Reliant Kitten
Owner's Handbook

Saloon and Estate

kitten

Kitten saloon

Kitten estate

Reliant Kitten — All Models

A copy of the Owners Handbook is provided with each vehicle. Additional copies are available from your Reliant Dealer.

Contents

The descriptions and illustrations appearing in this book are applicable to vehicles manufactured at the time of printing. The manufacturer therefore reserves the right — while retaining basic features of the models herein described and illustrated — to make at any time and without necessarily bringing this book up to date, any alterations to units, parts or accessories deemed convenient for improvement or for any manufacturing or commercial reasons.

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Foreword

This driver's handbook gives concise information on the correct running and maintenance of the Kitten Saloon and Estate.
It is not intended to be a service repair manual and should any work become necessary which is not detailed in it, owners should contact a Dealer, preferably the Dealer from whom the vehicle was purchased.

Pre-delivery inspection

The pre-delivery inspection is carried out by the Dealer supplying the vehicle. It is designed to ensure that the vehicle reaches you, the owner, in first class condition. Continued efficiency and economy of operation depend entirely on the care and regular maintenance it receives during its life.

Free service

You will have received with your vehicle a booklet 'The Key to Service'. In it is detailed the Free Service to be carried out by a Reliant Dealer.

All Authorised Dealers are under agreement to provide a full after-sales service at 1,000 miles (1,500 km). Should you reside a long distance from the Dealer from whom you purchased the vehicle, it is that Dealer's responsibility to make prior arrangements for you to have your Free Service carried out by a Reliant Dealer nearer to your home address.

Warranty

The Terms of Warranty are included in the 'Key to Service' booklet. Owners should appreciate that it is essential that any 'warranty rectification' work must be carried out by a Reliant Dealer. The Warranty does not apply to defects arising in components that have not received the essential scheduled maintenance as detailed in the 'Key to Service' Booklet and on pages 15 et seq of this Handbook. Other matters affecting claims made under Warranty are clearly stated in the 'Key to Service' booklet.

Your Reliant Dealer

Owners are strongly recommended to entrust their vehicle servicing to a Reliant Dealer. Authorised Dealers are constantly being advised of the latest technical developments and methods of repair and replacement and are, therefore, able to provide the best servicing, advice, or information.
An Authorised Dealer also has the special facilities and equipment necessary for major repairs or long term maintenance, not usually available to the private owner.

Identification

In all correspondence, either with the company or your Reliant Dealer, it is imperative that the full chassis and engine numbers are quoted.
These numbers are to be found on the lubrication/identification plate located on the rear panel of the engine compartment.

Reliant 'R' Parts

Great care should be taken to ensure that only genuine Reliant 'R' Parts are used in the maintenance of your vehicle. 'R' Parts, stocked by all Authorised Reliant Dealers, are subject to the same rigorous quality control standards as components used in original manufacture and have a factory backed assurance of quality.

Exchange scheme

An exchange scheme for many major items and assemblies is operated by our Parts Department; ask your Dealer for details.

Introducing your new Kitten

You should first familiarise yourself with the functions of the instruments and controls. To ensure safety and driving confidence, learn to handle them and interpret their readings quickly and easily.

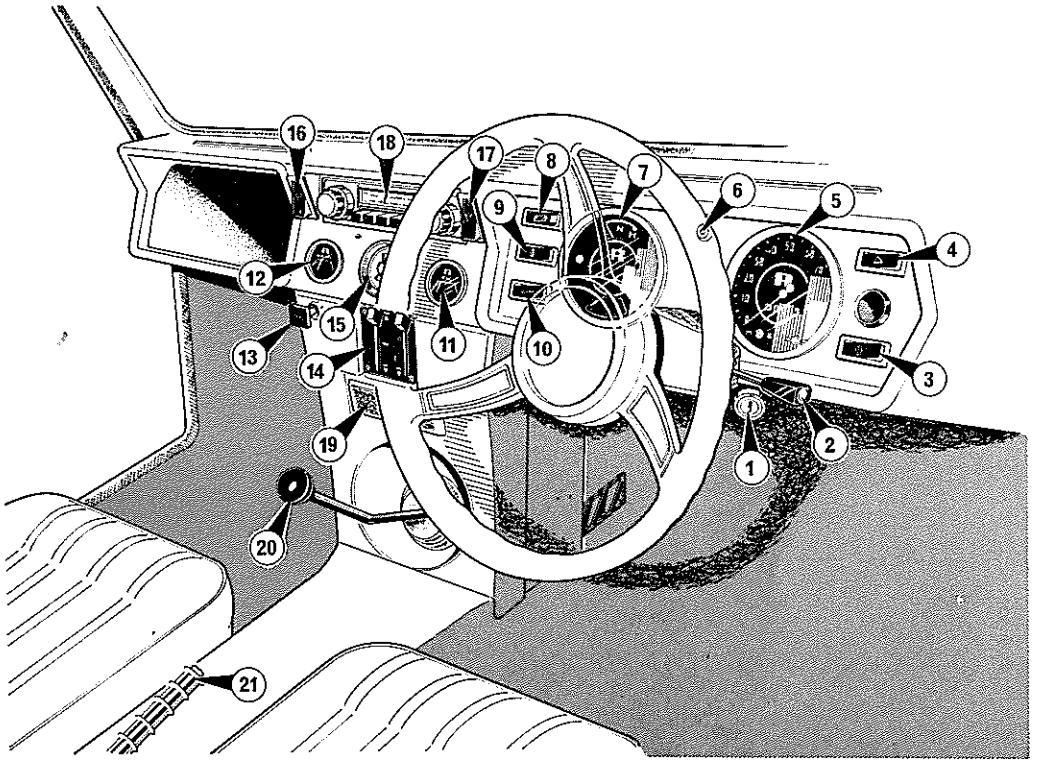

Figure 1 Fascia, centre console and controls

Key

1 Ignition/starter/steering lock
2 Combined direction indicator, headlamp flasher and dipswitch, horn push
3 Auxiliary lights switch*
4 Hazard warning switch
5 Speedometer
6 Hazard warning indicator
7 Combined fuel and temperature gauge
8 Heated rear screen switch
9 Lights switch
10 Heater fan switch
11 Oil pressure gauge*
12 Battery condition indicator*
13 Choke control
14 Heater control panel
15 Fresh air outlet
16 Rear wiper/washer switch
17 Windscreen wiper/washer switch
18 Radio
19 Ash tray
20 Gear lever
21 Handbrake lever

*Available as accessories

Instrument panel, switches and controls

The instruments are described as viewed from the driving seat.

Speedometer
Located to the right of the steering wheel, the instrument indicates the speed of the vehicle and incorporates a total distance recorder.

Direction indicator warning light
An amber light, at left of centre on the speedometer face. While indicator flashing unit is in operation the warning lamp glows intermittently in unison with the indicator lamps **(Figure 2)** a continuous glow indicates lamp failure.

Headlamp main-beam warning light
A blue lamp, located at right of centre on the speedometer face. The main-beam warning lamp is illuminated when the headlamp beams are raised and will go out when the beams are dipped. **(Figure 2)**

Water temperature and fuel gauge
This combined instrument is located to the left of the steering wheel and comprises two separate gauges. The upper segment of the instrument indicates the coolant temperature in the engine. **(Figure 2)**
The lower segment of the instrument indicates the quantity of fuel in the petrol tank. When the ignition is switched on the indicator will slowly rise, due to the damping of the meter mechanism, to the final indicated reading.

Ignition warning light
The ignition warning light is located to the left of centre on the combined temperature and fuel gauge. This red 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 be illuminated only when the ignition is switched on without the engine running, or when the engine is running at very low speed.
When the engine speed is increased the light should dim and then go out, but failure to do so indicates a fault in the charging circuit. **(Figure 2)**

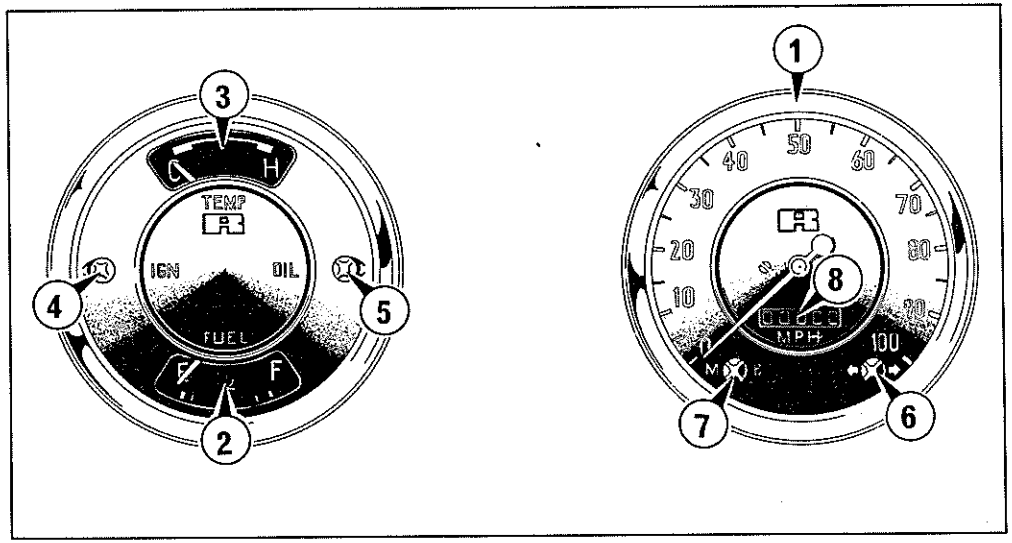

Figure 2 Instruments

1 Speedometer
2 Fuel gauge
3 Coolant temperature gauge
4 Ignition warning light
5 Oil pressure warning light
6 Indicator warning light
7 Main beam warning light
8 Total mileage recorder

Oil pressure warning light
The oil pressure warning light, green in colour, is located to the right of centre on the combined instrument, **(Figure 2)**
This light should be illuminated only when the engine is at rest with the ignition switch on. Immediately the engine reaches speed it should extinguish, thus indicating that the oil is circulating under pressure. Should the light come on at any other time, stop the engine immediately and investigate, a low engine oil level may be the cause.

Battery condition indicator gauge (if fitted)
Located to the left above the centre console this instrument indicates battery operating voltage. If the reading is above 12 volts, the battery is reasonably charged. However, if it is below 11.5 volts, the battery should be put on charge. A reading of over 15 volts indicates the battery is being overcharged and the cause should be investigated or damage may occur.

Oil pressure gauge (if fitted)
Located to the right above the centre console this meter indicates that the oil is circulating the engine under the correct pressure. When starting from cold the gauge may show a high initial pressure, but will gradually fall to approximately 3.16 kg/sq cm (45 lb./sq. ins) for normal driving speeds as the engine temperature rises. If a very low indication is given, or the instrument shows no pressure at all, the engine should be switched off immediately and the oil level checked by means of the engine dipstick.

Switches

Combined ignition/starter switch and steering lock
The combined ignition switch and steering lock, situated beneath the fascia to the right of the steering column, **(Figure 3)**, is operated by a special key. The steering lock is released by inserting the key and turning it to the right, to position 1.
A further clockwise rotation of the key, to position 2, switches the ignition on.
Continued rotation of the key against spring pressure, to position 3, completes the starter circuit.
Immediately the engine starts the key should be released.
The keys for this lock, unlike the other keys supplied for your vehicle, do not have an identification number stamped on them.
This is for security/anti-theft reasons.
The keys are supplied with a tag which has the key number stamped on it. It is most important that the tag is retained in a safe place, or the number noted, for future reference, as this is the **only** means

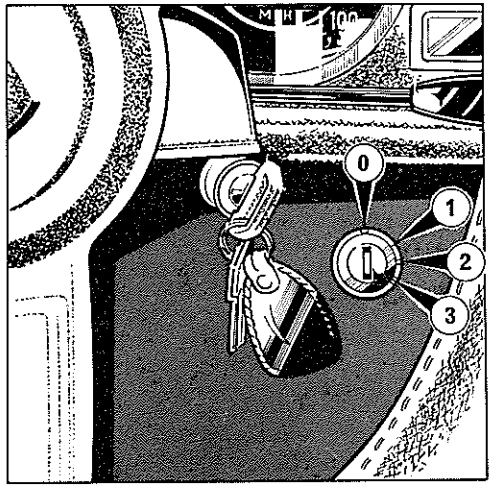

Figure 3 Ignition switch/steering lock

0 Steering locked — ignition off
1 Steering free — auxiliaries on
2 Ignition on
3 Starter

of identification for your vehicles steering lock, in case of loss or theft of the keys.

Note: It must be remembered that when the key is removed the lock 'bolt' is released, but does not engage and lock the steering until the road wheels are turned to a 'locked' position. **NEVER** remove the key whilst the vehicle is in motion.

Position 1, an 'auxilliaries' position enables the radio, etc., if fitted, to be used without the ignition being switched on.

Combined side/tail lamps and headlamps switch

The light switch is a three position rocker type switch located in the centre of the left hand side of the main instrument panel. Pressure on the switch first switches on the side and rear lights and number plate lamp, further pressure on the switch operates the headlamps. Headlamp dipping is achieved by use of the column mounted multiswitch, see page 7.

Combined windscreen wiper/washer switch

The windscreen wipers are controlled by a rocker switch situated to the right of the centre console radio panel. Pressure on the switch first operates the windscreen wipers. Further pressure on the switch, against spring pressure, operates the windscreen washer.

Rear window wiper/washer switch (Estate model only)

The rear window wiper and washer switch is situated on the left hand side of the centre console radio panel. The switch function is identical to the windscreen wiper and washer switch.

Heater switch

The heater has a booster fan controlled by a rocker switch located in the bottom left hand corner of the main instrument panel. (See heater controls, page 7).

Hazard warning switch

The switch operating the hazard warning device is situated in the top right hand corner of the main instrument panel. A rocker type switch, which when pressed, actuates a device that flashes all four direction indicator lamps in unison. A warning light in the centre of the main instrument panel also flashes to indicate that the device is operating.

Heated rear window switch (Optional extra)

The heated rear window, when fitted, is operated by a rocker switch located in the top left hand corner of the main instrument panel. The switch incorporates a green lamp which is illuminated as a warning when the heating elements are switched on.

Combined auxiliary lamp switch (if fitted)

The combined auxiliary lamp switch, a two position rocker switch, is located in the bottom right hand corner of the main instrument panel. Pressure on the switch first operates the left-hand lamp. Further pressure on the switch illuminates both left-hand and right-hand auxiliary lamps.

Combined direction indicator switch/dip switch/headlamp flasher and horn-push

A multi-purpose switch located on the right-hand side of the steering column. **(Figure 4)** The switch has five positions thus:

Forward	—	Headlamp Main beam
Centre	—	Headlamp Dipped beam
Back	—	Headlamp Flasher
Up	—	Left hand indicator
Down	—	Right hand indicator

Press the button on the extreme end of the switch to operate the horn.

Interior lamp switch

The interior lamp is situated above the interior rear view mirror and has an integral switch on the body of the lamp. The lamp is also linked to a door operated courtesy switch on the driver's side door only

With the driver's door closed the lamp can be switched on using the integral lamp switch on the body of the lamp.

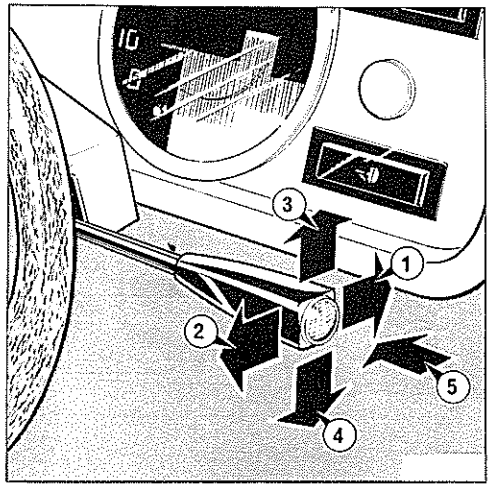

Figure 4 Multi-switch

1 Forward — headlamps on main beam
2 Back — headlamp flasher
3 Up — left hand indicator
4 Down — right hand indicator
5 Press — horn

Controls

Carburettor choke control

A pull-out control located alongside the heater control panel on the centre console. See 'starting procedure' page 13 for use.

