

WOLSELEY

6/99

DRIVER'S HANDBOOK



AMENDMENT

Wolseley 6/99 Driver's Handbook

Please cut the lower part from this amendment label and attach to page 68 to replace the existing column H.

Dashboard D.B. 508	Autumn Festivals Carnival	Return OX	Medicaments Licence Nos. 1	All residents	Front Wheel Hubs	H
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IMPORTANT—The following information replaces that in Drivers' Handbooks AKD1171 and AKD1246, page 41

Brake and clutch master cylinders

Check the level of the fluid in the hydraulic brake and clutch master cylinders (located on the engine bulkhead), and replenish if necessary with **LOCKHEED DISC BRAKE FLUID**. Do not use any substitute as this will seriously affect the working of the system.

When climatic temperatures are below -30°F . (-34°C .) the systems should be drained and refilled with Lockheed Genuine Brake Fluid or a fluid conforming to Specification S.A.E. 70/R1.

The fluid level should be maintained $\frac{1}{8}$ in. (15 mm.) below the bottom of the filler neck in each cylinder.

NOTE—Vehicles fitted with automatic transmission have only the brake master cylinder filler.

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MOTORING

The Nuffield Organization
Cowley, Oxford, England

The
WOLSELEY
6/99
DRIVER'S HANDBOOK

A copy of this Driver's Handbook is sent out with every Wolseley 6/99 car. Additional copies are obtainable only from a Wolseley Distributor and Part No. AKD1240 should be quoted when ordering.

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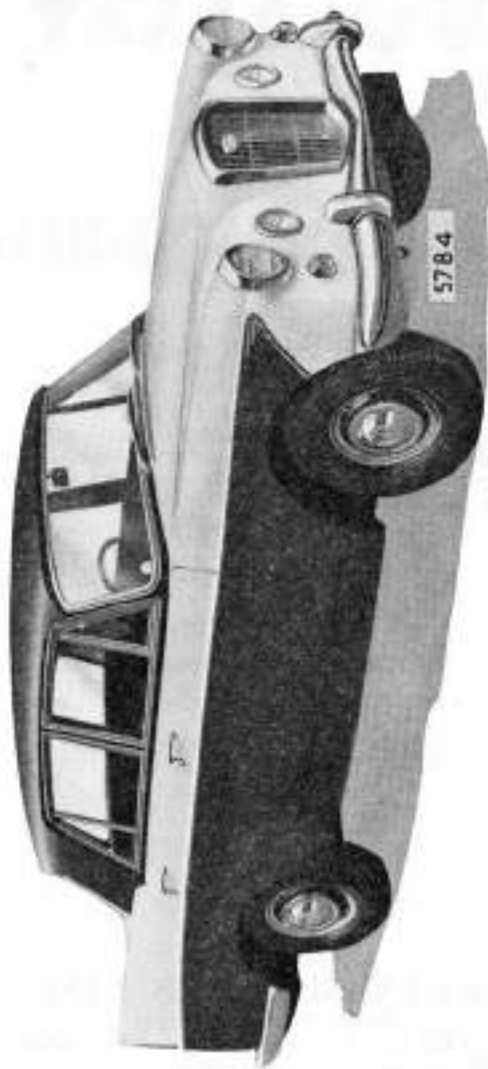
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THE WOLSELEY 6/99

FOREWORD

THE information contained in this Driver's Handbook has been confined to the essentials necessary for the proper running and driving of the car. Nevertheless, the owner will find all the information required to maintain the car in first-class condition and to enable him to give it those all-important items of attention which go so far to ensure trouble-free and satisfactory service.

Every Wolseley car leaving the Works is capable of giving absolute satisfaction if attention is given to the essential maintenance operations detailed in this book. Remember that Wolseley Distributors/Dealers are better equipped to provide routine and repair service than the owner-driver; therefore, if you encounter trouble consult your Distributor or Dealer—they are at your service.

An exchange scheme for many major items and assemblies is run by B.M.C. Service Limited; ask your Distributor or Dealer for details.

For those requiring information of a more detailed and technical nature than is contained in the Operation Manual a Workshop Manual is available at a reasonable price from your Distributor or Dealer.

IDENTIFICATION

When communicating with the Company or your Distributor/Dealer always quote the car and engine numbers; the registration number is of no use and is not required.

Note that all correspondence concerning exported cars must be addressed to Nuffield Exports Limited.

Car number. This is stamped on the identification plate, which is secured to the left-hand side of the bulkhead. The number should be quoted complete with all prefixes.

Engine number. The engine carries a serial number stamped on a metal plate which is secured to the left-hand (carburettor) side of the cylinder block.

The major components of this vehicle also have serial numbers, and should it be necessary to quote them at any time, they will be found in the positions given as follows:

Synchromesh gearbox number. This is stamped on the side of the gearbox casing below the dipstick.

Automatic gearbox number. This is stamped on a plate attached to the left-hand side of the transmission case.

Rear axle number. This is stamped on the rear of the left-hand axle tube adjacent to the rebound rubber.

GENERAL DATA

Engine	6 cylinders
Bore	3.281 in. (83.34 mm.)
Stroke	3.5 in. (88.9 mm.)
Cubic capacity	2912 c.c. (177.7 cu. in.)
Compression ratio	High 8:23 : 1. Low 7:20 : 1
Firing order	1, 5, 3, 6, 2, 4
Valve rocker clearance (hot)012 in. (.30 mm.)
Ignition setting	T.D.C.
Sparking plugs	Champion N5
Sparking plug gap025 in. (.64 mm.)
Contact breaker gap014 to .016 in. (.36 to .40 mm.)
Oil pressure (normal)	55 lb./sq. in. (3.87 kg./cm. ²)
Oil pressure (idling)	25 to 30 lb./sq. in. (1.76 to 2.11 kg./cm. ²)
Tyre size	7.00—14.
Tyre pressure: normal—front and rear	26 lb./sq. in. (1.83 kg./cm. ²)
	For sustained speeds in excess of 85 to 90 m.p.h. (137 to 145 km.p.h.) increase pressure to 30 lb./sq. in. (2.11 kg./cm. ²)
Carburettors	S.U., H4 type (two)
Carburettor needle (standard)	M5
Rear axle ratio	Standard 3.9:1. Automatic 3.545:1
Overall gear ratios:	
First	12.09 : 1
Second	6.45 : 1
Top	3.9 : 1
Reverse	11.73 : 1
	with overdrive $\left\{ \begin{array}{l} 8.45 : 1 \\ 4.51 : 1 \\ 2.73 : 1 \end{array} \right.$
Dimensions:	
Track (front)	4 ft. 5½ in. (1.366 m.)
Track (rear)	4 ft. 5½ in. (1.352 m.)
Turning circle	38 ft. 9 in. (11.81 m.)
Front wheel alignment	½ in. (3.18 mm.) toe-in
Wheelbase	9 ft. 0 in. (2.743 m.)
Overall length	15 ft. 8 in. (4.77 m.)
Overall width	5 ft. 8½ in. (1.74 m.)
Overall height	5 ft. 0 in. (1.524 m.)
Unladen weight—approx.	3,421 lb. (1,552 kg.)
Fuel tank capacity	16 gallons (73 litres)
Engine oil capacity (including oil filter)	12½ pints (7.25 litres)
Gearbox oil capacity (standard gearbox)	5½ pints (3 litres)
Gearbox oil capacity (automatic gearbox)	15 pints (8.52 litres)
Rear axle oil capacity	3½ pints (1.84 litres)
Water capacity	21 pints (12 litres)

NOTE.—References to right or left hand in this Handbook are made when viewing the car from the rear.

CONTROLS

Gear lever (synchromesh gearbox)

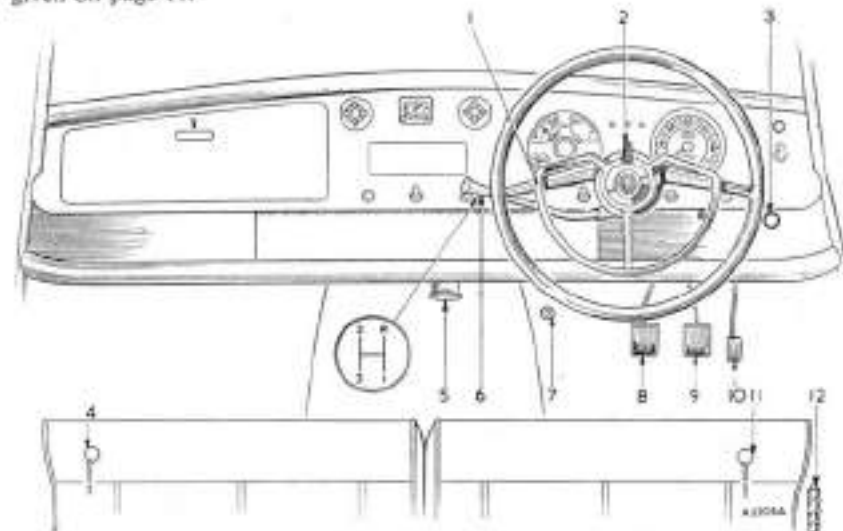
The gear change lever is positioned on the steering-column immediately below the steering-wheel. The three forward gears and reverse are engaged by moving the lever to the positions shown in the illustrations inset.

The reverse lamp is automatically illuminated when the reverse gear is engaged, provided the pilot lamps are switched on.

Synchromesh engagement is provided on first, second, and top gears.

Overdrive

The overdrive control is made operative by pushing the control handle right in. Comprehensive instructions on the use and operation of this control are given on page 11.



The controls (synchromesh gearbox with overdrive)

- | | | |
|--------------------------------|--|-----------------------|
| 1. Horn ring. | 5. Overdrive control (intermediate hold control when automatic is fitted). | 8. Clutch pedal. |
| 2. Direction indicator switch. | 6. Gear lever. | 9. Foot brake. |
| 3. Bonnet lock handle. | 7. Headlamp dip switch. | 10. Accelerator. |
| 4. Seat lock. | | 11. Seat lock. |
| | | 12. Hand brake lever. |

Automatic transmission

A car equipped with automatic transmission will not have the conventional gear lever or clutch pedal. Comprehensive operating and driving instructions for a car fitted with automatic transmission are given on pages 12-15.

Pedals (synchromesh gearbox)

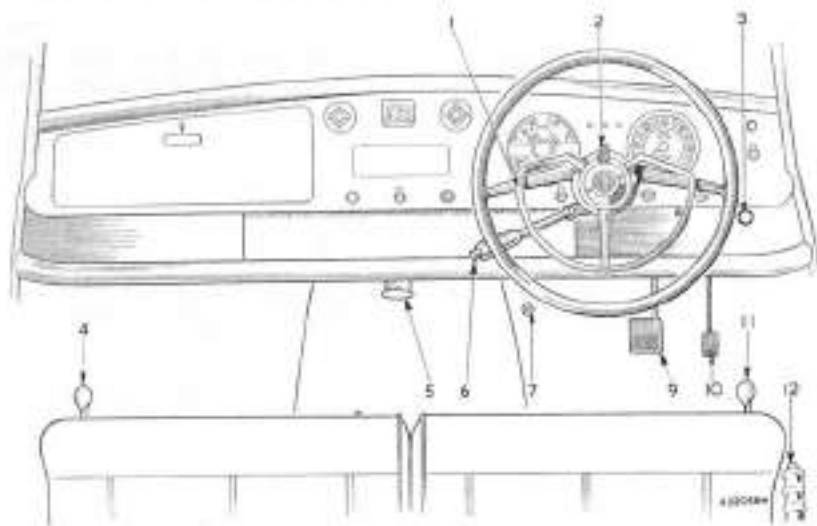
The left-hand pedal operates the clutch, the centre pedal operates the brakes, and the right-hand pedal operates the accelerator. Do not allow the foot to rest on the clutch pedal while driving or excessive wear of the operating mechanism will result.

CONTROLS

Hand brake

The hand brake is located between the driving seat and the door. A thumb-operated ratchet release is incorporated in the handle. Pulling the handle upwards operates the rear wheel brake-shoes mechanically.

Brake release is achieved by pulling on the lever to take the load and then pressing the ratchet release. The hand brake is automatically adjusted when adjustment is made to the foot brake.



The controls (automatic transmission)

- | | |
|--|-----------------------------|
| 1. Horn ring. | 7. Headlamp dipping switch. |
| 2. Direction indicator switch. | 9. Foot brake pedal. |
| 3. Bonnet release knob. | 10. Accelerator pedal. |
| 4. Seat adjusting lever. | 11. Seat adjusting lever. |
| 5. Intermediate gear hold control. | 12. Hand brake lever. |
| 6. Automatic transmission gear selector lever. | |

Flashing direction indicators and horns

The direction indicator lamps are operated by the small lever on the steering-wheel centre, provided the ignition is switched on. The switch is self-cancelling, except when only a slight turn is made, when it may be necessary to return it by hand.

A green warning light flashes on the switch when the indicators are in operation.

The horns are operated by pressing the inner plated ring of the steering-wheel.

Headlamp beam dipping switch

The headlamp beam dipping switch is situated to the left of the base of the steering column. A dark-red warning light on the fascia panel indicates when the lamp beams are in the raised position.

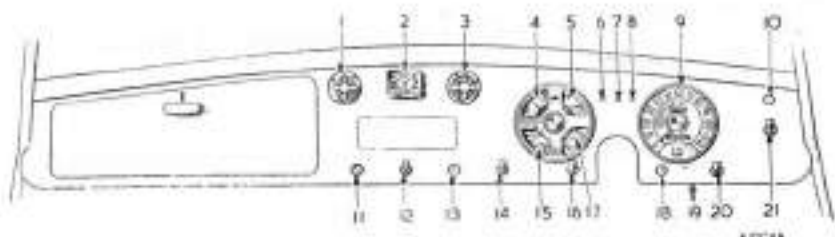
INSTRUMENTS AND SWITCHES

Ignition and starter switch

The ignition and starter are both controlled by a single switch operated by a removable key.

To switch on the ignition insert the key and turn it in a clockwise direction until a slight resistance is felt. Further movement in the same direction will operate the starter motor. Release the key immediately the engine starts. If the engine fails to start first time wait until it has come to rest before operating the starter control again.

The ignition switch must not be left on when the engine is not running or the battery will discharge itself through the coil should the contact breaker points be closed. The fuel pump and fuel and temperature gauges are brought into operation by this switch, which is also the master switch for the windshield wipers, direction indicators, ventilation blower motor, and stop lamps.



The instruments and switches

- | | |
|--------------------------------|-------------------------------------|
| 1. Heater temperature control. | 12. Blower switch. |
| 2. Clock. | 13. Choke control. |
| 3. Heater air control. | 14. Panel light switch. |
| 4. Ammeter. | 15. Oil pressure gauge. |
| 5. Temperature gauge. | 16. Long-range driving lamp switch. |
| 6. Main beam warning light. | 17. Fuel gauge. |
| 7. Vacuum-servo warning light. | 18. Ignition and starter switch. |
| 8. Ignition warning light. | 19. Trip distance setting. |
| 9. Speedometer. | 20. Lamp switch. |
| 10. Windshield washer control. | 21. Windshield wiper switch. |
| 11. Cigar-lighter. | |

Choke or mixture control

The mixture control can be drawn out and locked in one of several positions to give a rich mixture for starting purposes.

Do not run the engine for any length of time with the knob withdrawn. It should be returned to the 'off' position (turn clockwise and push) as soon as the engine is warm enough to run without it.

Windshield wiper switch

Move the switch downwards to the first position to operate the wiper blades at normal speed. This position should be used under conditions of heavy snow or with a drying windshield. Move the switch to the fully down position to operate the blades at high speed position. This position is used when driving fast through heavy rain or light snow. The blades are parked automatically when the control is returned to the 'off' position.

INSTRUMENTS AND SWITCHES

Lamp switch

Move the switch downwards to the half-way position to bring the pilot lamps into operation and into the fully down position to switch on the headlamps.

Long-range driving lamp switches

Moving the switch down to the first position operates the near-side lamp, and moving the switch fully down operates both lamps.

Panel lamp switch

Move the switch downwards to operate the panel lamps. The panel lamps are in circuit with the pilot lamps and headlamps and cannot work unless the latter switch is in operation.

Oil pressure gauge

The oil pressure reading should be approximately 55 lb./sq. in. (3.87 kg./cm.²) under normal running conditions.

Speedometer

In addition to recording the road speed this instrument records the trip and total distances. The trip mechanism enables the distance of a particular journey to be recorded and can be set to zero by pushing upwards the knob below the back of the instrument and turning it anti-clockwise.

Warning lights

The ignition warning light glows red when the ignition is switched on but will go out as the engine speed is increased.

Should the brake vacuum servo warning light remain on when the engine is running, the servo assistance to the hydraulically operated brakes has become inoperative, with consequent reduced braking effect, and the system should be examined by your Distributor or Dealer without delay.

The headlamp main beam warning light glows red when the beams are in the raised position as a reminder to dip the lamps for approaching traffic.

Interior lamps

The interior lamps are controlled by a separate switch on each lamp and also by an automatic switch on each front door pillar.

When the doors are closed the lights are off while both their individual switches are in the 'off' position. Both lights will come on when one switch lever is moved to the 'on' position.

The act of opening either front door will switch on both interior lights and closing the doors will extinguish them.

Windshield washer

Press the control button for a moment while the wipers are working and the engine is running. The nozzles on the scuttle will discharge when the button is released. To obtain a large discharge temporarily remove the foot from the accelerator pedal while depressing the button.

