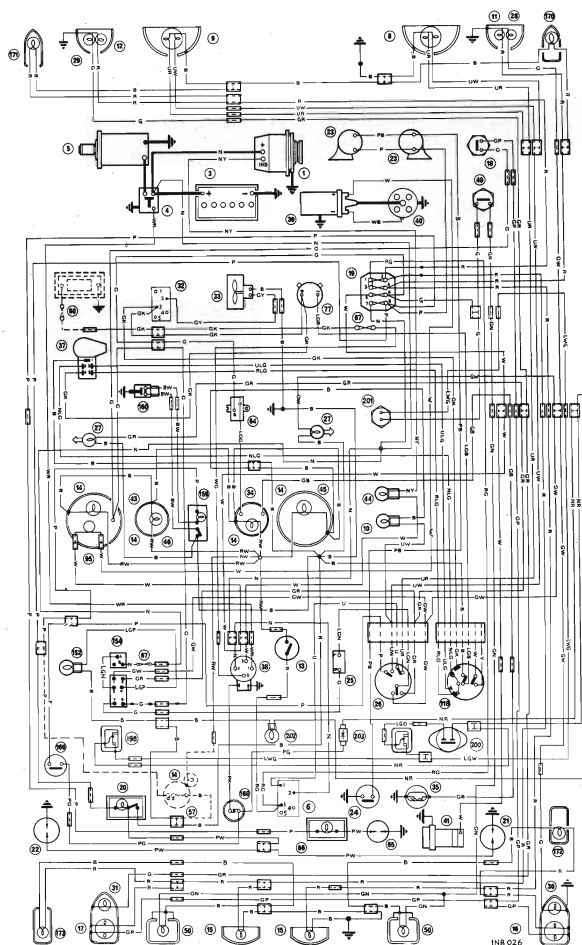
- | | |
|--|--|
| 1. Alternator. | 40. Distributor. |
| 3. Battery. | 41. Fuel pump. |
| 4. Starter solenoid. | 43. Oil pressure gauge. |
| 5. Starter motor. | 44. Ignition warning lamp. |
| 6. Lighting switch. | 45. Speedometer. |
| 8. R.H. headlamp. | 46. Coolant temperature gauge. |
| 9. L.H. headlamp. | 49. Reverse lamp switch. |
| 10. High-beam warning lamp. | 50. Reverse lamp. |
| 11. R.H. parking lamp. | 57. Cigar-lighter—illuminated. |
| 12. L.H. parking lamp. | 60. Radio. |
| 13. Panel lamps switch. | 64. Bi-metal instrument voltage stabilizer. |
| 14. Panel lamps. | 65. Luggage compartment lamp switch. |
| 15. Number-plate illumination lamp. | 66. Luggage compartment lamp. |
| 16. R.H. stop and tail lamp. | 67. Line fuse. |
| 17. L.H. stop and tail lamp. | 77. Windscreen washer pump. |
| 18. Stop lamp switch. | 95. Tachometer. |
| 19. Fuse unit. | 118. Combined windscreen washer and wiper switch. |
| 20. Interior courtesy lamp. | 152. Hazard warning lamp. |
| 21. R.H. door switch. | 153. Hazard warning switch. |
| 22. L.H. door switch. | 154. Hazard warning flasher unit. |
| 23. Horns. | 159. Brake pressure warning lamp and lamp test-push. |
| 24. Horn-push. | 160. Brake pressure failure switch. |
| 25. Flasher unit. | 168. Ignition key audible warning buzzer. |
| 26. Combined direction indicator/headlamp flasher/headlamp high-low beam switch. | 169. Ignition key audible warning door switch. |
| 27. Direction indicator warning lamp. | 170. R.H. front side-marker lamp. |
| 28. R.H. front flasher lamp. | 171. L.H. front side-marker lamp. |
| 29. L.H. front flasher lamp. | 172. R.H. rear side-marker lamp. |
| 30. R.H. rear flasher lamp. | 173. L.H. rear side-marker lamp. |
| 31. L.H. rear flasher lamp. | 198. Driver's seat belt buckle switch. |
| 32. Heater booster motor switch. | 199. Passenger's seat belt buckle switch. |
| 33. Heater booster motor. | 200. Passenger seat switch. |
| 34. Fuel gauge. | 201. Seat belt warning gearbox switch. |
| 35. Fuel gauge tank unit. | 202. 'Fasten belts' warning light. |
| 37. Windscreen wiper motor. | 203. Line diode. |
| 38. Ignition/starter switch. | |
| 39. Ignition coil. | |

CABLE COLOUR CODE

N. Brown.	P. Purple.	W. White.
U. Blue.	G. Green.	Y. Yellow.
R. Red.	L.G. Light Green.	B. Black.
	O. Orange.	K. Pink.

When a cable has two colour code letters the first denotes the main colour and the second denotes the tracer colour.

Diagram



IGNITION

Ignition timing The ignition timing is set dynamically to give optimum engine performance with efficient engine emission control. Electronic test equipment must be used to check the ignition timing setting and the automatic advance (see 'GENERAL DATA'). Checking and adjustment to the ignition timing setting should be carried out by your Austin MG Dealer control service station.

The dynamic ignition timing must be checked after cleaning, resetting, or renewing of the distributor contacts.

Basic tuning data will be found on the Vehicle Emission Control Information Label located in the engine compartment.

Distributor **Cleaning contacts.** Inspect the contact points (1) and, if burned, clean with fine emery cloth or fine carborundum stone. Wipe the contacts clean with a fuel-moistened cloth. Renew pitted or worn points.

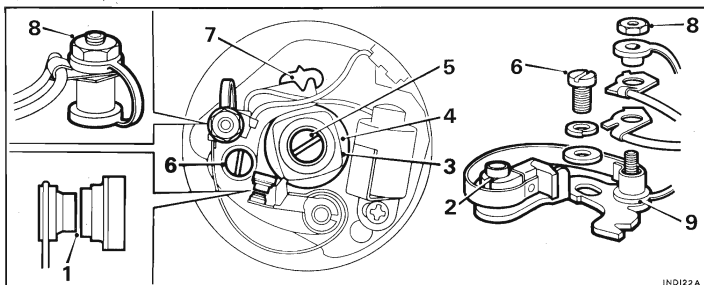
Lubrication. Very lightly smear the pivot post (2) and around the cam (3) with grease. Add a few drops of oil through the hole in the contact breaker plate to lubricate the centrifugal weights and around the screw (5) in the centre of the cam spindle (do not remove this screw as clearance is provided for oil to pass). **Avoid over-lubricating.** Carefully wipe away all surplus lubricant and see that the contact breaker points are perfectly clean and dry.

Contact breaker gap. Turn the crankshaft until the points are fully open. Check the contact gap (1) with a feeler gauge (see 'GENERAL DATA'); the gauge should be a sliding fit in the gap.

If the gap varies appreciably from the gauge thickness, slacken the contact plate securing screw (6) and adjust the gap by inserting a screwdriver in the notched hole (7) at the end of the plate and turning clockwise to decrease and anti-clockwise to increase the gap. Tighten the securing screw. Turn the crankshaft and recheck the gap. Refit the rotor, wipe the inside of the distributor cover clean and refit.

Contact set renewing. Removing. Remove the nut (8), lift the top insulating bush and both leads from the stud. Remove the securing screw (6) with its spring and plain washers, and lift off the one-piece contact set. If removal of the moving contact only is required, leave the securing screw (6) in position.