Heater controls

The heater is controlled by two levers situated on the centre console panel **(Figure 5)** The left hand lever controls the flow of air to the windscreen and the car interior as indicated on the heater panel. The right hand lever controls the temperature of the air flow. The air flow can be boosted by operating the fan switch previously described. The heater outlets are situated on either side of the centre console at floor level.

The heater is **'off'** when both levers are at the top of the panel.

Ventilation

Face level ventilation is provided by an adjustable outlet situated centrally on the facia above the centre console. The knurled knob, in the centre of the nozzle is turned clockwise to open. The nozzle

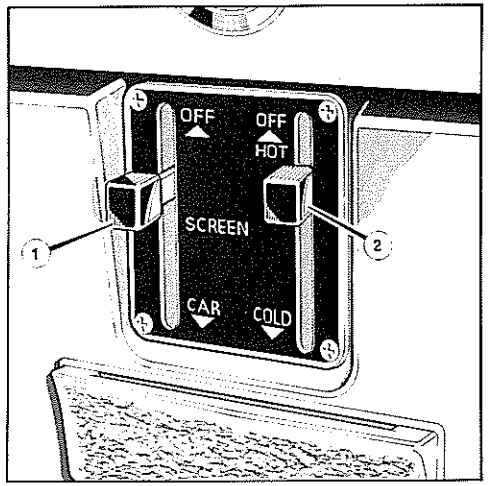

Figure 5 Heater controls

1 Air distribution control
2 Air temperature control

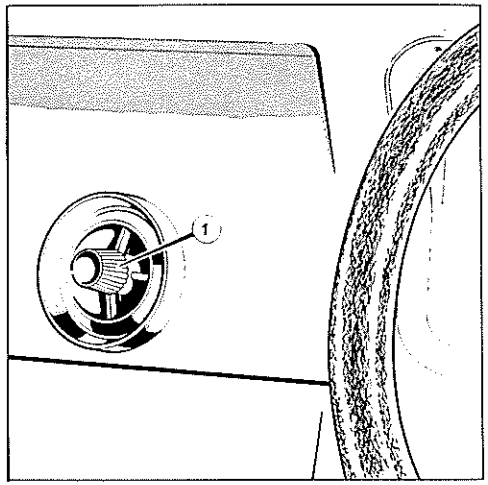

Figure 6 Fresh air vent

1 Air flow and direction control

can be rotated to give an air flow in any direction required. **(Figure 6)**
Linked to the heater controls, the air vent can be used to direct cold air at face level when the controls are set at 'cold, demist'. As with the heater this air flow can be boosted by operating the heater fan switch. Air extractors are at the rear of the vehicle to ensure complete ventilation of the passenger area.

Radio controls (If fitted)
A detailed description of the controls of the radio, available as an optional extra, is given on page 38.

Ash tray
An ash tray is provided in the centre console of the vehicle. The tray is removable for cleaning by pressing the spring clip at the rear of the tray to release it from the body.

Hand controls

Gear shift lever
The gear shift lever, projecting from the centre console, has the gear positions marked on the gear knob, shown in **Figure 7.**
Reverse gear is located alongside second gear – a 'gate' prevents accidental engagement of reverse and the lever must be lifted over the 'gate' to engage reverse gear.

Handbrake
A ratchet type handbrake lever is located alongside the drivers seat, on top of the transmission tunnel.
To release the handbrake, pull the lever slightly upwards at the same time pressing the button at the end of the hand grip. This will release the ratchet and the lever will be free to be lowered to the floor.
The handbrake operates on the rear wheels only by means of a cable linkage, and is independant of the hydraulic system in operation.

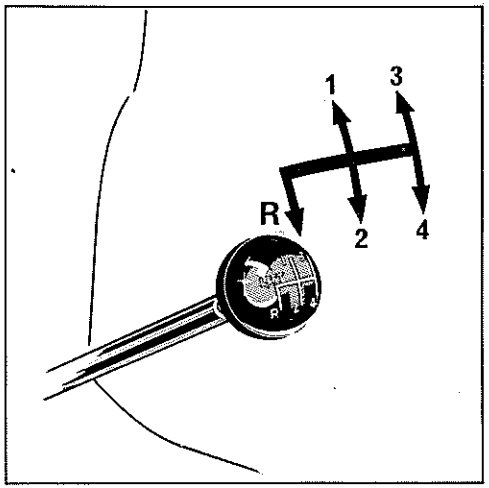

Figure 7 Gear positions

Foot Controls

All foot-operated controls are situated conventionally, being pendant pedals mounted on a bracket within the footwell.

Accelerator pedal
The accelerator pedal is located to the right of the brake pedal and operates the throttle on the carburettor by means of a cable linkage.

Brake pedal
The foot brake is operated by a pendant pedal actuating, hydraulically, internal expanding brakes at front and rear. The pedal is fully adjustable at the brake master cylinder.

Clutch pedal
The clutch pedal operates a single dry plate clutch by means of a cable linkage.

Locks and controls on body

Door controls
The driver s door is lockable from outside, by means of a tumbler lock. Zero torque, anti-burst locks are provided There is, therefore, no need to slam the doors to ensure that they are locked. The door is unlocked from inside the vehicle by pulling the flush fitting lever **(Figure 8)** of the interior door handle.

The passenger door can be locked from inside by operating the safety catch lever. This prevents accidental opening of the door from inside and also prevents the lock mechanism operating from outside. The catch can be operated only when the door is closed. A conventional mechanical window winding handle raises or lowers the windows.

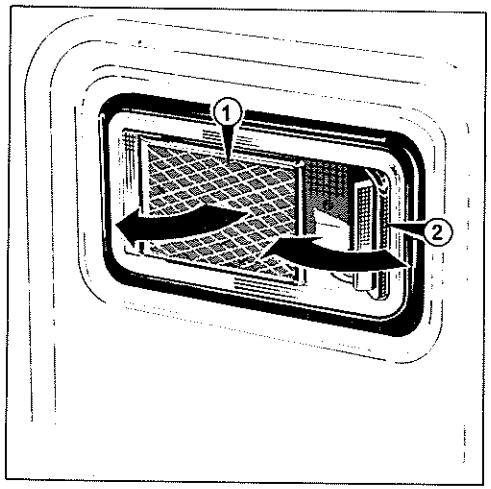

Figure 8 Interior door handle

1 Door handle – pull to open
2 Safety catch

Bonnet lock and support
The bonnet lid is locked by means of a tumbler lock and is operated by the same key as is used for locking the driver's door. A bonnet stay, located on the near side face of the engine well, can be hooked into a bracket on the bonnet lid to support it in an open position. **(Figure 9)**

Saloon rear window lock and support
The rear window lock is integral with the window handle and utilizes the ignition key **(Figure 10).**

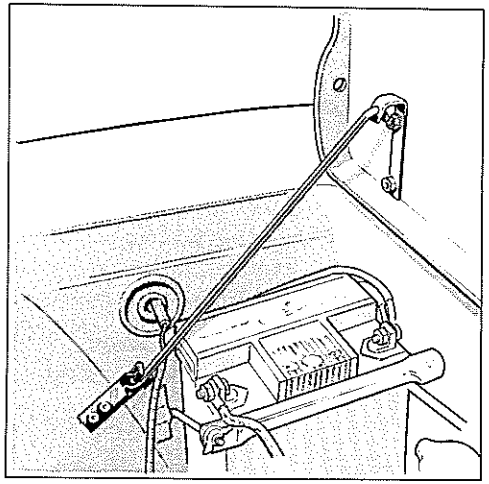

Figure 9 Bonnet lid support

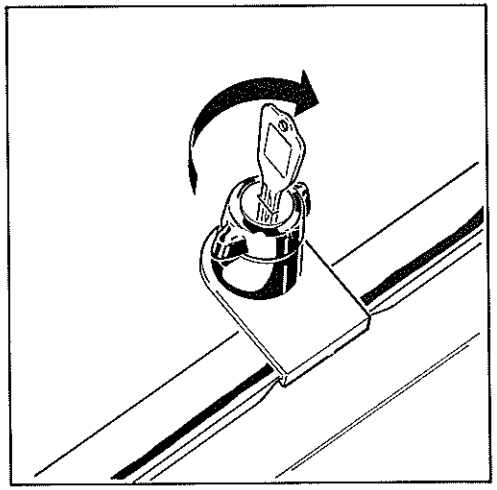

Figure 10 Rear window lock – saloon

When unlocked the window can be raised to the fully open position when it is automatically supported by the window support stay. To lower the window the stay is released by raising the window again to its fully open position **(Figure 11)**, which releases the stay enabling the glass to be lowered and closed.

Estate rear door lock
The estate rear door is opened by means of an external handle incorporating tumbler lock. The lock uses the key required for the driver's door lock.

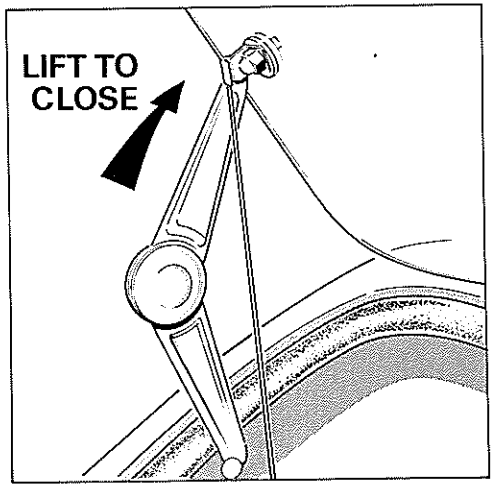

Figure 11 Rear window support – saloon

Seats

Front seats
The front seat is adjustable for reach by moving the lever at the front of the seat, at floor level, towards the door. The seat is then free to be moved, whilst applying pressure to the lever, until it is in the required position. Releasing the lever secures the seat **(Figure 12)**

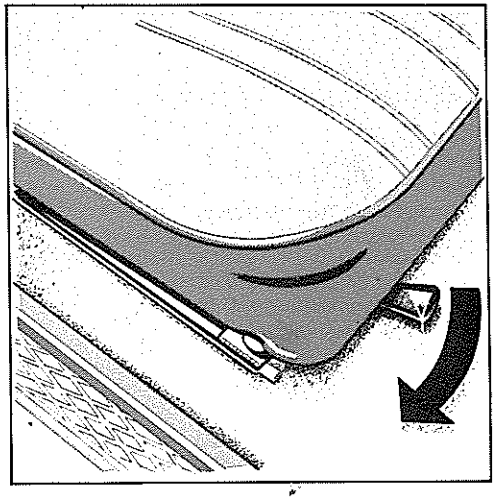

Figure 12 Front seat – adjustment for reach

Access to the rear seat is obtained by releasing the floor catch at the back of the seat **(Figure 13)**, and tilting the seat forwards. The catch will re-fasten when the seat is lowered.
Front seats having the reclining seat squab mechanism fitted are adjusted by means of the lever at the base of the squab on the outside of the seat. **(Figure 13).** The squab is adjusted by pulling the lever up to release pushing down to lock it in the required position.

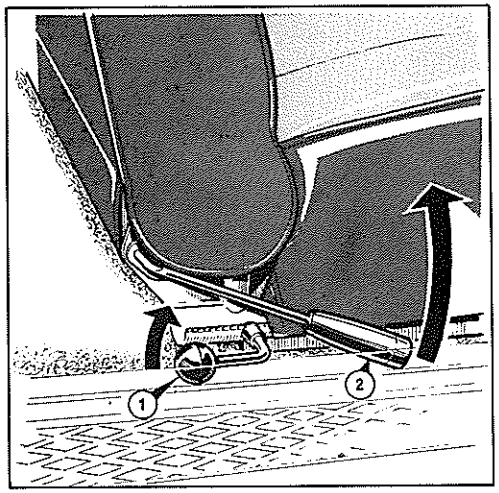

Figure 13 Front seat release and reclining mechanism.

1 Seat release catch – lift to tilt
2 Reclining mechanism lever

Rear seats
The rear seat squab on both Saloon and Estate Models can be folded down to give a larger floor area in the rear of the vehicle.
The squab is secured in the upright position by means of rubber retaining straps looped over brackets on the sides of the body in the rear compartment. **(Figure 14)**.
The seat cushion is attached to the heelboard of the rear seat floor pan. The cushion can be raised to enable the squab to be lowered to give a completely flat rear floor area. **(Figure 15).**

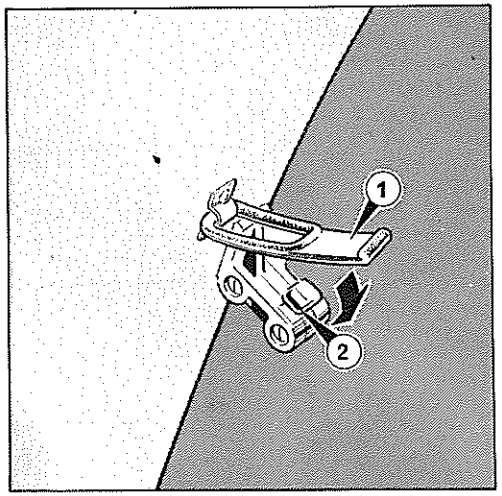

Figure 14 Rear seat catches

1 Rubber retaining strap
2 Seat rest bracket

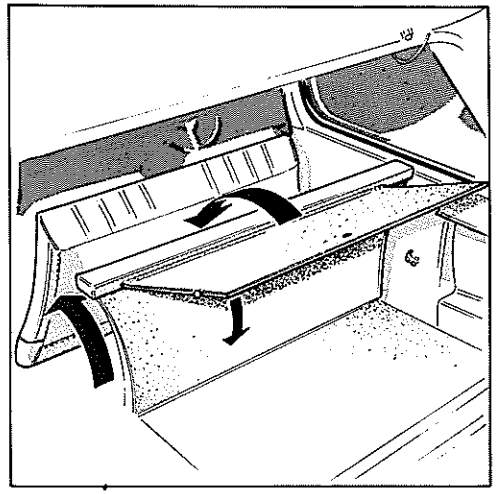

Figure 15 Folding rear seat

Tonneau cover – saloon
The luggage compartment at the rear of the vehicle is covered by a hinged tonneau cover attached to the rear seat squab. When the rear window is raised the tonneau cover is lifted by a strap enabling access to the luggage compartment. If the rear seat squab is to be lowered, the tonneau cover must be released from the strap. Unhooking the lower end of the strap from the knob on the cover releases the cover, **(Figure 16)** which, after releasing the squab catches, will fold down with the seat squab.

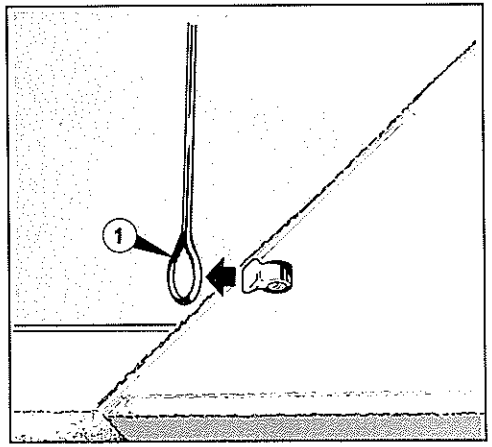

Figure 16 Saloon tonneau cover lifting strap

1 Lifting strap

Spare wheel
The spare wheel is housed in a recess in the side of the rear luggage compartment. The wheel is held secure by means of a rubber strap hooked onto brackets on the vehicle body **(see Figure 17).** An alternative method of fixing, using a retaining bolt and bracket, has been used on some vehicles. On Saloon models the spare wheel is covered by a carpeted moulding that forms a side support for the tonneau cover. To facilitate removal and replacement of the spare wheel the floor covering in the luggage area of the saloon should be folded back.