INSTRUMENTS AND SWITCHES

Temperature indicator

The temperature of the cooling water leaving the cylinder head is electrically recorded by this indicator while the ignition is switched on. When the ignition is switched off the needle moves to the cold position, but registers the actual temperature immediately the ignition is switched on again. If the normal running temperature indicated is exceeded the cause must be traced and rectified immediately.

Fuel gauge

This instrument indicates the level of the fuel in the fuel tank. It will function only when the ignition is switched on. When the ignition is switched off the indicator needle will return to the empty position.

Ammeter

This instrument shows the rate in amperes at which the battery is being charged or discharged.

Clock

To regulate the clock adjust the regulator screw on the lower left-hand corner of the clock face, clockwise for slow and anti-clockwise for fast. A small scale is placed just below the screw to show the position of the adjustment. The clock is set by the milled knob on the lower right-hand corner of the face, which should be pushed in to engage the hands.

Cigar-lighter

To operate the cigar-lighter push the knob fully in. When the element is sufficiently heated the unit will be partially ejected. It is then removed for lighting purposes.

OVERDRIVE

To make the overdrive operative

The overdrive unit may be made operative at any time by pushing the control handle right in.

To make the overdrive inoperative

- (1) When the car is at rest or while the engine is pulling in normal drive (second or top gear) pull out the control handle.
- (2) When the overdrive ratio is engaged or the car is free-wheeling push the accelerator pedal down to the limit of its travel ('kick-down') and simultaneously pull out the control handle.
- (3) When the overdrive ratio is not engaged, i.e. when the road speed is below 27 m.p.h. (43 km.p.h.), depress the accelerator pedal slightly so that the engine is just driving the car and at the same time pull out the control handle.

Using the overdrive

Push the control handle inwards to select overdrive.

When the car attains the 'cut-in' speed—32 m.p.h. (51 km.p.h.)—an automatic governor shifts the unit into the overdrive ratio and brings a free-wheel into operation. No mechanical engagement takes place until the transmission torque is removed by momentarily releasing the accelerator pedal. The overdrive ratio remains effective until the car speed falls below the 'cut-out' point—27 m.p.h. (43 km.p.h.)—when the governor automatically releases the overdrive ratio and the transmission reverts to direct drive. The free-wheel is operative only when overdrive is selected but not engaged.

To return temporarily to normal top or second gear for a burst of acceleration press the accelerator pedal to its fullest extent to operate the 'kick-down' switch and to disengage the overdrive ratio. Overdrive will be re-engaged when the pedal is again released.

In certain traffic conditions the overdrive can be used to avoid normal gear changing. It is possible to accelerate in second gear, engage the overdrive by releasing the pedal, and obtain a ratio closely approximate to direct top gear. Normal second gear may be resumed by using the 'kick-down' switch. At speeds below the 'cut-in' point, with overdrive selected the free-wheel allows gear changing without the use of the clutch. The free-wheel is automatically locked when reverse gear is engaged.

NOTE.—The ratio of this unit has been chosen to provide quiet, economical, high-speed cruising at road speeds of the order of 80 m.p.h. (128 km.p.h.). It is not intended to be used as a fourth gear. For maximum road speed direct top gear should be used.

AUTOMATIC TRANSMISSION

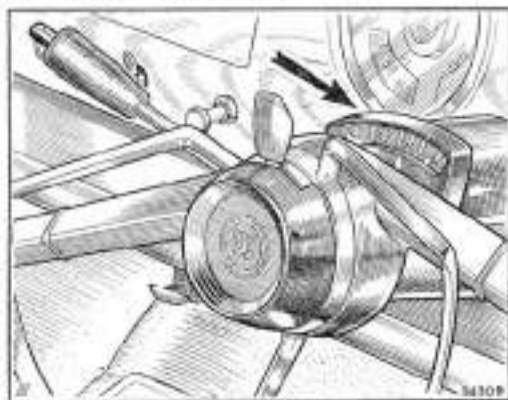
Description

The automatic transmission incorporates a fluid torque converter coupling in place of the usual clutch and a hydraulically operated epicyclic gearbox in which all ratio changes are performed automatically in accordance with the position of the accelerator pedal and the speed of the car. Thus there is no need for a clutch pedal or for the conventional gear change lever, and driving in normal conditions becomes a matter involving the use of the accelerator and brake pedals only.

Selector lever

The selector lever and quadrant are mounted below the steering-wheel on the left-hand side of the column in a right-hand-drive car and on the right-hand side in a left-hand-drive car.

Five settings of the transmission may be manually selected by movement of the lever, the position of the lever for any selection being indicated by letters on the quadrant. The letters are: 'P', 'N', 'D', 'L', and 'R', and the transmission settings corresponding to the letters are detailed below. All normal driving is done with the lever at 'D'.



The automatic transmission selector lever quadrant

A baulking mechanism is provided in the end of the selector lever to prevent the accidental engagement of positions 'P', 'L', and 'R' when the lever is in the 'D' or 'N' position. Press the plated button in the end of the selector lever when moving into or out of these positions. The lever may be moved between 'N' and 'D' and between 'L' and 'R' without depressing the button.

'P' (park)

The transmission is in neutral and the car is mechanically locked against movement by a parking pawl engaging a gear on the output shaft. The pawl will not engage at forward speeds above 3-5 m.p.h. (5-8 km.p.h.) should the lever be moved to 'P' accidentally. **Under no circumstances should position 'P' be engaged when the vehicle is moving backwards.** The pawl allows the car to be stopped on a hill without fear of running away, though it is advisable to apply the hand brake in such conditions to prevent overloading of the mechanism.

Always move the lever to this position when the car is parked. The engine may be idled or run for tuning.

AUTOMATIC TRANSMISSION

'N' (neutral)

The transmission is in neutral as in 'P', but the parking pawl has been disengaged so that the car may be coasted, towed, or pushed. The hand brake should be applied when the car is at rest with the lever in this position. The engine may be idled or run for tuning. Do not move the control lever to 'N' when travelling at speeds above 45 m.p.h. (72 km.p.h.).

'D' (drive)

The position for all normal driving, including starting from rest. Three nominal ratios are available—low, intermediate, and direct—all of which are selected automatically according to the vehicle speed and torque demand. A free-wheel is operative in low and intermediate (not in manually engaged low or with the intermediate hold control operative.)

'L' (low)

The transmission is in low, the same ratio as that obtained automatically in certain conditions when the lever is at 'D', but when manually selected as at 'L' the transmission will not change out of this ratio until 'D' is again selected. This position is used in conditions necessitating lengthy periods of low-gear work, or where maximum engine braking is required.

'R' (reverse)

A free-wheel is operative when the transmission is in reverse.

Intermediate hold

The intermediate hold control is located at the lower edge of the fascia panel in the centre. With the selector lever in position 'D' and the hold control operative (pulled fully out) the transmission is in intermediate gear and will not change down from this ratio until the hold control is returned to the normal position. The transmission will not change up to direct drive until the accelerator pedal is fully depressed.

This control is particularly useful when climbing long hills and in certain conditions of traffic density.

Starting the engine

The starter will operate only if the lever is at 'P' or 'N'. Move the lever to one of these positions and start the engine in the usual way. If 'N' is used make sure that the hand brake is applied to prevent the car creeping. The starter cut-out is not effective when the solenoid switch under the bonnet is manually operated.

Starting-handle

Always move the lever to 'P' before using the starting-handle; the parking pawl will prevent the car from moving forward.

Emergency starting

Move the selector lever to 'D', switch on the ignition, and **push** the car at a speed of approximately 25 m.p.h. (40 km.p.h.). Pushing is recommended in preference to towing as it avoids any danger of over-running the towing vehicle when the engine starts.

AUTOMATIC TRANSMISSION

Recovery

WARNING.—If there is any reason to suspect that the transmission is faulty or damaged the propeller shaft must be removed before towing.

Before towing always check the oil level in the transmission case and top up as necessary.

Move the selector lever to 'N'. With neutral selected the car may be towed over any distance and at any speed up to the legal limit.

Moving away from rest

After starting the engine move the lever to 'D', depress the accelerator pedal, and release the hand brake. As the speed of the car increases, intermediate and then direct top gear will be engaged progressively and automatically, and thereafter all ratio changes will be made to suit the car speed and torque demand. Direct top gear will be engaged when the speed is between 20 and 60 m.p.h. (32 and 96 km.p.h.), depending on the accelerator position and car speed.

Accelerator 'kick-down'

When a sudden burst of acceleration is required in order to pass another car, or when extra power is needed to climb a hill, depress the accelerator as far as possible 'kick-down'. The transmission will then change down from direct top to intermediate and remain there until the accelerator is released. 'Kick-down' does not operate above 52 m.p.h. (83 km.p.h.) approximately.

Using the engine as brake

Engine braking is available for the descent of steep hills and is obtained by the engagement of the manual low gear ratio (L); **no free-wheel is operative in manually engaged low ratio.** Do not engage manual low if the car speed is above 35 m.p.h. (56 km.p.h.) owing to the possibility of damage to the engine by over-revving.

Reversing

A free-wheel is operative when the transmission is in reverse, which considerably simplifies backing the car. It is recommended that the left foot should be used on the brake pedal when manoeuvring the car in confined spaces, while the right foot is used on the accelerator in the usual manner.

If the lever is moved to 'R' while the car is travelling forward at more than 3-5 m.p.h. (5-8 km.p.h.) the effect is to change into neutral, and a reverse interlock prevents the engagement of reverse above these speeds.

Stopping

Stop the car in the normal way by applying the foot brake, leaving the control lever at 'D' until the car is stationary; move the lever to 'N' or 'P' and apply the hand brake. When a temporary stop is made in traffic or to allow a passenger to alight there is no need to move the control lever from 'D', but it is necessary to hold the foot brake to prevent the car from moving should the accelerator be accidentally depressed.

AUTOMATIC TRANSMISSION

Soft road surfaces

When the rear wheels fail to grip the road in snow, mud, or sand the car may be rocked backwards and forwards until sufficient grip is obtained to drive away. Hold the accelerator pedal so that the engine speed corresponds to a road speed of between 3 and 5 m.p.h. (5 and 8 km.p.h.) and move the selector lever gently from 'R' to 'L' and back. It is important to move from 'L' to 'R' while the car is moving forward, and vice versa. If the forward speed rises above 5 m.p.h. (8 km.p.h.) no reverse will be obtained, since the reverse interlock will operate as mentioned above.

Starting from rest on hills

If the car is parked on a steep hill with the lever at 'P' it may tend to creep slightly downhill against the brakes so that the parking pawl becomes tightly engaged. To free the transmission apply the foot brake lightly, slightly depress the accelerator, and release the hand brake; engage **reverse** if the car is facing **downhill** or move the selector lever to 'D' if facing **uphill**. Depress the accelerator pedal slowly until the pawl is heard to click out of engagement and immediately apply the foot brake fully. The car should not move during this operation; it may then be driven away.

HEATING AND VENTILATING

The heating and ventilating system is provided for two purposes, viz.: (a) heating or ventilating the interior of the car, and (b) demisting or defrosting the windshield. The air may be cold or heated by water from the engine cooling system.

Air distribution is regulated by rotary controls on the fascia panel which can be used to vary the temperature and quantity of the air delivered to the car interior or the windshield; in warm weather the same controls are used to introduce fresh air at atmospheric temperature for ventilation.

Fresh-air circulation unit

On vehicles fitted with a fresh-air circulation unit the flow of air is regulated by rotary controls similarly positioned to the heater controls illustrated on page 6. To obtain maximum delivery of air at the windshield turn the right-hand control to the 'MAX' position and the left-hand control to the 'OFF' position.

Turn the right-hand control to the 'OFF' position and the left-hand control to the 'MAX' position when maximum delivery at toe-board level is required.

Intermediate positions can be selected to meet varying conditions.

Temperature control

This control regulates the temperature of the air supplied to the car interior. When moved to the 'HOT' position maximum heat will be obtained, and when moved to the 'COLD' position the heat supply is completely shut off. When the control is moved to the 'OFF' position the air supply at toeboard level is cut off. Intermediate positions can be selected to meet varying conditions.

Air control

This control regulates the quantity of air delivered to the windshield for demisting or defrosting.

To obtain maximum delivery at the windshield turn the control to the 'BOOST' position. With the control set at 'DEFROST' delivery at both windshield and floor will be obtained.

Booster blower

To meet extreme conditions an electric booster blower is incorporated in the heater system, and its use greatly increases the quantity of air fed into the heater.

The blower may be brought into operation when the car is stationary or travelling at a low speed in order to compensate for the lack of ram effect into the air intake normally caused by the forward motion of the vehicle.

The following instructions and illustrations give the control positions recommended to meet certain basic conditions likely to be encountered. They are provided as a guide, but it will be appreciated that a wide variety of settings can be made to meet varying conditions.

Freezing conditions

To remove ice from the windshield the temperature control should be set in the 'HOT' position and the air control in the 'BOOST' position.

HEATING AND VENTILATING

When starting from cold the air control should remain in the 'OFF' position until the engine is warm enough to heat the incoming air.

Switch on the blower motor if the car is stationary or travelling at low speed.

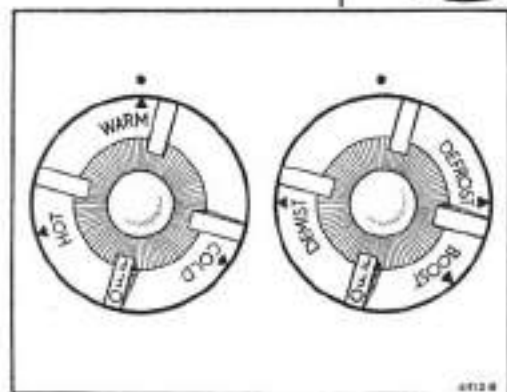
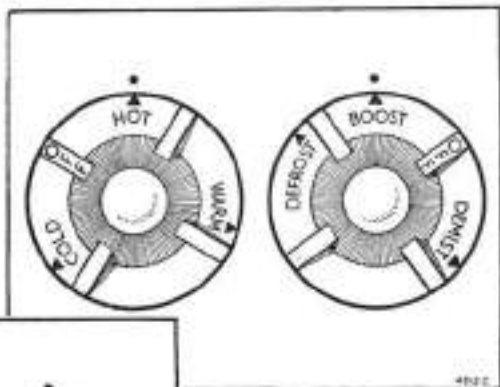
Cold weather

To prevent mist forming on the windshield and to ensure maximum circulation of warm air throughout the car the air control should be set between the 'DEMIST' and 'DEFROST' positions and the temperature control to the 'WARM' position.

When starting from cold the air control should remain in the 'OFF' position until the engine is warm enough to heat the incoming air.

Switch on the blower motor if the vehicle is stationary or travelling at low speed.

The controls set to remove ice from the windshield



The controls set to prevent mist forming on the windshield and to provide a circulation of hot air

Hot weather

To ensure a supply of air at head level the air control should be moved to the 'BOOST' position and the temperature control to the 'OFF' position.

Switch on the blower motor to increase the supply of air.

Warm weather

When a general circulation of cold air throughout the interior of the car is required the air control should be moved to the 'DEFROST' position and the temperature control moved to the 'COLD' position.

Switch on the blower motor to increase the supply of air.

BODY DETAILS

Door locks

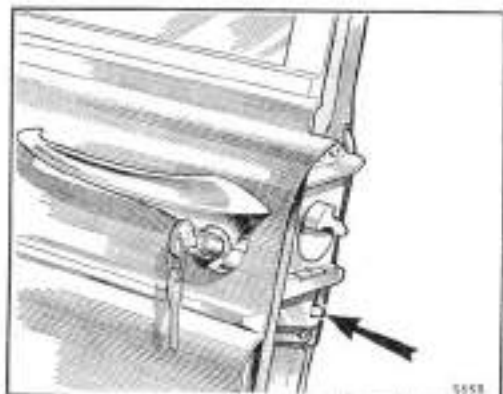
Front and rear doors may be locked from the inside by operating the interior handles.

To lock the front doors move the interior handle rearwards, which, upon being released, will return to the normal position. The door will remain locked until the interior handle is pushed forwards.

Rear doors are locked by moving the interior handle rearwards (where it will remain) and unlocked by pushing the handle forwards.

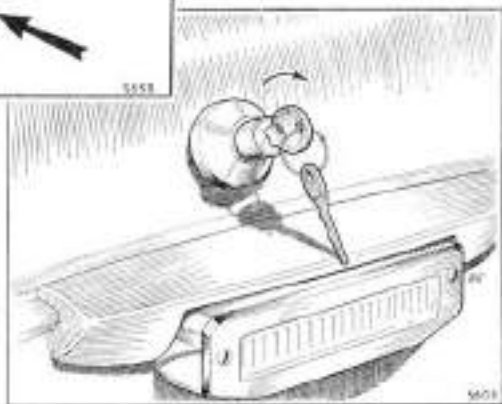
When carrying children the safety locks fitted to all doors can be set (see illustration below) and the doors can then only be opened from the outside.

Either front door may be locked from the outside by means of the key provided. To lock a door, turn the key slightly towards the front of the car, return it to the upright position, and withdraw it. To unlock the door reverse the locking process.



The children's safety lock. Push the lever upwards prior to closing the door to render the interior controls inoperative.

The luggage boot lock. Depress the button to release the catch.



A front door can, if required, be locked without using the key by pushing the interior handle rearwards prior to closing the door and holding the exterior push-button in as the door is closed. Entry can then only be gained by using the key.

Luggage boot

Release the catch by depressing the push-button immediately above the reversing lamp and raise the lid.

The boot can be locked in the closed position with the key provided.