Fig. 1



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Fitting. Before fitting a new contact set, wipe the points clean with fuel or spirit. Lubricate the pivot post (2) and check that the insulating bush (9) is correctly positioned below the spring loop. Position the contact set on the distributor plate and lightly tighten the securing screw (6). Locate the lead terminals around the insulating bush so that they make contact with the spring and tighten the nut (8). Set the contact gap.

Whenever a new contact set has been fitted, recheck the gap after the first 500 miles (800 km.). During this period, the heel of the contact will have bedded in and reduced the gap.

Ignition cables (high-tension) The high-tension cables connecting the distributor to the sparking plugs may, after long use, also show signs of perishing. They must then be replaced by the correct type of ignition cable.

Spark plugs The spark plugs should be cleaned, preferably with an air-blast service unit.



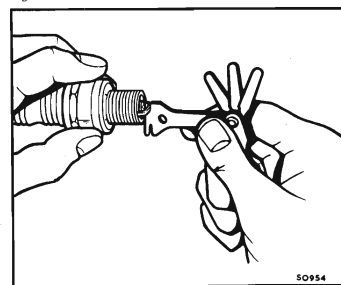
Check the plug gaps, and reset if necessary to the recommended gap (see 'GENERAL DATA'). To reset, use a special Champion spark plug gauge and setting tool; move the side electrode, never the centre one.

When refitting the plugs make sure that the washers are not defective in any way.

Screw the plug down by hand as far as possible, then use a spanner for tightening only. Always use a tubular box spanner to avoid possible damage to the insulator, and do not under any circumstances use a movable wrench. Never overtighten a plug, but ensure that a good joint is made between the plug body, washer, and cylinder head. Wipe clean the outside of the plugs before reconnecting the H.T. leads.

When fitting new spark plugs ensure that only the recommended type and grade are used (see 'GENERAL DATA').

Fig. 2



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ENGINE

LUBRICATION

- Checking
Fig. 1

The level of the oil in the engine sump is indicated by the dipstick (3) on the right-hand side of the engine. Maintain the level at the 'MAX' mark on the dipstick and never allow it to fall below the 'MIN' mark. The oil level should always be checked before a long journey.
- The filler (2) is on the forward end of the rocker cover and is provided with a quick-action cap. The filler cap also incorporates a filter for the crankcase emission control system.
- Draining

To drain the engine oil, remove the drain plug (1) located on the right-hand side at the rear of the sump. This operation should be carried out while the engine is warm.
- Clean the drain plug; check that its copper sealing washer is in a satisfactory condition, and refit.
- Filling

Fill the engine with the correct quantity of recommended oil. Run the engine for a short while then allow it to stand for a few minutes before checking the level with the dipstick.
- Oil filter changing
Fig. 1

The oil filter is a disposable cartridge type.

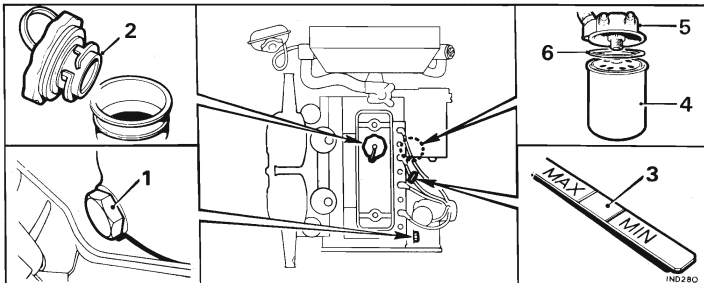
To renew, unscrew the cartridge (4) from the filter head (5) and discard the cartridge.

NOTE. If difficulty in unscrewing the cartridge is experienced, consult your Distributor or Dealer.

Smear the new seal (6) with engine oil and fit it into its groove in the new cartridge. Screw the cartridge to the filter head using hand force only.

Refill the engine with the correct quantity of a recommended lubricant, start the engine and check for oil leakage.

Fig. 1



DRIVE BELT

- Alternator
Fig. 2

Tension. When correctly tensioned, a total deflection of 1/2 in. (13 mm) under moderate hand pressure, should be possible at the midway point of the longest belt run between the pulleys.
- Adjusting.

To adjust the belt tension, slacken the securing bolts (1) and adjusting link nuts (2), and move the alternator to the required position. Apply any leverage necessary to the alternator end bracket (3) only and not to any other part; to avoid damaging the drive-end bracket the lever should preferably be of wood or soft metal. Tighten the bolts and re-check the belt tension. **DO NOT OVERTIGHTEN** as this will impose an excess loading on the drive bearings.

VALVE ROCKER CLEARANCE

- Checking
Fig. 3

Remove the rocker cover and insert a .012 in. feeler gauge between the valve rocker arms and valve stems (inset). The gauge should be a sliding fit when the engine is cold. Check each clearance in the following order:
- Adjusting

Check No. 1 valve with No. 8 fully open. Check No. 8 valve with No. 1 fully open.

"	"	3	"	"	6	"	"	"	6	"	"	3	"	"
"	"	5	"	"	4	"	"	"	4	"	"	5	"	"
"	"	2	"	"	7	"	"	"	7	"	"	2	"	"

Slacken the adjusting screw locknut on the opposite end of the rocker arm and rotate the screw clockwise to reduce the clearance or anti-clockwise to increase it. Retighten the locknut when the clearance is correct, holding the screw against rotation with a screwdriver.

Fig. 2

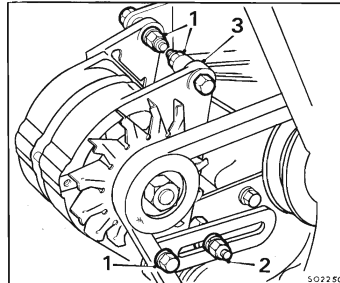
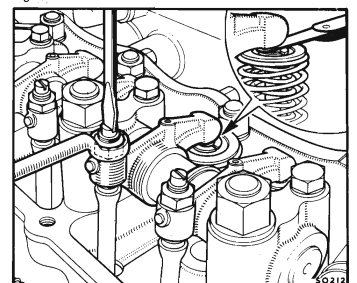


Fig. 3



EMISSION CONTROL SYSTEMS

You and each subsequent owner of the car are urged to make sure that the recommended maintenance procedures are carried out at the intervals specified. In order for the emission controls to continue to function effectively, it is strongly recommended that you arrange for regular maintenance inspections to be carried out by your Austin MG Dealer.

The Passport to Service provides an inspection and maintenance schedule up to 50,000 miles or five years whichever first occurs, the period for which federal law requires that the emission control systems shall continue to function effectively. You should have the maintenance record completed by your Austin MG Dealer (or by other dealer or station equipped to render such service) at the regular mileage intervals indicated in the Schedule. The Handbook and Passport to Service should be handed to subsequent purchasers of the vehicle at the time of sale so that the maintenance instructions are available and that the record of maintenance can be continued.

You are also urged to study with care the section covering '**MALFUNCTION IDENTIFICATION**'. Study of this section will be of aid to you in detecting possible malfunctions of the emission controls so that necessary service measures can immediately be taken.

Each owner should consult the warranty applicable to this vehicle, found in the Passport to Service, for those provisions applicable to the emission control systems. The warranty provides that the manufacturer guarantees to you and each subsequent purchaser that the emission control systems with which your car is equipped conformed at the time of manufacture with applicable regulations, and are free from defects in materials and workmanship which might cause the vehicle or engine to fail to conform with those regulations.