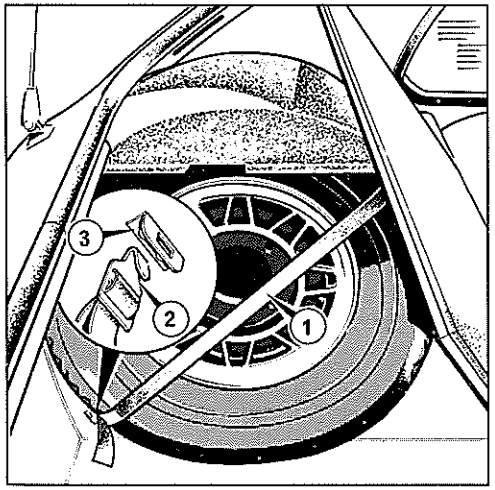

Figure 17 Spare wheel — saloon

1 Retaining strap
2 Hook
3 Bracket

Tool roll
Each vehicle is equipped with a tool roll containing a lifting jack , jack-handle, and a wheel nut spanner.

Safety belts
The seat belts fitted to your vehicle are specially designed and approved for the Kitten Models.

Wearing instructions
The complete belt layout is shown in **Figure 18.** With occupant seated, the shoulder strap must pass over the outboard shoulder and diagonally across the chest. The belt should be adjusted so that the hand will just pass between the strap and the chest, with the lap strap reasonably tight.

Adjustment
The belt is adjusted entirely by means of the sliding buckle on the outboard side of the occupant. To loosen the belt, raise the buckle by the shaped edge until it is at 90° to the lap strap when the webbing will pull through quite freely. To tighten the belt, simply pull on the free end of the webbing

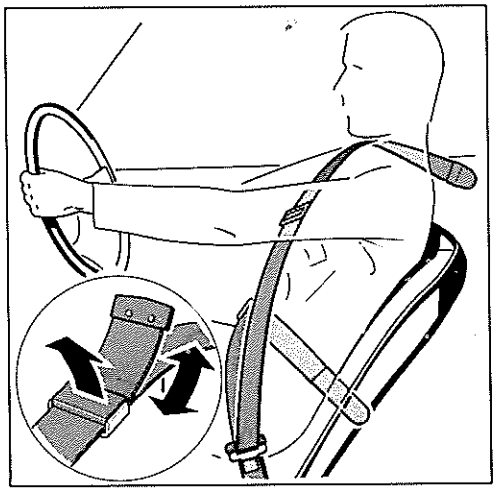

Figure 18 Safety belt layout

Safety belt release
When engaging the tongue into the release mechanism pressure should be applied until a 'click' is heard.
Releasing the tongue only requires light pressure on the 'press' button when the tongue will spring out automatically. **(Figure 19).**

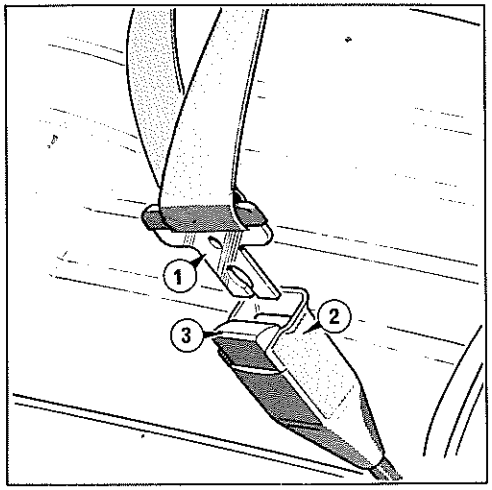

Figure 19 Safety belt release

1 Tongue
2 Clasp mechanism
3 Release button

Cleaning
The nylon webbing may be cleaned by lightly brushing with a mild soap and warm water, but avoid soaking, and dry naturally, away from heat. **Do not** boil, bleach or dye, as this may severely reduce the effective strength of the belt. The belts should be inspected regularly for signs of severe fraying or having been cut. If this occurs, or the belt has been severely stressed during an accident the belt should be replaced.
No alterations or additions should be made to the seat belts.

Use of Auxiliary Lamps
The legal requirement for the use of auxiliary lamps as fitted to your vehicle by the manufacturer, or to the manufacturers instructions, is as follows:
The matched pair of auxiliary lamps can be used instead of the obligatory headlamps in fog or falling snow, but in no other circumstances. i.e. During poor, reduced, visability or the hours of darkness when the road lighting conditions are such that side lights and dipped beam headlamps are required then the headlamps may be replaced by both the auxiliary lamps only in conditions of fog or falling snow.

Starting procedure

Starting the engine when cold
Ensure that the gear lever is in the neutral position and that the handbrake is 'on'. Pull the choke control to the fully out position. Do not touch the accelerator pedal. Switch on the ignition, 'position 2'. Operate the starter switch, 'position 3', and the engine will start. Release the ignition key as soon as the engine has started. On driving the vehicle away, the progressive rise in temperature will require the choke control to be gradually pushed in towards the 'off' position, and this should be carried out in accordance with the engine requirements. Once a sufficiently high temperature has been reached, the choke control should be pushed fully in, as prolonged use will cause unnecessary wastage of fuel.

Starting the engine when hot

Do not use the choke when starting a warm engine.

If the engine is difficult to start when hot the following procedure should be adopted. Depress the accelerator pedal fully, or near-fully, maintaining this position whilst rotating the engine using the starter, to clear the over-rich condition, until the engine starts and runs when the throttle should be partially closed to prevent over-revving and damage to the engine.

Running-in

The progressive running-in of your new vehicle, and the method of achieving this, is of the utmost importance. Properly carried out, you should get durability, economy of running, and freedom from mechanical troubles. It should be remembered that 'running-in' applies not only to the engine but the gearbox, brakes, rear axle, suspension and to the complete chassis.

The process of running-in should continue for the first 1,000 miles (1,600 km). During the first 500 miles (800 km) **do not** exceed 50 mph (80 kph). **Do not** operate at full throttle in any gear.

Do not allow the engine to labour in any gear, for example when attempting to drive up steep hills in a higher gear at low speed, or accelerating from very low speeds in top gear.

Make full use of your gearbox, and avoid over-loading the engine.

From 500 miles (800 km) to 1,000 miles (1,600 km) the running speeds in top gear may be progressively increased.

At the conclusion of 1,000 miles (1,600 km) the vehicle should be returned to the Dealer from whom it was purchased for the Free Service, or to the Dealer with whom it was arranged to carry out this service at the time of purchase.

Oil changes during the running-in period are very important. Use only the recommended grades of oil, given on page 17.

Fuel recommendations

Your new Kitten will run satisfactorily on 94 octane (3 star) or 97 octane (4 star) fuel. However, a better petrol consumption will result from the use of 97 octane (4 star) fuel.

Routine servicing

Regular and conscientious routine inspection, maintenance, lubrication and, in general, planned servicing of your Kitten are absolutely essential to ensure trouble-free motoring.

It is recommended that the routing maintenance and inspection of your vehicle should be entrusted to your Reliant Dealer, who has the experience which comes only from the close association with our products. Certain items of maintenance require special equipment and these, of course, must be carried out by your Dealer at periods prescribed. Neglect of even the simplest item can have serious consequences.

The services recommended in this section of the Handbook have been developed for your vehicle.

Your Reliant Dealer is well equipped for routine servicing, but for those owners who wish to carry out this work themselves, then complete information will be found in the following pages.

Lubrication is absolutely vital for your vehicle. Only the high quality recommended lubricants should be used throughout the vehicle, as cheaper oils, greases and fluids may, in time, prove to be false economy.

Always use the approved grade of engine oil, see page 17.

Heavier grades can lead to difficult starting, particularly in cold weather. If you use an unsuitable oil you may find that the engine becomes contaminated internally. If ever there is any doubt about the condition of your oil, then it is good policy to drain and fit a new oil filter element, and refill the sump with the correct grade of oil.

Every Reliant vehicle leaving the works is capable of giving satisfaction if attention is given to essential maintenance operations detailed in this Handbook. Remember that your Reliant Dealer is better equipped to provide a routine maintenance and repair service than the owner driver. Therefore, if you encounter trouble, consult your Reliant Dealer — he is at your service.

Service schedule

The maintenance periods fall into well classified categories:

1 Regular day-by day attention.
2 Maintenance at the first 1,000 miles (1,500 km).
3 Maintenance at 6,000 mile (10,000 km) intervals — Standard Service.
4 Maintenance at 12,000 mile (20,000 km) intervals — Major Service.

The Standard and Major Service intervals are designed to ensure safety and reliability under most operating conditions. However, if your operating conditions are severe, you cover a very low annual mileage or have a high proportion of short journeys a 'supplementary' service is recommended at intervals of 3,000 miles (5,000 km).

This intermediate service is particularly important, with increasing vehicle mileage, after the first 12,000 miles (20,000 km).

The Supplementary Service is limited to simple checks and adjustments, easily carried out by an owner, all of which are described in the following pages of this Handbook. This work can of course be entrusted to a Dealer, if you prefer.

Details of this intermediate service, together with the Standard and Major Services, are included in the 'Key to Service' booklet.

Presentation of this Service booklet to any Reliant Dealer will ensure proper completion of the maintenance operations.

The operations listed below should be carried out at the mileages shown:

Operation	Weekly	1000m (1,500km) Free Service	Supplementary Service 3,000m (5,000 km)	6,000m (10,000 km)	12,000 m (20,000 km)	18,000m (30,000 km)	24,000m (40,000 km)	30,000m (50,000 km)	36,000m (60,000 km)
Lubrication									
Check and top up engine oil level	X		X						
Change engine oil		X		X	X	X	X	X	X
Change oil filter		X		X	X	X	X	X	X
Check and top up gearbox oil		X		X		X		X	
Change gearbox oil					X		X		X
Check and top up rear axle oil				X	X	X	X	X	X
Clean oil filler cap and connecting hose			X	X	X	X	X	X	X
Oil or grease all lubrication points		X		X	X	X	X	X	X
Lubricate throttle linkage & top up carburettor damper		X	X	X	X	X	X	X	X
Lubricate all locks and hinges		X	X	X	X	X	X	X	X
General									
Check air cleaner element			X	X		X		X	
Replace air cleaner element					X		X		X
Tighten cylinder head, sump and manifold fixings		X		X	X	X	X	X	X

	Weekly	1000m (1,500km) Free Service	Supplementary Service 3,000m (5,000 km)	6,000m (10,000 km)	12,000m (20,000 km)	18,000m (30,000 km)	24,000m (40,000 km)	30,000m (50,000 km)	36,000m (60,000 km)
Check and adjust valve clearances		X		X	X	X	X	X	X
Check and adjust fan belt tension		X	X	X	X	X	X	X	X
Examine and adjust distributor points or replace		X	X	X	X	X	X	X	X
Clean coil, distributor cap and H.T. leads				X	X	X	X	X	X
Clean and adjust spark plugs				X		X		X	
Replace spark plugs					X		X		X
Remove and clean carburettor					X		X		X
Change fuel filter					X		X		X
Check and top up master cylinder	X		X						
Check hydraulic system, bleed and top up		X		X	X	X	X	X	
Check hydraulic system, replace fluid, renew seals or replace units									X
Inspect brake system for leaks and hoses for chafing		X		X	X	X	X	X	X
Examine brake shoes			X	X	X	X	X	X	X
Adjust brakes		X	X	X	X	X	X	X	X
Check handbrake cable and adjust				X	X	X	X	X	X
Check security of wheels		X	X	X	X	X	X	X	X
Adjust tyre pressures and check condition of tyres	X	X	X	X	X	X	X	X	X
Check and adjust clutch		X		X	X	X	X	X	X
Check condition of steering rack gaiters					X	X	X	X	X
Check all body, suspension, steering retaining fixings and connections		X		X	X	X	X	X	X
Check front wheel bearings and adjust					X	X*	X	X	
Repack front wheel bearings and adjust									X
Check front wheel toe-in, also rear wheel to front wheel alignment		X			X		X		X
Check door operation, locks and hinges		X		X	X	X	X	X	X
Top up battery, check connections	X	X	X	X	X	X	X	X	X
Top up radiator coolant	X	X	X	X	X	X	X	X	X
Check oil and water leaks		X		X	X	X	X	X	X
Check all controls, lights, horn, instruments, etc.	X	X	X	X	X	X	X	X	X
Check headlamp alignment				X	X	X	X	X	X
Check washer reservoir and top up	X	X	X	X	X	X	X	X	X
Check external condition of exhaust system				X	X	X	X	X	X
Check and, if necessary, renew windscreen wiper blades					X		X		X
Road test									
Check brake function		X	X	X	X	X	X	X	X
Adjust ignition timing and dwell angle		X		X	X	X	X	X	X
Adjust carburettor		X		X	X	X	X	X	X

Warning: Emission controlled carburettors require special attention.

Lubrication chart (Not listed in order of preference)

(British Isles)

	Mobil	Castrol	Esso	BP	Shell	Petrofina	Duckhams	Texaco
Engine	Mobiloil Super or Mobiloil Special 20W/50	Castrolite Castrol GTX	Esso Extra Motor Oil 10W/30 or Uniflo	BP Super Viscostatic 10W/40 or Energol SAE 20W	Shell Super Motor Oil	Fina Multigrade Motor Oil 10W/30 or 20W/50	Q Motor Oil	Havoline Motor Oil 10W/30 or 20W/50
Gearbox	Mobilube GX80	Castrol Hypoy Light	Esso Gear Oil GX80	Gear Oil SAE80EP	Spirax 80EP,	Fina Pontonic MP SAE80	Hypoid 80	Multigear Lubricant
Rear axle	Mobilube GX90	Castrol Hypoy	Esso Gear Oil GX 90/140	Gear Oil SAE90EP	Spirax 90 EP	Fina Pontonic MP SAE90	Hypoid 90	Multigear Lubricant EP 90
Steering rack & pinion	Mobilube GX 80	Castrol Hypoy Light	Esso Gear Oil GX80	Gear Oil SAE80EP	Spirax 80 EP	Fina Pontonic MP SAE 80	Hypoid 80	Multigear Lubricant EP80
Front hub	Mobilgrease MP	Castrol LM Grease	Esso Multipurpose Grease H	Energrease L2	Retinax A	Fina Marson HTL 2	LB 10 Grease	Marfak All Purpose Grease
Grease gun (Chassis)	Mobilgrease Super	Castrol M53 Grease	Esso MP Grease (Moly)	Energrease L21 M	Shell Retinax AM	Fina Marson LM2	LBM 10 Grease	Molytex Grease 2
Hydraulic fluid reservoirs	Castrol Girling Hydraulic Brake & Clutch Fluid Crimson Lockheed Super 105 Hydraulic Fluid or Fluid to J.1703A specification.							