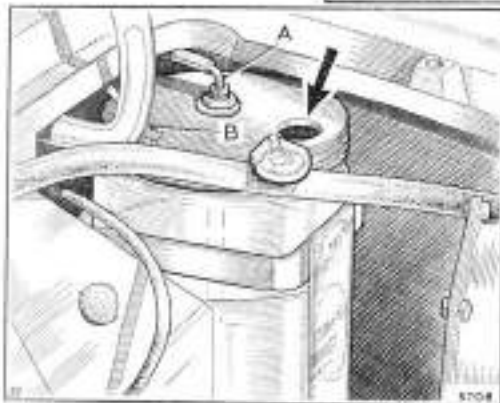
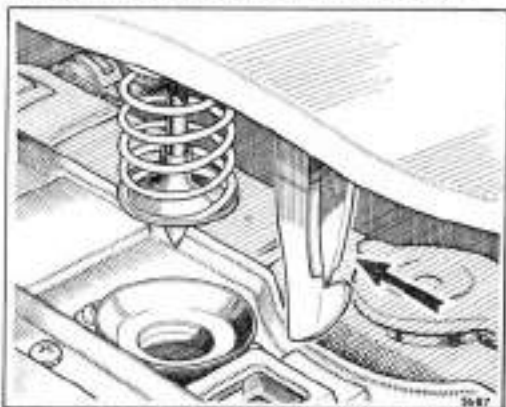
BODY DETAILS

Bonnet lock

Release the bonnet catch by pulling the knob marked 'B', which is in the extreme right-hand end of the parcel tray. Insert a finger between the top of the radiator grille and the bonnet, push the safety catch lever to the left, and raise the bonnet. Use the prop clipped to the right-hand side of the bonnet to support it.

When closing the bonnet apply double hand pressure to force it into the fully closed position. The safety catch and bonnet lock will be heard to engage.

Push the safety catch in the direction of the arrow to release the catch



The windshield washer container

- A. Suction tube and connection.
- B. Delivery tube and connection.

Filling the windshield washer container

The jar should be filled with clean water from a jug or water-can through the cap on the container top. Trico solvent should be added to the water in cold weather to prevent freezing. **Do not use radiator anti-freeze.**

Connecting windshield washer hoses

It is important that the suction hose from the push-button is connected to the central tube in the top of the suction chamber. To determine the correct hose start the engine and place a finger over the end of a hose while an assistant presses the button. If air is drawn into the hose as the finger is withdrawn this is the suction hose.

BODY DETAILS

Roof rack (when fitted as an accessory)

The roof rack must be regarded as a means of carrying bulky rather than heavy articles of luggage, i.e. articles which by virtue of their shape or size cannot be stowed conveniently inside the vehicle. Any weight carried on the roof must have an adverse effect on the handling of the vehicle, which must be driven with due discretion. A straight ride will not be influenced to any great degree, although cornering and behaviour in a cross-wind will be different due to the change in position of the centre of gravity and the centre of pressure.

Weight in excess of 85 lb. (38.6 kg.) should not be carried on the roof.

Fuel filler

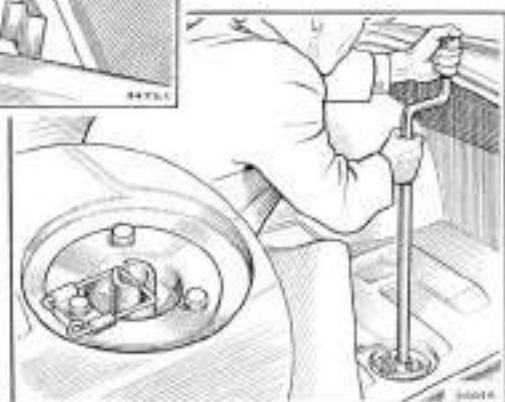
The filler is concealed by the panel above the left-hand rear wheel.

The contents of the fuel tank are sealed against theft after closing the filler panel and the panel is locked and unlocked with the key provided.



The fuel filler cap is combined with the access panel and is locked in the closed position

The spare wheel tray is lowered by turning the bolt in the boot floor anti-clockwise, using the starting-handle



Releasing the spare wheel

The spare wheel is secured on a tray below the luggage compartment by the bolt in the rear right-hand corner of the luggage boot floor. To release the wheel turn the bolt anti-clockwise as far as possible with the starting-handle.

After lowering the spare wheel tray the spare wheel may be withdrawn from its stowage.

When replacing the wheel push it forwards on the tray until it is centralized and located by the two stops and then retighten the securing bolt.

RUNNING INSTRUCTIONS

Running-in speeds

The treatment given to a new vehicle will have an important bearing on its subsequent life, and engine speeds during this early period must be limited.

The following instructions should be strictly adhered to.

SPEEDS OVER 45 M.P.H. (72 Km.P.H.) AND FULL-THROTTLE OPERATION SHOULD BE AVOIDED FOR THE FIRST 500 MILES (800 Km.).

DO NOT ALLOW THE ENGINE TO LABOUR IN ANY GEAR.

Starting up

Before starting up the engine make sure that the gear lever is in the neutral position. When starting from cold pull out the choke or mixture control. Switch on the ignition and operate the starter. The engine will be set in motion and after a second or two should start up, when the control must immediately be released. It is bad practice to keep the starter operating if the engine refuses to start as the starter takes a very heavy current from the battery and may discharge it.

After the engine has run for a few minutes, or almost immediately in warm weather, the choke control should be returned to the normal position. On no account must the engine be run for any length of time with this control pulled out or neat fuel will be drawn into the cylinders and considerable damage may be caused. The control should be returned to its normal position as soon as the engine is warm enough to run evenly without its use. It is not necessary, and in fact it is possibly detrimental, to use the mixture or choke control when starting a warm engine.

Should the car be fitted with automatic transmission, reference should be made to pages 12-15 for starting and operating instructions.

Warming up

Research has proved that the practice of warming up an engine by allowing it to idle slowly is definitely harmful. The correct procedure is to let the engine run fairly fast, at approximately 1,000 r.p.m., so that it attains its correct working temperature **as quickly as possible**. Pull out the choke control one or two notches, which has the effect of slightly opening the throttle without enriching the mixture.

Allowing the engine to work slowly in a cold state leads to excessive cylinder wear, and far less damage is done by driving the car straight on the road from cold than by letting the engine idle slowly in the garage.

Starting-handle

The starting-handle is stowed in the luggage boot. To crank the engine, using the starting-handle, raise the starting-handle aperture cover located centrally at the bottom of the radiator grille, insert the handle, and engage the starting dog.

When using the handle keep the thumb on the same side of the handle as the palm of the hand for safety in case of a misfire.

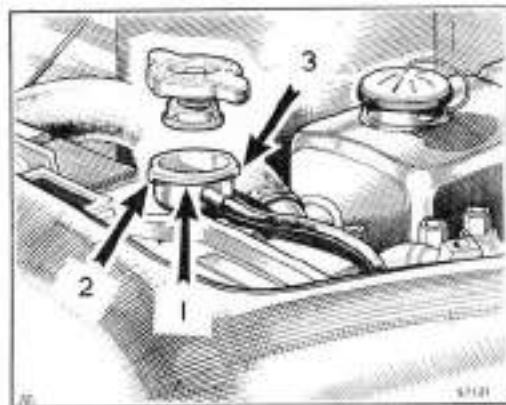
COOLING SYSTEM

Filling and topping up

The radiator should be filled to approximately $\frac{1}{2}$ in. (13 mm.) below the bottom of the filler neck.

Unscrew the filler cap slowly if it is being removed while the engine is hot. The filler cap is retained by a bayonet catch with a graduated cam which permits release of internal pressure prior to removal. A lobe on the end of the cam guards against accidental release of the cap before the internal pressure is relieved. **Protect your hand against escaping steam.**

Fill the cooling system with clean water (preferably soft) until the correct level is reached. For instructions covering the filling of the cooling system when an anti-freeze solution is to be added see 'Frost precautions'.



The radiator cap removed to show (1) the cam, (2) the stop, and (3) the safety catch

Frost precautions

Water, when it freezes, expands, and if precautions are not taken there is considerable risk of bursting the radiator, cylinder block, or heater (where fitted). Such damage may be avoided by draining the system when the vehicle is left for any length of time in frosty weather, or by adding anti-freeze to the water. When a heater is fitted anti-freeze **must** be used as no provision is made for draining the unit.

The cooling system is of the sealed type and relatively high temperatures are developed in the radiator header tank. For this reason anti-freeze solutions with an alcohol base are unsuitable owing to their high evaporation rate producing a rapid loss of coolant and a consequent interruption of circulation.

Before adding anti-freeze mixture the cooling system must be drained and flushed through by inserting a hose in the filling orifice and allowing water to flow through until clean. The taps should be closed after allowing all the water to drain away and the anti-freeze should be poured in first, and then the water. The radiator drain tap is on the left-hand side of the radiator bottom tank, and the cylinder block drain tap is located on the left-hand side forward of the exhaust pipe.

To avoid wastage by overflow add just sufficient water to cover the bottom of the header tank. Run the engine until it is hot and add more water (hot) to bring the surface to the correct working level, i.e. about 1 in. (2.5 cm.) from the top of the tank.

COOLING SYSTEM

The correct quantities of anti-freeze for different degrees of frost resistance in the Wolseley 6/99 are:

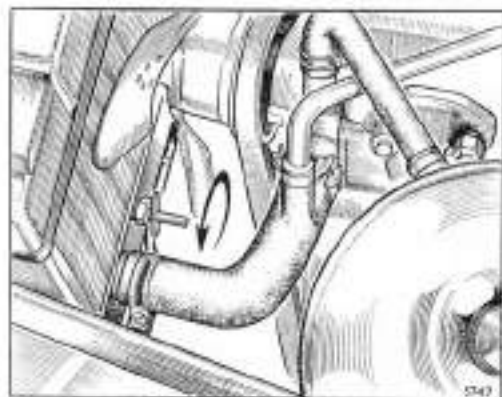
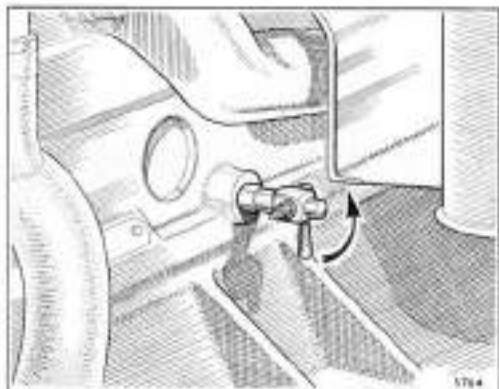
Down to 7° F. (-14° C.)
15 per cent. solution

Down to 0° F. (-18° C.)
20 per cent. solution

Only anti-freeze of the ethylene glycol type incorporating the correct type of corrosion inhibitor is suitable and owners are recommended to use Bluecol, Shell Snowflake, or Esso Anti-freeze.

NOTE.—Never use radiator anti-freeze in the windshield-washing equipment.

The cylinder block drain tap. Pull up in the direction of the arrow to open



The radiator drain tap. Turn in the direction of the arrow to open the tap

Draining the cooling system

The cooling system is provided with two drain taps, both of which must be opened when draining the cooling system. One tap is located on the left-hand side of the radiator bottom tank and the other is located on the left-hand side of the cylinder block just above the engine front mounting bracket. Both taps are accessible from the engine compartment.

The location of the car heater is such that it cannot be drained by the cooling system drain taps, and when freezing conditions are expected anti-freeze must be used in the cooling system.

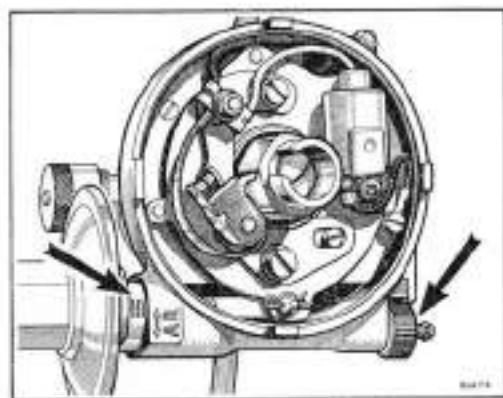
IGNITION EQUIPMENT

Ignition adjustment

Adjustment is provided for the ignition point to enable the best setting to be attained to suit varying fuels. Turning the knurled nut clockwise retards the ignition, turning it anti-clockwise advances the ignition.

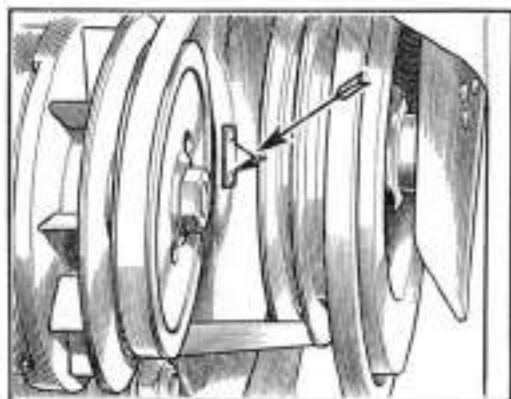
The barrel of the screwed spindle has graduations to indicate the settings.

The range of adjustment provided by the micrometer adjuster is normally ample to deal with variations encountered.



The adjusting nut and the vernier scale marked on the adjusting spindle

The timing pointer and the groove in the crankshaft pulley



Ignition setting

The normal ignition setting for both the high- and low-compression engines is with the spark taking place at T.D.C.

Top dead centre

The rim of the crankshaft pulley has a small groove which coincides with a pointer on the timing chain case when the crankshaft is in the T.D.C. position for Nos. 1 and 6 cylinders.

ELECTRICAL EQUIPMENT

Fuses

The fuse holder will be found under the large plastic cover located on the right-hand side of the radiator.

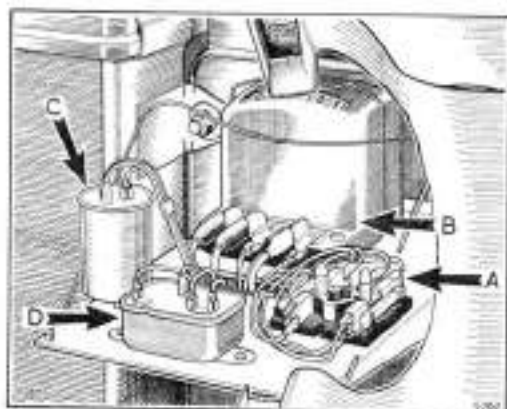
The fuse between '1' and '2' protects the accessories which operate irrespective of whether the ignition is on or off. The fuse between '3' and '4' protects the accessories which operate only when the ignition is switched on.

Two spare fuses are provided, and it is important that only fuses marked 35 amps. inside the fuse tube should be used.

If a new fuse blows immediately on replacement trace the fault before inserting another one.

Release the retaining clips and remove the plastic covers to gain access to the regulator and fuse holder located to the right of the radiator

- A. Fuse holder.
- B. Voltage regulator.
- C. Flasher unit.
- D. Horn relay.



Blown fuses

The units which are protected by the fuses can readily be identified on the wiring diagram. A blown fuse is indicated by the failure of all the units protected by it, and is confirmed by examination of the fuse when withdrawn. Before renewing a blown fuse inspect the wiring of the units that have failed for evidence of a short circuit or other fault. Remedy the cause of the trouble before fitting a new fuse.

Voltage control box

The cut-out and regulator are accurately set before leaving the Works and they must not be tampered with. The fuses are accessible without removing the cover protecting the regulator and cut-out units.

Flasher unit and horn relay

The flasher unit (c) and the horn relay (d) in the above illustration require no maintenance attention beyond an occasional check of the terminal connections.

Both units are sealed and must be replaced as complete units should they become faulty.

ELECTRICAL EQUIPMENT

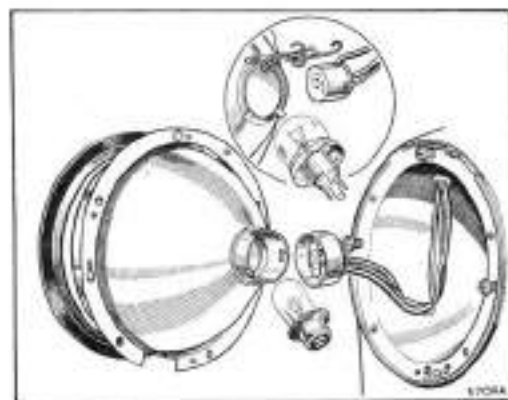
Headlamps (except European-type)

To reach the headlamp bulb remove the rim after extracting the retaining screw from the under side, push the lamp reflector and glass assembly inwards against the springs, turn it anti-clockwise until the locating screws register with the enlarged ends of the slots, and withdraw the light unit. Depress the back-shell and turn it to release the bulb. When replacing the bulb ensure that the slot in the bulb flange engages the keyway in the holder.

To replace the back-shell push it home against the spring pressure and turn it to engage the bayonet attachment.

Refit the lamp unit by positioning it so that the heads of the adjusting screws pass through the slotted holes in the flange, press the unit inwards, and turn it clockwise as far as it will go.

Replace the dust-excluding rubber and refit the front rim, locking it in position with the retaining screw.



The headlamp light unit removed, showing the bulb holder and back-shell, etc., with the European-type lamp inset

Headlamps (European-type)

The European-type headlamps are fitted with special front lenses and bulbs giving an asymmetrical light beam. Access to the bulb is achieved in the same way as described above, but the bulb is released from the reflector by withdrawing the three-pin socket and pinching the two ends of the wire-retaining clip to clear the bulb flange.

When replacing the bulb care must be taken to see that the rectangular pip on the bulb flange engages the slot in the reflector seating for the bulb.

Replace the spring clip with its coils resting in the base of the bulb flange and engaging the two retaining lugs on the reflector seating.

