
The

AMBASSADOR

OPERATION MANUAL

TENTH EDITION
O. H. V.



PUBLISHED BY
HINDUSTAN MOTORS LIMITED

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OPERATION MANUAL

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FREE SERVICES

1. At the time of delivering this car to you the selling dealer will hand over to you THE OWNER SERVICE CERTIFICATE with the coupons attached. This entitles you to free inspection of the car at 500, 1,500 and 2,500 miles. These services must be performed at these mileages and are very essential for protecting your interests and the product.
2. The Guarantee Certificate will be made available to you by the selling dealers at the car delivery time.
3. The Owner Service Certificate must remain in the car at all times.

[Handwritten signature]

14/1/71
A copy of this book is sent out with every Ambassador car. Additional copies can be obtained at a nominal price.

M. G. Padmarathna

ENGINE AND CHASSIS NUMBERS

The engine and chassis numbers of Ambassador cars are located on a plate mounted on the bulkhead under the bonnet.

Published by

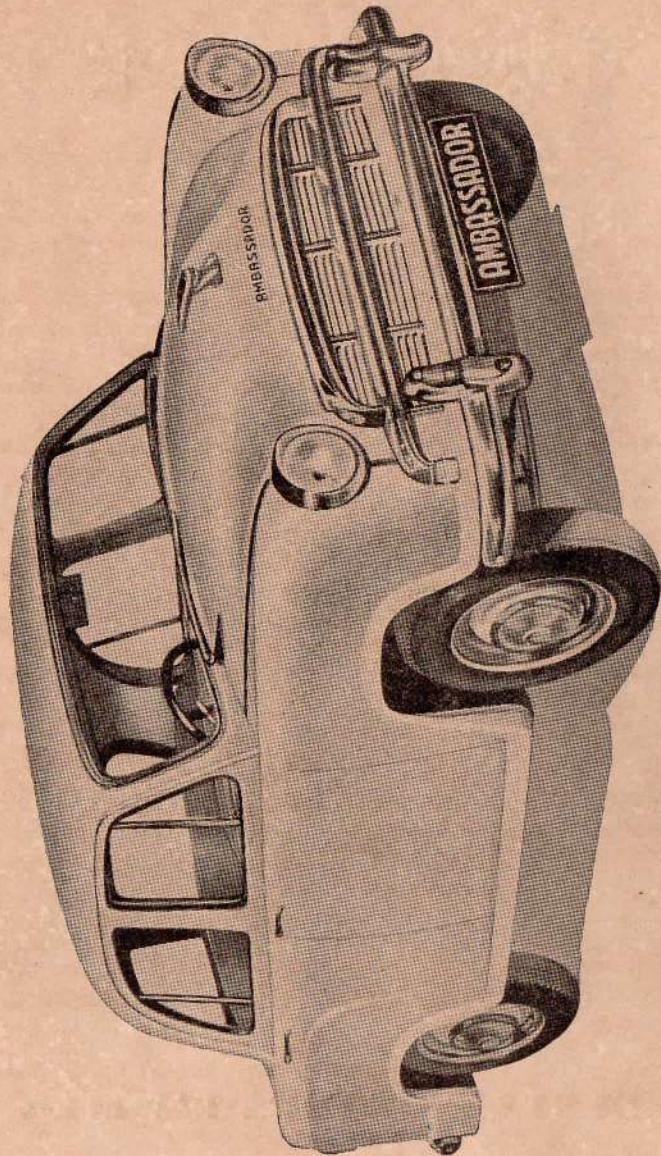
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THE AMBASSADOR

FOREWORD

THE information contained in this operation manual has been confined to the essentials required for the proper running and driving of the car on the basis that the average car owner has neither the time nor the inclination to carry out the more extensive and onerous items of repair and maintenance.

The inclusion of unnecessary material and lengthy descriptions has been avoided and extensive use made of illustrations, but the owner will nevertheless find all the information he requires to maintain his car in first-class condition and give it those all-important items of attention which contribute so much to trouble-free and satisfactory service.

In appreciation that a limited number of owners desire more complete information concerning the maintenance and mechanism of their vehicles a Workshop Manual is being made available at a moderate figure, but we would point out that Hindustan Dealers are far better situated to provide routine and repair attention than the average owner.

We know that every Ambassador car leaving our Works is capable of giving absolute satisfaction if proper attention is given to the essential maintenance features included in this book.

If you encounter trouble, get in to touch with your nearest Hindustan Dealer or write to Service Manager, Hindustan Motors Ltd., Uttarpara, Dist. Hooghly, W. Bengal. We are at your service.

IDENTIFICATION

When in communication with the Company or your Dealer, always quote the type of model and the chassis and engine numbers. The registration number is of no assistance and is not required.

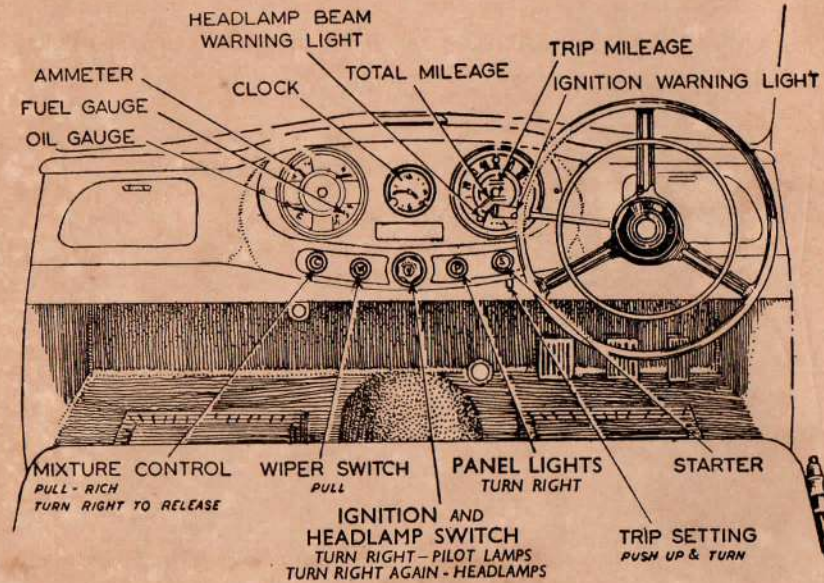
Chassis Number This is stamped on the identification plate which is secured to the dash panel beneath the bonnet. The suffix letters indicate to us the model, body finish, etc., and must always be quoted with the number.

Engine Number Every engine has a number stamped on the side of the cylinder block above the dipstick. This number is also duplicated on the identification.

INSTRUMENTS AND SWITCHES

Headlamp dipping switch

The foot-operated headlamp beam dipping switch is located in the centre of the toe-board. It is of the single-acting repeating type, lowering the beams on one application and raising them on the next. The handlamp beam warning light, situated in the speedometer, glows when the beams are in the raised position.



The instruments and switches.

Direction indicator switch and horn

The direction indicators are operated by the small centrally situated lever, provided the ignition is switched on.

The switch is self-cancelling and operates the indicators on the side to which it is turned. If only a slight turn is made it may be necessary to return the switch by hand.

The horns are operated by pressing the inner ring surrounding the steering wheel hub.

Ignition switch

The switch is in the centre of the control panel and is operated by a removable key which also locks the driver's door and luggage compartment lid.

Never let the switch remain in the "on" position when the engine is not running (indicated by the warning light in the speedometer), except for very short periods.

INSTRUMENTS AND SWITCHES

Lamp Switch

The headlamps and sidelamp switch is combined with the ignition switch and is centrally situated in the control panel.

The side and tail-lamps operate when the switch is turned clockwise to the first location. A further turn in the same direction will switch on the headlamps.

Choke or mixture control (marked 'C')

To enrich the mixture and assist starting when the engine is cold, pull out the control knob marked "C", located to the left of the ignition and lamp switch. The control may be locked in any one of several positions giving varying degrees of mixture.

As soon as the engine is warm enough to run without the rich mixture, turn the knob clockwise and push it inwards to the 'off' position. Never allow the engine to run for any length of time with the control pulled out.

Windshield wiper switch (marked 'W')

The two windshield wiper blades are operated by a pull-push switch located on the left of the ignition switch. Pull the switch knob out to bring both blades into operation. Parking of the blades is automatic when the switch is pushed in to the "off" position.

Panel light switch (marked 'P')

The panel light switch, located to the right of the ignition switch, is of the rheostat type. The light is switched on when the switch knob is rotated a few degrees clockwise, provided the sidelamps are switched on. Further rotation of the knob in a clockwise direction will progressively dim the panel lights.

Starter switch (marked 'S')

Pull out the control knob marked "S", located on the extreme right of the control panel, to operate the starter motor. Release the control immediately the engine starts. Should the engine fail to start first time, allow it to come to rest before operating the control again.

Oil pressure fuel level gauges and ammeter.

The oil pressure gauge, fuel level gauge, and ammeter are all located in the instrument dial nearest the passenger's side.

The oil pressure reading should be between 30 lb./sq. in. (2.1 kg./cm.²) and 50 lb./sq. in. (3.5 kg./cm.²) under normal running conditions.

The reading on the ammeter will vary according to the condition of the battery.

INSTRUMENTS AND SWITCHES

Speedometer

The speedometer is situated on the right-hand side of the instrument panel and gives indication of the total distance and trip distance. The trip distance may be set to zero by pushing the small knob, situated below the instrument panel, upwards to engage the trip mechanism and then turning it in a clockwise direction.

Electric clock

The hands of the electric clock are set by the small knob on the right-hand side of the instrument. Push the knob inwards to engage. Setting the hands automatically starts the clock.

To regulate the clock turn the small screw on the left-hand side of the instrument, in a clockwise direction if the clock is gaining and anti-clockwise if it is losing.

Ignition and main beam warning lights

The ignition warning light is situated in the speedometer dial on the right-hand side. As the engine speed is increased the light will go out. Should it fail to do so ascertain that the dynamo belt is not broken. If the belt is undamaged then the dynamo is not charging and the circuit should be examined by your Distributor or Dealer.

The light, situated in the left-hand side of the speedometer, glows red when the headlamps are on and the beams are in the raised position in order to remind the driver to dip for approaching traffic.

Interior light

A switch for the interior light is provided on the right-hand door pillar. An automatic switch is also fitted on each front door pillar. With both front doors closed the lamp may be switched on or off by operating the switch.

The act of opening either front door will switch on the lamp and closing the door will extinguish it.

Warning lamps and panel bulbs

To change the panel and warning light bulbs unscrew the four fixing screws to remove the cover from the radio speaker aperture. The bulbs are then accessible from the back of the panel.