Routine maintenance – lubrication

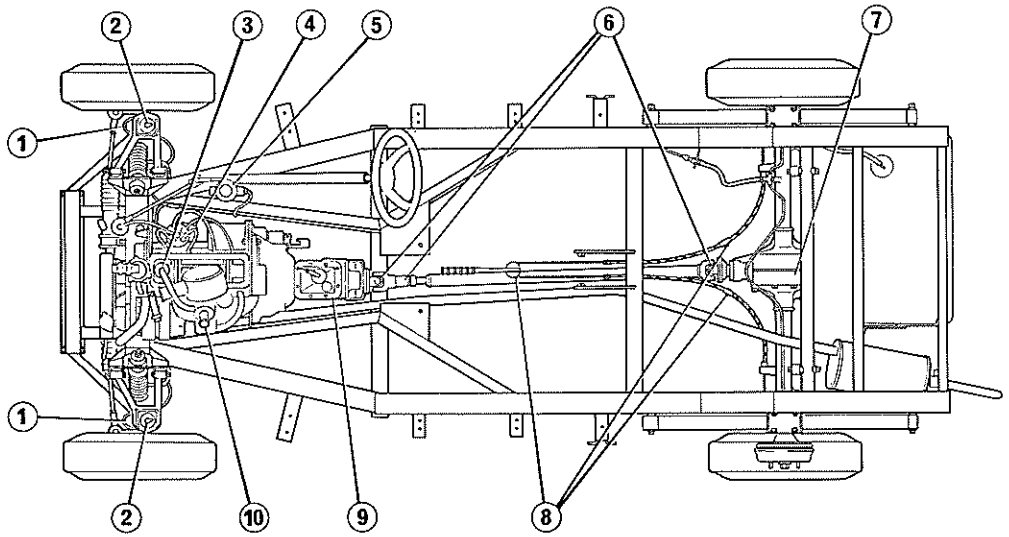

Figure 20 Lubrication points

1	Lower trunnions	Grease	page 20
2	Upper ball joints	Grease	page 20
3	Oil filler cap – engine	Oil	page 14
4	Oil filter	Renew	page 18
5	Master cylinder	Top up fluid	
6	Drive shaft	Grease	page 21
7	Rear axle filler/level plug	Oil	page 20
8	Handbrake cable	Grease	page 21
9	Gearbox filler/level plug	Oil	page 19
10	Carburettor dashpot	Top up oil	page 21

Grease gun points

The grease gun nipples indicated in **Figure 20** should be well cleaned of dirt and old grease before application of a high pressure grease gun. Use only the grease shown on the lubrication chart on page 17.

Engine oil level

Stand the vehicle on level ground and check the oil level by means of the dipstick which is located on the nearside of the engine between the alternator and the engine **(Figure 21).** Withdraw the dipstick and wipe it with a clean rag, replace, and again withdraw. The mark made by the oil at the lower end of the dipstick will indicate the level of oil. The correct level is to the 'full' mark of the dipstick. If necessary add oil via the oil filler cap. After adding oil, allow a few seconds to lapse before re-checking the oil level. Use only specified grades of engine oil. **(Page 17)**

Engine oil change and filter change

Oil changes are very important during the running-in period. The first change should be made at 1,000 miles (1,500 km), then at 6,000 miles (10,000 km) intervals. If, however, the engine oil appears fouled before the normal servicing period is reached, the engine should be refilled with new oil and the filter element renewed. Draining of the sump will be greatly facilitated if carried out when the car has just completed a run, and the oil is warm and will therefore flow more readily. Allow to drain thoroughly. Refill with the specified lubricant.

The sump drain plug will be found at the left hand rear end extremity of the sump **(Figure 22),** and care should be taken to ensure

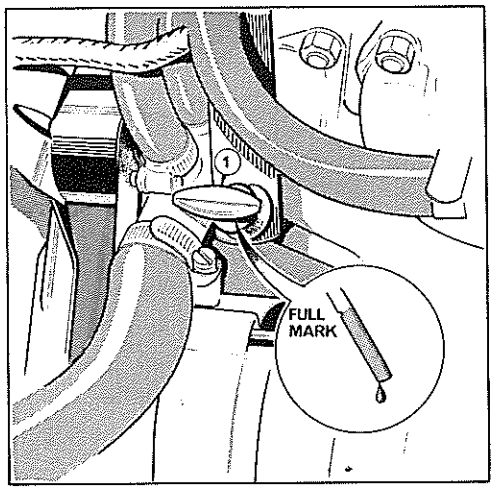

Figure 21 Engine oil level dipstick

1 Dipstick

that no dirt or grit enters the sump whilst the plug is removed or when it is being refitted. Clean the plug thoroughly and check the condition of the washer. If damaged the washer should be replaced otherwise oil leaks may result. Screw the plug in tightly.

A flushing oil can be used to advantage on engines which have done considerable mileage, and particularly if the 6,000 mile (10,000 km) intervals have not been adhered to.

The oil filter should be renewed as and when necessary, but at least at every 6,000 mile (10,000 km). For location of the oil filter see **Figure 23;** it is screwed into a boss cast on the crankcase wall. The thread is the normal right hand thread. The correct replacement oil filter is 'R' Part No. 10016.

Oil filler cap

The oil filler is located at the forward end of the valve rocker cover.

The cap is a push/pull fit. The oil filler cap contains a wire gauze element and should be washed in clean paraffin every 6,000 miles (10,000 km). Dip the cap in clean oil and wipe thoroughly before refitting. The oil filler cap also acts as an engine ventilator and is connected via a hose to the carburettor. It is important that the hose is maintained in good condition and connected securely. Air leaks will result in misfiring and erratic running.

Gearbox oil level

Drain and refill the gearbox after the first

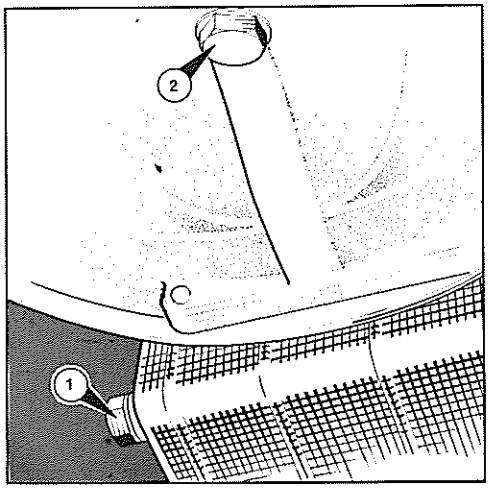

Figure 22 Sump and gearbox drain plugs

1 Sump drain plug
2 Gearbox drain plug

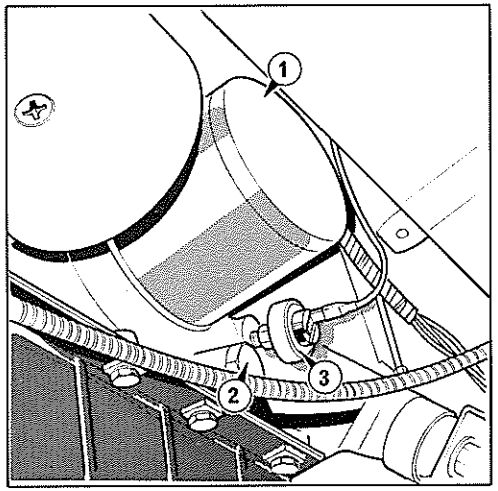

Figure 23 Engine oil filter

1 Oil filter
2 Oil pressure relief valve
3 Oil pressure switch

12,000 miles (20,000 km) and thereafter every 12,000 miles (20,000 km). Refill the gearbox to the level of the combined oil/filler plug, shown in **Figure 24.** The gearbox should be checked and topped up if necessary at every 6,000 miles (10,000 km). In all cases use only the recommended grades of lubricant. The gearbox capacity is 0.64 litres (1 1/8 pints).

Rear axle oil level

The rear axle oil level should be checked by means of the combined filler and level plug. **(Figure 25).** If necessary, add the recommended hypoid oil until the level reaches the level plug orifice.

The axle does not have a drain plug. The initial oil fill and the recommended oil for topping up the rear axle are formulated to give a sludge free axle life.

Steering unit

The steering unit is of the rack and pinion type, friction damped. The unit contains 0.189 litres (1/3rd pint) SAE 90 hypoid gear oil and should not require attention unless the rubber gaiters are damaged. The gaiters should be inspected for wear at every 6,000 mile (10,000 km) service.

Front suspension

The front suspension should need little or no maintenance other than the lubrication of the upper wishbone ball joints and the lower trunnion, and at major maintenance periods the repacking of the front wheel bearing. Lubricating nipples are situated at the upper wishbone ball joints **(Figure 26)** and at the lower trunnion **(Figure 27).** Apply three or four strokes of a grease gun every 6,000 miles (10,000 km).

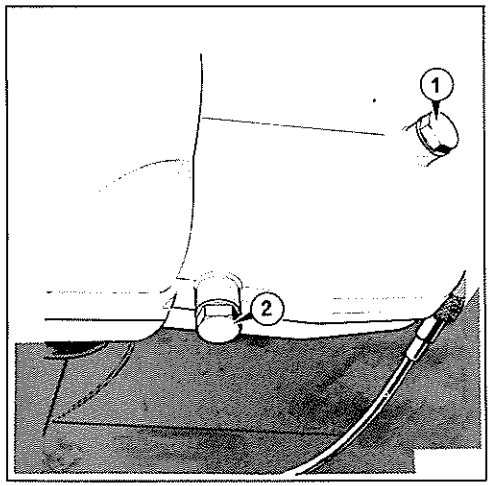

Figure 24 Gearbox oil filler/level plug

1 Filler/level plug
2 Drain plug

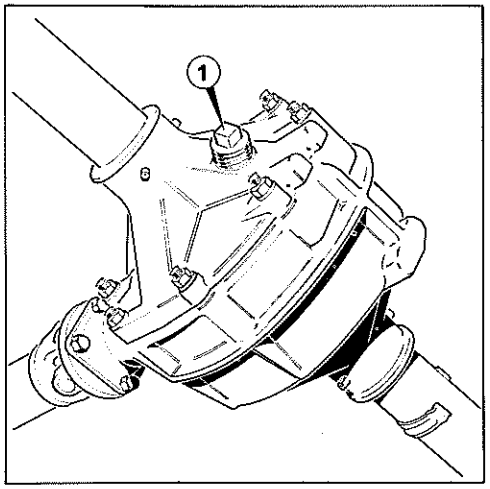

Figure 25 Rear axle oil filler/level plug

1 Filler/level plug

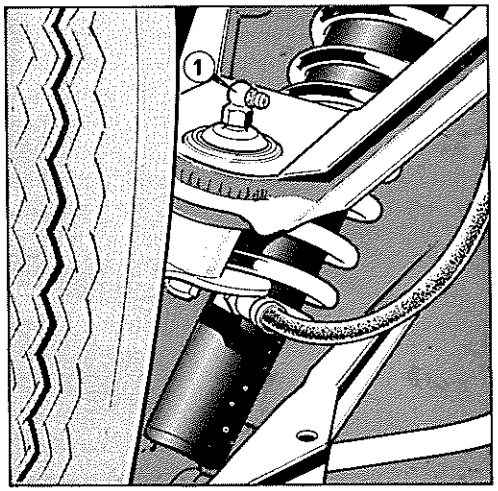

Figure 26 Upper wishbone ball joint

1 Ball joint — grease nipple

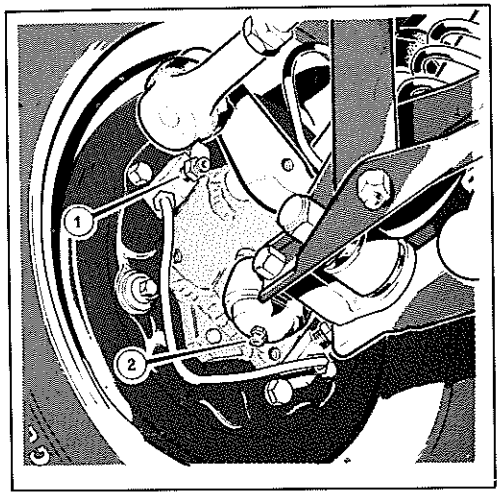

Figure 27 Lower fulcrum

1 Bleed screw
2 Lower fulcrum — grease nipple

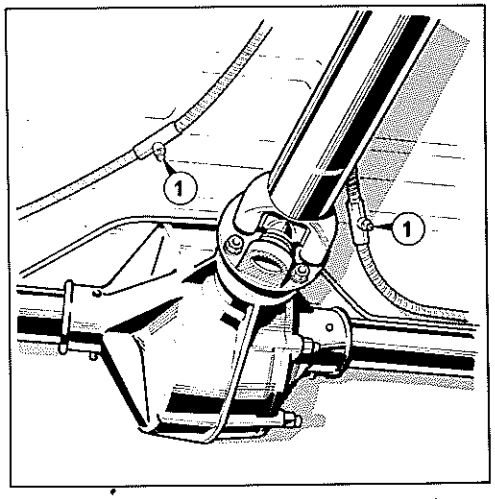

Figure 28 Handbrake cable — grease nipples

1 Grease nipple

Front wheel bearings

The front wheel bearings are lubricated by means of grease packed in the hub on assembly. Re-packing of front wheel bearings should be carried out every 18,000 miles (30,000 km). When greasing the front wheel bearings take care not to over fill, otherwise grease may impregnate the brake lining.

Rear wheel bearings

The rear wheel hub bearings are packed with grease on assembly and do not require further attention.

Handbrake cable

The handbrake cable is greased on assembly, but the cable inner should be greased by means of the two grease nipples and, especially in adverse weather conditions, at the handbrake pulley and any area of exposed inner cable. **(Figure 28).** The cable guides on the rear axle should also be liberally coated with grease to prevent the inner cable binding in the guides.

Lubrication of distributor

The cam spindle governor weights and breaker arm pivot should be lubricated with engine oil every 6,000 miles (10,000 km). To lubricate the cam spindle remove the rotor and apply two drops of oil to the felt pad in the top of the cam. **(Figure 42)** The felt pad fitted to the contact breaker augments lubrication of the cam. This does not require periodic lubrication, as it is impregnated before fitting. Only a film of engine oil should be applied to the hollow breaker arm pivot post, ensuring that none contaminates the distributor points.

Caution: Do not over lubricate any part of the distributor. The presence of dirt, oil or water on the ignition points, the central carbon brush, or the contact segments in the distributor cover, will cause erratic running or may even prevent the engine from running at all.

Drive shaft

A nipple, located on the small end of the shaft, permits greasing of the splines. Each universal joint is also lubricated by means of a grease nipple situated on the spider of the joint, **(Figure 29).** Grease should be applied to each nipple every 6,000 miles (10,000 km).

Carburettor — Lubrication

The dash-pot in the suction chamber requires topping up with clean engine oil, SAE 20 or 20/50 grade, every 3,000 miles (15,000 km). Unscrew the hexagon plug from the top of the carburettor suction chamber and withdraw the damper **(Figure 30).** Top up

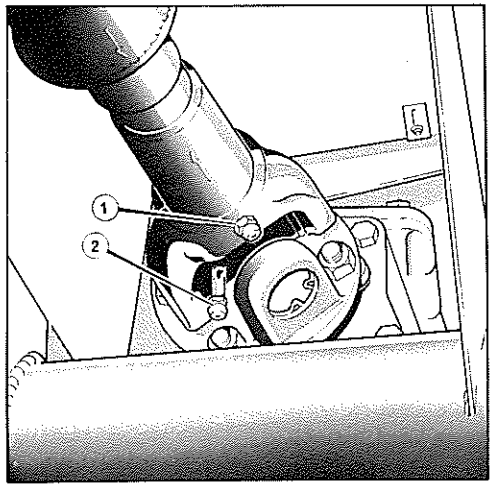

Figure 29 Drive shaft grease nipples

1 Sliding spline grease nipple
2 Universal joint grease nipple

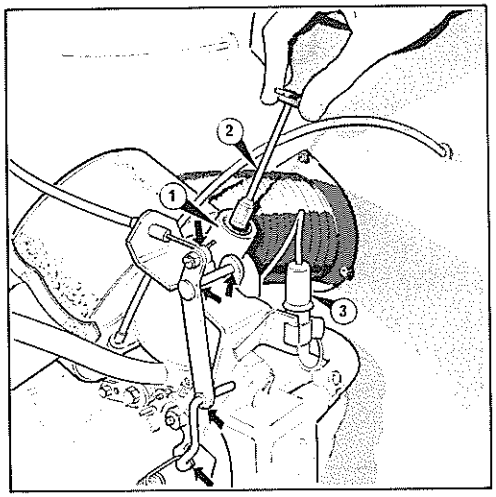

Figure 30 Carburettor — lubrication

1 Suction chamber
2 Damper
3 Fuel trap

the dash-pot until the oil level is 13mm (1/2 inch) above the top of the hollow piston rod. Refit the damper and replace the hexagon plug. Care should be taken when handling the damper to ensure that the spindle is not bent.
Using an oil can, apply oil to the throttle linkages at the points arrowed in **Figure 30.**

Door hinges
The pivots of the door hinges have an oil lubrication hole situated halfway up the hinge pivot, indicated in **Figure 31.**

The lower hinges have a door restraint leaf spring incorporated in the assembly. **(Figure 31).** Both the pivot lubricator and restraint spring should be oil lubricated every 6,000 miles (10,000 km) to maintain easy operation of the door hinges.