Setting headlamps

The lamps should be set so that the main driving beams are parallel with the road surface or in accordance with the local regulations.

Vertical adjustment may be made without disturbing the rim by turning the screw at the top of the lamp. The screw can be reached by inserting a thin

ELECTRICAL EQUIPMENT

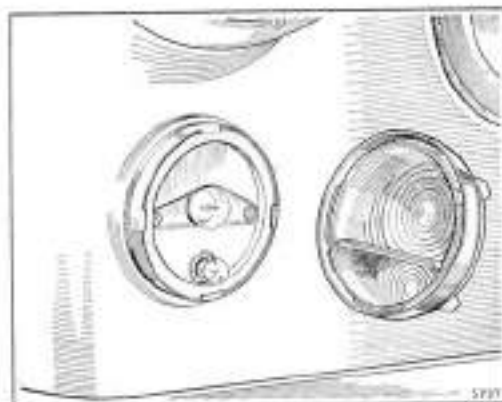
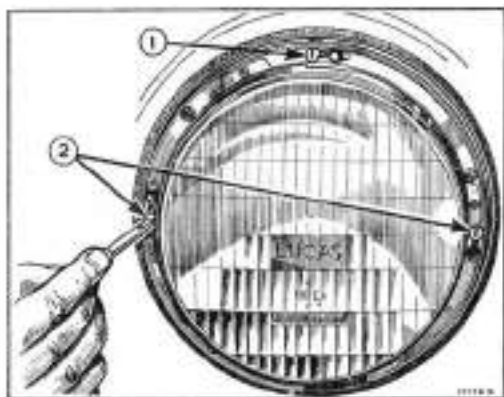
screwdriver in the groove provided on the under side of the rim at the top. A slot is provided in the dust-excluding rubber to permit this. Horizontal adjustment can be made by using the adjusting screws on each side of the light unit after removing the rim as described on page 26.

When replacing the dust-excluding rubber make sure that the moulded slot is fitted at the top to coincide with the vertical setting screw.

Remember that the setting of the beams is affected by the load on the car and the consequent spring deflection. The lamps should therefore always be set with the normal load on the car.

Avoid setting the main beams above horizontal; they will dazzle oncoming traffic and give inferior road illumination.

The method of setting the headlamp beams: (1) the vertical setting adjusting screw, which can be reached with a screwdriver with the rim in position; (2) the horizontal setting adjusting screws, which can only be reached after removal of the rim



The pilot and flasher lamp with the lens removed to show the four lens-retaining catches on the lamp body

Front pilot and flashing indicator lamps

To obtain access to either bulb press the lamp front inwards and turn it anti-clockwise until it is free to be withdrawn. Reverse this movement to replace the front.

Both bulbs are of the bayonet-type fixing.

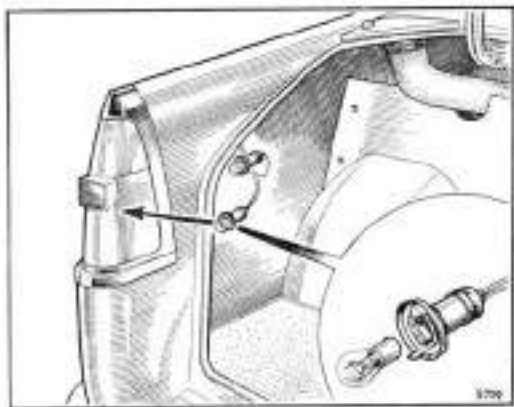
ELECTRICAL EQUIPMENT

Tail, stop, and flashing direction indicator lamps

Access to these bulbs is gained from inside the luggage boot. The bulb holders complete with bulbs may be pulled out from the lamp back-plate.

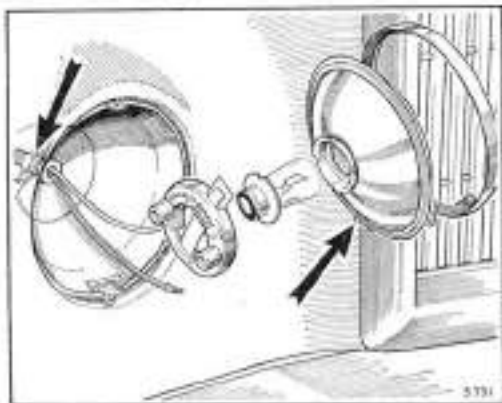
The flashing indicator lamps have single-filament bulbs which may be replaced either way round.

The tail and stop lamp has a twin filament. The offset peg bayonet fixing ensures correct replacement.



Tail lamp bulbs are accessible from inside the luggage boot compartment. Pull the bulb holders from the lamp back plate

A long-range driving lamp. The lower arrow indicates the reflector locating lugs. If the beam requires adjustment, first slacken the lamp retaining nut indicated by the upper arrow



Long-range driving lamps

Access to the lamp bulb is obtained by slackening the lamp rim clamp bolt, removing the rim, and withdrawing the light unit.

Twist the bulb holder anti-clockwise and pull it off. The bulb can then be removed from its holder.

Fit the replacement bulb in the holder with the slot in its disc in engagement with the projection in the holder. Refit the holder into the light unit.

When replacing the light unit ascertain that the locating lugs are correctly positioned in the lamp shell before attempting to tighten the lamp rim clamp bolt.

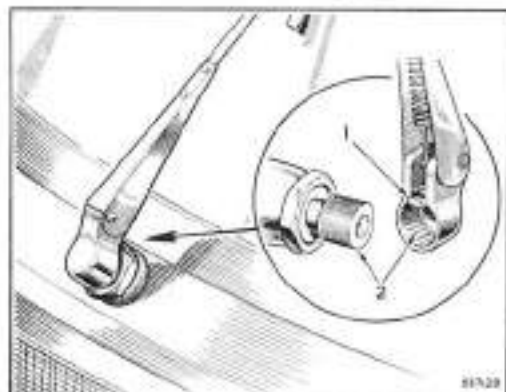
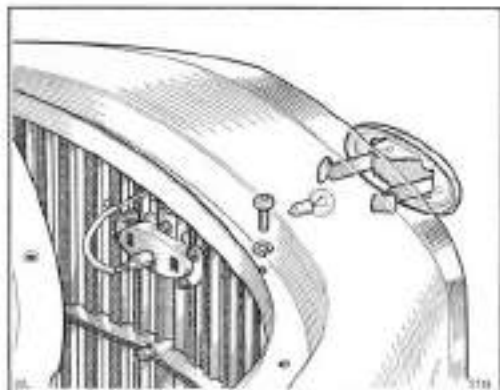
The beam can be adjusted by slackening the nut securing the lamp to its mounting in the body and turning the lamp to the desired position.

ELECTRICAL EQUIPMENT

Radiator badge lamp

To remove the bulb from the radiator badge unit raise the bonnet and insert a hand behind the grille, squeeze the badge centre retaining clips together, and push forward so that it can be withdrawn to give access to the bulb. To replace the badge centre press into position until the clips spring into place.

Access to the radiator badge bulb is obtained by withdrawing the badge centre, which is held in position by spring blades



To reposition the wiper arm raise the retaining clip (1) and withdraw the arm. Refit on another spline (2)

Windshield wiper

The wiper is controlled by a switch on the fascia. The blades park automatically when switching off.

No adjustment or lubrication is necessary.

Should it be necessary to reposition the blades, they can be withdrawn from their spindles by holding back the small retaining spring with a screwdriver or similar tool and replaced on a different spline.

Clock illumination lamp

Access to the clock illumination lamp bulb is gained by withdrawing the clock from the fascia panel. Squeeze the two retaining clips together, withdraw the clock, and remove the bulb holder complete with bulb from the back of the clock.

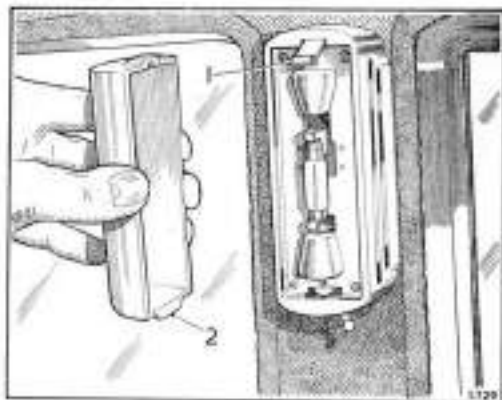
ELECTRICAL EQUIPMENT

Interior lamps

The plastic cover may be released from each interior roof lamp by springing back the retaining clip and withdrawing the cover clip end first.

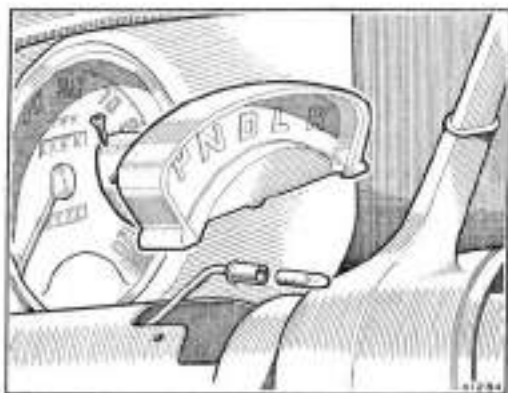
The festoon-type bulb is then accessible for removal.

When replacing the cover engage the lip at the switch end first.



An interior lamp with the cover removed, showing (1) the retaining clip and (2) the cover-locating tongue

The automatic transmission selector quadrant with the cover removed to show the bulb and bulb holder



Selector quadrant lamp (automatic transmission only)

To gain access to the automatic transmission selector quadrant lamp, remove the two screws securing the cover to the steering column cowl. After lifting the cover away the bulb holder may be withdrawn and the bayonet fixing bulb removed.

Number-plate and reverse lamps

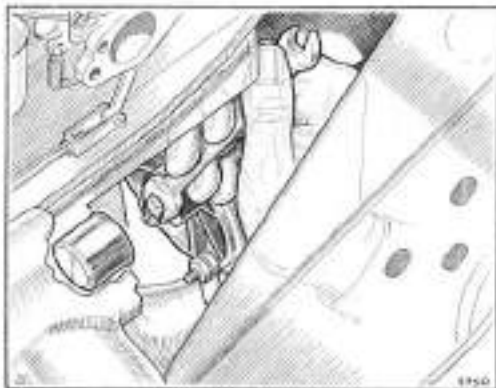
To reach the number-plate illumination bulb and the central reverse lamp bulb remove the two screws securing each lamp cover and withdraw the cover.

ELECTRICAL EQUIPMENT

Overdrive relay

The relay in conjunction with the mechanical governor controls the operation of the overdrive. Should the fuse mounted on the side of the unit 'blow', the overdrive will become inoperative and a replacement fuse must be fitted.

The overdrive relay located on the right-hand side of the engine compartment with the fuse shown inset



A jammed starter can be released by turning the squared end of the shaft

Starter

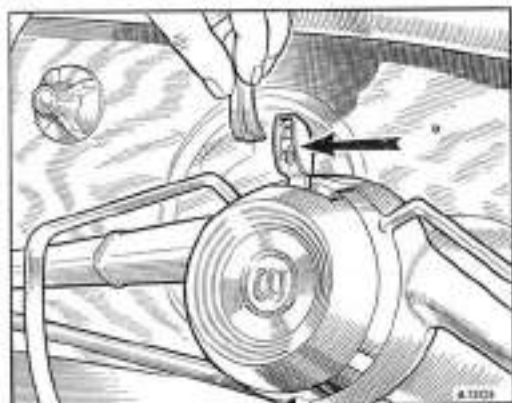
The starter motor is mounted on the left-hand side of the engine on the flywheel housing. It requires no lubrication between overhaul periods.

Should the starter pinion become jammed with the flywheel ring, it can usually be freed by rotating the spindle by means of the squared end with a spanner after withdrawing the protecting cap.

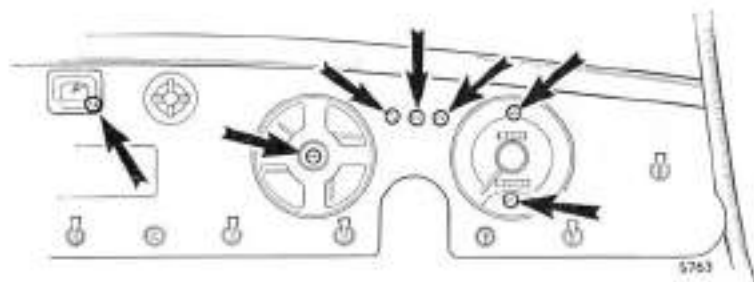
ELECTRICAL EQUIPMENT

Flashing indicator warning lamp

To remove the bulb from the flashing indicator warning lamp glass insert a small screwdriver into the slot provided at the top and gently prise out the glass from the switch lever. The bulb can now be eased from its retaining clip.



The direction indicator warning lamp glass removed to show the bulb



The location of the panel bulbs and warning lights

Panel lamps and warning lamps

These bulbs are accessible from beneath the instrument panel and will be found in the positions indicated above.

To remove the bulbs from the instrument panel withdraw the holders from the back of the instruments.

ELECTRICAL EQUIPMENT

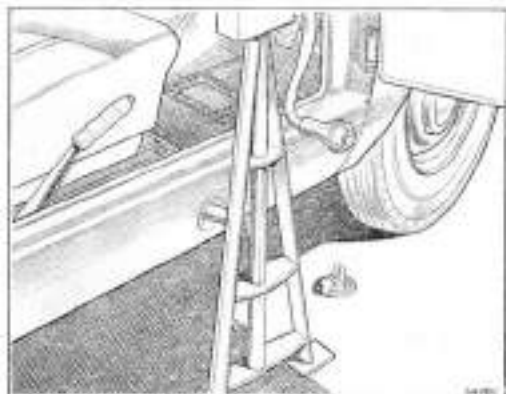
Replacement bulbs	Watts	B.M.C. Part No.
Headlamps (left dip—all R.H.D. except Sweden)	50/40	13H140
Headlamps (vertical dip—hooded R.H.D. Sweden)	45/40	3H921
Headlamps (vertical dip—L.H.D. Europe except France)	45/40	13H138
Headlamps (vertical dip—L.H.D. France—yellow)	45/40	13H139
Headlamps (right dip—L.H.D. except Europe)	50/40	13H141
Long-range driving lamps	48	7H5069
Pilot lamps	6	2H4817
Stop and tail lamps	21/6	1F9026
Flashing indicator lamps	21	1F9012
Number-plate lamp	6	2H4817
Reverse lamp	21	1F9012
Interior lamps	6	2H9504
Radiator badge lamp	6	2H4817
Brake servo, ignition, and headlamp warning lamps	2-2	2H4732
Direction indicator warning lamp	1-5	1G2894
Clock dial lamp	2-0	7H1822
Instrument dial lamps	2-2	2H4732

WHEELS AND TYRES

Use of the jack

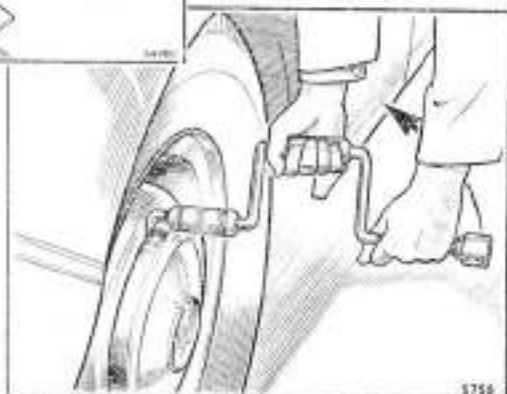
The jack and tool kit are housed in the boot.

A jacking point is provided below each front door in the form of a socket normally closed by a metal plug. Remove the plug and insert the lifting arm. Wind the jack handle clockwise to raise the car.



The jack should be positioned leaning slightly outwards at the top

Insert the flattened end of the wheelbrace between the hub cover and the wheel. Lever in the direction indicated by the arrow



Wheel removal

To remove a wheel:

- (1) Apply the hand brake.
- (2) Use the flattened end of the wheelbrace to lever the hub cover from the wheel.
- (3) Slacken the wheel nuts half a turn (anti-clockwise).
- (4) Jack up the side of the car.
- (5) Completely unscrew the wheel nuts and remove the wheel.

When replacing the wheel:

- (1) Locate the wheel on the hub.
- (2) Tighten the nuts lightly with the wheelbrace.
- (3) Lower the jack and fully tighten the nuts. Imagining the nuts to be numbered 1 to 5, the recommended tightening sequence is 1, 3, 5, 2, 4.
- (4) Replace the hub cover.
- (5) Remove the jack and refit the metal plug in the body socket.

WHEELS AND TYRES

Tyre pressures

The recommended tyre pressures are given on page 4.

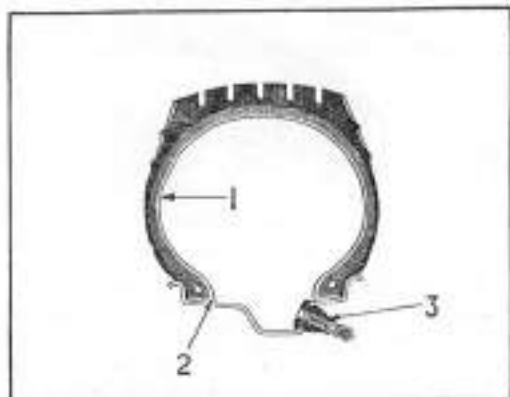
Pressures shown are for normal motoring where sustained high speeds are not possible.

For touring at sustained speeds in excess of 85/90 miles per hour (136/144 km.p.h.) inflation pressures in front and rear tyres should be increased by 6lb./sq. in. (-42 kg./cm.²).