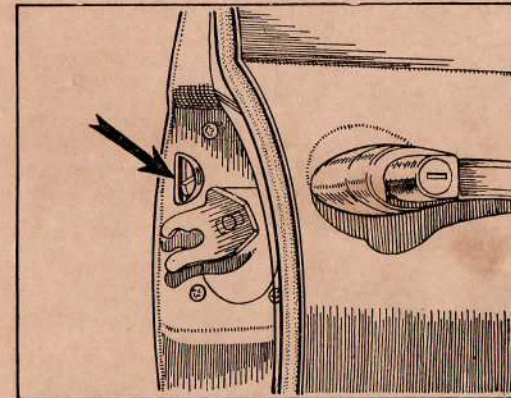
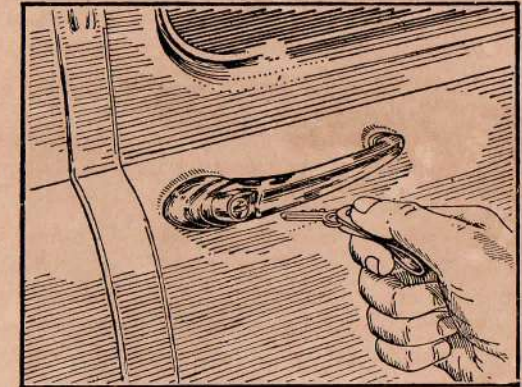
The bulb holders are pulled away from the locations shown above to enable the bulbs to be removed and replaced.

DOOR LOCKS

Door handles and locks

The driver's door is locked by means of the ignition key. The two rear doors and the door on the passenger's side are locked by pushing the interior handle forward.

The ignition key is used to lock the driver's door



The arrow indicates the small lever which should be moved downwards to prevent the doors from being opened from the inside when carrying children.

Children's safety door locks

In addition to the locks provided for use against unlawful entry from the outside, a children's safety locking device is fitted which prevents the doors from being opened from the inside by children.

Situated in the edge of each door, adjacent to the latch cam, will be found a small lever (see Illustration above). When children are carried, the small lever should be moved downwards prior to closing the doors. The doors can then only be opened from the outside.

This device need not be used for normal locking and is for use only when the safety of children during journeys is desired.

BONNET LOCKS

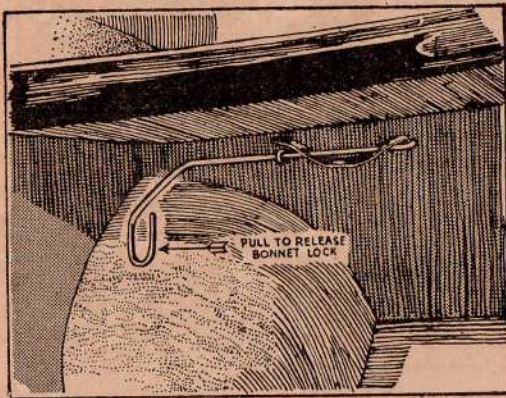
Window Controls

In addition to the normal winding window, each front door is provided with a hinged ventilator panel which is secured, when in the fully closed position, by a small finger lever.

The ventilating panels are frictionally held in any desired open position.

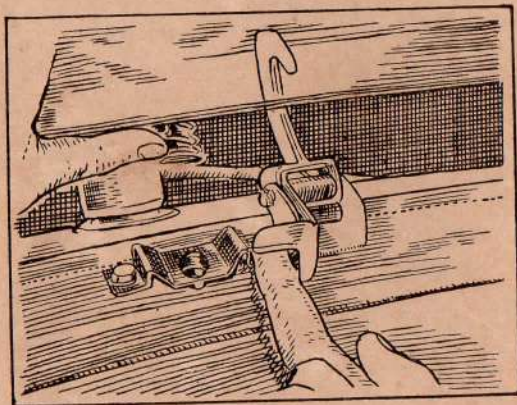
Releasing the bonnet lock

Release the bonnet catch from inside the car by a gentle pull on the control knob which is to be found under the fascia panel on the extreme left-hand side.



The bonnet is released by pulling the loop handle on the extreme left below the parcel tray

The bonnet safety catch is released by inserting a finger below the partly raised bonnet and raising the catch lever



Releasing the bonnet safety hook

Release the safety hook by raising the lever up which can be felt just beneath the bonnet motif. Raise the bonnet lid, release the bonnet prop, and place its end into the bonnet latch hole on top of the radiator mask. Make sure the prop is securely engaged before working under the bonnet.

Closing the bonnet

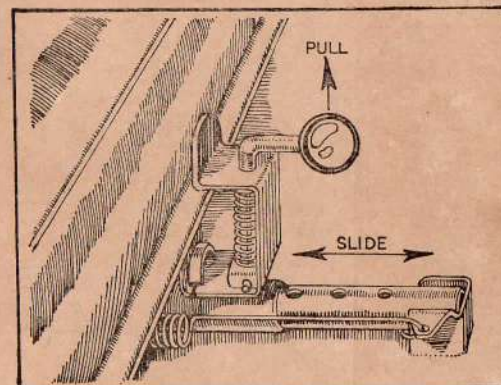
Raise the bonnet until the prop is clear, return it to its clip, and lower the bonnet to engage the safety hook. Apply double hand pressure to the bonnet front to force the bonnet down into the fully closed position. The bonnet lock will be heard to spring into engagement.

It is important to keep the bonnet lock properly oiled.

SEAT ADJUSTMENTS

Seat adjustment

The front seat is adjustable and is secured in position by a spring-loaded locking pin which engages a series of locating holes in the guide tube in the centre of the floor.



Pull the locking pin knob upwards to release the front seat for adjustment

Starting handle

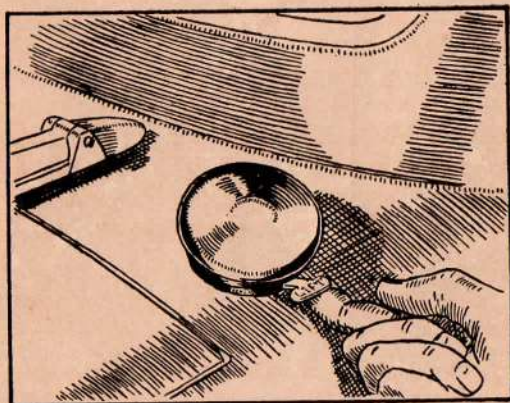
When it is required to use the starting handle, insert the shaft through the hole in the bumper, engaging the dowels with the dog on the engine.

When turning the engine it is important to keep the thumb of your hand on the same side of the handle as the palm for safety in case of backfire.

FUEL FILLER & SPARE WHEEL AND TOOLS

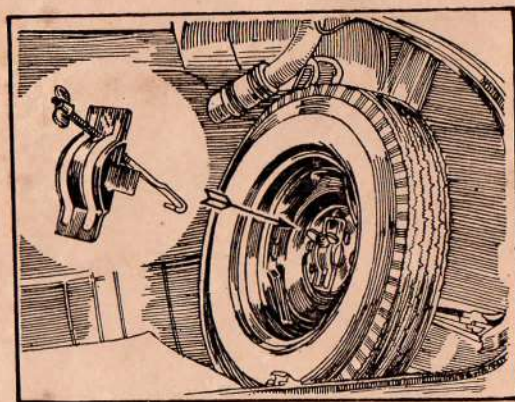
Filling up with fuel

The fuel tank filler is located on the right-hand side above the rear wing and the cap is released by lifting the tab. Press the cap downwards to seal the tank. The tank capacity is 12 gallons (54 litres).



The fuel tank filler is located on the right-hand side above the rear wing

To remove the spare wheel, unscrew the wing nut and clamp plate



Spare wheel, jack and tool location

The spare wheel is carried in the boot and is secured in position by a wing nut and clamp plate, which must be removed before the wheel can be withdrawn. The jack, tyre pump starting handle and tools are housed in a water proof card board box located in the luggage boot.

RUNNING INSTRUCTIONS

Running in

For the first 200 miles (320 km.) 35 m.p.h. (56 km.p.h.) must not be exceeded in top gear, 26 m.p.h. (42 km.p.h.) in third gear, 15 m.p.h. (24 km.p.h.) in second gear and 10 m.p.h. (16 km.p.h.) in bottom gear. The engine speeds should then only be increased gradually and progressively until at least 1,000 miles (1600 km.) have been covered.

WARMING UP

It is extremely bad practice to allow the engine to warm up from cold by letting it idle slowly. The correct procedure is to let the engine turn over fairly fast (approximately 1,000 r.p.m., corresponding to a speed of 15 m.p.h. [24 km.p.h.] in top gear) so that it attains its correct working temperature as quickly as possible.

Starting up

Before starting the engine, make sure that the gear lever is in the neutral position. When starting from cold, pull out the choke or mixture control (marked 'C'). Switch on the ignition and pull the starter button (marked 'S'). The engine will be set in motion and after a second or two should start up, when the button must immediately be released. Should the engine fail to start first time, allow it to come to rest before operating the control again.

With a new car or in cold weather, the engine should first be freed by turning it with the starting handle, with the ignition switched off, before using the starter.

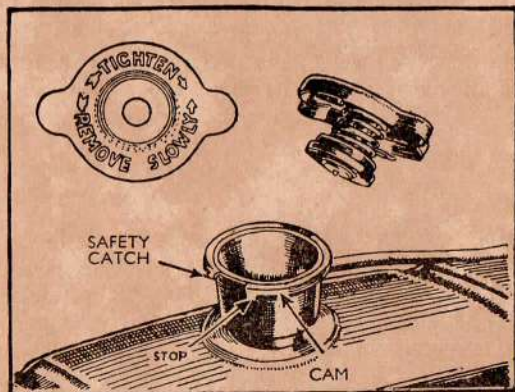
Gradually return the mixture control knob to the 'off' position as quickly as the warming engine will allow.

COOLING SYSTEM

Filling the cooling system

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.



The radiator filler cap removed to show the safety catch and stop

Cold weather precautions

Water upon freezing expands, with the result that there is a very considerable risk of bursting either the radiator or the cylinder block by the pressure generated. As a precautionary measure when frost is anticipated an anti-freezing solution must be used in the radiator.

We recommend owners to use Smiths Bluecol, Filtrate Nevafreeze, Shell Snowflake, or Esso Anti-freeze non-erosive anti-freeze in order to protect the cooling system during frosty weather and reduce corrosion to a minimum.

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

Down to 7° F. (-14° C.)	Down to 0° F. (-18° C.)
15% solution	20% solution
Quantity : 2½ pints (1.25 litres)	Quantity : 3 pints (1.7 litres)

First decide what degree of frost protection is required before adding the anti-freeze to the radiator. If temperatures below 0° F. (-18° C) are likely to be encountered, a mixture of at least 25 per cent. of anti-freeze must be used. Consult your local Dealer.

Before introducing anti-freeze mixture to the radiator it is advisable to clean out the cooling system thoroughly by swilling out the passages with a hose

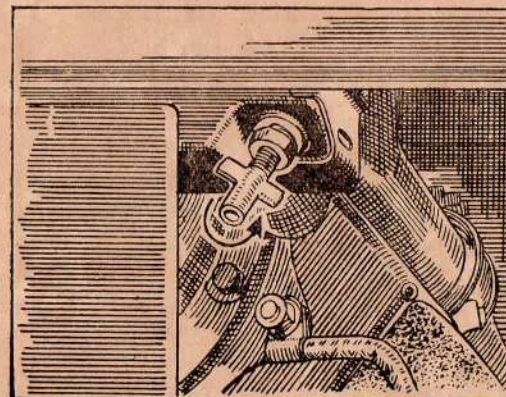
COOLING SYSTEM

inserted in the filler cap, keeping the two drain taps open. Only top up when the cooling system is at its normal running temperature, in order to avoid losing anti-freeze due to expansion.