IMPORTANT

Your attention is particularly drawn to the following:

1. Maintenance and service charges applicable to the emission control system are **not** covered by the warranty and are not reimbursable, unless shown to have been caused by defects in materials and workmanship covered by the warranty.
2. Our 1972 Austin and MG engines have not been designed to operate on lead-free or clear gasoline and **use of such fuels cannot be recommended** as they could have a detrimental effect on engine components resulting in loss of performance, excess exhaust emissions and possibly complete engine failure.

General description

This section gives a general description of the crankcase, exhaust and fuel evaporative emission control systems fitted to this vehicle and the function of their individual components. It must be emphasized that correct carburettor adjustment and ignition timing which have been pre-set at the factory are essential for the efficient functioning of the exhaust emission controls. Should it become necessary to check these settings this work should be carried out by an Austin MG or British Leyland Dealer who has the specialist equipment and training to undertake these adjustments.

The basic engine tuning data will be found on the emission control information label located in the front of the engine compartment.

Fuel Evaporative Loss Control

To prevent air pollution by vapours from the fuel tank and carburettor vents, the control equipment stores the vapour in a charcoal filled canister while the engine is stopped and disposes of it via the engine crankcase emission control system when the engine is running.

The fuel tank venting is designed to ensure that vapours are vented through the control system even when the car is parked on an inclined surface.

A capacity limiting device in the fuel tank ensures sufficient free capacity is available after filling to accommodate fuel which would otherwise be displaced as a result of a high temperature rise. The inclusion of a small separation tank in the vapour line prevents liquid fuel from being carried with the vapour to the storage canister.

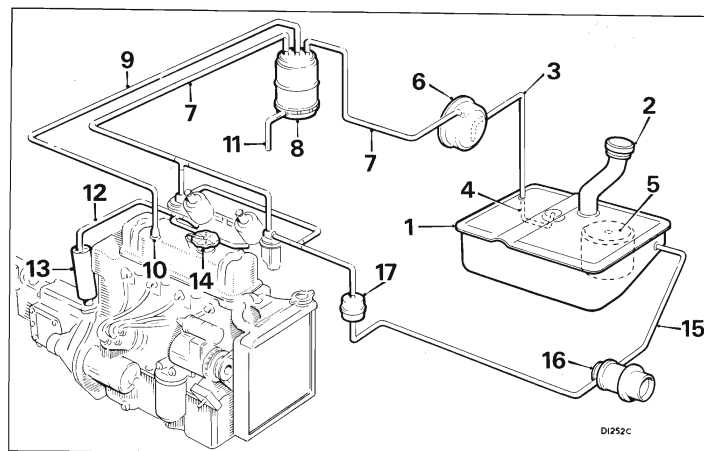


Fig. 1 The layout of the fuel evaporative loss control system

- | | |
|---------------------------------|------------------------------------|
| 1. Fuel tank | 10. Restricted connection |
| 2. Sealed fuel filler cap | 11. Air vent pipe |
| 3. Vapour line | 12. Breather pipe |
| 4. Vapour tube | 13. Oil separator/flame-trap |
| 5. Capacity limiting tank | 14. Sealed oil filler cap |
| 6. Separation tank | 15. Fuel pipe |
| 7. Vapour pipe | 16. Fuel pump |
| 8. Charcoal adsorption canister | 17. Fuel line filter (when fitted) |
| 9. Purge line | |

Emission Control Systems

Crankcase Emission Control The engine crankcase breather outlet incorporates an oil separator flame-trap which is connected by hoses to the controlled depression chamber between the piston and the throttle disc valve of the carburettor(s). Piston blowby fumes are drawn into the chamber where they combine with the engine inlet charge for combustion in the engine cylinders in the normal way. Fresh filtered air is supplied to the engine crankcase through a hose connected between the engine valve rocker cover and the charcoal canister of the fuel evaporative emission control system.

Filler caps Both the engine oil filler cap and the fuel tank filler cap are non-venting and form a seal on the filling apertures.

IT IS ESSENTIAL TO THE SATISFACTORY OPERATION OF THE EVAPORATIVE LOSS SYSTEM THAT BOTH CAPS ARE ALWAYS REFITTED CORRECTLY AND TIGHTENED FULLY. A DEFECTIVE CAP OR CAP SEAL MUST BE REPLACED

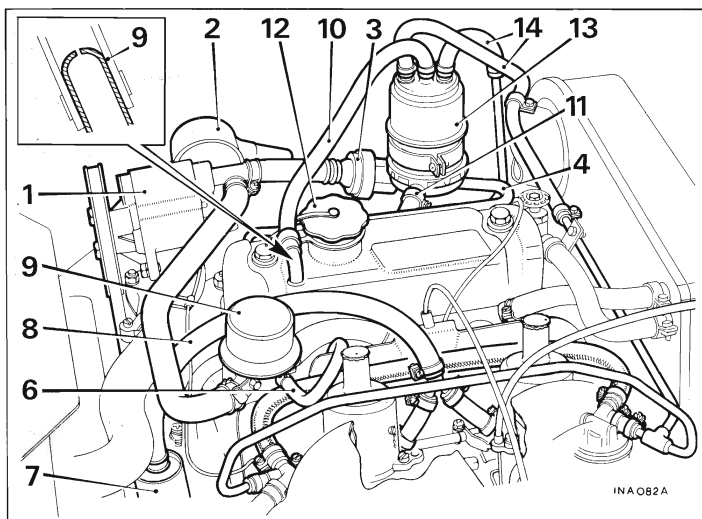


Fig. 2 The emission control components

- | | |
|-----------------------------|----------------------------------|
| 1. Air pump | 8. Breather pipe |
| 2. Air pump air cleaner | 9. Restricted connection |
| 3. Check valve | 10. Purge line |
| 4. Air manifold | 11. Air vent pipe |
| 5. Gulp valve | 12. Sealed oil filler cap |
| 6. Sensing pipe | 13. Charcoal adsorption canister |
| 7. Oil separator/flame-trap | 14. Vapour pipes |

Exhaust Emission Control The main feature of the exhaust emission control system is a combination of the engine modification and air injection techniques and consists of modified carburettors, modified ignition timing, and air injection into the exhaust ports.

The quantity of air-polluting elements in the gases leaving the exhaust pipe is reduced by adding air to the hot gases immediately they leave the combustion chambers of the engine. The injection of air into the exhaust gases promotes a continued conversion of the undesirable hydrocarbon and carbon monoxide components of the exhaust gases to relatively harmless carbon dioxide and water.

An air pump mounted on the front of the engine, and belt driven from the water pump pulley, supplies air under pressure through hoses and a check valve and distribution manifold to injectors in each exhaust port in the engine cylinder head. The check valve prevents high pressure exhaust gases from blowing back into the air pump due to, for example, pump drive failure.

Air from the pump is also supplied to a gulp valve, the outlet of which is connected to the engine inlet manifold. A small bore sensing pipe connected between the inlet manifold and the diaphragm chamber of the gulp valve relays changes in manifold depression to the valve which will open under certain conditions such as those created by deceleration or engine overrun.

When the gulp valve opens a small quantity of air is admitted directly into the inlet manifold to lean off the rich air/fuel mixture which is present in the manifold under conditions immediately following throttle closure. This mixture, having been reduced to a burnable condition, combines with engine inlet charge for combustion in the engine cylinders in the normal way.