Maintain the correct pressures by checking with an accurate tyre gauge at least once a week and inflating if necessary.

Any unusual pressure loss should be investigated. Underinflation causes rapid tyre wear, and even more serious is the possible damage to the cords of the fabric owing to excessive bending or flexing of the cover walls.

Section through a tubeless tyre, showing (1) the air-retaining liner, (2) the rubber air seal, (3) the rubber-sealed valve



Tubeless tyres

The air seal in a tubeless tyre is formed by the tyre bead on the wheel rim, as can be seen in the illustration above, and the valve is sealed against air leaks by the large 'mushroom' head on the inside of the rim.

In any work carried out great care must be used to avoid damage to the bead; tyre levers in good condition are essential.

Removal and replacement procedure is similar to that used for conventional covers (see instructions on page 36).

Initial inflation can be carried out with a foot pump and a rope tourniquet around the periphery of the tyre, but it is more easily accomplished with an air-line.

Tyre examination

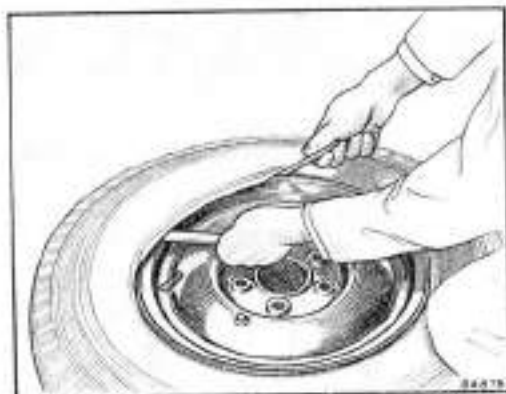
Flints and other sharp objects should be removed with a penknife or similar tool. If neglected, they may work through the cover.

Penetration does not normally result in deflation and the tyres should be repaired when convenient. Penetrations by objects of small diameter can be repaired with the tyre manufacturer's plugging kit, while more extensive damage requires the removal of the tyre for vulcanizing.

WHEELS AND TYRES

Tyre removal and replacement

Remove the valve interior to deflate the tyre completely and push both cover edges into the base of the rim at the point diametrically opposite to the valve, then lever the cover edge near the valve over the rim edge. Continue round the tyre until the bead on one side is completely free. Stand the tyre and wheel upright, keeping the remaining bead in the well-base of the wheel rim. Lever the tyre bead at the top of the wheel over the rim flange, and at the same time push the wheel away from the cover with the other hand.



Push the cover bead into the well of the road wheel and lever the tyre over the rim close to the valve

A similar technique has to be employed when replacing the tyre, keeping the beaded edge in the well-base of the wheel rim and carefully levering the tyre edge over the wheel rim on the opposite side. Great care must be exercised to avoid damage to the tyre bead and the tyre levers used must be in good condition.

Initial inflation can be carried out with a foot pump, using a rope tourniquet around the periphery of the tyre to obtain a seal between the tyre edge and the wheel rim, but it is more easily accomplished with a compressed-air line.

Valves and caps

Valves may be tested by removing the valve cap and immersing the exposed end of the valve in water. If the seating is faulty, as shown by air bubbles, the valve interior should be renewed.

Ensure that the valve caps are screwed down firmly by hand. Do not use tools as too much force will damage the rubber seating. The cap prevents the entry of dirt into the valve mechanism and forms an additional seal on the valve, preventing any leakage if the valve interior is damaged.

Changing position of tyres

To obtain the best tyre mileage and to suppress the development of irregular wear on the front tyres it is essential that the wheels be interchanged diagonally with the rear wheels and the spare wheel at least every 3,000 miles (4800 km.) (see page 47).

Impact fractures

Excessive local distortion as a result of striking a kerb, a loose brick, a deep pot-hole, etc., may cause the casing cords to fracture. Every effort should be made to avoid such obstacles.

BODY ATTENTION

Coachwork, wings, and windshield

The coachwork may be dusted with a dry cloth without harming the surface, but it is always advisable to remove mud, preferably when in a wet state, with an abundant quantity of water. Tar which may find its way onto the surface can be removed with a cloth damped with eucalyptus oil. It is advisable to give the car a polish once a week with a good-quality car polish which is free from abrasive.

Methylated spirits (denatured alcohol) should be used to remove tar spots and other stains from the windshield. It has been found that the use of some silicon- and wax-based polishes for this purpose can be detrimental to the wiper blades.

Chromium finish

The chromium parts should on no account be cleaned with metal polish. **Wash them frequently with soap and water**, and when the dirt has been removed polish the surface with a clean dry cloth or a chamois-leather until bright. An occasional application of wax polish will help to preserve the finish.

Stainless steel

Stainless steel may be polished with a good-quality metal polish should it become tarnished.

Interior

The cushions of the car should be cleaned periodically by wiping over with a damp cloth. Accumulations of dirt, if left too long, eventually work into the pores of the leather, giving a soiled appearance not easily remedied. A little neutral soap such as 'curd' or 'toilet' may be used, but detergents, caustic soaps, petrol, or spirits of any kind must not be used.

MAINTENANCE ATTENTION

DAILY

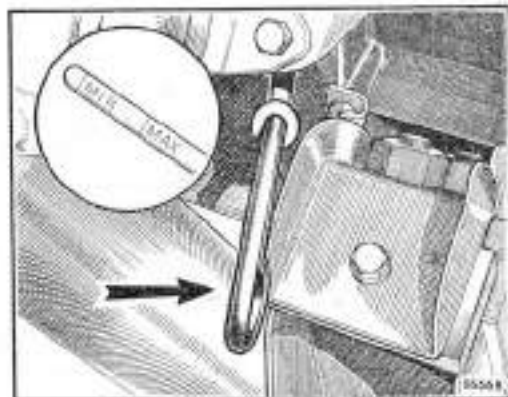
Radiator

Check the level of water in the radiator, and top up if necessary.

Checking engine oil level

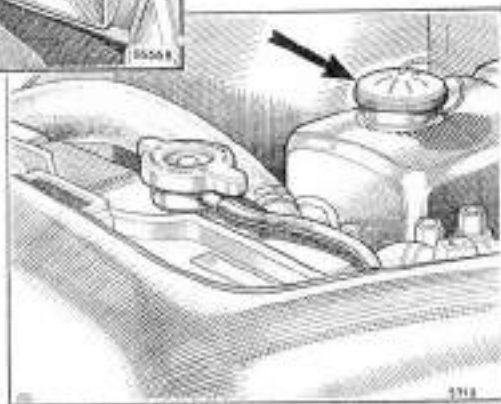
The level of the oil in the engine sump is indicated by the dipstick on the right-hand side of the engine. Maintain the level at the 'MAX' mark on the dipstick and never allow it to fall below the 'MIN' mark.

The recommended lubricants are indicated at the end of the book.



The oil filler dipstick with the oil level marking shown in the inset

Turn the oil filler cap anti-clockwise to release it



Filling up with engine oil (A)

The filling orifice is on the forward end of the cylinder head cover and is provided with a quick-action cap.

Clean, fresh oil is essential. The use of an engine oil to Ref. A (see end of book) is recommended.

WEEKLY

Tyre pressures

Check all tyre pressures, using a tyre gauge, and inflate, if necessary, to the recommended pressures. Ensure that the valves are fitted with screw caps, inspect the tyres for possible damage, and wipe off any oil or grease.

LUBRICATION CHART

KEY TO DIAGRAM

DAILY

- (1) ENGINE. Check the level with the dipstick, and replenish if necessary with oil to Ref. A.

AFTER THE FIRST 500 MILES (800 Km.)

- (2) ENGINE. Drain off the old oil and refill with fresh oil to Ref. A.
- (3) GEARBOX (SYNCHROMESH). Drain off the old oil and refill with fresh oil to Ref. A.
- (4) OVERDRIVE. Drain off the old oil and refill with fresh oil to Ref. A.
- (5) AUTOMATIC TRANSMISSION. Inspect oil by the dipstick and top up if necessary with oil to Ref. E.
- (6) REAR AXLE. Drain off the old oil and refill with fresh oil to Ref. B.

EVERY 1,000 MILES (1600 Km.)

- (7) GEARBOX (SYNCHROMESH). Inspect oil level by the dipstick, and top up if necessary with oil to Ref. A.
- (8) REAR AXLE. Inspect oil level, and top up if necessary with oil to Ref. B.
- (9) STEERING GEARBOX. Check oil level, and top up if necessary with oil to Ref. B.
- (10) STEERING IDLER. Check oil level, and top up if necessary with oil to Ref. B.
- (11) STEERING JOINTS. Give three or four strokes of the grease gun filled with grease to Ref. C.
- (12) HAND BRAKE. Give the cable nipple three or four strokes with the grease gun filled with grease to Ref. C.
- (13) PROPELLER SHAFT. Give the nipples three or four strokes with the grease gun filled with grease to Ref. C.
- (14) CARBURETTERS. Remove the caps from the top of the suction chambers and add a few drops of oil to Ref. D.
- (15) BRAKES. Inspect fluid level in master cylinder supply tank, and top up if necessary.
- (16) CLUTCH (SYNCHROMESH GEARBOX). Inspect fluid level in master cylinder supply tank, and top up if necessary.

EVERY 3,000 MILES (4800 Km.)

- (17) ENGINE. Drain off the old oil and refill with fresh oil to Ref. A.

- (18) AIR CLEANER. Drain and wash out air cleaner bowl and refill with fresh oil to Ref. A.
- (19) DYNAMO. Add two drops of oil to Ref. D to the hole in the end of the bearing.
- (20) DISTRIBUTOR. Withdraw rotating arm and add a few drops of oil to Ref. D to cam bearing and also to advance mechanism through gap around cam spindle. Smear cam and rocker bearing with oil or grease. (Give the shaft bearing greaser one turn.)
- (21) AUTOMATIC TRANSMISSION. Inspect the oil level by the dipstick, and replenish if necessary with oil to Ref. E.

EVERY 6,000 MILES (9600 Km.)

- (22) OIL FILTER. Fit new element and wash bowl in fuel.
- (23) GEARBOX (SYNCHROMESH). Drain off old oil and refill with fresh oil to Ref. A.
- (24) OVERDRIVE. Drain off old oil and refill with fresh oil to Ref. A.
- (25) REAR AXLE. Drain off old oil and refill with fresh oil to Ref. B.
- (26) FRONT HUBS. Remove the wheel discs and prise off the grease-retaining caps from the ends of the hubs. Fill caps with grease to Ref. H and replace securely.
- (27) WATER PUMP. Remove filler plug and add a few drops of S.A.E. 140 oil. Replace the plug.
- (28) FRONT DAMPERS. Inspect fluid and top up if necessary.
- (29) REAR DAMPERS. Inspect fluid, and top up if necessary.

EVERY 12,000 MILES (19200 Km.)

- (30) ENGINE. Drain off old oil, flush engine, using one of the recommended flushing oils, and refill with fresh oil to Ref. A.

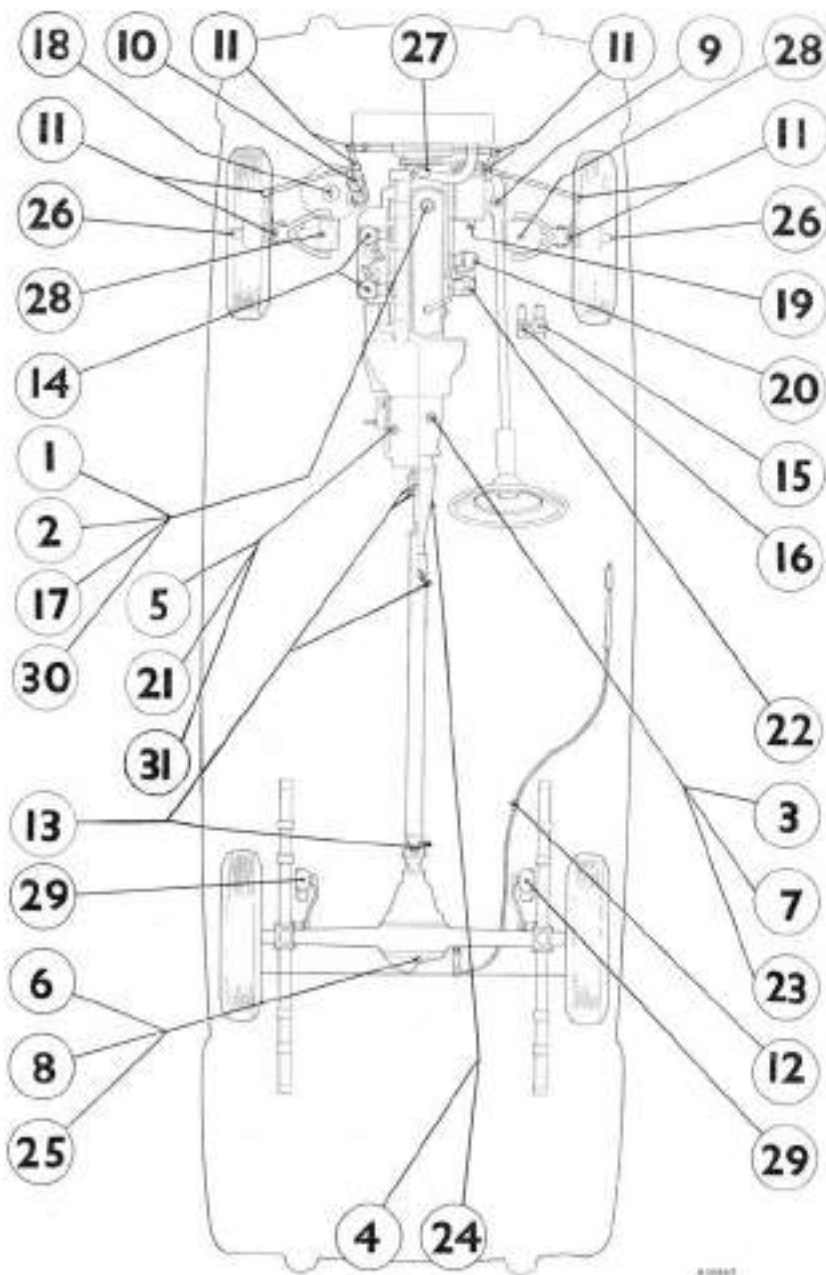
EVERY 24,000 MILES (38400 Km.)

- (31) AUTOMATIC TRANSMISSION. Drain off the old oil and refill with fresh oil to Ref. E.

MULTIGRADE MOTOR OILS

In addition to the lubricants recommended in this Handbook we also approve the use of the multigrade motor oils produced by the oil companies shown in our publications for all climatic conditions unless the engine is in poor mechanical condition.

LUBRICATION DIAGRAM FOR THE
WOLSELEY 6/99



EVERY 1,000 MILES (1600 Km.)

For the complete summary of attention to be given every 1,000 miles (1600 km.) refer to page 58.

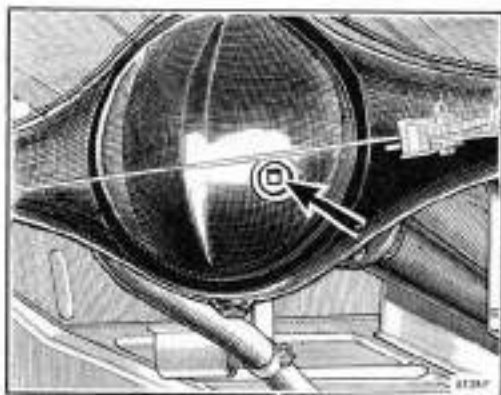
Gearbox (A) (synchronesh only)

Check the level, and top up if necessary. To reach the combined filler plug and dipstick lift the carpet and remove the right-hand rubber cover on the top of the gearbox covering.

Remove the plug and dipstick and fill up to the indicated level.

The use of an oil to Ref. A (page 68) is recommended.

The gearbox dipstick and filler plug with the oil level marking on the dipstick shown in the inset



Use the square spanner provided in the tool kit to remove the rear axle filler plug

Rear axle (B)

Check the level, and top up if necessary. The filler plug is located on the rear side of the axle and also serves as an oil level indicator. After topping up allow time for any surplus oil to run out should too much have been injected. This is most important, as if the axle is overfilled the lubricant may leak through to the brake linings and lessen their efficiency.

IMPORTANT.—Use only Hypoid oil in the rear axle (see Ref. B on page 68).

EVERY 1,000 MILES (1600 Km.)

Steering gearbox (B)

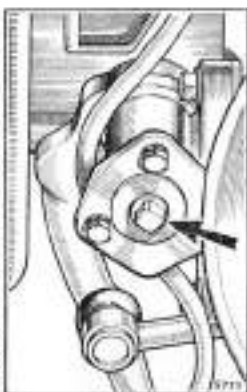
Check the level, and top up if necessary. The correct level is flush with the bottom of the filler hole. Take care to ensure that no dirt or grit enters the filler hole when removing or replacing the filler plug.

An oil to Ref. B (see end of book) is recommended.

Steering idler (B)

Check the level of oil in the steering idler, and top up if necessary with an oil to Ref. B (see end of book). The steering idler is on the left-hand frame side-member on right-hand-drive cars and on the right-hand side on left-hand-drive models and is accessible from the engine compartment.

NOTE.—On no account should the steering idler be overlooked, as lack of lubricant in this component may cause a serious breakdown due to the additional load imposed on the steering gearbox.



(1) The steering-box filler plug and (2) the steering idler filler plug. The correct level is flush with the bottom of the filler hole

The carburettor piston dampers with one damper partially withdrawn for lubrication



Carburettor dampers (D)

Unscrew the oil cap at the top of the suction chamber of each carburettor, withdraw the cap with its attached plunger, pour in a small quantity of engine oil, and replace the cap. In no circumstances should a heavy-bodied lubricant be used.