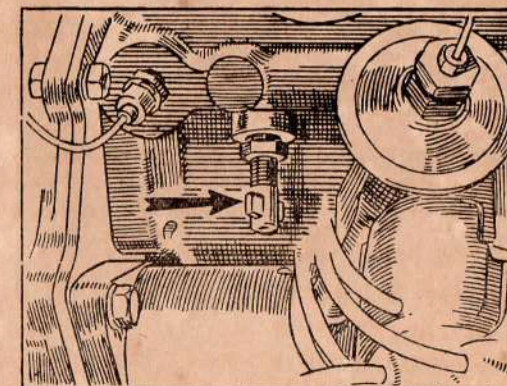
Make sure that the cooling system is watertight and examine all joints, replacing any defective rubber hose with new.

Draining the cooling system

Two taps are provided to ensure that the cooling system is completely drained.



Access to the radiator drain tap is gained from below the bumper on the right-hand side. Turn the tap anti-clockwise to open it



The drain tap for the cylinder block is located on the right-hand side of the block at the rear. Turn anti-clockwise to open the tap

The radiator drain tap on the left-hand side of the radiator bottom tank is easily accessible beneath the front bumper.

The cylinder block drain tap is located on the right-hand side of the engine above the starter. The radiator and cylinder block drain taps must both be opened to drain the system completely.

IGNITION EQUIPMENT

Ignition adjustment

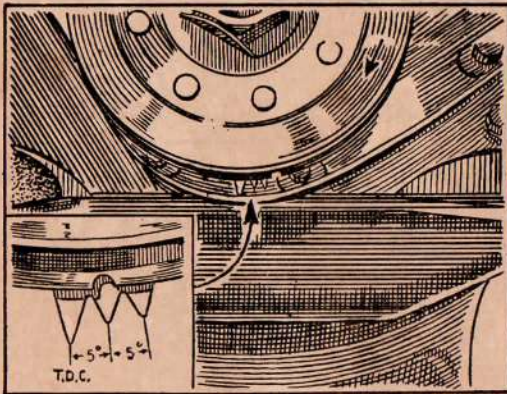
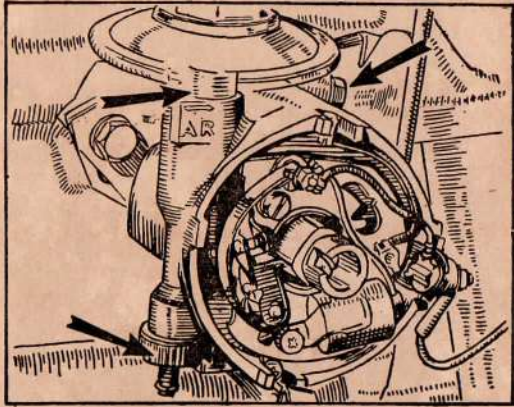
Adjustment is provided for the ignition point to enable the best setting to be attained to suit varying fuels.

This consists of a knurled nut giving micrometer adjustment for the firing point.

Turning the 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 two arrows on the left indicate the vernier adjusting screw and markings, the arrow on the right indicates the distributor clamping nut



The groove in the crankshaft pulley and the pointers to assist correct timing

Ignition setting

The normal ignition setting is with the spark taking place 6° B.T.D.C. The ignition point can be reset by loosening the pinch-bolt for the pinch-clip at the base of the distributor body and rotating the body to the desired extent. Do not, however, disturb the pinch-clip unless absolutely necessary.

The range of adjustment provided by the micrometer adjuster is normally ample.

Top dead centre

The rim of the crankshaft pulley has a small groove which coincides with the long pointer on the timing chain case when the crankshaft is in the dead centre position for Nos. 1 and 4 cylinders. The other two pointers are 5° and 10° B.T.D.C.

IGNITION EQUIPMENT

Coil

The coil requires no attention beyond keeping its exterior clean, particularly between the terminals, and occasionally checking that the terminal connections are quite tight. If the high-tension cable needs renewal it should be replaced by 7-mm. rubber-covered ignition cable. Bare the end of the cable for $\frac{3}{4}$ in. (6 mm.), pass it through its moulded terminal and washer, and spread out the strands to ensure good contact.

Renewing high-tension cables

The high-tension cables connecting the distributor to the sparking plugs may, after long use, show signs of perishing. They must then be replaced by 7-mm. rubber-covered ignition cable.

Unscrew the cable-securing screws to release the cable.

The new cables are cut to length, pushed well home in the distributor cover and pierced by replacing the cable-securing screws.

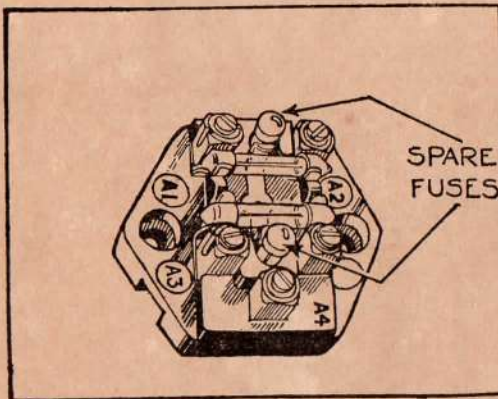
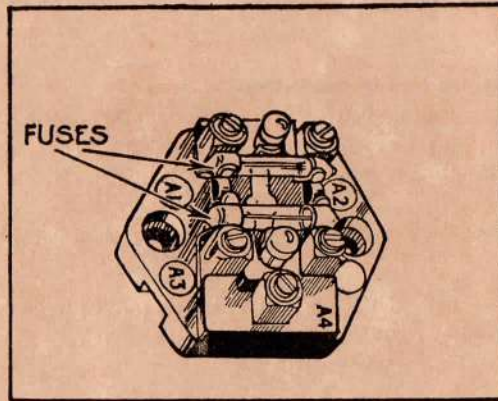
ELECTRICAL EQUIPMENT

Fuses

Fuse connecting 'A1' and 'A2'. This fuse protects the accessories which are connected so that they operate irrespective of whether the ignition is on or off.

Fuse connecting 'A3' and 'A4'. This fuse protects the accessories which are connected so that they operate only when the ignition is switched on (stop lamp, direction indicators, etc.).

The fuses are carried in the separate fuse block mounted on the bulkhead



Two spare fuses are housed in holders on the fusebox

Blown fuses

The units which are protected by the fuse 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.

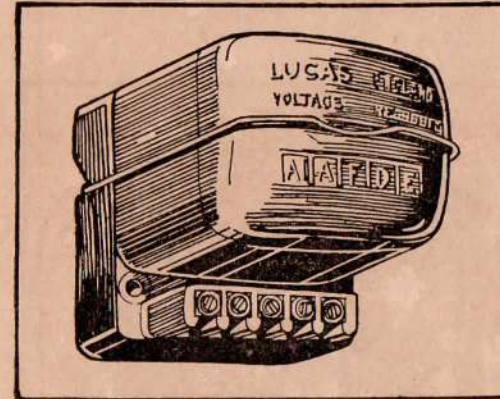
Spare fuses

Spare fuses are provided and it is important to use only 35 amps rating fuses. The fusing value is marked on a coloured paper slip inside the glass tube of the fuse. If the new fuse blows immediately and the cause of the trouble cannot be found, have the equipment examined by a Distributor or Dealer.

ELECTRICAL EQUIPMENT

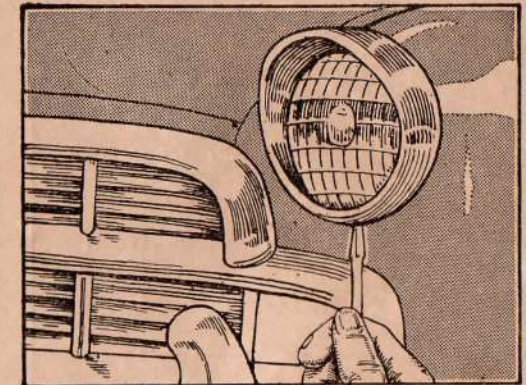
Control box

The cut-out and regulator are accurately set before leaving the Works and they must not be tampered with. The cover protecting them is therefore sealed. The fuses are mounted on a separate fuse unit and are accessible without removing the cover protecting the regulator and cut-out units.



The cut-out and regulator require no attention and should never be tampered with

The headlamp rim-retaining screw



Headlamps

To remove the light unit for bulb replacement. Unscrew the securing screw at the bottom of the lamp rim and lift off the rim. Remove the dust-excluding rubber, which will reveal three spring-loaded screws. Press the light unit inwards against the tension of the springs and turn it in an anti-clockwise direction until the heads of the screws can pass through the enlarged ends of the keyhole slots in the rim.

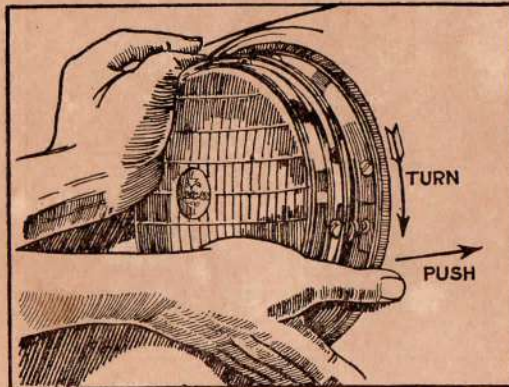
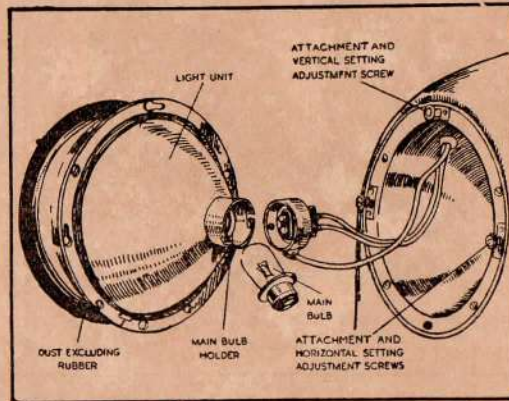
ELECTRICAL EQUIPMENT

Replacing bulbs

Withdrawal of the light unit gives immediate access to the bulb holder for replacement.

Twist the back shell anti-clock-wise and pull it off. The main bulb can then be withdrawn from its holder. Fit the replacement bulb in the holder, with the slot in its disc in engagement with the projection in the holder. Engage the projections on the back shell with the holder slots, press on and twist to the right until its catch engages.

The lamp unit removed to show the bulb holder and back shell



Replacing the lamp unit

Replacing the light unit and lamp front

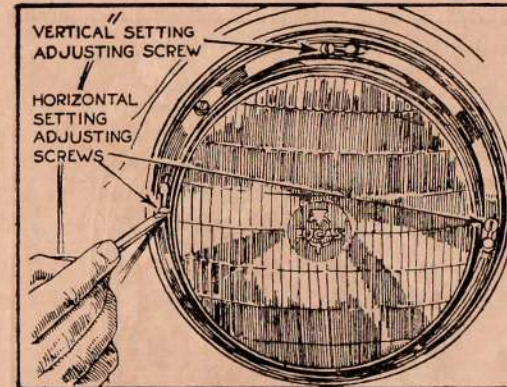
Position the light unit so that the heads of the adjusting screws pass through the slotted holes in the flange, press the unit inwards and turn it in a clockwise direction as far as it will go. Replace the dust-excluding rubber and refit the front rim.