The carburettors are manufactured to a special exhaust emission specification and are tuned to give the maximum emission control consistent with retaining vehicle performance and driveability. The metering needle is arranged in such a manner that it is always lightly spring loaded against the side of the jet to ensure consistency of fuel metering. A spring loaded valve incorporated in the throttle disc limits the inlet manifold depression and ensures that during conditions of engine overrun the air/fuel mixture enters the engine cylinders in a burnable condition consistent with low emission levels.

The ignition distributor is tuned with slightly retarded ignition at low engine r.p.m. compared with non-emission equipped vehicles, and the timing is balanced between mechanical and vacuum characteristics to give optimum timing consistent with low emissions.

Purge line restrictor To check, disconnect the purge line from the rocker cover elbow. Examine the orifice of the restriction formed in the elbow for obstruction. Clear any dirt or deposits from the restrictor orifice, using a length of wire.

Emission Control Systems

Adsorption canister The air filter pad located in the lower section of the canister must be renewed every 12,000 miles or 12 months.

Fig. 3

To renew the filter pad disconnect the vapour pipes (2) and purge pipe (3), at the top of the canister and the air vent pipe (1) from its connection at the bottom of the canister. Remove the securing bracket nut and bolt (4), collecting the spacer. Raise and tilt the canister and unscrew the bottom section (5), withdraw and discard the old filter pad (6), and fit a new one. When refitting, ensure that all connections to the canister are securely fitted. Do not attempt to remove the gauze or its retainer from inside the canister.

Fit a new canister every 48,000 miles or 48 months.

Gulp valve To renew, disconnect the hoses (1) and sensing pipe (1) from the gulp valve. Unscrew the mounting screws and nuts (2) and remove the gulp valve (3). Fit the new valve, re-connect the hoses and sensing pipe, ensuring that all joints are made secure and airtight.

Fig. 4

AIR PUMP

Drive belt **Tension.** When correctly tensioned, a total deflection of $\frac{1}{2}$ in. (13 mm.) under moderate hand pressure, should be possible at the midway point of the longest belt run between the pulleys.

Fig. 5

Adjusting. To adjust the belt tension, slacken the securing bolts (1) and adjusting link nuts (2), and move the air pump to the required position. Tighten the bolts and re-check the belt tension. **DO NOT OVERTIGHTEN** as this will impose an excess loading on the drive bearings.

Air cleaner The element of the air pump air cleaner must be renewed every 12,000 miles (20,000 km.) or 12 months; more frequent changes may be necessary in dusty operating conditions.

Fig. 6

Unscrew the self-locking nut (1), withdraw the cover (2) and discard the element (3). Clean the inside of the cover thoroughly and re-assemble using a new element.

Fig. 3

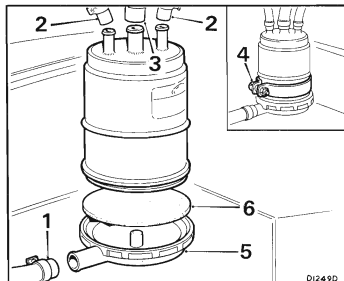
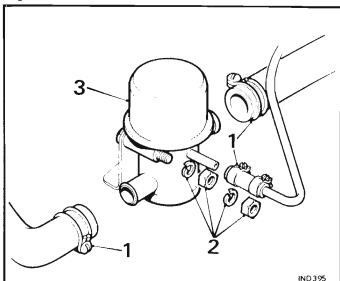


Fig. 4



MALFUNCTION IDENTIFICATION

Check the following items regularly for visual signs of a malfunction and also if any of the Driving Symptoms listed should persistently occur. If you are unable to locate and/or correct the malfunction you are advised to contact your Austin MG Dealer immediately.

Visual Checks

1. Condition and adjustment of drive belts.
2. Baked or overheated hose between air pump and check valve.
3. All hoses for security, damage and deterioration.
4. Fuel leakage.
5. Oil filler cap for sealing.
6. Fuel filler cap for sealing.

Driving Symptoms

1. Violent backfire in exhaust system.
2. Hesitation to accelerate on re-opening the throttle after sudden throttle closure.
3. Engine surges (erratic operation at varying throttle openings).
4. Engine idles erratically or stalls.
5. Noisy air pump.
6. Ignition warning light on above idle speed (slack or broken fan belt).
7. Smell of fuel vapours.
8. Engine stops after short running periods (fuel starvation).
9. Lack of power.
10. High fuel consumption.
11. Engine misfires (engine jerks on cruise and acceleration).
12. High temperature indicated (overheating of coolant).

Fig. 5

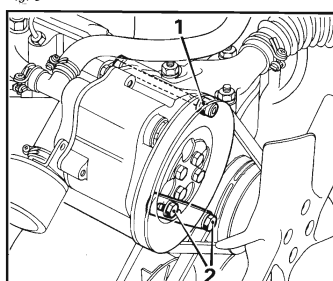
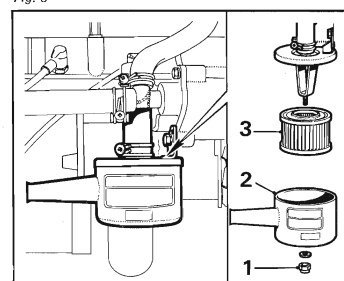


Fig. 6



FUEL SYSTEM

AIR CLEANERS The elements of the carburettor air cleaners must be renewed every 12,000 miles (20,000 km.) or 12 months; more frequent changes may be necessary in dusty operating conditions.



Carburettor The air cleaner covers and elements should only be removed when the elements are being renewed. To fit new elements, remove the interconnecting bracket securing nut (1) and unscrew the air cleaner bolts (2) from the mounting plate (3). Lift off the assembly, remove the cover (5) and extract the element (4) and the distance pieces (6) for the air cleaner bolts.

Fig. 2

CARBURETTERS

Air pollution control The carburettor incorporates features which assist in reducing exhaust emissions.

Maladjustment or the fitting of parts not to the required specification may render these features ineffective.

Lubrication Unscrew the damper cap at the top of the carburettor and withdraw the damper. Top up with clean engine oil to bring the oil level 1 inch below the top of the carburettor damper tube. Push the damper assembly back into position and screw in the cap. Under no circumstances should heavy bodied lubricant be used. Failure to lubricate the piston damper may cause the piston to flutter and reduce acceleration and have an adverse effect on exhaust emission.

Fig. 2

Tuning The efficient operation of the engine and exhaust emission control equipment depends not only on correct carburettor settings but also on correct ignition timing, contact breaker and spark plugs and valve rocker clearances. It is essential that these items are checked before adjusting the carburettors. Tuning of the carburettors is confined to setting the idle and fast idle speeds and the mixture setting at idle speed. Adjustments should only be undertaken on cars required to conform with exhaust emission control regulations if the use of a reliable tachometer, carburettor balance meter and an exhaust gas analyser (CO meter) is available.