Failure to lubricate the piston dampers will cause the pistons to flutter and reduce acceleration. An oil indicated under Ref. D (see end of book) is recommended.

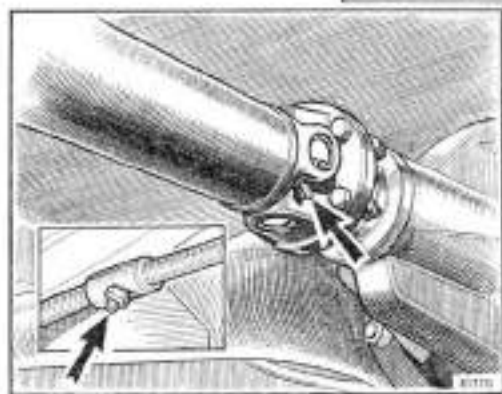
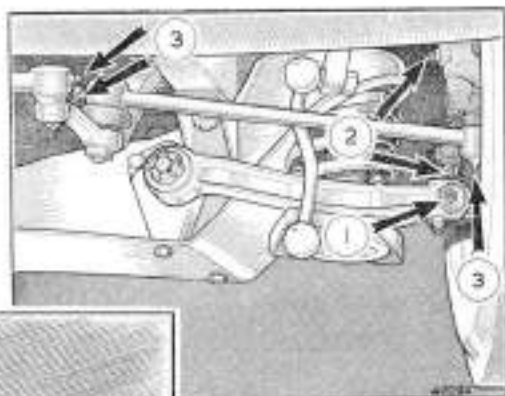
EVERY 1,000 MILES (1600 Km.)

Lubrication points (C)

Lubrication nipples are situated at the points listed below and should receive several strokes of the grease gun filled to Ref. C (see end of book).

- (1) Front suspension outer fulcrum pins (one nipple each side).
- (2) Swivel pins (two nipples each side). This is best done when the vehicle is partly jacked up as the grease is then able to penetrate properly around the bushes.
- (3) Steering track-rod and draglink ball joint nipples (one on each joint—six in all).
- (4) Propeller shaft universal joint (two nipples on vehicles fitted with synchromesh gearbox, three nipples with automatic gearbox).
- (5) Hand brake cable (one nipple on driver's side of car). Use grease only.

The front suspension and steering linkage lubricating points



The rear propeller shaft joint lubrication and the brake cable lubrication (inset)

Brake and clutch master cylinders

Check the level of the fluid in the hydraulic brake and clutch master cylinders (located on the engine bulkhead), and replenish if necessary with LOCKHEED GENUINE BRAKE FLUID. If this is not available, a fluid which conforms to Specification S.A.E. 70.R1 should be used.

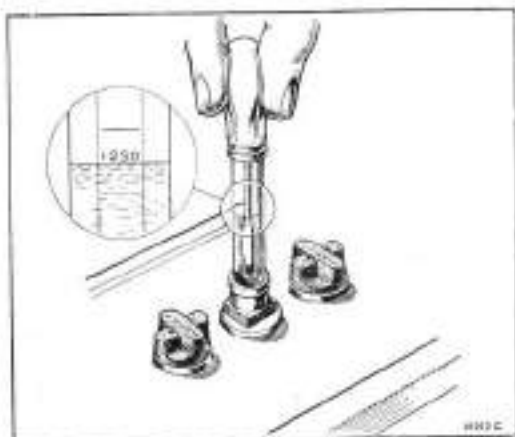
The fluid level should be maintained $\frac{1}{2}$ in. (13 mm.) below the bottom of the filler neck in each cylinder.

NOTE.—Vehicles fitted with automatic transmission have only the brake master cylinder fitted.

EVERY 1,000 MILES (1600 Km.)

Battery

Remove the filler plug from each of the cells and examine the level of the electrolyte in each. If necessary, add sufficient distilled water to bring the electrolyte **just above the tops of the separators**. Do not use tap-water and do not use a naked light when examining the condition of the cells. Do not overfill. Wipe away all dirt and moisture from the top of the battery.



When taking hydrometer readings make certain that the float is free, hold the tube vertically, and do not draw in too much electrolyte. Take the readings at eye level

Checking specific gravity

Check the condition of the battery by taking hydrometer readings of the specific gravity of the electrolyte in each of the cells. Readings should not be taken immediately after topping up the cells. The specific gravity readings and their indications are as follows:

	<i>Home Trade and climates below 90° F. (32° C.)</i>	<i>Climates frequently above 90° F. (32° C.)</i>
Cell fully charged	1.270 to 1.290	1.210 to 1.230
Cell about half-discharged	1.190 to 1.210	1.130 to 1.150
Cell completely discharged	1.110 to 1.130	1.050 to 1.070

The figures given in the table are corrected to an electrolyte temperature of 60° F. (15.5° C.) and the hydrometer readings obtained must also be corrected to suit the temperature of the electrolyte.

For every 5° F. (2.7° C.) above 60° F. (15.5° C.) add .002.

For every 5° F. (2.7° C.) below 60° F. (15.5° C.) subtract .002.

All cells should give approximately the same reading; if there are wide variations between the cells the battery should be examined by a Distributor or Dealer.

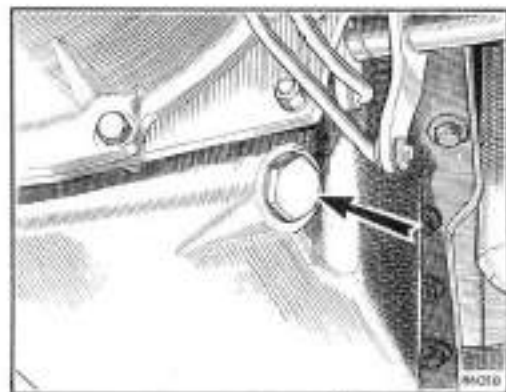
Never leave the battery in a discharged condition for any length of time. Have it fully charged, and every fortnight give it a short refreshing charge to prevent any tendency for the plates to become permanently sulphated.

EVERY 3,000 MILES (4800 Km.)

For the complete summary of attention to be given every 3,000 miles (4800 km.) refer to pages 58 and 59.

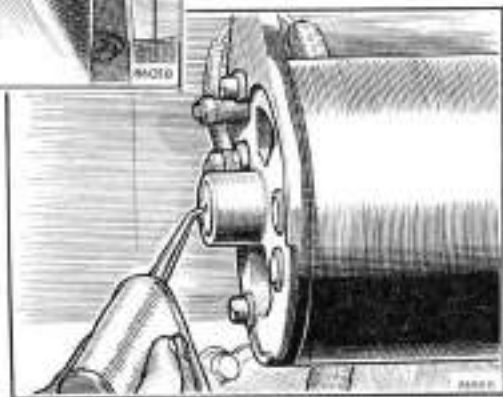
Draining the sump

We recommend that when the car has completed the first 500 miles (800 km.) the oil in the sump should be drained to clear the sump of any impurities that may have accumulated during the initial running-in period. After the first 500 miles (800 km.) we recommend that the sump should be drained every 3,000 miles (4800 km.) and refilled with the appropriate grade of lubricant. This operation is best carried out immediately the car returns from a journey, while the oil is still warm and fluid.



The engine sump plug is located on the right-hand side of the engine

The lubricating aperture for the dynamo end bearing. Do not overlubricate



Remove the hexagon-headed drain plug at the rear of the sump to release the old engine oil. Clean the plug thoroughly before refitting, and screw up tightly. Refill the sump with fresh oil to Ref. A (see end of book).

Dynamo lubrication (D)

Add two or three drops of oil to Ref. D (see end of book) to the dynamo bearing through the central hole in the rear end bearing plate.

Do not over-oil.

EVERY 3,000 MILES (4800 Km.)

Automatic transmission (E)

The automatic transmission fluid level should be checked and topped up if necessary.

Absolute cleanliness is essential to ensure long, trouble-free transmission life. Make certain that all fluid added to the transmission unit is perfectly clean; thoroughly clean around the filler and drain plugs before checking, filling, or draining the transmission.

Use only a recommended automatic transmission fluid to Ref. E (see end of book) for refilling and for topping up.



The automatic transmission dipstick markings

The following procedure will enable the operation to be satisfactorily carried out:

- (1) Run the engine until it reaches its normal running temperature.
- (2) Drive the car onto a level surface and apply the hand brake. Place the selector lever at 'P'.
- (3) Open the cover in the floor and clean around the dipstick.
- (4) Move the selector lever to 'L' and allow the engine to idle for one minute.
- (5) With the engine idling, take a dipstick reading quickly; delay may lead to a false reading due to fluid splash.
- (6) Add sufficient fluid to bring the level to the 'FULL' mark on the dipstick. Do not overfill.
- (7) Re-check the level.

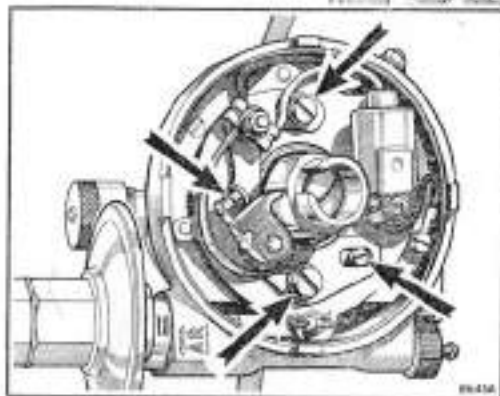
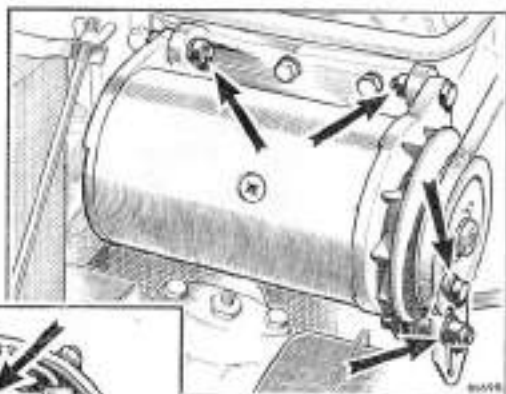
EVERY 3,000 MILES (4800 Km.)

Dynamo driving belt

Inspect the dynamo driving belt, and adjust if necessary to take up any slackness. Care should be taken to avoid overtightening the belt, otherwise undue strain will be thrown on the dynamo bearings.

The belt tension is adjusted by slackening the bolts of the dynamo cradle and moving the dynamo the required amount by hand. Tighten up the bolts thoroughly.

The four dynamo attachment points which must be slackened for belt adjustment



The distributor points, contact plate securing screws, and the eccentric adjuster

Contact breaker points

Remove the distributor cap and turn the engine by hand until the contacts are fully opened. Check the gap with the gauge on the screwdriver supplied in the tool kit; the gauge should be a sliding fit in the gap. If the gap varies appreciably from the gauge slacken the two contact plate securing screws. Turn the adjusting eccentric until the gap is correct and tighten the screws. The thickness of the gauge is .016 in. (.40 mm.).

If the contact breaker points are burned or blackened clean them with a fine carborundum stone or with very fine emery-cloth.

Cleaning of the contacts is made easier if the contact breaker lever carrying the moving contact is removed. To do this unscrew the nut securing the end of the spring, remove the spring washer, flat washer, and both wire terminals, and lift off the lever complete with spring. After cleaning check the contact breaker setting on replacement.

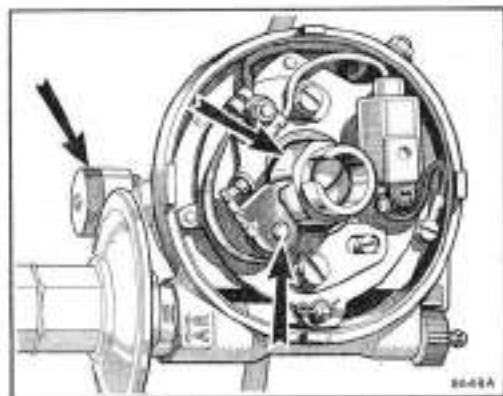
EVERY 3,000 MILES (4800 Km.)

Distributor

Remove the distributor cover and rotor arm and lightly smear the cam with grease to Ref. C (see end of book) or thin engine oil. Avoid overgreasing.

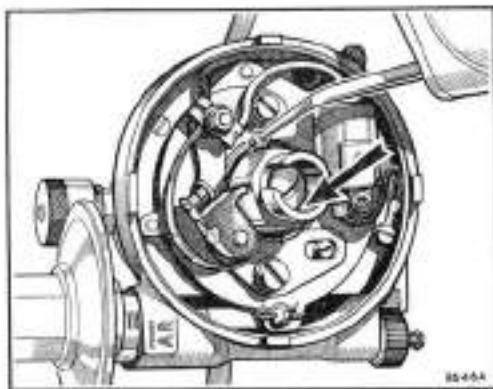
At the same time drop a spot of oil or place a smear of grease on the contact breaker pivot.

Drop a few spots of thin engine oil to Ref. D (end of book) on the automatic advance weights and on the screw in the centre of the cam spindle after withdrawing the rotor arm. Do not remove this screw as clearance is provided for the oil to pass.



The distributor cam, cam spindle, and contact breaker lubricating points

The distributor cam bearing and automatic advance mechanism lubricating points



Tighten the knurled cap of the spindle greaser one complete turn. Remove and refill with grease to Ref. C as required.

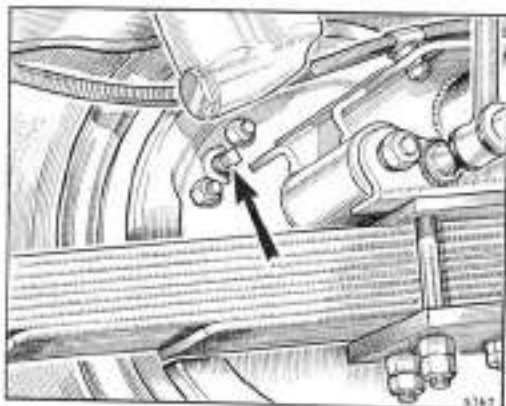
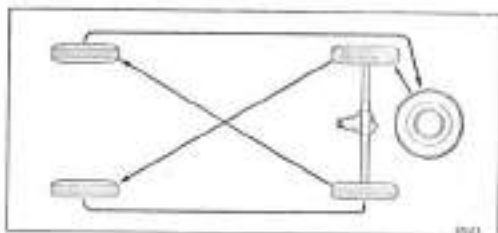
Make sure that oil or grease does not find its way onto the contact points. Carefully wipe away all surplus oil and see that the contact breaker points are perfectly clean.

EVERY 3,000 MILES (4800 Km.)

Road wheels

Change the running position of the tyres and bring the spare wheel into use. This will equalize the tyre wear on all wheels and prolong the life of the tyres. Maintain the correct tyre pressures. Underinflation will cause excessive wear and rapid deterioration of the tyre walls.

Change the road wheels round diagonally and bring the spare into use as shown in the illustration in the illustration



The square-headed brake-shoe adjusting screw on the rear brake backplate

Brake adjustments

Adjustment is required when excessive pedal travel is necessary to apply the brakes.

Place blocks against the wheels which will remain in contact with the ground and use the special jack provided in the tool kit to raise one side of the car.

Front brakes

No adjustment is provided or is necessary on the front brakes as they are self-adjusting.

Rear brakes

After releasing the hand brake turn the square-headed adjusting screw on the brake backplate in a clockwise direction until a definite resistance is felt, then turn the adjuster back one notch. The wheel should then be free to rotate without rubbing.

Adjusting the shoes automatically adjusts the hand brake mechanism. No attempt must be made to adjust the hand brake operation by means of the cable.

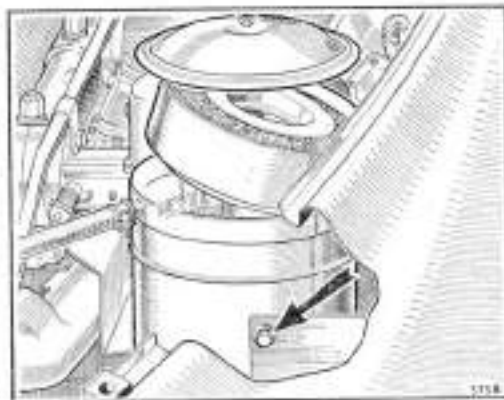
EVERY 3,000 MILES (4800 Km.)

Air cleaner (A)

Slacken the air cleaner body securing screw and move the cleaner body sideways to clear the wing valance.

Remove the central wing bolt to release the top cover and filter gauze, which should be washed in petrol (gasoline) or paraffin (kerosene). Drain and dry it thoroughly before replacing.

Remove from the filter bowl any accumulation of sediment and refill with fresh oil to Ref. A (see end of book) to the level indicated by the arrow on the side of the bowl.



The air cleaner top cover and filter gauze removed. The arrow indicates the air cleaner body securing screw

Use the special Champion sparking plug gauge and setting tool and move the side wire on the plug—never the centre electrode



Sparkling plugs

The sparking plugs should be cleaned, preferably by a garage with special air blast equipment, and the gaps reset to .025 in. (.64 mm.).

Use the special Champion sparking plug gauge and setting tool and move the side wire on the plug, never the centre one.

Oily, dirty, or corroded plugs cannot give good results.