ELECTRICAL EQUIPMENT

Setting head lamps.

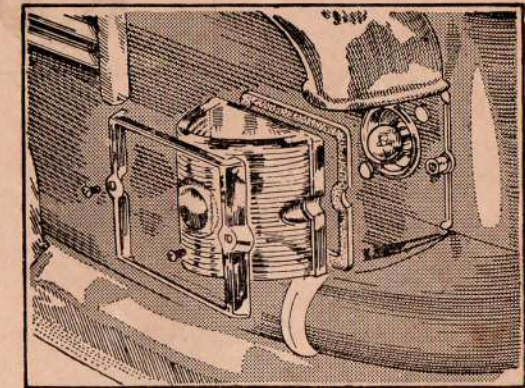
The lamps should be set so that the main driving beams are parallel with the road surface or in accordance with local regulations. If adjustment is required, remove the rim as described on page 19.

Vertical adjustment is made by turning the screw at the top of the lamp. Horizontal adjustment can be altered by using the adjustment screws on each side of the light unit.



The method of setting the headlamp beams

Front sidelamp glass and retaining rim removed to show the bulb and holder



Side and flashing indicator lamps—front

Access to the side & flashing lamp bulb for replacement is obtained by removing the lamp glass and rim, which are retained in position by two screws and a flange with a rubber sealing gasket.

Cars built for use have combined side and flashing indicator lamps.

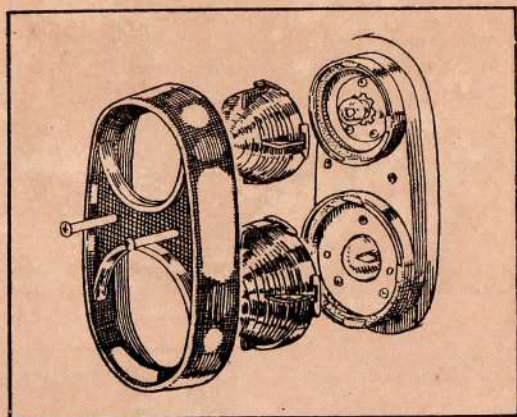
ELECTRICAL EQUIPMENT

Stop, tail and fishing indicator lamps

In the top compartment is fitted the flashing indicator bulb, beneath which is fitted the stop and tail lamp bulb. The latter is of the double filament type, giving a marked increase in illumination on brake application to provide a stop warning. The bulb also has offset locating pins to ensure correct replacement. (See page 24 for replacement bulbs.)

To gain access to the bulbs, remove the two screws securing the lamp unit rim to the body and remove the rim.

Either lamp glass may be removed by first pushing inwards and then turning the glass in an anti-clockwise direction to free it from the securing lobes.

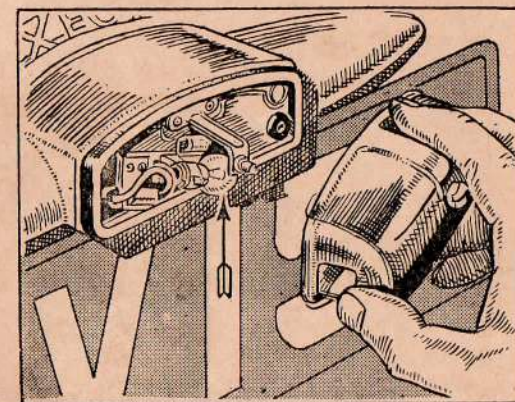


Remove the two rim retaining screws to gain access to the lamps; the glasses are then removed by pushing inwards and turning them anti-clockwise

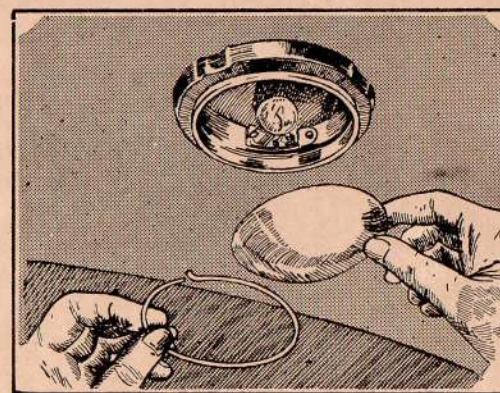
ELECTRICAL EQUIPMENT

Number plate lamps

The number-plate is illuminated by a separate lamp with a single bulb of 12-volt, 6-watt rating. The domed cover is removed for bulb replacement by unscrewing the slotted screw. The bulb is of the miniature bayonet type and is easily removed and replaced.



Slacken the central screw and remove the cover to obtain bulb access



A wire circlip retains the roof lamp glass.

Roof lamp bulb replacement

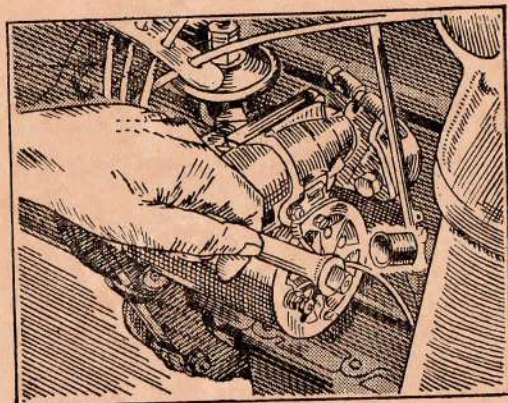
Access to the bulb for replacement is achieved by removing the wire circlip retaining the glass and removing the glass.

ELECTRICAL EQUIPMENT

Starter

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

In the event of the starter pinion becoming jammed in mesh with the flywheel, it can usually be freed by turning the starter armature by means of a spanner applied to the shaft extension at the commutator end. This is accessible by removing the small cap.



A jammed starter pinion may be freed by turning armature shaft by means of a spanner

Replacement bulbs

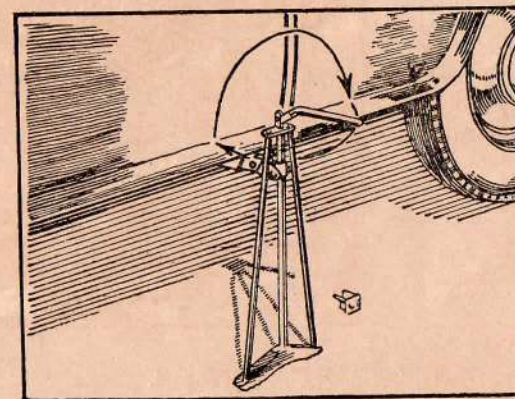
						Volts	Watts
Headlamps	...	...	...	...	...	12	42/36
Pilot Lamps	...	...	...	...	...	12	6
Stop Lamps	...	...	...	...	...	12	18
Tail Lamp	...	...	...	...	...	12	6
Number Plate Illumination Lamp	...	...	...	...	...	12	6
Roof lamp	...	...	...	...	...	12	6
Trafficators	...	...	...	...	...	12	3
Ignition warning light	...	...	...	...	...	12	2.2
Headlamp beam-warning light	...	...	...	...	...	12	2.2
Panel, side and tail warning lights	...	...	...	...	...	12	2.2

WHEELS AND TYRES

Jack operation

Apply the hand brake and remove the rubber plug from the socket which is welded to the chassis on either side beneath the centre door pillar. Insert the arm of the jack and raise the side of the car until the wheels are almost clear of the ground.

As the car swings over when one side is raised, the top of the jack should lean slightly outwards at the start of the lift, so that it is vertical when the wheels are raised clear of the ground.



The jack should be positioned leaning out slightly at the top

Removing the wheel discs

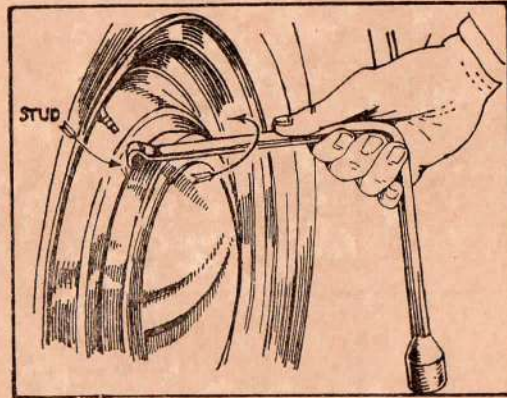
Remove the wheel disc by inserting the flattened end of the wheel nut spanner in the recess provided in the road wheel and levering off the hub cover, using a sideways motion of the spanner and not a radial one. A radial movement of the spanner will open out the rim of the disc. To refit the hub disc, the rim should be placed over two of the buttons on the wheel centre and the outer face given a sharp blow with the fist over the third button.

WHEELS AND TYRES

Removing the wheels

Slacken the five nuts securing the road wheels to the hub. The wheel nuts have right-hand threads i.e. turn clock-wise to tighten and anti-clockwise to remove. Raise the car to lift the tyre clear of the ground and remove the nuts. Lift the road wheel from the studs.

Reverse this procedure when replacing the road wheel, ensuring that the securing nuts are tight and that the brake adjuster seals are in position with the adjustment hole in the wheel opposite the hole in the brake-drum.



Use the special attachment on the end of the wheel nut spanner to remove the hub caps

Tyre pressures

The recommended tyre pressures are given on page 4.

Maintain the correct inflation pressures by checking with an accurate tyre gauge at least once a week. Correct when necessary.

Any unusual pressure loss should be investigated. Under-inflation causes rapid 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.

Tyre valves

See that the valve caps are screwed down firmly by hand.

The reliability of a valve depends upon the proper functioning of its interior. It may be tested for airtightness by rotating the wheel until the valve is at the top and inserting its end in a container full of water. If bubbles appear the seatings is faulty and should be renewed. When valve caps are removed do not place them on a dusty road surface.

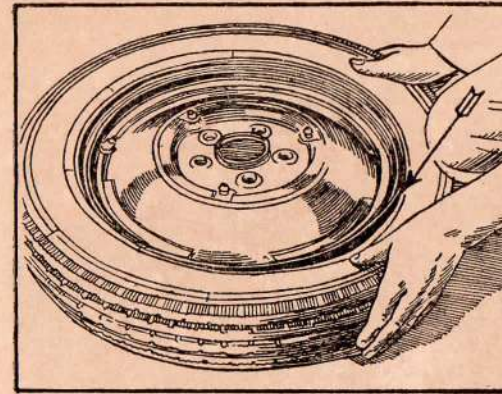
Removing tyres

Inextensible wires are incorporated in the edges of tyres. Do not attempt to stretch the edges of the tyre cover over the rim. Force is entirely unnecessary and dangerous, as it merely tends to damage the cover edges.