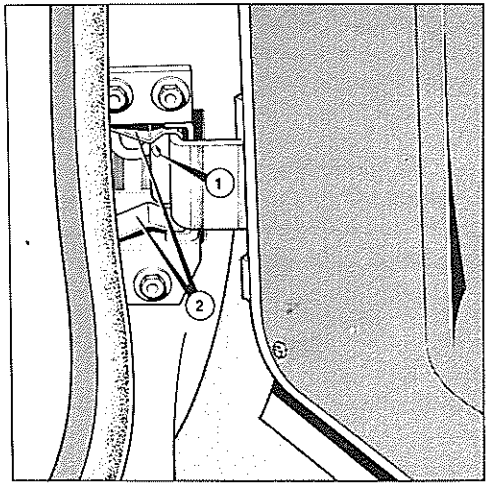

Figure 31 Door hinge lubrication

1 Pivot lubrication hole
2 Restraint spring

Routine maintenance checks and adjustments

Cylinder Head Nuts
The importance of correct tightening down of all cylinder head nuts cannot be over emphasised. For this reason it is the responsibility of your Reliant Dealer to check the nuts for correct tightness at the 1,000 miles (1,500 km) free service, and at subsequent 6,000 miles (5,000 km) services.
Although the checking of the cylinder head nuts and replacement of the cylinder head gasket is best left to your Dealer, the owner can carry out the operations himself, providing he has the correct tools.
Information regarding the tools and correct tightening down sequence and torque figures can be found in the Reliant Kitten Workshop Manual.

Valve Clearances
Tappet adjustment
It is necessary to maintain the correct tappet adjustment at all times, although many thousands of miles can be covered between settings. If the settings are too large, the engine will lose power and be noisy in operation. If they are too close, there is danger of the valve burning out with a resultant loss of power. To adjust the tappets, remove the rocker cover and adjust in the following order:

No. 1 Valve with No. 8 valve fully open.
No. 2 Valve with No. 7 valve fully open.
No. 3 Valve with No. 6 valve fully open.
No. 4 Valve with No. 5 valve fully open.
No. 5 Valve with No. 4 valve fully open.
No. 6 Valve with No. 3 valve fully open.
No. 7 Valve with No. 2 valve fully open.
No. 8 Valve with No. 1 valve fully open.

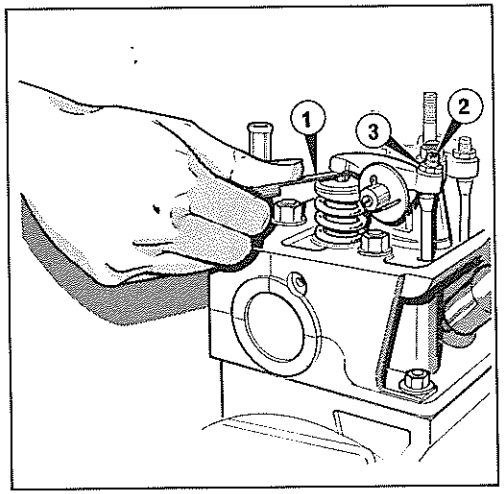

Figure 32 Valve clearance — tappet adjustment

1 Feeler gauge
2 Adjusting screw
3 Locknut

When adjustment is made, see **figure 32,** the valve must be in the fully closed position. Tappet clearances are 0.152 mm (0.006 inches) cold, 0.254 mm (0.010 inches) hot. Replace rocker cover using a new cork sealing gasket.

Fan belt adjustment
Regularly examine the fan belt tension, which should allow 13 mm (1/2 inch) movement when the belt is pushed and pulled at a point midway between the alternator and water pump pulleys **(Figure 33).** If necessary, adjust the tension by loosening the alternator front mounting bolt, then loosen the adjustment locking screw at the front of the alternator allowing the alternator to be moved on the slotted strap. When correct tension is obtained, securely tighten the bolt and screw.
Note: The front lower mounting must be slackened completely before making any adjustment as any strain on the lower fixings could distort or damage the mountings.
Regularly examine the fan belt for wear. Replacement belts are available from your Reliant Dealer, 'R' Part No. 23697.

Brakes — checking and adjustment
The brake lining should be examined for wear at least every 6,000 miles (10,000 km).

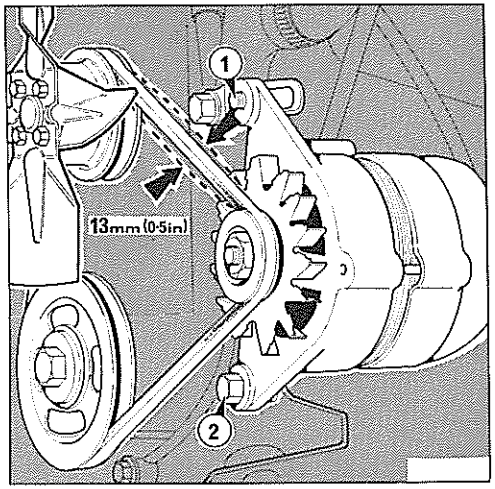

Figure 33 Fan belt adjustment

1 Adjustment locking screw
2 Alternator front mounting bolt

Owners making a high proportion of short journeys are recommended to include a brake lining check in a Supplementary service at 3,000 miles (5,000 km) intervals. Details of this Supplementary service appear on page 15.

Check and adjust brakes as follows:

Front

1 Jack up the vehicle until one front wheel is clear of the ground. **(Figure 37)**
2 Remove the road wheel and fully slacken off the brake adjuster. Remove the brake drum. **Note:** The relative position of the drum to the hub should be noted before removal for correct subsequent replacement.
3 Check the lining material thickness. Linings that are bonded to the shoes must not be allowed to wear below 1/16 of an inch in thickness. Riveted linings should be changed when the material wears within 1/32 of an inch of the rivet heads.
4 If the linings are serviceable replace the brake drum, ensuring that it is re-aligned with the hub as originally fitted. Replace the road wheel and adjust as follows:
Turn the adjuster **(Figure 34)** of one shoe anti-clockwise to bring the lining away from the drum. Turn the other shoe adjuster until the drum is locked, then slacken back until the wheel is just sufficiently free to rotate without binding.
5 Rotate the other adjuster clockwise until the drum is locked, then slacken back until the wheel is again just sufficiently free to rotate without binding.
Note: This adjustment must be performed accurately to obtain a minimum clearance between the linings and drum, with consequent minimum pedal travel.

Repeat with the other wheel.

Rear

1 Jack up the vehicle until one rear wheel is clear of the ground. **(Figure 38)**
2 Check the linings as described for the front wheel.
3 If the linings are serviceable replace the drum and road wheel and adjust as follows:
Release the handbrake and whilst rotating the wheel turn the square headed adjuster spindle **(Figure 35)** until the shoes touch the drum.
4 Slacken the adjuster two clicks, when the wheel should rotate freely.

Repeat with the other wheel.

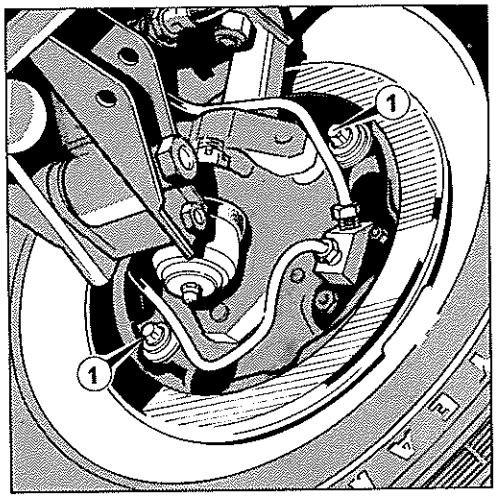

Figure 34 Brake adjuster – front

1 Adjuster

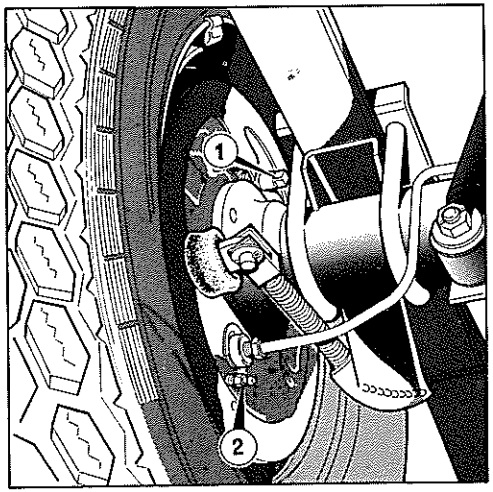

Figure 35 Brake adjuster – rear

1 Adjuster
2 Bleed screw

Brake shoe replacement

When it becomes necessary to renew the brake shoes it is essential that only genuine Reliant 'R' Part replacement shoes are used. Always fit shoes as axle sets, never individually or as a single wheel set. Serious consequences could result from out-of-balance braking due to mixing of linings.

Replacement 'R' Part brake shoe sets are obtainable from your Reliant Dealer. Information regarding brake shoe replacement is contained in the Workshop Manual.

Handbrake adjustment

Before adjusting the handbrake cable, always adjust the rear brakes. To adjust the cable:

1 Ensure the handbrake lever and cable inner are in the **OFF** position.
2 Slacken off the locknuts shown in **Figure 36.** Adjustment can then be effected by means of the main adjuster screws. Adjust the two screws equally. Re-tighten the locknuts securely.

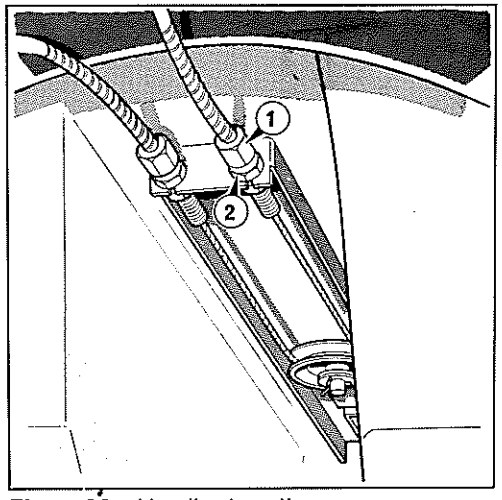

Figure 36 Handbrake adjusters

1 Adjuster nut
2 Locknut

Bleeding the brake hydraulic system

Bleeding – elimination of air from the hydraulic system – should be necessary only when any part has been disconnected or damaged; or if the fluid level in the master cylinder reservoir has fallen so low that air has been introduced into the system.

The apparatus needed to bleed the hydraulic system consists of a clean glass jar containing some brake fluid and a length of rubber pipe of sufficiently small diameter to fit tightly over the bleed nipple. An assistant will be required to pump the brake pedal.

Locate the bleed screw on the nearside rear wheel backplate. **(Figure 35)**

Remove the rubber dust cover, fit the tube over the bleed nipple, and unscrew it about 3/4 of a turn.

Immerse the free end of the tube in the fluid contained in the glass jar. The operation of the brake pedal is important. The pedal should be pushed down hard through the full stroke, followed by three short strokes and then the pedal should be allowed to return quickly to its stop with the foot right off. When fluid expelled is free from air bubbles tighten the bleed nipple without excessive force, ensuring that this is done during a downward stroke of the brake pedal. Remove the bleed tube and replace the rubber dust cover.

This action should be repeated until the air is dispelled at each bleed screw, working from nearside rear to offside rear followed by nearside front and offside front.

Always remove the floor mat or any other object which may obstruct the full stroke of the pedal.

During the process ensure that the level of fluid in the master cylinder reservoir is maintained with fresh fluid, not that which has been bled from the system. Scrupulous cleanliness must be observed at all times.

Use only the recommended Hydraulic Fluid, **see page 17.** Never under any circumstances use fluid that has been previously bled from a system to top up the master cylinder reservoir as it may be aerated, have too much moisture content and possibly be contaminated.

Note: At 36,000 miles (60,000 km) or 3 years the hydraulic fluid should be changed. The fluid may slowly, over prolonged use, absorb moisture and this can lead to brake failure.

Wheels and wheel nuts

The wheels fitted as standard equipment are of the pressed steel disc type. The polished wheel centre caps and wheel trims spring over projections on the wheel and are removed, using the jack handle, to gain access to the four wheel nuts. When checking wheel nuts for tightness do not use an extension, as ordinary pressure exerted on the handle of the tool supplied with your vehicle is quite sufficient. If a torque spanner is used to tighten the wheel nuts the correct torque figure is 4.15–4.84 kg/m (30–35 lbs/ft).

Jacking-up

Before jacking up the vehicle, it is essential that the handbrake is securely **'on'.**

Work should never be carried out underneath the vehicle when it is raised on a jack, unless a proper chassis stand is used to support the vehicle.

Front

The front wheel can be raised by positioning the jack at the front end of either main longitudinal chassis member, adjacent to the front outrigger. **(Figure 37).**

Rear

The recommended rear jacking point is at the extreme rear end of the longitudinal frame member. **(Figure 38)**

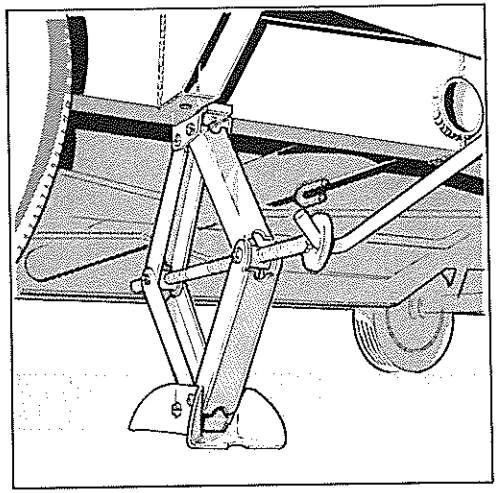

Figure 37 Jacking position – front

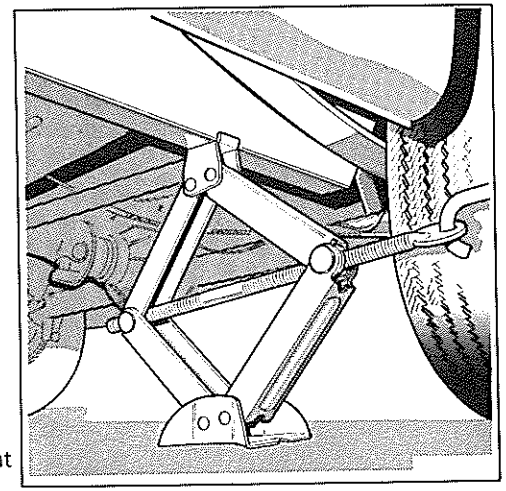

Figure 38 Jacking position – rear

Clutch adjustment

The clutch cable is adjusted as follows:

1 Pull back the clutch cable inner, releasing the adjuster nut on the threaded portion of the cable from the trunnion located in the clutch operating arm. **(Figure 39).**

2 Rotate adjuster nut along the threaded end of the cable and relocate on the trunnion.

3 The cable is correctly adjusted when the clutch and brake pedal pads are level and there is approx. 1.5mm (1/16in.) free movement of the clutch operating arm at the trunnion.