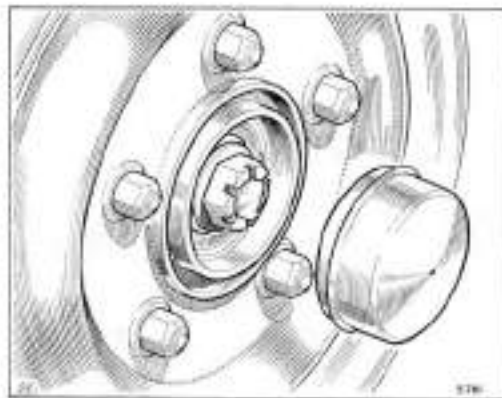
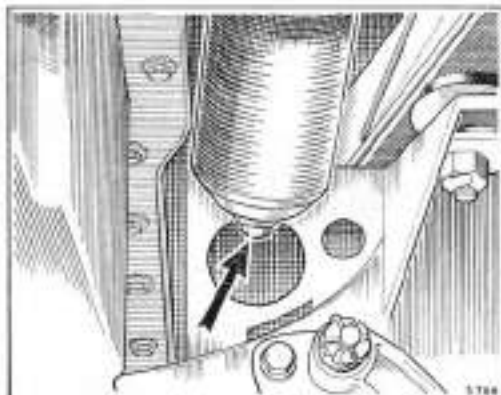
EVERY 6,000 MILES (9600 Km.)

For the complete summary of attention to be given every 6,000 miles (9600 km.) refer to pages 59 and 60.

External oil filter

The external oil filter is of the renewable element type and is located on the right-hand side of the cylinder block. Unscrew the central casing bolt, remove the casing, and throw away the filter element. Wash out the casing with petrol (gasoline) and allow it to dry thoroughly. Install a new filter element of the correct type and refit. Do not overtighten the central bolt.

Unscrew the central bolt indicated by the arrow to release the casing and element



The front grease cap must be prised off with a screwdriver

Wheel hubs (H)

Remove the hub-disc from the front wheels and carefully prise off the grease retaining caps from the front wheel hubs. Repack the caps with grease to Ref. H (page 68) and refit them.

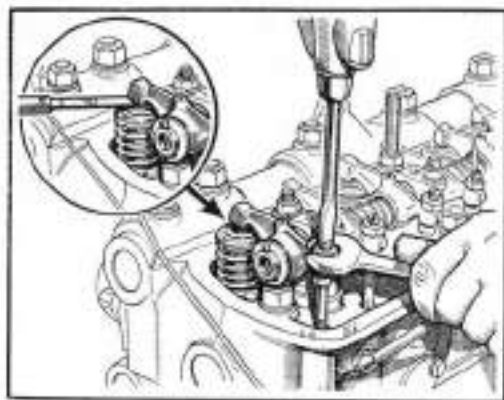
The rear hubs require no attention as they are automatically supplied with lubricant from the rear axle.

EVERY 6,000 MILES (9600 Km.)

Valve rockers

The valve rocker clearance should be .012 in. (.30 mm.) when the engine is hot.

Disconnect the breather hose from the valve rocker cover and remove the two rocker cover dome nuts. Withdraw the engine lifting brackets and steel and rubber washers, and lift the valve rocker cover from the cylinder head, taking care not to damage the cover to cylinder head seal.



The method of setting the valve clearance, and (inset) using a feeler gauge to check the clearance

Testing and setting the valve rocker clearance must be carried out when the tappet is on the back of its cam.

As this cannot be observed accurately, the rocker adjustments should be carried out in the following order, which also obviates turning the engine over more than is necessary.

No. 1 valve with No. 12 fully open	No. 12 valve with No. 1 fully open
No. 7 " " No. 6 " "	No. 6 " " No. 7 " "
No. 9 " " No. 4 " "	No. 4 " " No. 9 " "
No. 2 " " No. 11 " "	No. 11 " " No. 2 " "
No. 5 " " No. 8 " "	No. 8 " " No. 5 " "
No. 10 " " No. 3 " "	No. 3 " " No. 10 " "

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

EVERY 6,000 MILES (9600 Km.)

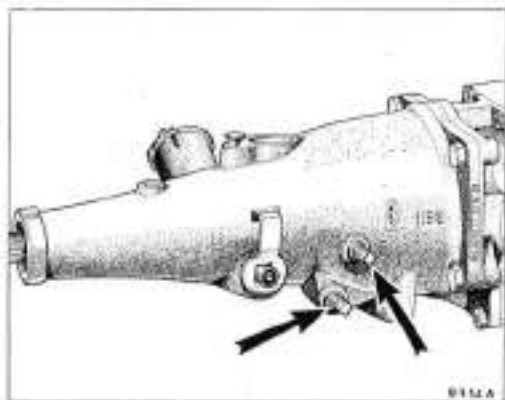
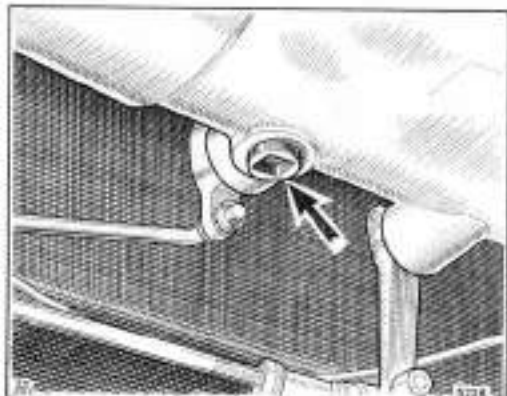
Gearbox (synchromesh) (A)

Drain the oil from the gearbox after 500 miles (800 km.) and subsequently every 6,000 miles (9600 km.) and refill with one of the oils to Ref. A (end of book).

The drain plug is located on the under side of the gearbox and is removed by use of a special key provided in the tool kit. For the location of the combined filler plug and oil level indicator see page 39.

The overdrive unit should be drained and refilled with fresh oil at the same time. For instructions covering this unit see below.

The gearbox drain plug, indicated by the arrow. The filler is accessible from inside the car



The overdrive drain and filler plugs

Overdrive (A)

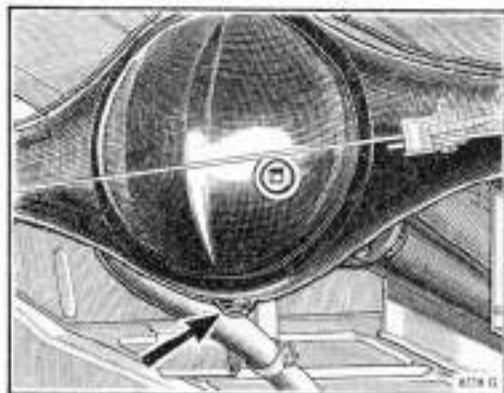
Drain the overdrive unit at the same time as the gearbox. Fill the overdrive unit to the level of the filler plug, using oil to Ref. A (see end of book), then refill the gearbox.

The gearbox and overdrive are connected by oilways, and periodical checking is confined to the gearbox as described above.

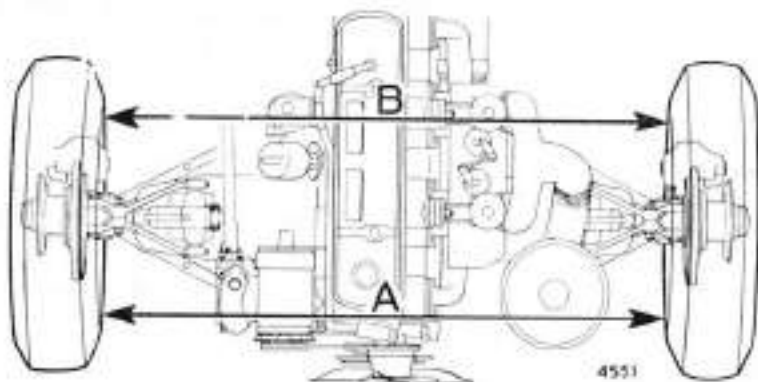
EVERY 6,000 MILES (9600 Km.)

Rear axle (B)

The axle should be completely drained and then refilled with one of the recommended Hypoid oils to Ref. B (see end of book) to the level of the filler plug. Use the special square key supplied in the tool kit to remove the drain plug.



The rear axle drain plug. Use the special key provided in the tool kit for both filler and drain plugs.



Front wheel alignment, Dimension (A) must be $\frac{1}{8}$ in. (3-18 mm.) smaller than (B)

Front wheel alignment

The front wheels are set with $\frac{1}{8}$ in. (3-18 mm.) toe-in, and this alignment should be checked. Incorrect alignment will cause excessive tyre wear. Care must be taken to ensure that the measurements are taken at axle level and that the rims run free.

If adjustment is required the work should be placed in the hands of a Wolsley Distributor or Dealer.

EVERY 6,000 MILES (9600 Km.)

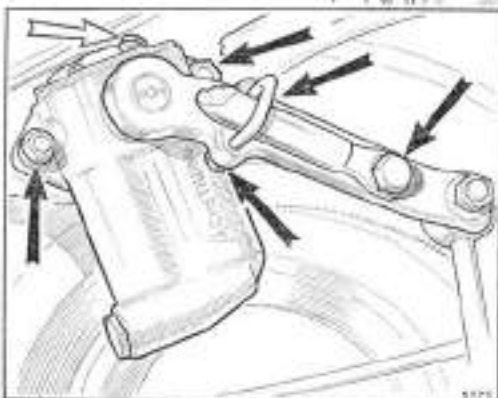
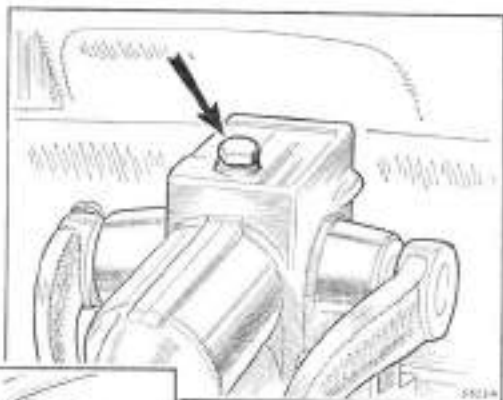
Front hydraulic dampers

The front dampers may be topped up without removing them from the vehicle. The dampers are accessible beneath the front wings when the road wheels are removed.

Rear hydraulic dampers

The rear dampers can be topped up while *in situ*, provided special equipment is available for this purpose. They are, however, more easily topped up when the mounting screws and nuts shown in the illustration are removed and the damper lowered.

The front hydraulic damper filler plug



The rear hydraulic damper filler plug and mounting bolts

Thoroughly clean the damper bodies, particularly around the filler plug on top of the damper. When clean, remove the filler plug and fill to the bottom of the filler plug hole. The use of Armstrong Super (Thin) Shock Absorber Fluid is recommended for use in the dampers. If this fluid is not available a good-quality mineral oil conforming to Specification S.A.E. 20/20W may be used. This alternative is **NOT** suitable for low-temperature operation and is also deficient in various other ways.

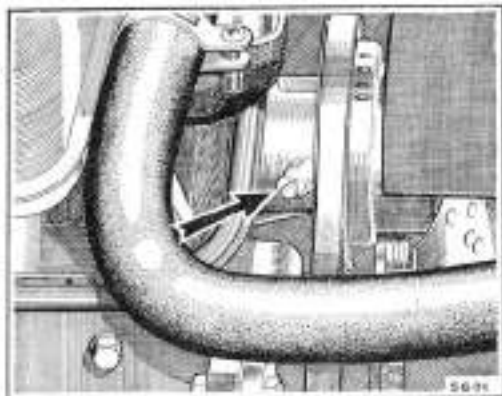
Rock the car before replacing the filler plugs in the front dampers in order to expel any trapped air.

The dampers (front and rear) cannot be adjusted in any way.

EVERY 6,000 MILES (9600 Km.)

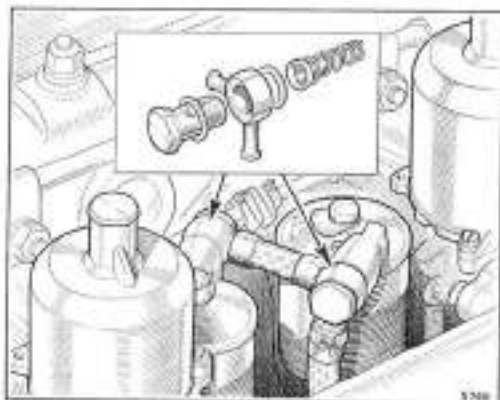
Water pump

Remove the plug on the water pump casing and add a small quantity of S.A.E. 140 oil. The oiling of the pump must be done very sparingly, otherwise oil will flow past the bearings onto the face of the carbon sealing ring and impair its efficiency.



The water pump lubrication aperture plug

The location of the carburettor filters, and (inset) the union bolt removed and the filter withdrawn



Carburettor filters

The float-chamber filters should be removed and thoroughly cleaned with a stiff brush and petrol (gasoline).

The filters are situated behind the unions at the junction of the fuel pipe to the float-chamber lid.

Replace the filter with its helical spring first and its open end outwards.

EVERY 12,000 MILES (19200 Km.)

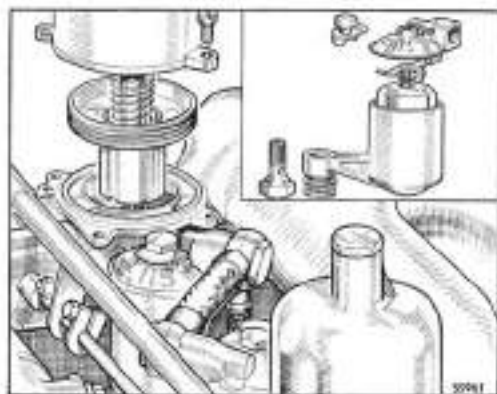
For the complete summary of attention to be given every 12,000 miles (19200 km.) refer to pages 60 and 61.

Radiator

Open both the drain taps on the cylinder block and on the radiator and allow the coolant to drain. Remove the radiator cap and insert a water hose in the top of the radiator. Allow the water to run for several minutes to swirl out the radiator and cylinder block passages.

Refill the system with water (preferably soft) or one of the recommended anti-freeze solutions (see pages 22-3).

The three screws withdrawn to release a suction chamber and piston from a carburettor body. Inset is a float-chamber removed and dismantled



Carburettors (D)

Clean the suction chamber and piston of both carburettors. Dealing with each suction chamber in turn, remove the piston damper (see page 40) and unscrew the three suction chamber securing screws.

Withdraw the suction chamber, piston return spring, and piston, taking care not to damage the jet needle.

Using a clean rag moistened with petrol (gasoline), clean the main inside bore of the suction chamber and the periphery of the piston.

Lubricate the piston rod only with a few drops of oil to Ref. D (see end of book) and reassemble, ensuring that the locating groove on the lower portion of the piston engages the key in the carburettor body.

Refill the piston damper reservoir (see page 40).

Disconnect the fuel supply pipe from each float-chamber and detach the chambers from the carburettor bodies by unscrewing the attachment bolts. Unscrew the cap nuts and withdraw the lid and float from each chamber.

Wash out the float-chambers, using clean petrol (gasoline), and reassemble, taking care not to bend the float needle hinged lever.

EVERY 12,000 MILES (19200 Km.)

Engine-flushing

Remove the engine sump drain plug and allow the old oil to drain completely. Replace the plug and pour in through the engine filler approximately 6 pints (3.4 litres) of flushing oil. A flushing oil supplied by one of the recommended lubricant manufacturers (see end of book) should be used. Run the engine at fast tick-over speed for 2½ to 3 minutes. After stopping the engine special care must be taken to ensure complete drainage of the flushing oil.

Replace the sump drain plug and fill the engine with oil to Ref. A (see end of book).

Sparking plugs

New sparking plugs should be fitted every 12,000 miles (19200 km.). Ensure that only the recommended plugs are used and that they are set to the correct gap (see page 48) before installation.

Speedometer cables

Every 12,000 miles (19200 km.) the speedometer outer casing should be unscrewed from the speedometer head, the inner cable extracted and lubricated sparingly with grease to Ref. C: oil must not be used. After returning the inner cable into its outer casing the upper end should be withdrawn approximately 8 in. (20 cm.) and the surface grease wiped off before reconnecting it to the speedometer head.

EVERY 24,000 MILES (38400 Km.)

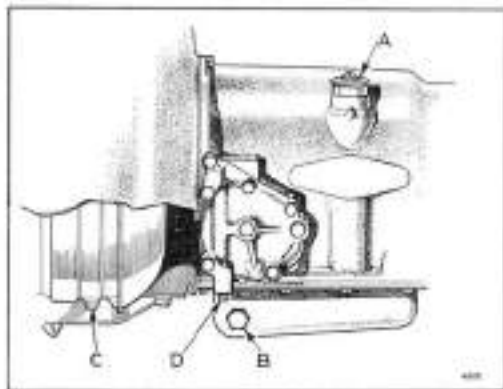
Engine sump (A)

Remove the engine sump and oil 'pick-up' strainer, clean thoroughly, and reassemble.

Refill the sump with engine oil to Ref. A (see end of book).

This work should be entrusted to your Wolsley Distributor or Dealer.

- A. Dipstick and filler.
- B. Transmission case drain plug.
- C. Converter drain plug.
- D. Converter pressure take-off.



Automatic transmission (E)

The following procedure will enable the operation of draining and refilling the transmission to be satisfactorily carried out:

- (1) Run the car onto a level surface, stop the engine, and apply the hand brake.
- (2) Remove the drain plug in the left-hand side of the transmission and allow the fluid to drain.
- (3) Remove the converter housing cover and turn the engine until the converter drain plug is at the bottom; remove the plug and drain the converter.
- (4) Remove the converter pressure take-off plug from the bottom of the reverse servo cylinder.
- (5) When all the fluid has drained away refit the three drain plugs after thoroughly cleaning them.
- (6) Remove the dipstick and pour in 10 pints (12 U.S. pints, 5.7 litres) of fluid to Ref. E (see end of book).
- (7) Allow the engine to idle for one minute with the selector lever at 'L' to ensure that the converter is filled with fluid from the transmission case.
- (8) With the engine idling and the lever at 'L' slowly add fluid to bring the level to the 'FULL' mark on the dipstick.