Fig. 3

1. Remove the air cleaners.
2. Top up the carburettor piston dampers with recommended engine oil to the correct level.

Fig. 1

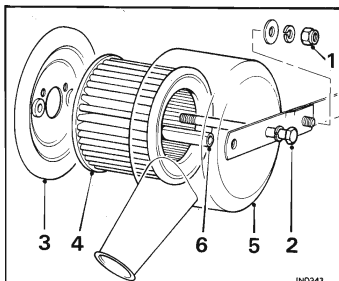


Fig. 2

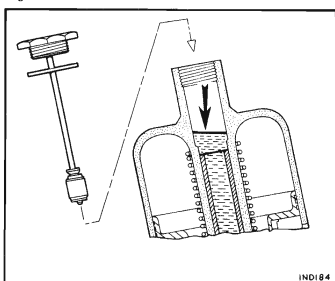


Fig. 3

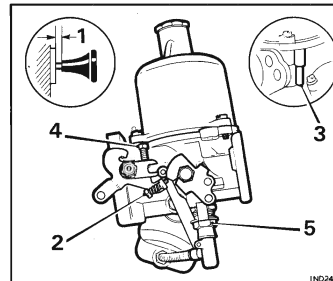
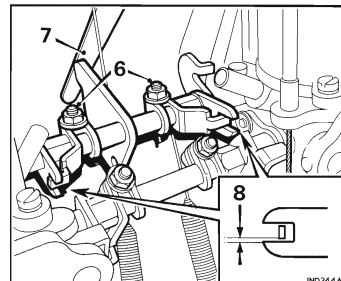


Fig. 4



3. Check the throttle control for correct functioning.
4. Ensure that the mixture control (choke) will return fully, that the cable has $\frac{1}{8}$ in. (2 mm.) free play (1) before it starts to pull on the lever and a small clearance exists between the fast idle screws (2) and their cams.
5. Raise each carburettor lifting pin (3), release the pin and check that the piston falls freely onto the bridge of the carburettor, indicated by a distinct metallic click. Consult your Distributor/Dealer if the piston fails to fall freely.
6. Connect a reliable tachometer.
7. Start the engine and run it at a fast idle speed until it attains normal running temperature then run it for a further five minutes.
8. Increase the engine speed to 2,500 rev./min. for 30 seconds.

NOTE.—Tuning can now be commenced. If delay prevents the adjustment being completed within three minutes, increase the engine speed to 2,500 rev./min. for 30 seconds and then continue tuning. Repeat this clearing procedure at three minute intervals until tuning is completed.

9. Check the idle speed (tachometer), see 'GENERAL DATA' and check the carburettors for balanced air intake using a balance meter.
10. If the balance is not correct, adjust by turning the throttle adjusting screw (4) on one of the carburettors. Then adjust the idle speed by turning the throttle adjusting screw (4) on each carburettor by the same amount until the correct idle speed is obtained. Re-check the carburettor balance. Check the throttle shaft pin clearance and adjust if necessary—see paragraph 17.

If a smooth idle at the correct speed and balance is not obtainable adjust the idle speed mixture setting as follows:

11. Stop the engine. Remove each suction chamber and piston, and screw the jets (5) up until they are flush with the bridge of the carburettor or up as far as possible. Turn down the jet adjusting nut (5) on each carburettor two complete turns. Refit the piston and suction chambers and top up the piston damper oil levels.

NOTE.—This operation need not be carried out if it is known that the jets are in the same relative position.

Fuel System

12. Start the engine. Turn the jet adjusting nut (5) on both carburetters in the same direction, one flat at a time to weaken or down to richen within the limits of the adjustment restrictor until the fastest speed is recorded on the tachometer. Now turn the nuts up slowly until the speed just commences to fall. Turn the nuts down very slowly by the **minimum amount** until the maximum speed is regained.
13. Using the exhaust gas analyser check that the percentage CO reading is within the prescribed limits. If the reading falls outside the limits reset both jet adjusting screws equally by the minimum amount necessary to bring the reading just within the limits. If a smooth idle at the correct speed or the prescribed CO reading cannot be obtained you should consult your Austin MG Dealer.
14. Recheck the idle speed and carburettor balance and adjust as necessary with the throttle adjusting screws.
15. Set the throttle interconnection clamping levers so that the link pin is 0.012 in. (0.31 mm.) away from the lower edge of the forks (see inset 8) as follows:
16. Stop the engine and slacken both clamping bolts (6) on the throttle spindle interconnection.
17. Insert a 0.012 in. (0.3 mm.) feeler gauge (7) between the throttle shaft stop and the carburettor heat shield. Move each throttle spindle interconnection lever downwards until the lever pin rests on the lower arm of the carburettor throttle fork. Tighten the clamping bolts (6) Fig. 4 on each fork, ensuring that there is approximately $\frac{1}{16}$ in. (0.79 mm.) end float on the interconnection rod. Remove the feeler gauge. The pins on the throttle spindle lever should then have clearance in the throttle fork.
18. Ensure that $\frac{1}{8}$ in. (2 mm.) free movement exists before the cable starts to pull on the lever.
19. Run the engine at 1,500 r.p.m. and check the carburetters for balance.
20. Pull out the mixture control knob until the linkage is about to move the carburettor jets. Lock the knob in position.
21. Using the balance meter to ensure equal adjustment, turn the fast idle adjusting screws equally to give the fast idle speed—see 'GENERAL DATA'. Stop the engine.
22. Refit the air cleaners.

GEARBOX AND REAR AXLE

Gearbox To gain access to the gearbox combined oil filler and level plug, lift the floor covering on the left-hand side of the gearbox cover and remove the rubber plug. Clean around the filler plug before removing it.

Fig. 1

The oil level should be maintained at the bottom of the filler plug aperture threads.

Rear axle A combined oil filler and level plug is located on the rear of the axle. The oil level should be maintained at the bottom of the plug aperture; ensure that the car is standing level when checking. After topping up the oil level, allow sufficient time for any surplus oil, which may have been added accidentally, to run out of the aperture before replacing the plug.

Fig. 2

Ensure that the rear axle oil is not drained when the After-sales Service is carried out.

Fig. 1

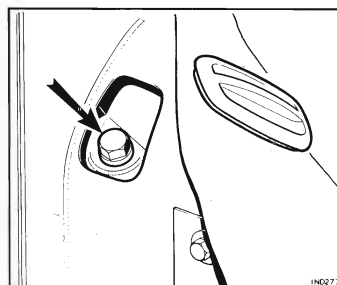
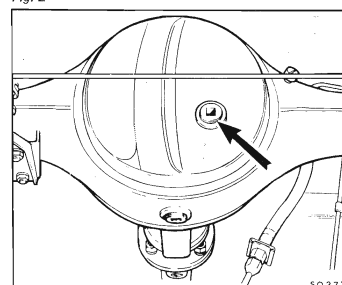


Fig. 2



STEERING AND SUSPENSION

- Lubrication** A lubrication nipple for the steering rack is located on the right-hand side of the rack housing, which is accessible when the bonnet is raised. When lubricating give a maximum of 10 strokes with an oil gun filled with one of the recommended oils.
- Steering rack*
Fig. 1
- Swivel axle pins** Two lubricating nipples (1) and (2) are provided on each swivel pin. To lubricate, charge the nipples with one of the recommended greases. To ensure full penetration of the lubricant, this operation is best carried out with the car partly jacked up.
- Fig. 2*
- Steering connections** The steering tie-rod ball joint at each side is provided with a lubrication nipple (3). To lubricate, charge the nipples with one of the recommended greases.
- Fig. 2*
- Front suspension outer fulcrum pins** A lubricating nipple (4) is provided on each of the outer fulcrum pins. To lubricate, charge the nipples with one of the recommended greases.
- Fig. 2*
- Front wheel alignment** Incorrect front wheel alignment can cause excessive and uneven tyre wear. The front wheels must be set parallel or toe-in $\frac{1}{8}$ in. (3.2 mm.) to each other when the steering is in the straight-ahead position.
- To set the wheel alignment correctly requires the use of a special gauge; this work should be entrusted to your Distributor or Dealer.