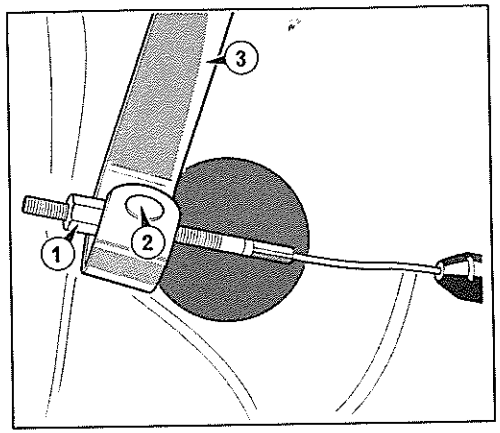

Figure 39 Clutch adjuster

1 Adjuster nut
2 Trunnion
3 Operating arm

Carburettor adjustment

Your vehicle has a SU carburettor that conforms with the Department of the Environment Vehicle Emission Regulations.

It must be emphasised that correct carburettor adjustment, together with ignition timing, which have been pre-set at the factory, are essential for the continued efficient functioning of the emission controls.

The following information includes details of 'slow running' and 'fast idling' adjustments. However, should any further adjustments or checks be necessary they **must** be carried out by your Reliant Dealer who has the specialised equipment and training to undertake these adjustments. Any alterations to settings without specialised equipment could lead to your vehicle not conforming to the legal requirements laid down by the Department of the Environment.

Idling

1 Warm up the engine to normal operating temperature.

2 Turn the throttle adjusting screw

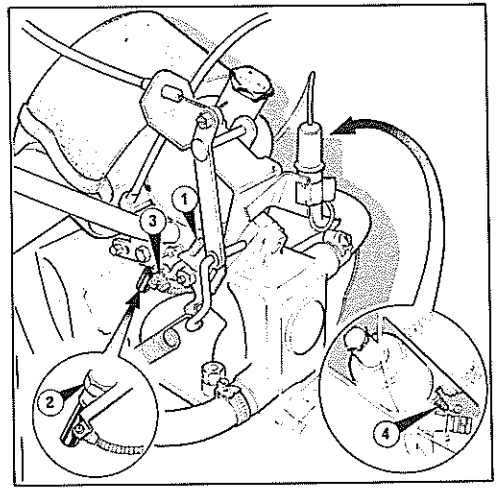

Figure 40 Carburettor adjustment

1 Throttle adjustment screw
2 Jet adjusting nut
3 Fast idle adjustment screw
4 Piston lifting pin

(Figure 40) in a clockwise direction until the desired idling speed is obtained.

3 Turn the jet adjusting nut **(Figure 40)** up to weaken or down to enrich the mixture until the fastest idling speed consistant with even running is achieved.

4 If necessary, re-adjust the throttle adjusting screw to give correct idling speed.

Slow running

When the mixture is correct the exhaust note should be regular and even when the engine is idling. To check the mixture strength, proceed as follows:

1 Start the engine and warm to normal running temperature.

2 Lift the piston lifting pin **(see Figure 40),** approximately 0.8mm (1/32 inch) after the free movement has been taken up and note the engine response.

(a) If the engine speed increases and continues to do so, the mixture is too rich.

(b) If the engine speed decreases immediately, the mixture is too weak.

(c) If the engine speed momentarily increases slightly, the mixture is correct.

Should the indication be that the mixture is too rich, screw the jet adjusting nut up one flat at a time until the fastest idling speed is obtained consistent with even running.

If the mixture is too weak, screw the jet adjusting nut down one flat at a time until even running is achieved with the fastest idling speed. If satisfactory slow running cannot be obtained the necessary checking and adjustment must be carried out by your Reliant Dealer. He has the specialised equipment that is necessary to ensure that after re-setting your vehicle will still conform to the legal limits of emission required by the Department of the Environment.

Fast idling

Pull out the mixture control (choke) about 13mm (½ in.) until the linkage is just about to move the jet. Start the engine and adjust the fast idle screw **(see Figure 40)** to give an engine speed of approximately 1,000 r.p.m. Push the control fully in and check that there is a small clearance between the end

of the screw and the cam. The mixture control cable should have approximately 1.6mm (1/16 in.) free movement before it commences to pull on the cam lever.

Note: If engine performance indicates the symptoms of fuel starvation or carburettor jet blockage, the carburettor dashpot oil level and the conditions of the in-line fuel filter should be checked before attempting to dismantle the carburettor.
Should the carburettor require attention **it is most important** that the flexible fuel line push-on connections at the carburettor and the fuel pump are not damaged when disconnected.
If the fuel line, from pump to carburettor, has to be disturbed it is recommended that the float chamber lid is removed from the carburettor leaving the fuel line attached and that the pump is disconnected at the nut and olive connection. If the pump does not have a nut and olive type connection the push-on connection must be removed after removing the clip. Care should be taken to ensure that no damage is done to the spigot pipe on the pump or to the bore of the fuel line.
The clipped push-on connections should not normally be tampered with unless absolutely necessary and if removed they must be carefully inspected on replacement, to ensure that there are no fuel leaks before restarting the engine.

Fuel Filter
The in-line fuel filter, situated on the frame sidemember forward of the fuel tank, should be renewed every 12,000 miles (20,000 km). The filter should be fitted with the element located as shown in **Figure 41.** The filter element cannot be cleaned and if any doubt exists as to its condition it should be replaced using 'R' Part no. 25105.

Air cleaner assembly
A dry paper element type of air cleaner is fitted to your vehicle **(Figure 42).** The air cleaner should be serviced every 6,000 miles (10,000 km), replacing element if necessary. The paper element of the filter should be replaced every 12,000 miles (20,000 km).

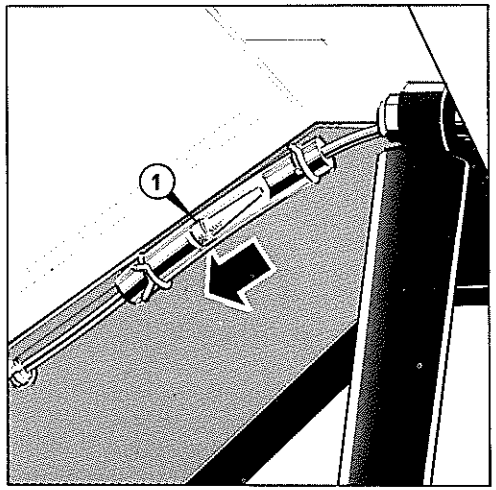

Figure 41 In-line fuel filter

1. Filter element

To replace the paper element first clean the outside of the air cleaner body and release the two clips retaining the body to the base plate. The element should be carefully removed from the base plate. Clean the base plate and body interior. Always fit a new element, 'R' Part No. 22493. The plastic

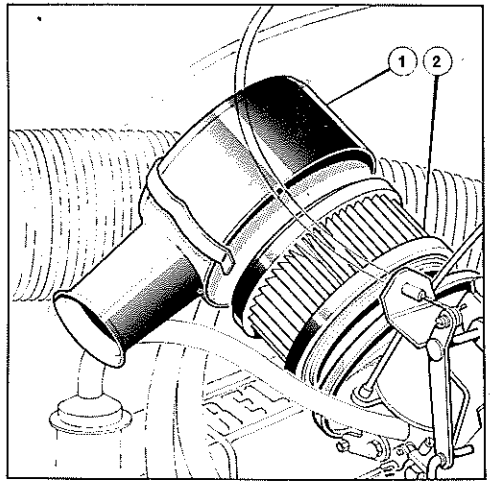

Figure 41 Air cleaner

1 Body
2 Element

ends of the new element should be smeared with petroleum jelly or grease to facilitate sealing on replacement.
Note: The frequency necessary for cleaning or replacing the element will naturally depend upon the severity of the operating conditions and where there are heavy dust concentrations or unusually severe conditions more frequent attention should be given to the cleanliness of the unit.

Distributor — contact breaker points
After the first 1000 miles (1,500 km), at the free service, the points should be checked and the gap re-set to 0.38 mm (0.015 inches). The nylon heel of the actuating cam may have bedded down slightly and altered the point settings. After this the contact breaker points should require no further attention for 6,000 miles (10,000 km) at which time the points should be examined again for burning on the contact faces. If badly burned or pitted, they should be replaced.
If your normal motoring includes a large proportion of frequent short journeys,

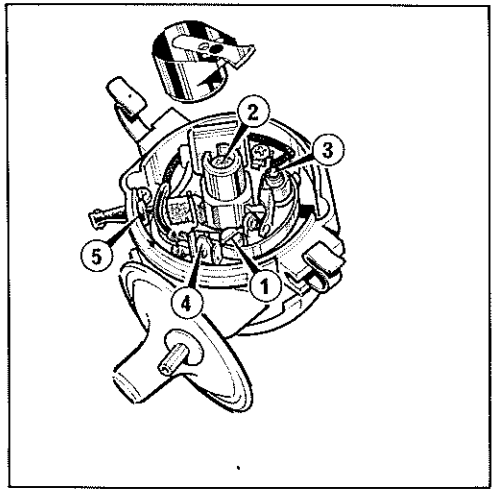

Figure 43 Distributor — general view

1 Locking/adjustment screw
2 Cam spindle lubrication pad
3 Breaker arm pivot post
4 Terminal post
5 Low tension lead

you may find the Supplementary service, itemised on page 15 which includes a contact breaker check at 3,000 miles (5,000 km) advantageous in ensuring that the points do not deteriorate during the standard service interval.
To adjust
1 Remove the distributor cap and rotor arm.
2 Turn the engine so that the heel of the contact breaker is on the highest point of the cam. (It may be necessary to remove sparking plugs to eliminate resistance caused by compression).
3 Slacken the slotted headed screw **(Figure 43)** in the contact plate and adjust until the gap is 0.38 mm (0.015 inches). The gap is measured with a suitable feeler gauge and pressure should be applied to the points, with the feeler gauge inserted between them, whilst the screw is being tightened.
4 Retighten the screw and make a further check with the feeler gauge incase tightening the screw has altered the setting.
5 Reposition the rotor arm squarely on the distributor cam boss with the slot and lug in line. Press the rotor into position on the spindle.
Note: When the rotor is fitted to the spindle the lower face does not abut the cam.
To replace
1 Remove the distributor cap and rotor arm.
2 Press the terminal end of the moving-contact spring towards the cam. **(Figure 44).** This will disengage the spring from the insulating-piece attached to the terminal post, the capacitor lead and low tension fly-lead can then be detached from the folded end of the spring. Remove the slotted screw securing the fixed-contact and lift the contact-breaker from the base plate.
3 Check the condition of the points for signs of wear or burning on the contact. If this is apparent, the complete breaker arm assembly will need replacing.
4 When refitting or replacing the contact breaker set it is important to note that the capacitor and low tension fly-lead connecting terminal in the folded end of the moving-contact spring, has the cable clips facing

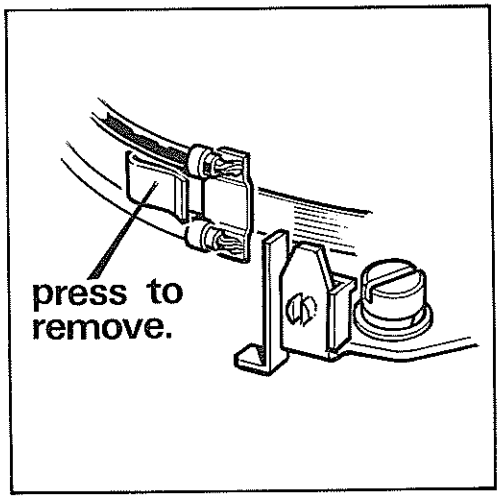

Figure 44 Correct replacement of points

outwards, otherwise the lower clip may foul the fixed contact plate and short-circuit the contact breaker. **(Figure 44).**

5 Replace the slotted headed screw and adjust the contact breaker points as previously described.

Note: If a new contact set is fitted, set the contact gap to 0.40 to 0.45 mm (0.016 to 0.018 inches) to allow for initial bedding-in of the plastic heel.

6 Replace the rotor arm and distributor cap.

Sparking plugs

The sparking plugs fitted to the Reliant OHV engine are the Autolite AGR 32 type. The gaps should be maintained at 0.64mm (0.025 inches). Provided the carburettor mixture is correct, a set of plugs will serve for at least 6,000 miles (10,000 km) without attention. When attention is necessary, however, the plugs should be cleaned on a machine such as is installed in most modern garages. Keep the points in a clean condition, and ensure that the plug is firmly screwed home. When adjusting the points, the central electrodes must not be moved. Always lever the earth electrodes as necessary to obtain the required gap. The sparking plugs should be replaced, in sets, every 12,000 miles (20,000 km). Your dealer will stock 'R' Part replacement plugs, Part No. 22982.

Windscreen washer/Estate rear window washer reservoir

The windscreen washer reservoir, located in the engine compartment and the estate rear window washer reservoir, housed in the rear door, have similar filler caps. The cap is levered off to top up the liquid. Use clean water for filling and ensure the reservoir is free from dirt. If the washer jets are blocked they can be cleaned with a pin or similar tool. The estate rear window washer reservoir is shown in **Figure 45.**

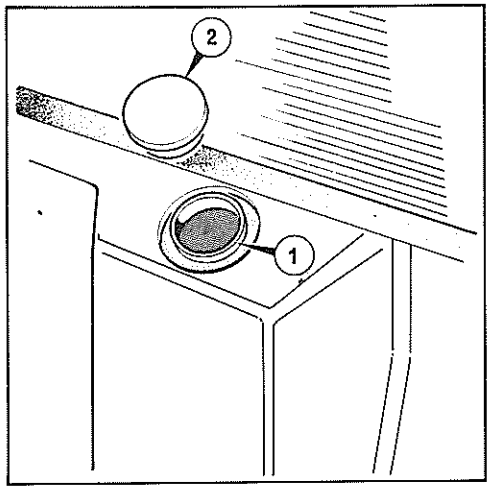

Figure 45 Estate rear window washer reservoir

1 Washer reservoir
2 Cap

Cooling system

The engine is water-cooled, effected by a circulating pump and fan driven by a 'V' belt from the engine pulley. The system has a capacity of 3.69 litres (6½ pints). The system is pressurised and great care must be taken when removing the radiator cap if the system is hot as the pressure released could blow out steam and boiling water with

the possibility of severe scalding.

In winter, anti-freeze must be added to the water in the system to prevent damage to the block and radiator in severe weather conditions through freezing. Before adding anti-freeze solution the cooling system must be drained and flushed through by inserting a hose in the radiator filler orifice and allowing water to flow through until clean. The cylinder block and radiator drain plugs, indicated in **Figures 46** and **47**, should be refitted and the system filled with 20% to 30% anti-freeze solution to specification BS 3150 which contains the correct type of corrosion inhibitor necessary for aluminium engines.

It is permissible, with modern anti-freeze formulation, to leave the anti-freeze solution within the cooling system throughout a 12 month period provided the protection afforded by the mixture, at the onset of winter, has not been reduced by topping up the coolant with water in the summer months. The degree of protection can be tested by means of a hydrometer. A 30% concentration solution should give a specific gravity reading of 1.050, affording protection down to −16°C (+3°F). A lower reading requires the system to be refilled with the correct concentration of anti-freeze.

During summer months if no anti-freeze is used, a solution of water and 3.35 fluid ozs. of Reliant Coolant Inhibitor 'R' Part No. 10374 must be used to maintain the system free from corrosion.

The correct level of the coolant in the radiator is reached when the top header tank on the radiator is approximately two thirds full. Some vehicles will have a radiator that has a coolant level indicator visible in the filler neck.

Some vehicles may have a radiator not fitted with a radiator drain plug. To drain a radiator of this type it is necessary to remove the bottom hose. Take the opportunity to check the condition of the hose before replacement.

Oil and water leaks

After a period of running-in your vehicle, gasketed joints and hoses will have settled down, and it is advisable to ensure that all joints are correctly tightened, and that there are no oil or water leaks.