WHEELS AND TYRES

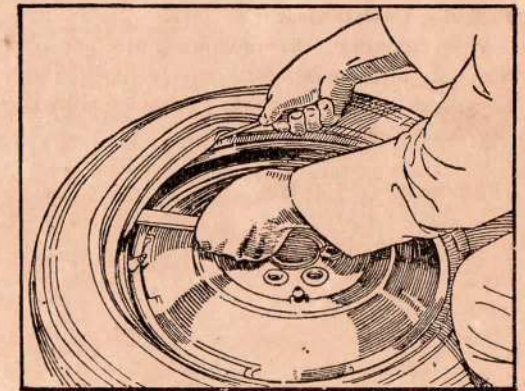
Remove valve inner core to completely deflate the tyre and push both cover edges into the base of the rim.

Lever the cover edge over the rim edge.



The cover beads should be pushed into the wellbase of the rim.

The cover edge can then be levered over the rim to remove it, or replace it, as required



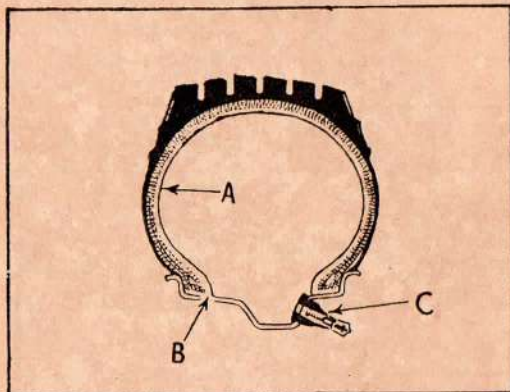
Tyre replacement

A similar technique has to be employed when replacing the tyre, first fitting the tyre into the rim and then using a tourniquet to spread the tyre beads to touch the wheel rim edges as the tyre beads form the air seals in the wheel rim.

Great care must be taken not to damage the bead, use tyre levers which are in good condition.

WHEELS AND TYRES

- A. Air-retaining liner
- B. Rubber air seal
- C. Rubber-sealed valve



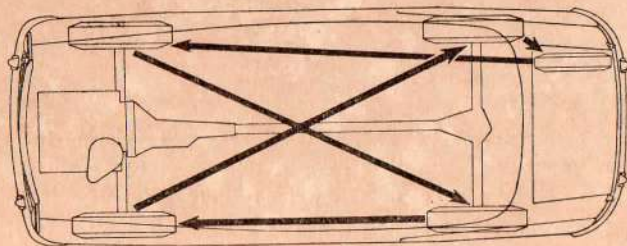
Repairing tubeless tyres

When convenient, the penetrating object should be removed and the tyre repaired. Small diameter penetrations can be repaired with the tyre manufacturer's plugging kit without removing the tyre. More extensive damage requires the removal of the tyre, and vulcanizing.

Changing position of tyres

To obtain the best tyre mileage and to avoid 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 (5000 km.).

Changing position of tyres

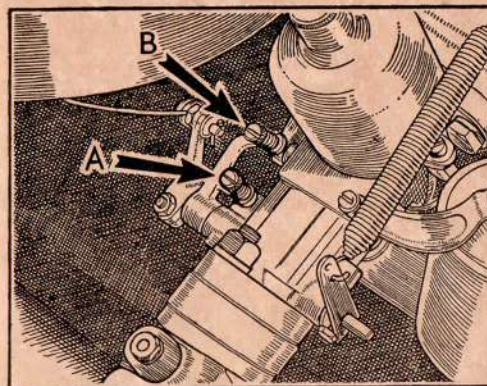


ADJUSTMENTS

Carburettor slow-running adjustment

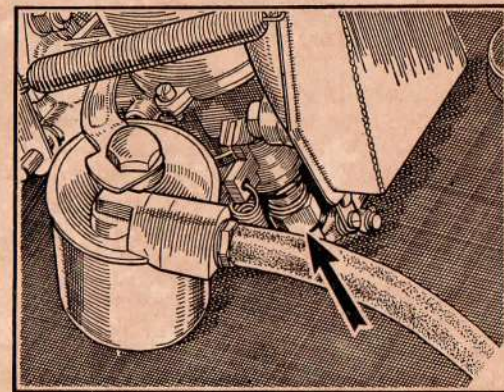
After the first 1,000 miles or so, when the engine is fully run in, the slow-running adjustment may need a little attention—this should be done when the engine has attained its normal running temperature. If the slow-running speed only (not mixture strength) needs correction, this can be made on the throttle stop screw (A) by turning it clockwise to increase and anti-clockwise to decrease the engine speed.

After the slow-running has been dealt with check that the 'fast idle' adjustment screw (B), which impacts on a cam, is just clear of the impact face by about 1/64 in. (.40 mm.).



Arrow (A) indicates the slow-running adjustment screw and (B) indicates the 'fast idle' adjustment screw

The jet is adjusted by regulating the position of the spring-loaded nut which forms the abutment for the jet head



If, however, the engine beat is uneven, denoting irregular firing, the mixture strength may need adjustment—but remember that defective compression, a faulty valve, or faulty ignition may also cause misfiring.

Adjusting the jet

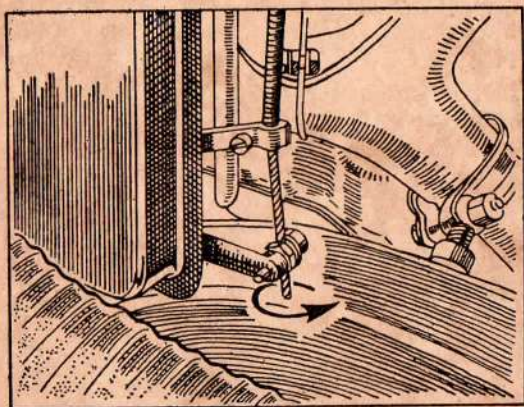
Uneven firing can be caused by a mixture which is too weak; the exhaust beat then is uneven with a 'splasy' or irregular type of misfire, and the exhaust is

ADJUSTMENTS

colourless. Uneven firing can be caused also by a mixture which is too rich; the misfire is then of a 'rhythmical' or regular type, coupled with a blackish exhaust.

According to the symptoms, screw the jet adjusting nut, only one 'flat' of the hexagon at a time, either upwards for weakening or downwards for enrichening until the fastest idling speed is obtained consistent with even firing.

If a considerable movement of the jet adjusting nut is required (more than three flats) then it is advisable to slacken off the clamp screw anchoring the control wire in the end of the jet lever—for a lesser movement it should not be necessary. When this clamp screw is retightened see that the wire is given a slight twist in the direction indicated in the illustration below before final clamping to ensure the proper locking action of the instrument panel control. Also do not clamp this wire so that it is in a taut or stretched condition. It must be slightly slack to ensure that the jet lever may fully return to the 'off' position.



When refitting the mixture control wire give inner cable a clockwise twist (looking from the end). This ensures the correct functioning of the control locking device

When adjusting the mixture strength it may be helpful if the idling speed of the engine is increased by about half a turn of the throttle stop screw—to be suitably reduced later when the correct mixture strength has been obtained.

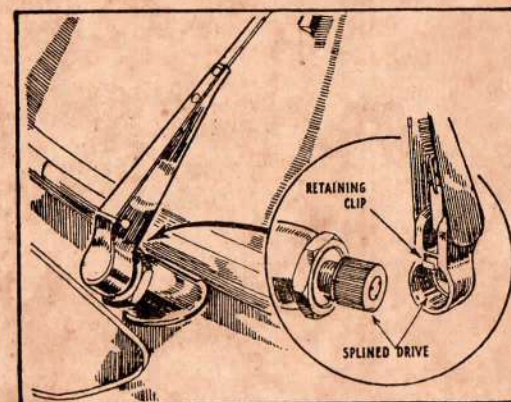
When the mixture and slow-running speed are satisfactory then the remainder of the throttle range should also be correct.

If the return spring on the jet lever is temporarily disconnected to give spanner access to the jet adjusting nut, make sure that the jet head is abutting hard up against the under side of this nut throughout the adjustment by applying hand pressure on the jet lever.

ADJUSTMENTS

Windshield wiper blades

Should it be necessary to reposition the wiper blades on their spindles they can be withdrawn by holding back the small retaining clip, which locates in a register in the spindle, and withdrawing the blade. Replace the blade on the required spline, pushing it hard down on the spindle until retained by the spring clip.



The wiper blades may be removed by depressing the small retaining clip and withdrawing the blade

Fuel pump connection

If the pump fails to work regularly, make sure that the earth wire is properly connected and giving a good contact to earth.

Make sure also that the terminal nut holding the cable at the pump cover end is reasonably tight.

MAINTENANCE ATTENTION

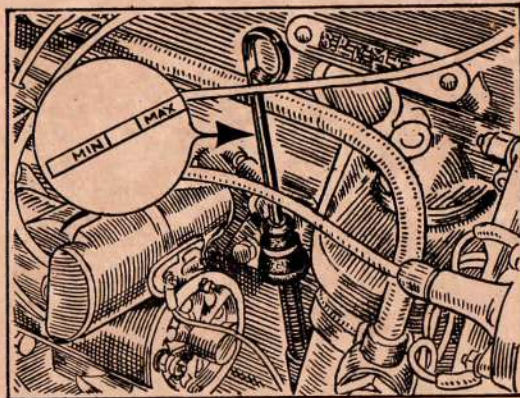
EVERY 250 MILES (400 Km.)

Checking engine oil level

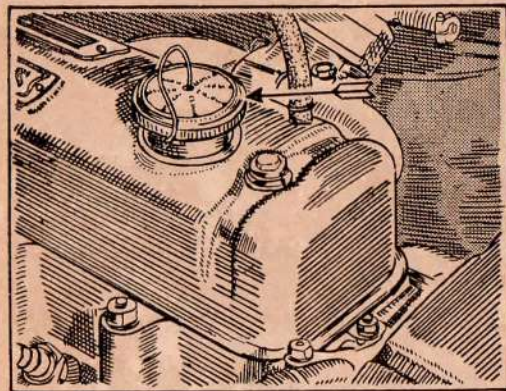
Every 250 miles (400 km.) check the supply of oil in the sump by withdrawing the dipstick on the right-hand side of the cylinder block. Wipe the lower portion of the rod, reinsert it, and withdraw it again. Oil will cling to the rod and show the actual quantity present in the sump. The normal oil level is indicated by the 'MAX' mark on the dipstick. The oil level must not be allowed to drop below 'MIN.'

Multigrade Motor Oils

In addition to the lubrications recommended in this Hand Book we also approve the use of multigrade motor oils produced by oil companies shown in our publications for all climatic temperatures unless the engine is in true mechanical condition.



Inset are shown the markings on the end of the engine oil dipstick



Turn the cap anti-clockwise to release it

Filling up with engine oil (A)

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

Clean, fresh oil is essential. The use of an engine oil to Ref. A is recommended. For instructions on draining the sump see page. 39

Every 500 miles (800 km.)