Fig. 1

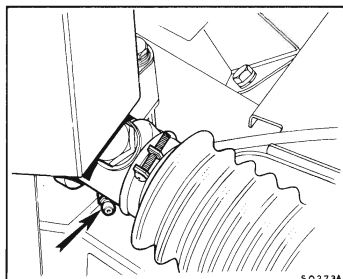
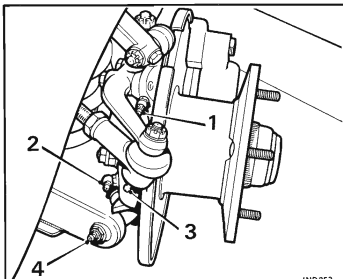


Fig. 2



GENERAL DATA

Engine	Type	12V
	Bore	2.78 in. (70.61 mm.)
	Stroke	3.2 in. (81.28 mm.)
	Cubic capacity	77.8 cu. in. (1274.86 c.c.)
	Compression ratio	8 : 1
	Firing order	1, 3, 4, 2
	Valve rocker clearance (cold)	.012 in. (.3 mm.)
	Idle speed	1,000 r.p.m.
	Fast idle speed	1,100 r.p.m. to 1,200 r.p.m.
	Oil pressure:	
	Normal (approx.)	40 to 70 lb./sq. in. (2.81 to 4.92 kg./cm. ²)
	Idling (approx.)	20 lb./sq. in. (1.4 kg./cm. ²)
Ignition	Spark plugs	Champion N.9.Y
	Spark plug gap	.024 to .026 in. (.62 to .66 mm.)
	Stroboscopic ignition timing	9° B.T.D.C. at 1,500 r.p.m.
	Contact breaker gap	.014 to .016 in. (.35 to .40 mm.)
Fuel system	Recommended octane rating	Regular 94
	Carburettors	Twin S.U. type HS2
	Carburettor needle	AAT (spring loaded)
	Pump	S.U. (Electric) type AUF 206
Transmission	Rear axle ratio	3.9 : 1
	Overall gear ratios: First	12.48 : 1
	With Second	7.472 : 1
	Third	5.292 : 1
	Fourth	3.9 : 1
	Reverse	16.044 : 1
Capacities	Fuel tank (evaporative loss)	5 gallons (6 U.S. gallons, 22.7 litres)
	Engine sump (including filter)	6½ pints (7.8 U.S. pints, 3.7 litres)
	Gearbox	2½ pints (2.7 U.S. pints, 1.3 litres)
	Rear axle	1½ pints (2.1 U.S. pints, .99 litre)
	Cooling system (with heater)	6 pints (7 U.S. pints, 3.4 litres)
Dimensions	Pressed spoked Wire	
	Track: Front	3 ft. 10 ¹¹ / ₁₆ in. (118.27 cm.)
	Rear	3 ft. 10 in. (116.84 cm.)
	Turning circle: Left lock	32 ft. 1½ in. (9.79 m.)
	Right lock	31 ft. 2½ in. (9.51 m.)
	Front wheel alignment	Parallel to $\frac{1}{8}$ in. toe-in (0 to 3.2 mm.)
	Wheelbase	6 ft. 8 in. (2.03 m.)
	Overall length	11 ft. 5½ in. (3.49 m.)
	Overall width	4 ft. 6½ in. (1.4 m.)
	Overall height	4 ft. $\frac{1}{2}$ in. (1.22 m.)
	Ground clearance	5 in. (12.7 cm.)

27.3 litres

7 US

General Data

Wheels and tyres	Wheel size: Pressed spoked	..	4½J SL × 13	
	Wire	..	4J × 13	
	Tyres	..	Size	Type
		..	145SR × 13	Radial ply
Tyre pressures	Normal car weight	..	Front	Rear
		..	22 lb./sq. in. (1.55 kg./cm. ²)	24 lb./sq. in. (1.69 kg./cm. ²)
	Maximum weight	..	22 lb./sq. in. (1.55 kg./cm. ²)	26 lb./sq. in. (1.83 kg./cm. ²)

It is recommended that for sustained speeds at near the maximum the above tyre pressures are increased by 4 lb./sq. in. (28 kg./cm.²).

Weights

	Including	Total weight	Distribution	
			Front	Rear
Kerbside	Full fuel tank, all optional extras and accessories	1,701 lb. (772 kg.)	861 lb. (391 kg.)	840 lb. (381 kg.)
Normal	Kerbside weight, driver, passenger, and 50 lb. luggage	2,001 lb. (908 kg.)	959 lb. (435 kg.)	1,042 lb. (473 kg.)
Maximum	Normal weight and towbar hitch load	2,151 lb. (975 kg.)	926 lb. (420 kg.)	1,225 lb. (556 kg.)
Maximum permissible towing weight		1,344 lb. (610 kg.)		
Towbar hitch load		Maximum 100 lb. (45.4 kg.)		

MAINTENANCE SUMMARY

Basic tuning data will be found on the Vehicle Emission Control Information Label located in the engine compartment.

Detailed maintenance instructions will be found on the page in brackets after each item.

Weekly or before a long journey

- Check oil level in engine and top up if necessary (42)
- Check battery and top up to correct level if necessary (31)
- Check coolant level and top up if necessary (23)
- Check windscreen washer and top up if necessary.
- Check tyre pressures including spare and adjust if necessary (26)

Maintenance Intervals

† These items are emission related.



Carry out the services indicated by X in column.

The lubrication service at 3,000-mile or 3-month intervals

A at 6,000-mile or 6-month intervals.

B at 12,000-mile or 12-month intervals.

LUBRICATION

- Change engine oil (42)
- Fit new oil filter (42)
- Check level of all fluid reservoirs, brake, clutch, rear axle, transmission, battery, windshield washer
- Check all tyre pressures including spare (26)
- Lubricate all grease fittings (except steering rack and pinion) (63)
- Lubricate all locks and hinges (63)
- † Lubricate all throttle and choke controls and cables (63)
- Lubricate steering rack and pinion

ENGINE

- † Check all drive belts. Adjust if required (43 and 48)
- (Renew all belts at 24,000 miles or 24 months)
- † Check all hoses, vacuum, air and water for condition and tightness
- † Renew all air filter cleaner elements (air pump and carburettor) (49 and 50)
- † Adjust valve rocker clearances (43)
- † Tighten all manifold nuts
- † Visually check exhaust and intake systems for leaks
- † Check heating and cooling system for leaks
- † Check restrictor in rocker cover purge line for obstruction
- † Check air injection manifold for damage, leaks and security
- † Renew gulp valve

IGNITION

- † Renew spark plugs (41)
- † Renew breaker points (40)
- † Lubricate distributor cam, breaker pivots and advance mechanism (40)
- † Wipe clean and examine distributor cap for cracks and tracking, carbon bush for sticking and wear
- † Wipe clean and examine high tension leads for damage and deterioration and ensure security