Water leakage from the cooling system, and the possible ingress of water to the oil system, can be remedied if a Barseal Pellet 'R' Part No. 9947 is added to the radiator water. Barseal Pellets are available from your

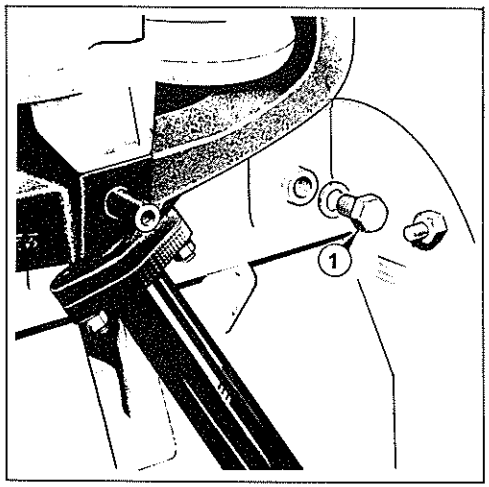

Figure 46 Cylinder block drain plug

1 Drain plug

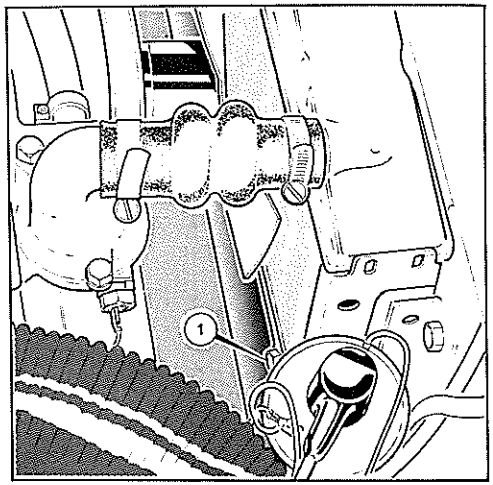

Figure 47 Radiator drain plug

1 Drain plug

Reliant Dealer. It is recommended that a Barseal Pellet is added to the radiator water in the event of the cooling system being disturbed, e.g. cylinder head removal or a water pump change. Water being drained from the system after anti-freeze has been used does not necessitate the use of another pellet in the system.

Tyres

Your vehicle is fitted with 145 x 10 radial tyres and replacements must be of the radial ply type. Regular inspection of tyres should be made to check the condition of the tyre tread and walls. Flints etc. should be removed from the tyre tread, if neglected they may work through the cover. Any oil or grease which may get onto the tyres should be cleaned off by using petrol sparingly. Do not use paraffin, which has a detrimental effect on rubber.

Repairs

The insertion of a plug to repair a puncture in a tubeless tyre must be regarded as a temporary repair only. A permanent vulcanised repair **must** be made as soon as possible.

Valves and caps

See that the valve caps are screwed down firmly by hand, too much force will damage the rubber valve seating. The cap prevents the entry of dirt into the valve and forms an additional seal on the valve, preventing any leakage if the valve core is damaged.

Tyre pressures — Saloon and Estate

	Front	*Rear*
Normal load:	1.41kg/sq.cm (20 p.s.i.)	1.55kg/sq.cm (22 p.s.i.)
Full load:	1.41kg/sq.cm (20 p.s.i.)	1.99kg/sq.cm (28 p.s.i.)

Tyre pressures should be checked before a run when tyres are cold. During use, the pressures will increase and the additional pressure should not be released, since in determining the tyre pressures this increase has been taken into account.

Under-inflation can result in damage to the walls and the tread itself due to excess flexing.

Tyre rotation

The tyre manufacturers recommend that, if wheels fitted with radial tyres are changed around, then changes should be made at intervals no greater than 3,000 miles (5,000 km), but best results are obtained if the tyres are left in the positions first fitted. If wheel changes are undertaken, it is adviseable only to change tyres from side to side on the same axle and **not diagonally.**

Ignition

The ignition system is the normal coil ignition system as fitted to most modern cars, and depends on the battery for its electrical supply. The main components apart from the battery are the coil and distributor. The coil needs no maintenance, apart from keeping the terminals tight and clean.

Distributor

The distributor incorporates a vacuum advance and retard mechanism, which regulates the amount of ignition advance according to the requirements of the engine. The distributor cover contains four segments and a central carbon brush which should be kept clean at all times. Use only a clean, dry cloth and ensure that the carbon brush is free in its holder. The presence of dirt, oil or water on the ignition points, the central carbon brush or the contact segments in the distributor cover will cause erratic running or may even prevent the engine from running at all.

If the low tension cable connection to the distributor body becomes loose or disconnected, it will have the same effect.

Ignition timing marks

Two marks are stamped on the crankshaft pulley **(Figure 48)** indicating TDC and 10° of crankshaft rotation. The TDC mark aligned with the pointer on the timing cover indicates that pistons 1 and 4 are at top dead centre. Your vehicle should be timed to TDC.

Procedure for timing (static)

1 Rotate in a clockwise direction until the TDC mark is aligned with the pointer on the front cover. At this point the distributor rotor arm should be opposite the No. 1 or No. 4 segment on the distributor cap.

2. Slacken the distributor clamping bolt and slightly turn the distributor body until the contact breaker points are just breaking and retighten the clamp bolt.

Do not over tighten.

3 If after road test further adjustment is required again slacken the clamp bolt and carefully rotate the distributor and retighten the bolt. The firing order is 1, 3, 4, 2 and if it becomes necessary at any time to disconnect all the plug leads, it is adviseable to mark them in relation to the sparking plug to which they were connected.

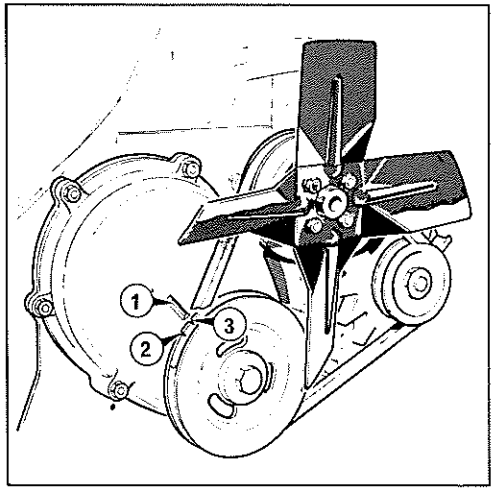

Figure 48 Timing marks

1 Timing pointer
2 TDC mark
3 10° BTDC mark

Electrical equipment

Polarity

This vehicle, as is now common with most European vehicles has a **negative** earth electrical system.

High tension leads

If the high tension cables show signs of breaking or perishing they should be replaced.

Use only the correct 'R' Part replacement leads as they have the correct resistance value to comply with Suppression Regulations.

Alternator

The only attention the alternator needs, from the owner driver, is to maintain it in a clean condition. Wipe away any dirt or oil which may collect around the slip ring end cover ventilation apertures.

The bearings are packed with grease during assembly and do not require attention.

Note: Serious damage can occur to the alternator if the following points are not observed:

1 Ensure that the negative terminal of the battery is earthed. Reversed cable connections will burn out the alternator diodes.

2 Never earth the output (B+) terminal of the alternator. It should be connected directly to the battery positive terminal.

3 Always disconnect battery earth cable at the battery before removing the alternator or its connecting wires. Serious damage to the wiring harness and the alternator can result from accidentally earthing the output terminal.

4 Never attempt to operate the alternator with the output lead between the battery and the output terminal disconnected. A very high voltage will develop which could burn out the rotor or damage the diodes.

5 When the battery is to be re-charged in the car, disconnect both battery cables before connecting a charger.

6 If a slave battery has to be used to start the engine, ensure the leads are connected

correctly, i.e. positive to positive, negative to negative.

Starter motor

The starter motor is mounted on the rear right-hand side of the engine. Should the starter pinion jam in mesh with the flywheel, it may be released by switching off the ignition, selecting top gear, and rocking the car to and fro. Preferably, the square end of the starter motor shaft should be turned in a clockwise direction until the pinion is free from the flywheel ring gear.

When starting the engine, if it fails to start at the first turning of the switch, allow the engine to come to rest before trying again, otherwise the teeth on the starter ring or the starter pinion may be damaged. Do not use the starter motor to manoeuvre the vehicle.

Fuses

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 applicable for evidence of a short circuit.

Use only the correct fuse. The fusing value is marked on a coloured paper slip inside the glass tube of the fuse.

The fuses indicated in **Figure 49** shows the top 35 amp fuse protecting the battery circuit which includes headlamps, interior lamp and horn.

The second 35 amp fuse protects the components in the ignition circuit including the indicators, heater, wiper motor and instrument gauges. This fuse also protects the hazard warning circuit and additional gauges, oil pressure and battery condition indicator, if fitted.

The third fuse is a 35 amp fuse in series with the battery lighting circuit protecting the side and rear lamp including the number plate lamp and instrument illumination.

The fourth fuse is a 35 amp fuse protecting the heated rear window, if fitted. This fuse is a 'spare' position on models without heated rear windows.

The auxiliary lamps and radio, if fitted, are protected by separate in-line fuses located behind the fascia.

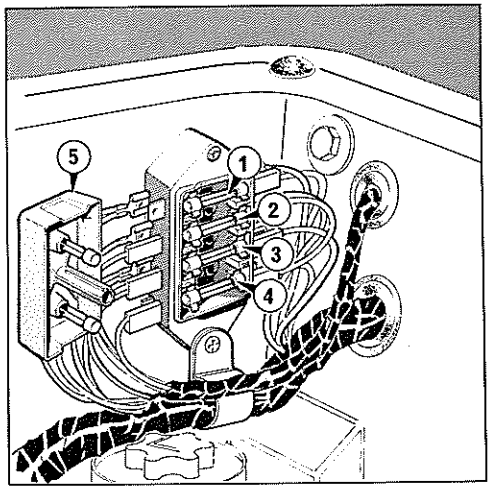

Figure 49 Fuse box

1 Battery/headlamp circuit fuse
2 Ignition/wiper circuit fuse
3 Rear/side lights circuit fuse
4 Heated rear screen or spare fuse position
5 Fuse box cap with spare fuses

Battery

The battery terminals should be kept clean and tight. A smear of grease or petroleum jelly will prevent corrosion. Periodically examine the level of acid in the battery and top up with distilled water as and when necessary. This will need doing more often in hot weather, and most petrol stations will supply this service for you free of charge.

The correct electrolyte level is when the cell separators are just covered. This can be seen with the filler caps removed. Do not overfill. Each cell is topped up individually. Wipe the top of the battery after topping up. Never use ordinary tap water to top up your battery as it contains impurities detrimental to the battery. The efficiency of the battery should be occasionally checked by means of a hydrometer, which shows the specific gravity of the acid. The specific gravity readings and their indications are as follows:

1.280 – 1.30 fully charged
about 1.20 half charged
about 1.150 fully discharged.

If the battery has been disconnected, ensure that the **negative** terminal is earthed on re-connection.

Caution Never use a naked light when examining the battery. The mixture given off by the battery is highly inflammable.

Lighting System

Headlamps

The headlamps comprise two rectangular sealed beam light units, of all-glass construction, incorporating the side lamp pilot bulbs. In the event of main or dipped beam filament failure, the sealed beam unit must be replaced. The pilot bulb is of the 'Capless' type and can be replaced in the event of failure.

Renewal of the sealed beam unit or pilot bulb

Access to the sealed beam unit or pilot bulb is gained by removing the front grille/headlamp bezel, secured by two screws on each side of the front of the vehicle, and four screws retaining the grille.

The sealed beam light unit is held secure by the inner rim. Remove the four small screws which secure the inner rim to the seating rim. **(Figure 50).** The unit can now be withdrawn and the cable connectors pulled off. Take this opportunity to check the serviceability of the pilot bulb. The correct replacement sealed beam unit is 'R' Part No. 90010. The capless pilot bulb is available as 'R' Part No. 17125.

Fit the cable connector to the new light unit and place the unit in the seating rim, correctly locating the two projections on the rear of the unit with the corresponding slots in the rim. These are arranged so that the unit must be properly positioned, that is, with the markings on the front of the glass the correct way up. Replace the inner rim and secure with the four screws. Check the beam setting, adjusting if necessary. Finally fit the front grille/headlamp bezel, securing with the four screws; and the grille, secured by four screws.

Headlamp adjustment

The front grille/headlamp bezel has two screwdriver holes for adjustment of the headlamp beam setting screws. **(Figure 51).** Horizontal adjustment is obtained with the top beam setting screw, and vertical adjustment with the lower screw.

Front indicator lamps

The amber lens of the front flashing indicator is retained by two screws. When replacing a bulb remove the two screws, the lens can then be removed and the bulb replaced in

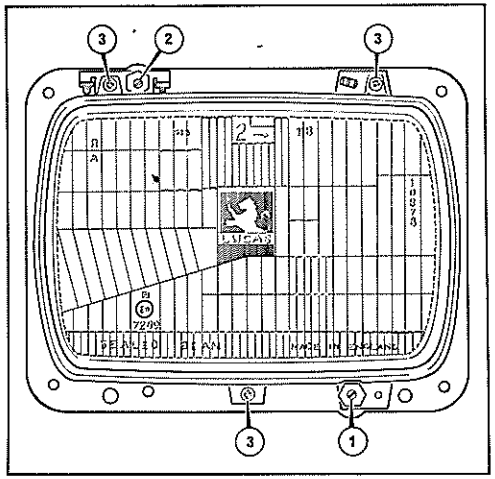

Figure 50 Headlamp securing screws

1 Vertical adjuster
2 Horizontal adjuster
3 Inner rim securing screw

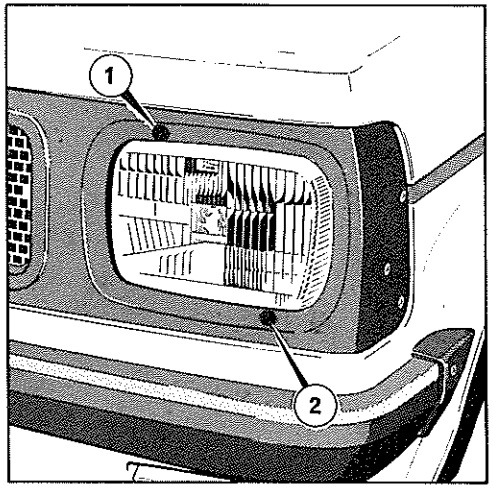

Figure 51 Headlamp adjusting screws

1 Horizontal adjuster screw hole
2 Vertical adjuster screw hole

the conventional manner. **(Figure 52).** The bulb is a 12 volt, 21 watt, SCC type, 'R' Part No. 17721.

Stop/tail and rear indicator lamps

Access to the bulb of the rear lamp cluster is obtained by removing the two cross headed screws securing the lamp lens assembly to the lamp body. Removal of the lens assembly leaves both bulbs easily accessible. Care should be taken when replacing the lens assembly to ensure the lenses are fitted the correct way round, that is with the indicator lens to the outside on Saloon models, to the top on Estate models. **(Figure 53).** The stop/tail lamp is a 12 volt, 21/5 watt, SBC stagg. cap type, 'R' Part No. 17713. The rear indicator bulb is a 12 volt, 21 watt, SCC cap type 'R' Part No. 17721.

Oil warning lamp

The oil warning lamp should light only when the engine is at rest, with the ignition switch on, and immediately the engine reaches idling speed it should extinguish, thus indicating that the oil is being circulated under pressure in the engine lubricating system.

To replace the bulb, withdraw the bulb holder from its housing at the rear of the instrument. The bulb is a 12 volt, 3 watt, capless type, 'R' Part No. 16761.