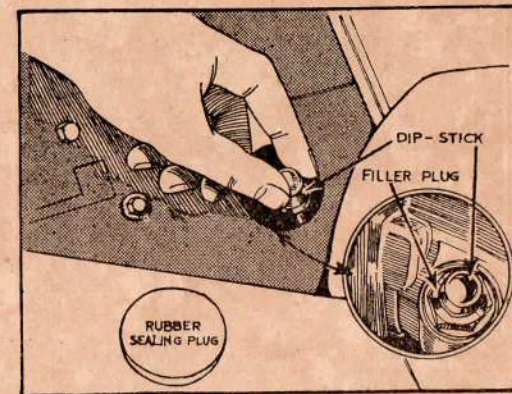
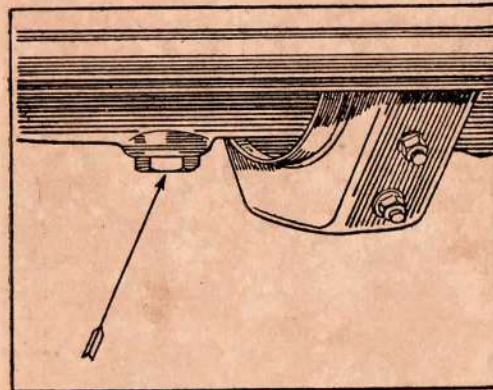
See that the radiator is full of water. Test the tyre pressures.

EVERY 1,000 MILES (1600 Km.)

Gearbox (B)

This should be drained after the first 500 miles (800 km.) and then filled with the correct amount of the recommended lubricant. The filler cap and dipstick are located beneath the rubber cap to the left of the gearbox cover and are accessible when the front carpet has been raised.

Ensure that the hollow centre of the drain plug has been cleaned thoroughly before it is replaced and tightened.



Gearbox oil replenishments (B)

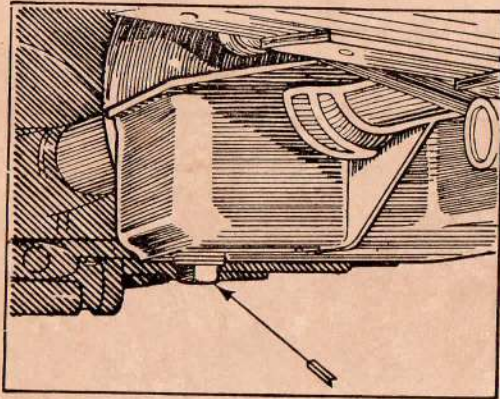
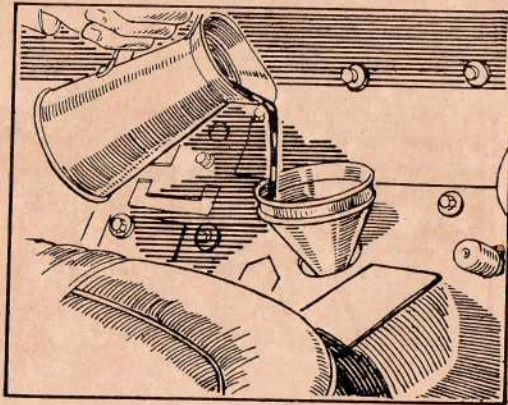
Replenishments should take place at intervals of 1,000 miles (1,600 km.) care being taken to ensure that the gearbox is not filled above the "full" mark on the dipper rod. If the level is too high, oil may get into the clutch case and cause clutch slip.

EVERY 1,000 MILES (1600 Km.)

Refilling the gearbox (B)

When the gearbox has been drained completely, 2 pints (1.14 litres) of oil are required to fill it. Ref. B (on Lubrication Chart).

The oil should be poured in through the filler plug until it reaches the "full" mark on the dipstick. After the first 500 miles (800 km.) the gearbox should be drained and then filled with fresh oil every 6,000 miles (10,000 km.)



Rear Axle (B)

A square-headed drain plug is fitted at the bottom of the differential housing and its hollow centre must be cleaned before it is replaced and tightened.

The oil should be drained from the rear axle after the first 500 miles (800 km.) The axle must then be filled with Ref. B (on Lubrication Chart) to the level of the filler plug. Approximately 2 pints (1.14 litres) of oil are required to refill the axle.

Topping up should take place at intervals of 1,000 miles (1,600 km.).

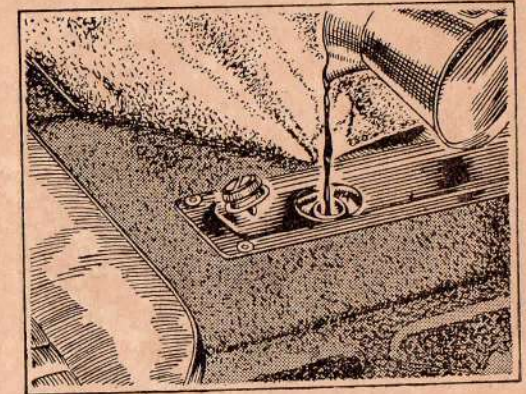
Note.—It is essential that only Hypoid Oil be used in the rear axle.

The axle should be completely drained and then refilled with fresh lubricants of the correct grade every 6,000 miles (10,000 km.)

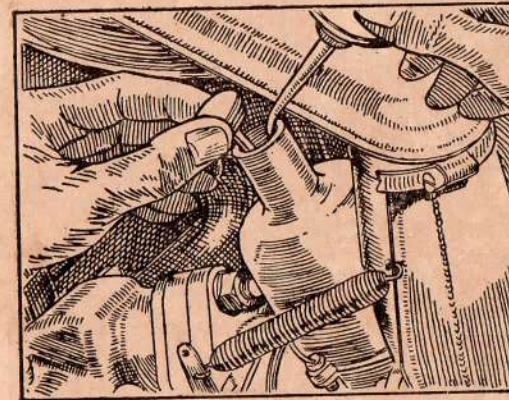
EVERY 1,000 MILES (1600 Km.)

Master cylinder

The fluid level must be checked by turning back the front floor carpet on the driver's side and removing the exposed rubber plug. This will in turn expose the master cylinder filler plug, which should be removed. The fluid should be within $\frac{1}{2}$ in. (13 mm.) of the bottom of the filler neck but not above this. Replenish if necessary with Lockheed Genuine Brake Fluid. 103.



The master cylinder filler cap is located beneath the carpet and rubber plug on the floor on the driver's side



Lubricating the carburettor piston damper

Carburettor damper

This reservoir needs topping up periodically with thin engine oil to Ref. F, (on Lubrication Chart). This operation is not at all critical; simply unscrew and remove the damper unit and then pour oil into the hollow piston rod until the level is $\frac{1}{2}$ in. (13 mm.) from the top of the rod, then re-screw the damper back into position. It is sufficient to withdraw the damper unit far enough to insert the nozzle of an oilcan. The function of this piston damper unit is to provide an appropriate degree of enrichment for acceleration, and also to improve cold starting.

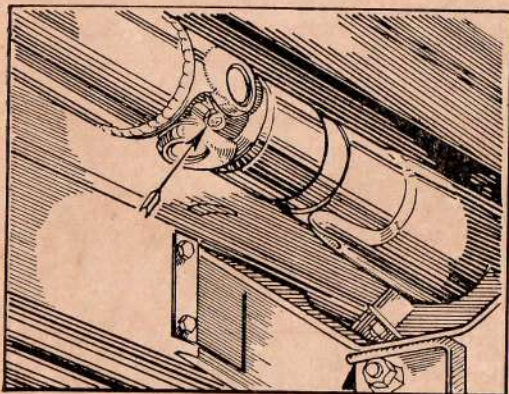
Bonnet lock (F)

The oilcan should be applied to the sliding surfaces of the spring-loaded lever on the lower portion of the lock, and to the pivot of the safety catch.

EVERY 1,000 MILES (1600 Km.)

Propeller shaft (D)

The sliding joint and two needle-type universal joints should receive grease gun attention every 500 miles (800 km). Ref. D (on Lubrication Chart.)



The grease nipple for the rear universal joint.

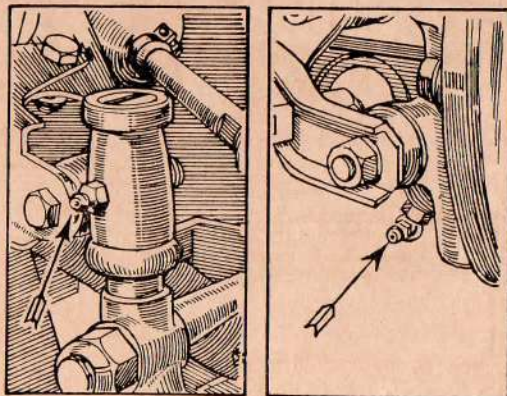
Propeller shaft front universal joint (D)

The grease gun, filled with grease to Ref. D (on Lubrication Chart) should be applied to the front universal joint nipple every 1,000 miles (1600 km) and given three or four strokes. Access is obtained from underneath the car.

The swivel pins (D)

Grease nipples are provided at the top and bottom of each swivel pin. The grease gun should be filled with grease to Ref. D (on Lubrication Chart) and applied to the nipples every 500 miles (800 km.). Three or four strokes of the gun should be given.

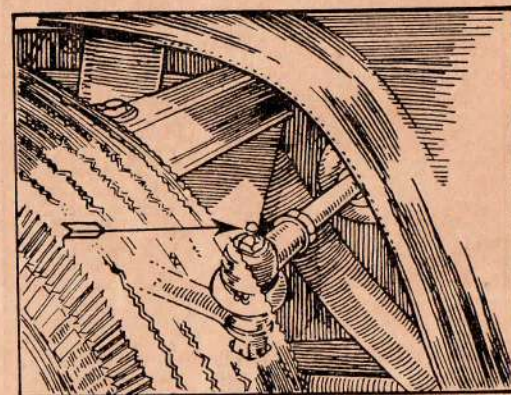
Two grease nipples, one at the top and one at the bottom, are provided for swivel pin lubrication



EVERY 1,000 MILES (1600 Km.)

Tie-rod Lubrication (D)

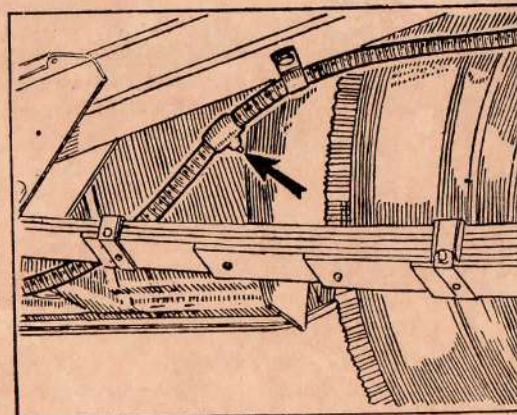
Every 500 miles (800 km.) the grease gun filled with grease to Ref. D (on Lubrication Chart) should be applied to the nipple on the ends of the steering tie-rods and given three or four strokes. The inner ball joints of the tie-rods (those within the rubber boots) are automatically lubricated from the steering gear-box housing.