Lubrication Service	A	B
Change engine oil (42)	X	X
Fit new oil filter (42)	X	X
Check level of all fluid reservoirs, brake, clutch, rear axle, transmission, battery, windshield washer	X	X
Check all tyre pressures including spare (26)	X	X
Lubricate all grease fittings (except steering rack and pinion) (63)	X	X
Lubricate all locks and hinges (63)	X	X
† Lubricate all throttle and choke controls and cables (63)	X	X
Lubricate steering rack and pinion	X	X
ENGINE		
† Check all drive belts. Adjust if required (43 and 48)	X	X
(Renew all belts at 24,000 miles or 24 months)		
† Check all hoses, vacuum, air and water for condition and tightness	X	X
† Renew all air filter cleaner elements (air pump and carburettor) (49 and 50)	X	X
† Adjust valve rocker clearances (43)	X	X
† Tighten all manifold nuts	X	X
† Visually check exhaust and intake systems for leaks	X	X
† Check heating and cooling system for leaks	X	X
† Check restrictor in rocker cover purge line for obstruction	X	X
† Check air injection manifold for damage, leaks and security	X	X
† Renew gulp valve	X	X
IGNITION		
† Renew spark plugs (41)		X
† Renew breaker points (40)		X
† Lubricate distributor cam, breaker pivots and advance mechanism (40)	X	X
† Wipe clean and examine distributor cap for cracks and tracking, carbon bush for sticking and wear		X
† Wipe clean and examine high tension leads for damage and deterioration and ensure security		X

Maintenance Summary

	A	B
FUEL SYSTEM		
†Top up carburettor piston damper (50)	X	X
†Renew adsorption canister air filter element (48)		X
(Renew adsorption canister at 48,000 miles or 48 months.)		
†Check condition of fuel filler cap seal and renew if necessary		X
OSCILLOSCOPE CHECK		
†Check/adjust breaker points, resistance and dwell (40)	X	X
†Check/adjust ignition timing and distributor advance characteristics (vacuum disconnected) (40)	X	X
†Check distributor vacuum advance at idle	X	X
†Check/adjust idle speed and mixture setting (51)	X	X
†Check/adjust choke and carburettor fast idle speed setting (51)	X	X
†Power check, engine cylinder comparison		X
†Check spark plugs (cruise and unload condition); clean and adjust if necessary	X	
Check charging system output	X	X
STEERING AND SUSPENSION		
Check for oil leaks (54)	X	X
Check steering joints for security, backlash and gaiter condition (54)	X	X
Check/adjust front wheel alignment (54)	X	X
BRAKES		
Check visually hydraulic pipes and unions for chafing, leaks and corrosion	X	X
Check/adjust brake pedal travel, check hand brake operation (28)	X	X
Inspect brake pads for wear and discs for condition (29)	X	
Inspect brake linings and pads for wear, drums and discs for condition (29)		X
ELECTRICAL		
Check function of lamps, horns, indicators and windscreen wipers	X	X
Grease battery connections (31)	X	X
Check headlamp beam alignment and adjust if necessary (33)		X
Check windscreen wiper blades; if necessary replace	X	X
EXHAUST, FUEL AND CLUTCH PIPES		
†Check visually fuel and clutch pipes and unions for chafing, leaks and corrosion	X	X
†Check exhaust for leakage and security	X	X

WHEELS AND TYRES

Check that tyres comply with manufacturer's specification (56)		X
Check visually and report depth of tread, cuts in tyre fabric, exposure of ply or cord structure, lumps or bulges	X	X
Check tightness of road wheel nuts	X	X

BODY

Check condition and security of seats and seat belts	X	X
Check rear view mirror for looseness, cracks and crazing	X	X

The Maintenance Summary on the preceding pages gives the minimum service required to maintain your vehicle under normal driving conditions. For other than normal driving conditions, and those caused by seasonal changes, we recommend that you consult your Dealer.

SERVICE

Service Your Distributor or Dealer is provided with the latest information concerning special service tools and workshop techniques. This enables him to undertake your service and repairs in the most efficient and economic manner.

Service parts and accessories Genuine BRITISH LEYLAND Service Parts and UNIPART range of parts and accessories are designed and tested for your vehicle and have the full backing of the British Leyland Factory Warranty. **ONLY WHEN GENUINE BRITISH LEYLAND PARTS ARE USED CAN RESPONSIBILITY BE CONSIDERED UNDER THE TERMS OF THE WARRANTY.**

For more information on UNIPART, see your British Leyland Distributor or Dealer.

Genuine British Leyland parts and accessories are supplied in cartons and packs bearing either or both of these symbols.



Safety features embodied in the car may be impaired if other than genuine parts are fitted. In certain territories, legislation prohibits the fitting of parts not to the vehicle manufacturer's specification. Owners purchasing accessories while travelling abroad should ensure that the accessory and its fitted location on the car conform to mandatory requirements existing in their country of origin.

Identification When communicating with your Distributor or Dealer always quote the commission and engine numbers. When the communication concerns the transmission units or body details it is necessary to quote also the transmission casing and body numbers.

Commission number. Stamped on a plate secured to the left-hand side of the bonnet lock platform.

Engine number. Stamped on a plate secured to the right-hand side of the cylinder block.

Gearbox number. Stamped on the left-hand side of the gearbox casing.

Rear axle number. Stamped on the front of the left-hand rear axle tube near the spring seating.

Supplementary tool kit To supplement the tool kit a waterproof canvas roll containing the following is obtainable from all Distributors. Part No. AKF 1596 should be quoted.

6 spanners:	$\frac{1}{8}$ in. $\times$ $\frac{3}{8}$ in. A.F.	1 pair 6 in. pliers.
	$\frac{1}{4}$ in. $\times$ $\frac{1}{2}$ in. A.F.	1 7 in. $\times$ $\frac{3}{8}$ in. diameter tommy-bar.
	$\frac{1}{2}$ in. $\times$ $\frac{1}{2}$ in. A.F.	1 $\frac{1}{2}$ in. $\times$ $\frac{1}{8}$ in. A.F. tubular spanner.
	$\frac{3}{8}$ in. $\times$ $\frac{3}{8}$ in. A.F.	2 screwdrivers.
	$\frac{1}{2}$ in. $\times$ $\frac{1}{2}$ in. A.F.	
	$\frac{3}{4}$ in. $\times$ $\frac{3}{4}$ in. A.F.	

British Leyland Motors Inc.

600 Willowtree Road, Leonia
New Jersey 07605

Telephone: (201) 461/7300 Telex: 135491

British Leyland Motors

Canada Limited

4445 Fairview Street

P.O. Box 5033

Burlington • Ontario • Canada

Telephone: (916) 632/3040 Telex: 021678

TUNING MODIFICATIONS

Tuning modifications For competition, circuit racing, and speed trials a wide range of MG Factory Special Tuning parts are available through your Distributor or Dealer. Full details of the varying stages of tune and the fitting of the parts listed below are given in Tuning Booklet C-AKD 5098.

Warranty. The car is delivered from the factory in its standard form is tuned to give maximum performance with complete reliability, but any super-tuning must inevitably tend to reduce this reliability. For this reason the new car Warranty will be invalidated by any form of super-tuning.

Air pollution, noise, safety regulations. Owners are reminded that in States or countries where legislation covering air pollution, safety or noise limitations on motor vehicles exist, super-tuning, modifications, alterations or additions to the car from its factory delivered standard form may prohibit the car from being used on public roads.

Engine Half-race and full-race camshafts. Lightened timing gears. Competition cylinder head. Competition pistons, competition inlet and exhaust valves. Competition valve spring sets. Competition valve gear. Large capacity, deep sump. Competition oil cooler. Competition large bore manifold. Lightened flywheel.