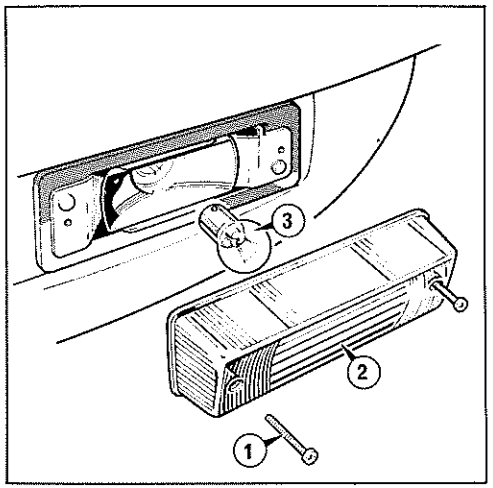

Figure 52 Front indicator lamp — access to bulb

1 Lens securing screw
2 Lens
3 Bulb

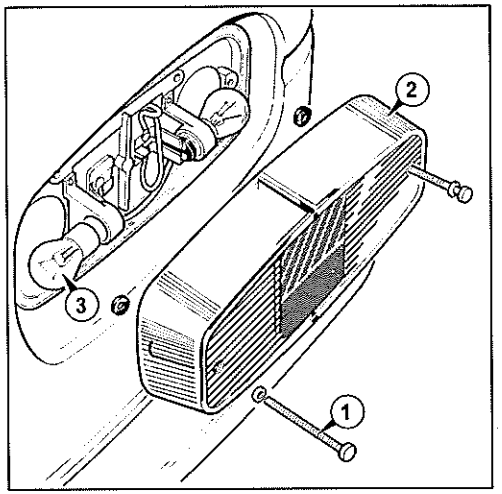

Figure 53 Rear light unit — access to bulb

1 Lens securing screw
2 Lens
3 Bulb

Ignition warning lamp

The ignition warning lamp serves the dual purpose of reminding the driver to switch off the ignition before leaving the vehicle, and of acting as a no charge indicator. It should only operate with the engine at rest or turning over very slowly, and should extinguish immediately the engine revolutions are increased. Failure to do so indicates a fault in the charging circuit. The bulb is a 12 volt, 3 watt capless type, 'R' Part No. 16761.

Main beam warning lamp

The main beam warning lamp only lights when the headlamp is deflected from the dipped to the main beam position. The bulb is a 12 volt, 3 watt, capless type, 'R' Part No. 16761.

Indicator warning lamp

The amber flashing indicator warning lamp flashes intermittantly in unison with the exterior indicator lamps. Housed in the speedometer the lamp bulb is replaced by withdrawing the bulb holder from its housing at the rear of the instrument. The bulb is a 12 volt, 3 watt, capless type, 'R' Part No. 16761.

Hazard warning lamp

The warning lamp, mounted centrally between the two instruments incorporates a bulb holder which can be prised from the lamp lens from behind the fascia. The bulb is a 12 volt, 2 watt, BA7S cap type, 'R' Part No. 17139.

Heated rear window switch indicator lamp — if fitted

The switch for the heated rear window has an integral light unit. The bulb is removed from the switch after removing the switch from the fascia. The switch is located in the fascia moulding by two lugs, on the narrow ends of the switch, that must be depressed before the switch can be withdrawn from the front of the fascia. The lamp is a 12 volt, 1.2 watt, capless type, 'R' Part No. 90457.

Interior lamp

Situated above the interior rear view mirror, the interior light has an integral switch within the light unit. The light unit is also operated by the opening of the driver's door. Removal of the bulb is facilitated by the removal of the lamp lens. Pressure on the sides of the lens releases the spring securing lugs. **(Figure 54).** The bulb is a 12 volt, 6 watt, festoon type, 'R' Part No. 6706.

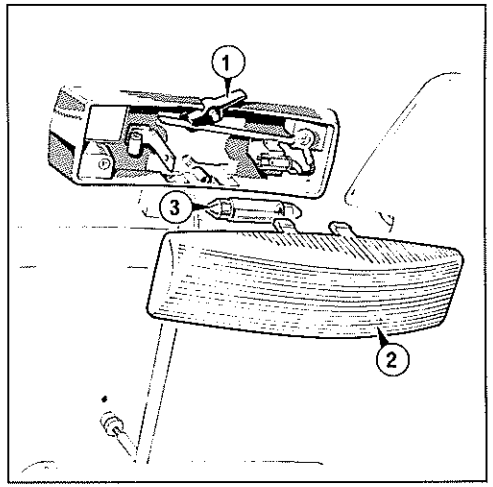

Figure 54 Interior light unit — access to bulb

1 Switch
2 Lens
3 Bulb

Bulb list

Bulb	*'R' Part No.*	*Voltage*	*Wattage*	*Cap type*
Headlamp	90010	12	75/60	Sealed beam — rectangular
Pilot bulb	17125	12	5	Capless
Stop & tail	17713	12	21/5	SBC Stagg
Front & rear indicator	17721	12	21	SCC
Main instrument illumination	16761	12	3	Capless
Warning light — Oil	16761	12	3	Capless
Warning light — Ignition	16761	12	3	Capless
Warning light — Main Beam	16761	12	3	Capless
Warning light — Indicators	16761	12	3	Capless
Warning light — Rear screen switch	90457	12	1.2	Capless
Warning light — Hazard unit	17139	12	2	BA7S
Interior lamp	6706	12	6	Festoon
Battery indicator gauge illumination	17602	12	2.2	MES
Oil pressure gauge illumination	17602	12	2.2	MES
Number plate lamp	17746	12	5	MCC

Number plate lamp

The chrome bezel to the number plate lamp is secured by two screws. Access to the bulb is gained by removing the bezel and folding back the rubber flange retaining the glass lens. **(Figure 55).** The bulb is a 12 volt, 5 watt, MCC cap type, 'R' Part No. 17746.

Instruments

Access to the fascia instruments and switches is gained from below the fascia on either side of the steering column.

Radio (if fitted)

The radio, mounted in the fascia, is located centrally above the fresh air outlet. The loudspeaker is mounted in the rear quarter panel alongside the rear passenger seat on the drivers side.

Radio controls

The smaller knob on the left-hand control not only switches the radio on and off but also controls the volume. The larger control on the left-hand knob varies the bass and treble tones.

Either long or medium-wave stations may be tuned with the right-hand control knob, or by pressing the push-button of the required station which can be pre-set. **(Figure 56).**

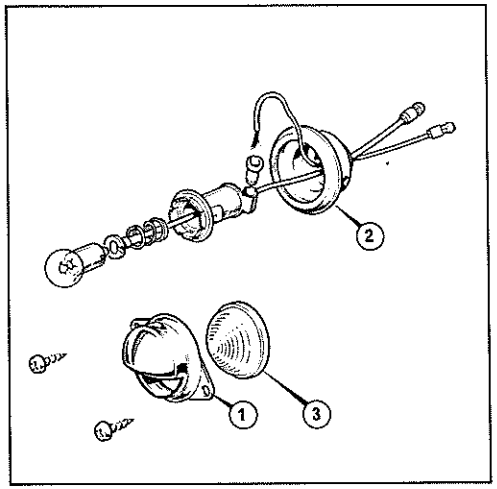

Figure 55 Rear number plate lamp — access to bulb

1 Bezel
2 Rubber flange
3 Lens

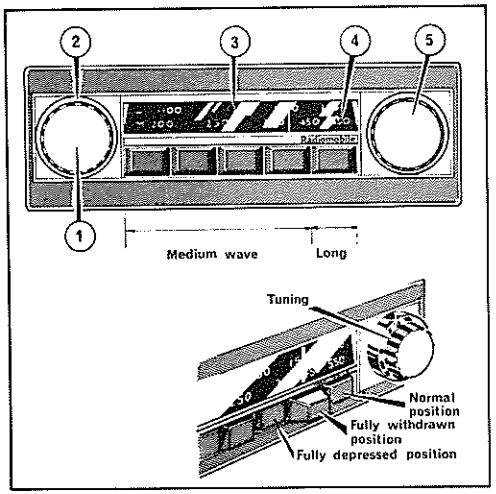

Figure 56 Radio controls

1 On/off and volume control
2 Tone control
3 Long-wave band
4 Medium-wave band
5 Tuning control

To change from the medium-wave band to the long-wave band depress the extreme right-hand push-button and then tune to the station required.

Push-button setting

Any four medium-wave band stations and one long-wave band station may be pre-set for automatic selection by means of the push-button controls. To set a push-button for a medium-wave band station first switch on the radio and depress one of the four medium-wave buttons. Tune in accurately with the manual tuning knob to the required station, fully withdraw the push-button **(Figure 56)** and then push the button in fully to lock the tuning.

When each push-button has been set in this way it is only necessary to depress the correct push-button to obtain the station desired.

To pre-set the long-wave band push-button, carry out the above instructions, using the extreme right-hand push-button.

For optimum results from the receiver it is adviseable to ensure that the aerial mast is kept clean, and that the sliding sections are occasionally lubricated with a light oil.

Should the overall quality and sensitivity of the receiver show a noticeable deteriation, or should interference become excessive, do not immediately suspect the receiver, the fault is more often with the installation, and all leads and suppressors should be checked. The suppression equipment fitted is rigorously tested and will withstand extremes of temperature and vibration. An engine in a poor state of tune can produce vibratory conditions sufficient to damage the suppressors. This will cause an increase in interference, and should be remedied immediately.

Station guide

BBC Service Areas:

Radio 1 — Medium Wave — 247m
Radio 2 — Long Wave —1500m
Radio 3 — Medium Wave — 464m Central and Southern England, elsewhere 194m
Radio 4 — Medium Wave — 330/202m — London, 285/206m — West of England, 434/261m — North of England, 276m — Midlands, 341m — Welsh, 371m — Scottish, 224m — Northern Ireland.

Bodywork

Repairs

The bodywork of your Reliant Kitten is manufactured entirely of glass reinforced plastic, which is an inert material completely impervious to rust and corrosion. It is highly resistant to damage and upon impact may crack or shatter, but the section will retain its original shape and no panel beating is necessary for repairs.

The repair procedure for small areas of damage is quite simple and can often be undertaken by an owner. Your Reliant Dealer has the necessary experience to effect any major repair or replace body panels.

Cleaning

The body panels should be washed, using plenty of water, and dried off with a wash leather. For the occasional, more thorough cleaning, after washing, the vehicle should be polished with a non-abrasive car polish. Use a soft rag dipped in petrol to remove greasy stains on panels.

Do not use detergent or household cleaners as they may cause damage.

Interior

Use a vacuum cleaner where possible to remove dust and dirt from the vehicle interior.

Wash leather cloth upholstery with luke warm, non-caustic soapy water. Do not use detergent or household cleaners as these may cause damage. Rinse and dry thoroughly.

Fabric panels on seats should be brushed to remove surface dust or dirt. A clean sponge dipped in soap solution can be effective in removing stains. Do not soak the fabric. Work from well outside the stain towards the centre to avoid patches. Sponge with clean water and dry with a clean cloth. When dry vacuum or brush.

Spillages should be mopped up immediately. Do not allow to soak in.

Wipe fascia and instrument panels, door casing etc. with a damp cloth only. Wax or other polishes should not be used inside the vehicle.

General data and specification

Engine

Number of cylinders	4-in-line
Bore of cylinders	62.50mm (2.46 inches)
Stroke of crankshaft	69.09mm (2.72 inches)
Cubic Capacity	848cc (51.77 cubic inches)
Compression Radio	9.5:1
Valve clearance:	*Hot*
Inlet	0.25mm (0.010 inches)
Exhaust	0.25mm (0.010 inches)
	Cold
Inlet	0.152mm (0.006 inches)
Exhaust	0.152mm (0.006 inches)

Performance data

Brake Horse Power (maximum)	40.00 at 5,500 rpm
Torque (maximum)	6.36 kg/m (46 lbs ft) at 3,500 rpm

Lubrication system

Pump	Submerged eccentric rotor type
Filter	External Full Flow type
Oil pressure	3.16kg/sq.cms (45 lbs/sq.ins)

Ignition system

12 volt battery & coil	negative earth
Contact breaker gap	0.38mm (0.015 in)
Sparking plugs — type	Autolite AGR 32
— gap	0.64mm (0.025 in)
Firing order	1,3,4,2
Ignition timing	TDC

Cooling system

Pressurised radiator, pump assisted circulation and four bladed fan driven by a 'V' belt from engine pulley.

Radiator cap pressure	0.492kg/sq.cm (7lb/sq.in)

Fuel system

Carburettor	Emission controlled SU type HS2 1¼in.
Fuel pump	AC Delco mechanical
Air cleaner	Paper element type

Clutch

Type	Single dry plate 158.75mm (6.25 inches) diameter
Operation	Cable

Gearbox

Four forward speeds and reverse. Synchromesh on all forward gears.

Ratio:	top	1.00:1
	third	1.32:1
	second	2.05:1
	first	3.88:1
	reverse	3.25:1

Rear axle

Type	Spiral bevel gear, semi-floating
Ratio	3.23:1

Brakes

System	Hydraulically operated, internal expanding to all wheels
Size — front	177.8 x 38.1mm (7in x 1.50in)
— rear	177.8 x 31.75mm (7in x 1.25in)
Handbrake	Lever type operating rear brakes mechanically by cable linkage

Suspension

Front	Reliant independent — wishbones, coil springs, damper units and anti roll bar.
Rear	Reliant — progressive rate leaf spring, telescopic damper units.

Steering

Type	Rack and pinion
Turning circle	7.32 metres (24 feet)
Castor	12°
Camber	1° positive
Toe-in	Zero
King pin inclination	9°

Conforming to European safety regulations.

Chassis data

Type	Box section with tubular crossmembers and channel section diagonal crossbraces.
Wheel base	2146mm (84.5 inches)
Track — front & rear	1244.6mm (49.0 inches)
Ground clearance (laden)	127.0mm (5 inches)

Vehicle Dimensions	Saloon	Estate
Overall length	3327.4mm (131.0 in)	3346.5mm (131.75 in)
Overall width	1422.4mm (56.0 in)	1422.4mm (56.0 in)
Overall height	1397.0mm (55.0 in)	1397.0mm (55.0 in)
Loading height	1016.0mm (40.0 in) (ground to tailgate sill)	508.0mm (20.0 in) (ground to rear floor)
Load width — maximum	1028.7mm (40.5 in) (width at tailgate sill)	850.9mm (33.5 in) (rear door aperture)
Load height — maximum aperture	457.2mm (19.0 in) (tailgate aperture height)	749.3mm (29.5 in) (rear door aperture)
Load height — maximum inside vehicle	850.9mm (33.5 in)	876.3mm (34.5 in)
Length behind rear seat	647.7mm (25.5 in)	693.1mm (26.5 in)
Length with rear seat folded	1092.2mm (43.0 in)	1168.4mm (46.0 in)
Load floor width behind rear seat	952.5mm (37.5 in)	952.5mm (37.5 in)

Load Capacities and weight

Saloon	— capacity of boot area, rear seat up, spare wheel in position below tonneau cover	0.230mm (8.5 cu.ft.)
Saloon	— capacity of rear compartment with rear seat folded, spare wheel in position, up to roof level	0.849mm (30.0 cu.ft.)
Estate	— capacity of rear compartment, with spare wheel in position and rear seat up	0.270mm (9.5 cu.ft.)
Estate	— capacity of complete rear compartment, with spare wheel in position and rear seat folded	1.132mm (40.0 cu.ft.)

Kerb weight

Saloon	505.81 Kg (1114 lbs)
Estate	538.9 Kg (1187 lbs)

Capacities

Engine including filter	3.13 litres (5.50 pints)
Gearbox	0.64 litres (1.125 pints)
Rear axle	1.28 litres (2.25 pints)
Steering rack and pinion	0.19 litres (0.33 pints)
Cooling system, including heater	3.69 litres (6.5 pints)
Fuel tank	27.30 litres (6 gallons)

Wheels and tyres

Road wheels	350B x 10
Tyres	145 x 10 Radials

Maximum vehicle weights

Gross laden vehicle weight	862.0 Kg (1900 lbs)
Approx. maximum pay load	320 Kg (700 lbs)
Maximum recommended front axle weight	363 Kg (800 lbs)
Maximum recommended rear axle weight	550 Kg (1210 lbs)
Rec. Towing weight (max.)	406 Kg (896 lbs)

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