One grease nipple is fitted on the end of each tie-rod

Hand brake cables

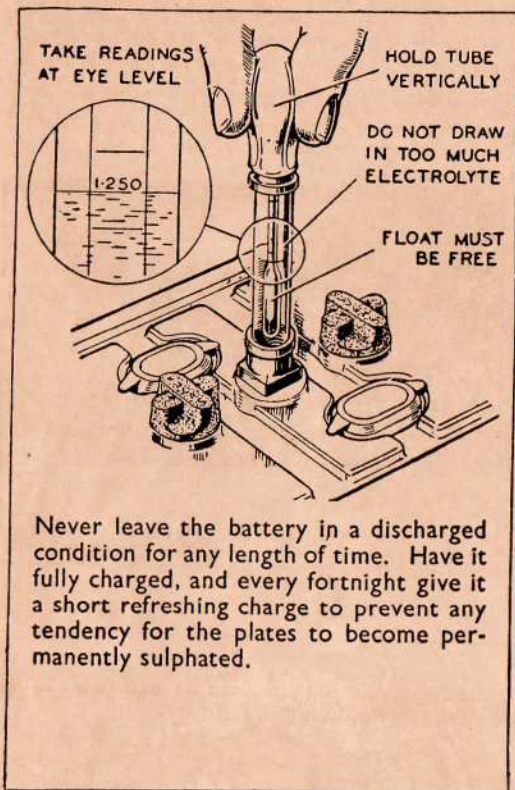
The grease nipple on the hand brake cable should be given three or four strokes with a grease gun filled with grease to Ref. E (on Lubrication Chart).



The hand brake cable grease nipple is accessible from beneath the vehicle

EVERY 1,000 MILES (1600 Km.)

CHECKING SPECIFIC GRAVITY



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.

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 follow :-

1.200-1.215 Battery fully charged.

About 1.175 Battery about half-discharged.

Below 1.125 Battery fully discharged. These figures are given assuming that the temperature of the solution is about 60° F. (16° C). The readings for all cells should be approximately the same. If one cell gives a reading very different from the rest, it may be that acid has been spilled or has leaked from this particular cell, or there may be a short circuit between the plates, in which case the battery should be examined by M/s. Chloride & Exide Batteries (Eastern) Pte., Ltd. or their Agents.

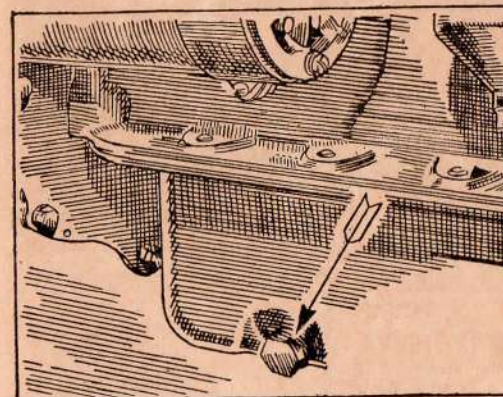
EVERY 3,000 MILES (5000 Km.)

Sump and oil filter

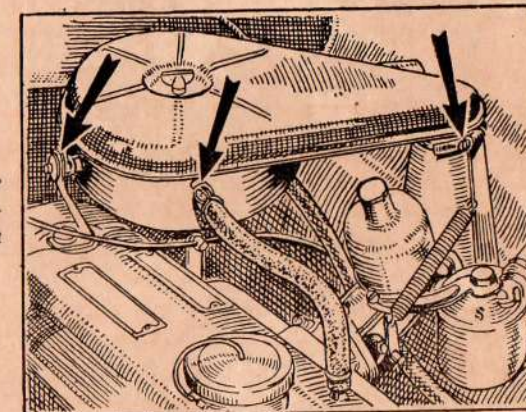
The oil in the sump should be drained to clear the sump of any impurities that may have accumulated and refilled with the appropriate grade of lubricant. This operation is best carried out immediately the car returns from a journey, while the oil is still warm and fluid.

On the right-hand side of the engine will be found a hexagon-headed drain plug. Removal of this plug will release the contents of the sump. After carefully cleaning the drain plug, it should be replaced and screwed up tightly.

Before refilling the sump withdraw the engine oil filter element (see page 46) and wash the case and the element in petrol (gasoline). Allow the element to dry thoroughly before refitting. As an alternative to cleansing the element every intervening 3,000 miles (5000 km.) the fitting of a new element is recommended as at every 6,000 miles (10000 km.).



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



The arrows indicate the two clips and the rubber-mounted spigot which secure the air cleaner

Air cleaner (A)

Slacken the screw-type clip securing the air cleaner body to the intake pipe, release the breather pipe and withdraw the air cleaner complete from the engine.

Transfer the air cleaner to a bench, taking care not to spill the oil.

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.

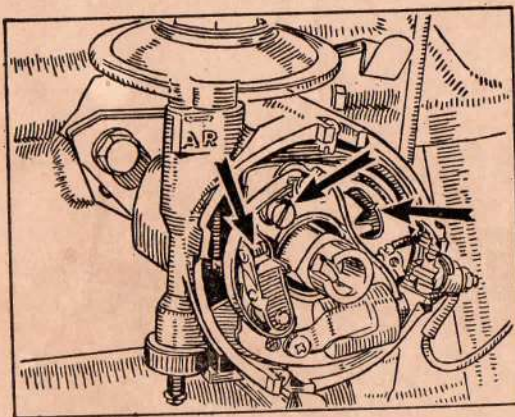
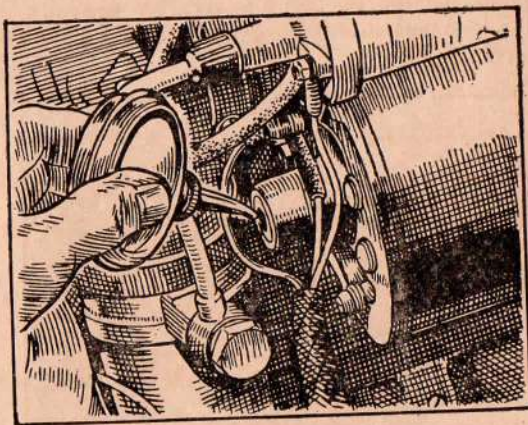
EVERY 3,000 MILES (5000 Km.)

Dynamo lubrication (F)

Add two drops of oil to Ref. F (on Lubrication Chart) to the rear end of the dynamo. Use an oilcan inserted in the central hole of the rear end bearing.

Avoid over-oiling.

The lubrication hole for the dynamo end bearing. Do not overlubricate.



The distributor points, contact plate securing screw, and the screw driver adjusting slots are here indicated by the arrows

Contact breaker pivot

Place a small amount of clean engine oil or grease to Ref. C (on Lubrication Chart) on the pivot on which the contact breaker lever works. Do not allow oil or grease to get on the contacts. Use lubricant sparingly.

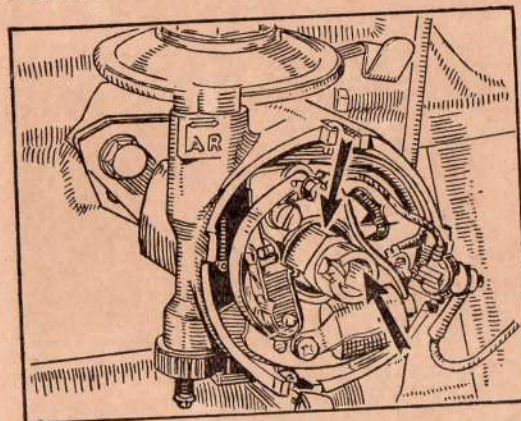
Contact breaker gap

Remove the distributor cap and turn the engine by hand until the contacts are fully opened. Check the gap with the .016 in. (.40 mm.) gauge on the screw-driver 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 contact plate securing screw (see illustration) and adjust the contact gaps by inserting a screwdriver in the notched hole at the end of the plate, turning clockwise to decrease and anti-clockwise to increase the gap. Tighten the securing screw.

EVERY 3,000 MILES (5000 Km.)

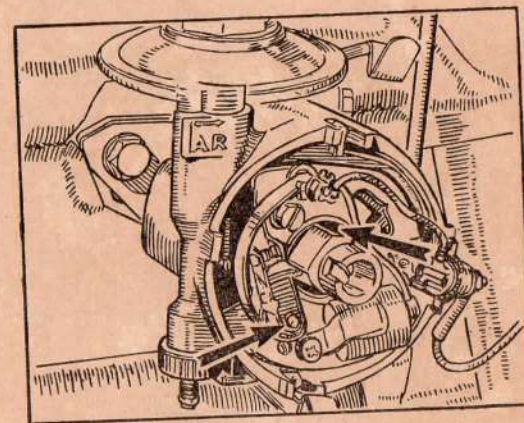
If the contact breaker points are burned or blackened, clean them with a fine carborundum stone or with very fine emery-cloth.

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.



A slight trace of grease or engine oil should be applied to the rotating cam. The cam bearing should also receive a few drops of oil

Lubricate the advance mechanism and the contact breaker lever pivot at the stipulated intervals



Distributor cam (C)

Lightly smear the cam with a very small amount of grease to Ref. D (on Lubrication Chart) or clean engine oil can be used.

Distributor cam bearing (D)

Lift the rotor off the top of the spindle by pulling it off squarely and add a few drops of thin engine oil to the cam centre. Do not remove the screw which is exposed to view. There is a clearance between the screw and the inner face of the spindle for the oil to pass.

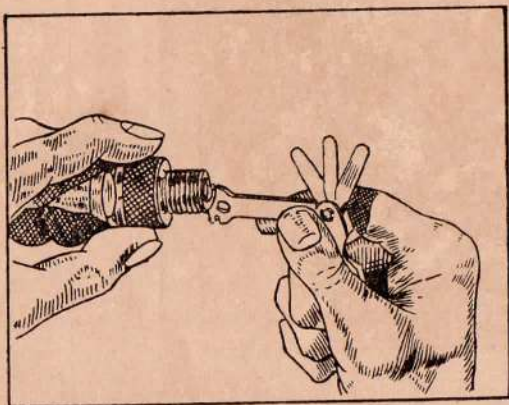
EVERY 3,000 MILES (5000 Km.)

Replace the rotor with its drive plug correctly engaging the spindle slot and push it on the shaft as far as it will go.

Automatic timing control (D)

Carefully add a few drops of thin engine oil through the hole in the contact breaker base through which the cam passes. Do not allow any oil to get on or near the contacts.

Do not over-oil.



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

Sparking plugs

The sparking plugs fitted to the car are Mico Bosch 14 mm., H-W145T2.

The gap between the points should be .025 in. (.64 mm.). When adjusting the gap always move the side wire—never bend the centre wire.

The only efficient way to clean sparking plugs is to have them properly serviced on machines specially designed for this purpose. These machines operate with compressed air and utilize a dry abrasive material specially graded and selected to remove harmful deposits from the plug insulator without damaging the insulator surface. In addition, the majority of the machines incorporate electrical testing apparatus enabling the plugs to be pressure-tested to check their electrical efficiency and gastightness.

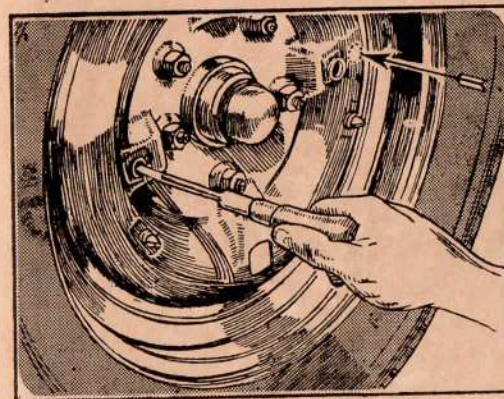
EVERY 3,000 MILES (5000 Km.)