Carburettor Twin $1\frac{1}{2}$ in. or $1\frac{3}{4}$ in. S.U. carburettors and full installation kit. Weber twin-choke carburettors and full installation kit.

Ignition Competition distributor with a special advance curve. Racing sparking plugs.

Transmission Competition clutch assembly and driven plate. Range of axle ratios. Front and rear road springs. Limited slip differential. Heavy-duty axle shafts. Close-ratio gears.

Suspension Front anti-roll bar and installation kit. Competition setting shock absorbers. Front suspension lowering kit.

Wheels and brakes Wide-rim wire wheels. Competition brake pads.

Miscellaneous Lightweight bucket seats. Leather bonnet straps. Alternator mounting bracket. Dynamo and alternator pulleys for reduced speed.

For further details see your Distributor or Dealer or write to:



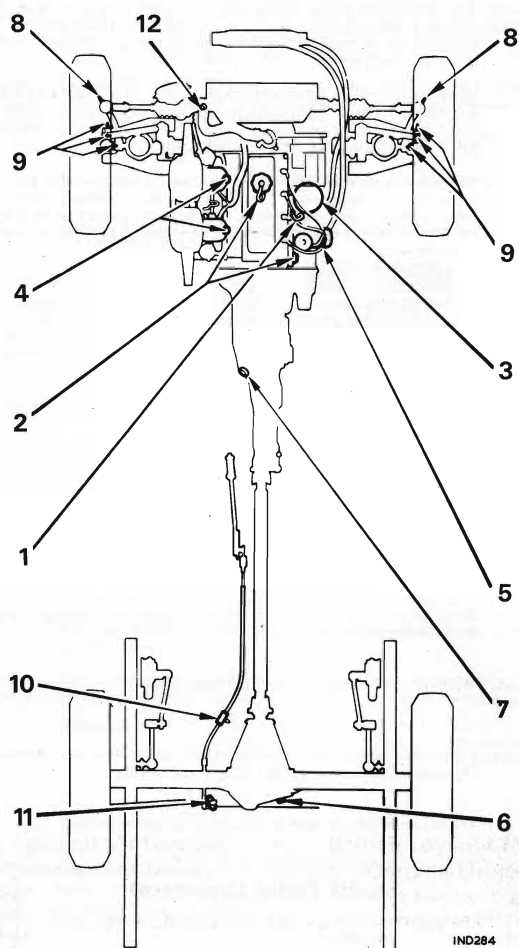
Special Tuning Department

ABINGDON-ON-THAMES BERKSHIRE ENGLAND

Telephone: Abingdon 251 Telex: 83128 Telegrams: Emgee, Abingdon



LUBRICATION



IND284

NOTE—Ensure that the vehicle is standing on a level surface when checking the oil levels.

WEEKLY

- (1) ENGINE. Check oil level and top up if necessary.

Every 6,000 miles or 6 months

- (2) ENGINE. Drain and refill with new oil.
- (3) ENGINE OIL FILTER. Remove disposable cartridge, fit new.
- (4) CARBURETTORS. Top up carburettor piston dampers.

ACCELERATOR. Lubricate accelerator control linkage, cable and pedal fulcrum.

- (5) DISTRIBUTOR. Lubricate all parts as necessary.
- (6) REAR AXLE. Check oil level, and top up if necessary.
- (7) GEARBOX. Check oil level and top up if necessary.

- (8) STEERING TIE-ROD BALL JOINT (2 nipples)

- (9) FRONT SUSPENSION (6 nipples)

- (10) HAND BRAKE CABLE (1 nipple) and mechanical linkage

- (11) HAND BRAKE COMPENSATION LEVER

Give three or four strokes with a grease gun.

Every 12,000 miles or 12 months

- (12) STEERING RACK. Give 10 strokes with a grease gun.

Optional lubrication at 3,000 miles or 3 months

- (4) CARBURETTORS. Top up carburettor piston dampers.

- (8) STEERING TIE-ROD BALL JOINT (2 nipples)

- (9) FRONT SUSPENSION (6 nipples)

- (10) HAND BRAKE CABLE (1 nipple) and mechanical linkage

- (11) HAND BRAKE COMPENSATION LEVER

Give three or four strokes with a grease gun.

Recommended oils and greases are given overleaf

Component	Engine, Synchronesh Gearbox, Overdrive, Distributor, Carburetter, and Oil-can			Rear Axle and Steering Gear		Grease Points	Upper Cylinder Lubrication
Climatic conditions	All temperatures above -10° C. (14° F.)	Temperatures -15° to -5° C. (5° to 23° F.)	All temperatures below -15° C. (5° F.)	All temperatures above -10° C. (14° F.)	All temperatures below -5° C. (23° F.)	All conditions	All conditions
Viscosity requirement	S.A.E. 10W/50 S.A.E. 10W/40 S.A.E. 20W/50 or S.A.E. 20W/40	S.A.E. 10W/50 S.A.E. 10W/40 or S.A.E. 10W/30	S.A.E. 5W/30 or S.A.E. 5W/20	S.A.E. 90 Hypoid	S.A.E. 80 Hypoid		
Minimum performance level	MIL-L-2104B	MIL-L-2104B	MIL-L-2104B	MIL-L-2105B	MIL-L-2105B	Multipurpose Lithium Grease N.L.G.I. Consistency No. 2	Upper Cylinder Lubricant
ESSO	Esso Extra Motor Oil 20W/50 or Esso Uniflo	Esso Extra Motor Oil 10W/30 or Esso Uniflo	Esso Extra Motor Oil 5W/20	Gear Oil G.X. 90	Gear Oil G.X. 80	Esso Multi-purpose Grease H	Esso Upper Cylinder Lubricant
MOBIL	Mobiloil Special 20W/50 or Super 10W/50	Mobiloil Super 10W/50	Mobiloil 5W/20	Mobilube HD 90	Mobilube HD 80	Mobilgrease MP	Mobil Upperlube
BP	BP Super Visco-Static	BP Super Visco-Static 10W/30 or 10W/40	BP Super Visco-Static	BP Hypogear 90 EP	BP Hypogear 80 EP	BP Energrease MP	BP Power Lube
SHELL	Super Shell Motor Oil	Super Shell Motor Oil	Super Shell Motor Oil 5W/30	Shell Spirax Heavy Duty 90	Shell Spirax Heavy Duty 80	Shell Darina AX	Shell Upper Cylinder Lubricant
FILTRATE	Filtrate Super 20W/50	Filtrate Super 10W/30	Filtrate 5W/20	Filtrate Epex 90	Filtrate Epex 80	Filtrate Super Lithium Grease	Filtrate Petroyle
STERNOL	Sternol Super W.W. Motor Oil	Sternol W.W. Multigrade 10W/40	Sternol W.W. Multigrade 5W/20	Sternol Ambroleum HD 90	Sternol Ambroleum HD 80	Sternol Ambroline Grease LHT 2	Sternol Magikoyl
DUCKHAMS	Duckhams Q. 20-50	Duckhams Q. 5500	Duckhams Q5-30	Duckhams Hypoid 90S	Duckhams Hypoid 80S	Duckhams L.B. 10 Grease	Duckhams Adcoild Liquid
CASTROL	Castrol GTX or Castrol XL 20/50	Castrolite or Castrol Super	Castrol CRI 5W/20	Castrol Hypoy B. 90	Castrol Hypoy B. 80	Castrol L.M. Grease	Castrollo



AKD 7937 MIDGET III (English)