The approximate total refill capacity of the transmission and converter after draining is 13½ pints (16.2 U.S. pints, 7.8 litres).

500 MILES (800 Km.) FREE SERVICE

During the early life of the car, soon after it has completed 500 miles (800 km.), you are entitled to have it inspected free of charge by the Wolseley Dealer from whom you purchased it, or, if this should not be convenient, by any other Wolseley Dealer by arrangement. This attention given during the critical period in the life of the car makes all the difference to its subsequent life and performance.

This service includes:

1. *Engine*
Tighten cylinder head and manifold nuts to recommended pressures.
Check tightness of valve rocker shaft brackets to recommended pressures.
Check valve rocker clearances, and reset if necessary.
Tighten fan belt if necessary.
Check all water connections, and tighten clips if necessary.
Examine and clean carburettors, and reset slow-running adjustment.
2. *Ignition*
Examine, and adjust if necessary, sparking plugs and distributor points.
Check automatic ignition controls, and reset if necessary.
3. *Clutch (not automatic)*
Check clutch pedal for free movement, and bleed if necessary.
Check fluid level in master cylinder, and top up if necessary.
4. *Steering*
Check front wheel alignment and steering connections. Adjust if necessary.
5. *Brakes*
Check braking system functionally, and bleed lines if necessary.
Check fluid level in master cylinder, and top up if necessary.
6. *Hydraulic dampers*
Inspect hydraulic dampers for leaks. Examine fluid levels, and top up if necessary.
7. *Body*
Check doors for ease in opening and closing. If necessary, lightly smear with a suitable lubricating agent all dovetails and striking plates.
8. *Electrical*
Check electrical system functionally.
Examine battery and top up to correct level with distilled water if necessary.
Clean and tighten terminals.
9. *General*
Check tightness of universal joint nuts, spring clips, and wing bolts.
10. *Lubrication*
Drain oil from engine, gearbox (not automatic), and rear axle and refill.
Oil and grease all points of the car.
Top up oil level in steering-box.
11. *Wheels and tyres*
Test tyres for correct pressure.
Check tightness of wheel nuts.

ALL MATERIALS CHARGEABLE TO THE CUSTOMER

MAINTENANCE SUMMARY

Regular servicing, as proved by presentation of completed voucher counterfoils, could well enhance the value of your vehicle in the eyes of a prospective purchaser.

Daily

- Inspect engine oil level; top up as necessary.
- Check water level in radiator; top up if necessary.

Weekly

- Test tyre pressures, and regulate if necessary.

1,000 miles (1600 km.) service

- Engine*
 - Top up carburettor piston dampers.
 - Lubricate carburettor controls.
 - Top up radiator.
- Clutch (not automatic)*
 - Check level of fluid in master cylinder.
- Brakes*
 - Check brake pedal free travel and report if adjustment is required.
 - Make visual inspection of brake lines and pipes.
 - Check level of fluid in the master cylinder supply tank.
- Hydraulic dampers*
 - Examine all hydraulic dampers for leaks.
- Electrical*
 - Check battery cell specific gravity readings and top up levels.
- Lubrication*
 - Top up engine, gearbox (not automatic), rear axle, steering gearbox, and idler oil levels.
 - Lubricate all grease nipples.
 - Check level of oil in air cleaner.
- Wheels and tyres*
 - Check tyre pressures.
 - Check wheel nuts for tightness.

2,000 miles (3200 km.) service

- Carry out the 1,000 miles (1600 km.) service.

3,000 miles (4800 km.) service

- Engine*
 - Top up carburettor piston dampers.
 - Lubricate carburettor controls.
 - Top up radiator.
 - Check dynamo drive belt tension.
 - Clean and re-oil air cleaner.
- Ignition*
 - Check automatic ignition control, lubricating distributor drive shaft (one turn of grease cap), cam, and advance mechanism.
 - Check, and adjust if necessary, distributor contact points.
 - Clean and adjust sparking plugs.
- Clutch (not automatic)*
 - Check level of fluid in master cylinder.

MAINTENANCE SUMMARY

4. *Brakes*

Check brakes, adjust if necessary, and change road wheels round diagonally, including spare, to regularize tyre wear.
Make visual inspection of brake lines and pipes.
Check level of fluid in the master cylinder supply tank.

5. *Hydraulic dampers*

Examine all hydraulic dampers for leaks.

6. *Body*

Lubricate door hinges, bonnet lock, and operating mechanism.

7. *Electrical*

Check battery cell specific gravity readings and top up levels.
Lubricate dynamo bearing.

8. *Lubrication*

Change engine oil.

Top up gearbox (not automatic), rear axle, steering gearbox, and idler oil levels.

Lubricate all grease nipples.

9. *Wheels and tyres*

Check tyre pressures.

4,000 miles (6400 km.) service

Carry out the 1,000 miles (1600 km.) service.

5,000 miles (8000 km.) service

Carry out the 1,000 miles (1600 km.) service.

6,000 miles (9600 km.) service

1. *Engine*

Top up carburettor piston dampers.

Lubricate carburettor controls.

Top up radiator.

Check dynamo drive belt tension.

Lubricate water pump sparingly with S.A.E. 140 oil.

Check valve rocker clearances, and adjust if necessary.

Clean and re-oil air cleaner.

Clean carburettor filters.

2. *Ignition*

Check automatic ignition control, lubricating distributor drive shaft (one turn of grease cap), cam, and advance mechanism.

Check, and adjust if necessary, distributor contact points.

Clean and adjust sparking plugs.

3. *Clutch (not automatic)*

Check level of fluid in master cylinder.

4. *Brakes*

Check brakes, adjust if necessary, and change road wheels round diagonally, including spare, to regularize tyre wear.

Make visual inspection of brake lines and pipes.

Check level of fluid in the master cylinder supply tank.

MAINTENANCE SUMMARY

5. *Hydraulic dampers*
Examine all hydraulic dampers for leaks.
6. *General*
Tighten rear road spring seat bolts and front and rear anti-roll bar anchorages.
7. *Body*
Check body bolts, and tighten if necessary.
Check, and tighten if necessary, door hinge and striker plate screws.
Lubricate door hinges, bonnet lock, and operating mechanism.
8. *Electrical*
Check battery cell specific gravity readings and top up levels.
Lubricate dynamo bearing.
9. *Lubrication*
Change oil in engine, gearbox (not automatic), rear axle, and overdrive.
Top up steering gearbox and idler oil levels.
Top up automatic gearbox (if fitted).
Fit new oil filter element.
Lubricate all grease nipples.
Repack front hub caps with grease.
10. *Wheels and tyres*
Check tyre pressures.
Check wheel alignment.

7,000 miles (11200 km.) service

Carry out the 1,000 miles (1600 km.) service.

8,000 miles (12800 km.) service

Carry out the 1,000 miles (1600 km.) service.

9,000 miles (14400 km.) service

Carry out the 3,000 miles (4800 km.) service.

10,000 miles (16000 km.) service

Carry out the 1,000 miles (1600 km.) service.

11,000 miles (17600 km.) service

Carry out the 1,000 miles (1600 km.) service.

12,000 miles (19200 km.) service

1. *Engine*

Remove carburetter suction chambers and pistons, clean, reassemble, and top up.

Remove carburetter float-chambers, empty sediment, and refit.

Lubricate carburetter controls.

Check valve rocker clearances, and adjust if necessary.

Clean and re-oil air cleaner.

Check dynamo drive belt tension.

Lubricate water pump sparingly with S.A.E. 140 oil.

Clean carburetter filters.

MAINTENANCE SUMMARY

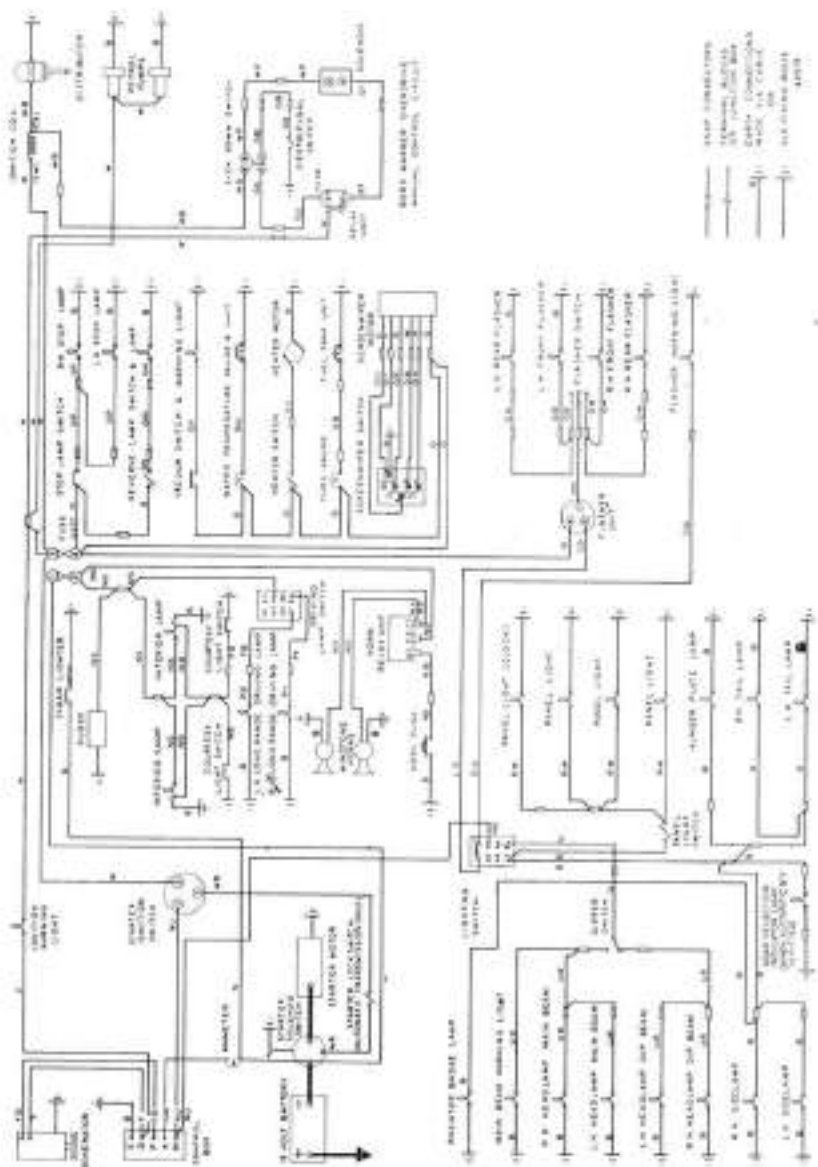
2. *Ignition*
Check automatic ignition control, lubricating distributor drive shaft (one turn of grease cap), cam, and advance mechanism.
Check, and adjust if necessary, distributor contact points.
Fit new sparking plugs.
3. *Clutch (not automatic)*
Check level of fluid in master cylinder.
4. *Steering*
Check steering and suspension moving parts for wear.
5. *Brakes*
Check brakes, adjust if necessary, and change road wheels round diagonally, including spare, to regularize tyre wear.
Make visual inspection of brake lines and pipes.
Check level of fluid in the master cylinder.
6. *Hydraulic dampers*
Examine all hydraulic dampers for leaks, and top up if required.
7. *Radiator*
Drain, flush out, and refill radiator.
8. *General*
Tighten rear road spring seat bolts, and front and rear anti-roll bar anchorages.
9. *Body*
Check body bolts, and tighten if necessary.
Check, and tighten if necessary, door hinges and striker plate screws.
Lubricate door hinges, bonnet lock, and operating mechanism.
10. *Electrical*
Check battery cell specific gravity readings and top up levels.
Lubricate dynamo bearing.
11. *Lubrication*
Drain and flush out engine, refilling with fresh oil.
Change oil in gearbox (not automatic), rear axle, and overdrive.
Top up automatic gearbox (if fitted).
Fit new oil filter element.
Lubricate all grease nipples.
Lubricate speedometer cable.
Repack front hub caps with grease.
12. *Wheels and tyres*
Check tyre pressures.
Check front suspension heights.
Check wheel alignment.
13. *Headlamps*
Check headlamp beam settings, and reset if necessary.

24,000 miles (38400 km.) service

Carry out the 12,000 miles (19200 km.) service, with the following amendments:

11. *Lubrication*
Remove engine sump and pick-up strainer, clean, and reassemble, filling with fresh oil.
Drain the automatic transmission and refill with fresh oil.

WIRING DIAGRAM



NOTES

IMPORTANT

Your attention is drawn to the following points, compliance with which we suggest will prove mutually beneficial.

1. WARRANTY CERTIFICATE

- (a) Completion of the Warranty Certificate "tear-off" slip at the time of vehicle purchase when sent to the Factory will ensure registration of ownership by the British Motor Corporation.
- (b) Retention of the Owner's portion of the Certificate, signed by the Distributor and Owner, in a safe place in the vehicle (by quickly establishing ownership) will help to expedite any adjustments under Warranty if such adjustments are required to be carried out by a B.M.C. Distributor and Dealer other than the supplier of your vehicle.

2. CLAIMS UNDER WARRANTY

Claims for the replacement of material or parts under Warranty must always be submitted to the supplying Distributor or Dealer, or when this is not possible, to the nearest Distributor or Dealer, informing them of the Vendor's name and address.

3. PREVENTIVE MAINTENANCE

Service vouchers (applicable in the United Kingdom only) are produced for your convenience, and the use of these is the best safeguard against the possibility of abnormal repair bills at a later date.

Prevent rather than Cure.

4. REPLACEMENT PARTS

When Service Parts are required insist on **B.M.C. GENUINE PARTS** as these are designed and tested for your vehicle and in addition warranted for 12 months by the British Motor Corporation. **ONLY WHEN GENUINE PARTS ARE USED CAN B.M.C. ACCEPT RESPONSIBILITY.**



When purchasing replacement parts or having repairs done owners are requested to see that a label similar to the one illustrated here is attached to the invoice rendered. These labels are issued by B.M.C. Service Limited and constitute a guarantee that B.M.C. genuine parts are supplied.

Our world-wide network of Distributors and Dealers is at your service.

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KEY TO RECOMMENDED LUBRICANTS

Component	A		Gearbox	B		C	D	E	F	H
	Engine and Air Cleaner	Engine and Air Cleaner		Steering Gearbox, Idler, and Rear Axle (Hypoid Gears)	Steering Gearbox, Idler, and Rear Axle (Hypoid Gears)					
Climatic conditions	Tropical and temperature down to 32° F. (0° C.)	Extreme cold down to 10° F. (-12° C.)	All conditions	All conditions down to 10° F. (-12° C.)	Arcylic consistency below 10° F. (-12° C.)	All conditions	Oils and Carburizer	Automatic Transmission	Upper Cylinder Lubrication	Front Wheel Hubs
	CASTROL	Castrol X.L.		Castrol Hypoy	Castrol Hypoy Light					
ESSO	Esso Extra Motor Oil 20W/30	Esso Motor Oil 10	Esso Form Motor Oil 20W/30	Esso Exper Compound 90	Esso Exper Compound 80	Esso Multi-purpose Grease EP or Esso Tapco Compound 140	Esso Extra Motor Oil 20W/30	Esso Automatic Transmission Fluid 35	Esso Upper Cylinder Lubricant	All conditions
	MOBIL	Mobilol Arctic	Mobilol A	Mobilol G.X. 90	Mobilol G.X. 80	Mobilgrease M.P. or Mobilolub G.X. 140	Mobilol Arctic	Mobilol 200	Mobil Upperlub	
BP ENERGOL	Energol S.A.E. 30	Energol S.A.E. 20W	Energol S.A.E. 30	Energol E.P. S.A.E. 90	Energol E.P. S.A.E. 80	Energol E.P. S.A.E. 140	Energol S.A.E. 10W	Energol Automatic Transmission Fluid Type A	Energol U.C.L.	
	SHILL	Shell X-100 20/20W	Shell X-100 30	Shell Spirax 90 E.P.	Shell Spirax 80 E.P.	Shell Retinas A or Shell Spirax 140 E.P.	Shell X-100 20/20W	Shell Dynas T. 6	Shell Upper Cylinder Lubricant	Retinas DX
FILTRATE	Medium Filtrate 30	Sub-Zero Filtrate 10W	Medium Filtrate 30	Hypoid Filtrate Gear 90	Hypoid Filtrate Gear 80	Super Lithium Grease or E.P. Filtrate Gear 140	Zero Filtrate 20	Filtrate Amolock Transmission Fluid Type A	Filtrate Petrolite	
	STERNOL	Sternol W.W. 20	Sternol W.W. 30	Ambroclum E.P. 90	Ambroclum E.P. 80	Ambroline L.I.T. or Ambroclum E.P. 140	Sternol W.W. 20	Sternol Lyox	Sternol Magnokol	
DUCKHAM'S	Duckham's NDL Thirty	Duckham's NDL Ten	Duckham's NDL Thirty	Duckham's Hypoid 90	Duckham's Hypoid 80	Duckham's NDL Grease or Duckham's NDL E.P. 140	Duckham's NDL Twenty	Duckham's NoMoic Automatic Transmission Fluid Type A	Duckham's Alcold Liquid	Duckham's D.B. 500