Brake adjustments

Excessive brake pedal travel is an indication that the brake-shoes require adjusting.

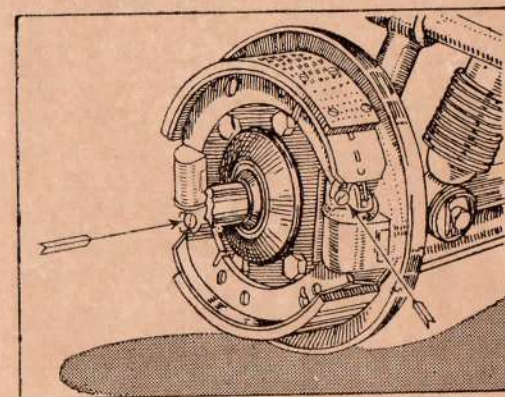
The brakes on all four wheels must be attended to as detailed below to regain even and efficient braking.

When relining front or rear brake-shoes it is important that the shoes on both sides of the car are attended to at the same time. Never reline the shoes for one wheel without attending to the opposite side.



Adjust one shoe, then turn the wheel half a turn to gain access to the second adjuster.

The arrows indicate the two brake-shoe adjusting screws on the front assembly



Front brakes. Remove the front hub cap and rubber wheel plug and rotate the wheel or brake drum until one of the adjustment screws is visible through the hole provided. With a screwdriver turn the screw as far as it will go in a clockwise direction until the drum is locked solid, then turn the screw anti-clockwise one notch only. The brake-drum should then be free to rotate without the shoes rubbing. Carry out the same procedure on the screw which is diametrically opposite. The brake-shoes on this wheel are now fully adjusted. The brake-shoes on the other

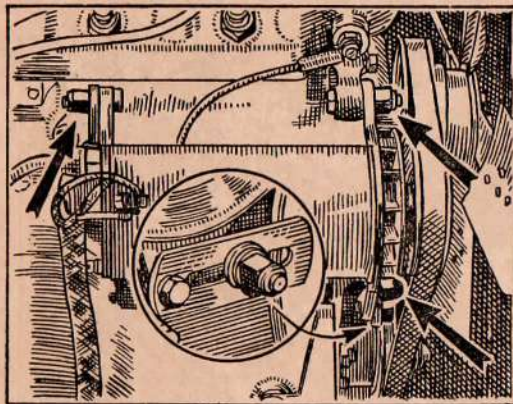
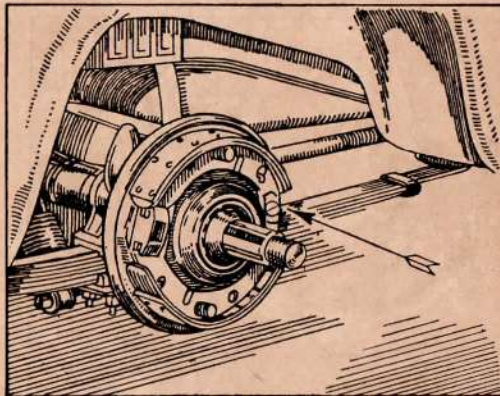
EVERY 3,000 MILES (5000 Km.)

front wheel must be similarly adjusted. Do not forget to replace the rubber dust excluder plug.

Rear brakes. The procedure is similar to that detailed for the front brakes, except that there is only one adjuster, which controls both brake-shoes. (See illustration.)

It is essential that the hand brake should be fully released while the rear brake-shoes are being adjusted. Do not forget to replace the rubber plug.

A single adjustment only is provided on the rear brake which automatically adjusts the hand brake at the same time



the four points of attachment for the dynamo, all of which must be slackened for belt adjustment

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 in the slotted link.

Tighten up the bolts thoroughly.

For a complete summary of the attention to be given every 3,000 miles (5000 km.) see maintenance summary.

EVERY 6,000 MILES (10000 Km.)

Water pump

After first 500 miles, on every 12,000 miles (20000 km.) remove the water pump grease plug on the water pump casing and fit a grease nipple—apply 3 to 5 strokes of grease. The greasing of the pump must be done very sparingly, otherwise grease will flow past the bearings on to the face of the carbon sealing ring and impair its efficiency.

Gearbox

A drain plug is provided on the under side of the gearbox. Drain the gearbox and refill with fresh oil. The capacity of the gearbox is 2 pints (1.14 liters) see illustration of gearbox drain plug on page no. 33.

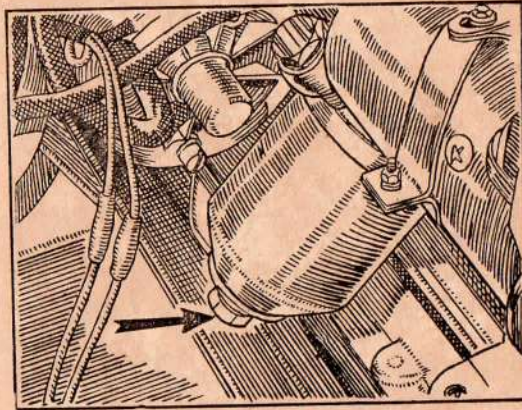
EVERY 6,000 MILES (10000 Km.)

External engine oil filter

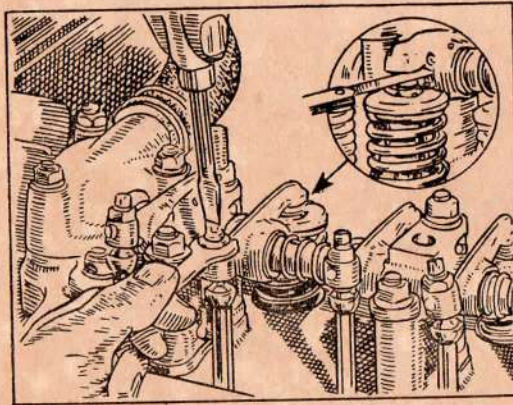
The external oil filter container should be removed, the filter element withdrawn and replaced by a new element.

A Tecalemit element only must be used.

Clean the filter element casing in petrol (gasoline) and dry thoroughly before replacing.



Unscrew the bolt to release the oil filter bowl



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

Valve rocker clearance

Both inlet and exhaust valves should have a clearance of at least .015 in. (.38 mm.) when hot.

It is of the utmost importance to set

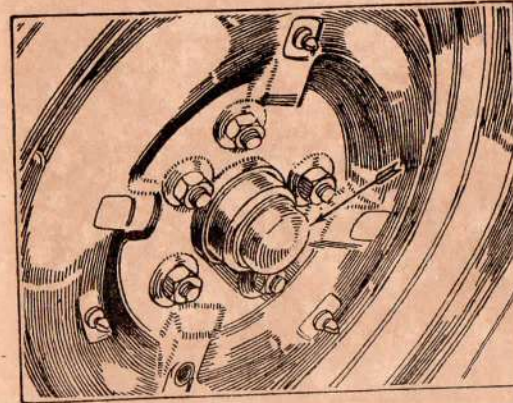
No. 1 valve with	No. 8 fully open.
No. 3 " " "	No. 6 " " "
No. 5 " " "	No. 4 " " "
No. 2 " " "	No. 7 " " "
No. 8 " " "	No. 1 " " "
No. 6 " " "	No. 3 " " "
No. 4 " " "	No. 5 " " "
No. 7 " " "	No. 2 " " "

EVERY 6,000 MILES (10000 Km.)

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 and anti-clockwise to increase it. Retighten the locknut when the clearance is correct, holding the screw against rotation with a screwdriver.

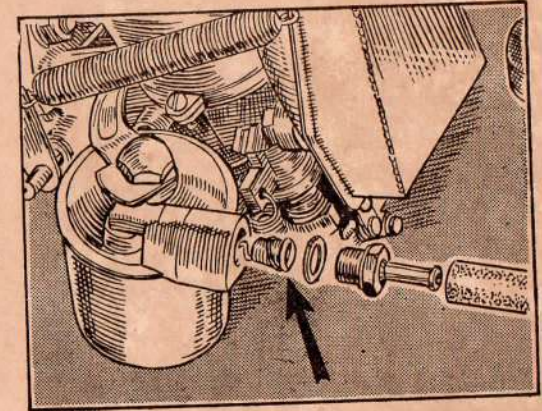
Front wheel hubs (C)

Remove the hub disc and prise off the hub grease cap from the end of the hub. Fill the cap with grease to Ref. C (on Lubrication Chart) and replace.



The front hub grease cap must be gently prised off with a screwdriver

The carburetter filter must be replaced with the open end outwards



Carburetter filter

The float-chamber filter should be removed and thoroughly cleaned with a stiff brush and petrol (gasoline). Never use rag. The filter is situated 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.

Fuel pump filter

Remove the fuel pump protecting shield, withdraw the fuel pump filter, and

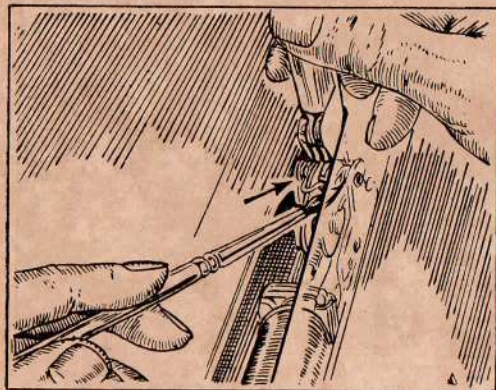
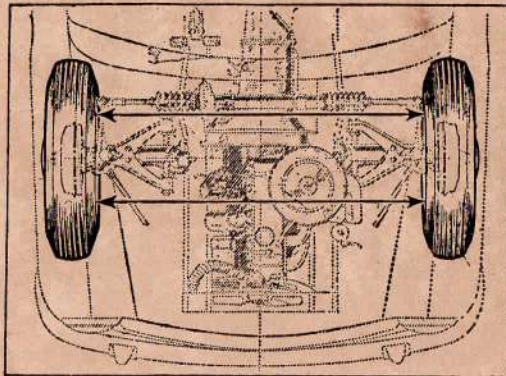
STEERING GEAR

clean it thoroughly in petrol (gasoline). The filter is inserted into the bottom of the pump body and is easily withdrawn by unscrewing its hexagon attachment screw after releasing the pump from its bracket. When cleaning it do not use a rag; always use a stiff brush and clean petrol (gasoline).

Steering gear

Tracking up the wheels. Excessive and uneven tyre wear is usually caused by faulty wheel tracking. The wheels should toe in to the extent of $\frac{1}{8}$ in. (3 mm.), and care must be used to ensure that the measurements are taken at axle level and that the rims run true. Correct setting of the front wheels entails the use of a wheel alignment gauge, and the owner is advised to entrust this work to an Authorized Hindustan Dealer, who has the necessary equipment.

At axle level the distance between the rims should be $\frac{1}{8}$ in. (3 mm.) greater at the rear of the wheels



Apply by means of a brush a small quantity of oil to the direction indicator pivot

Direction indicator lubrication

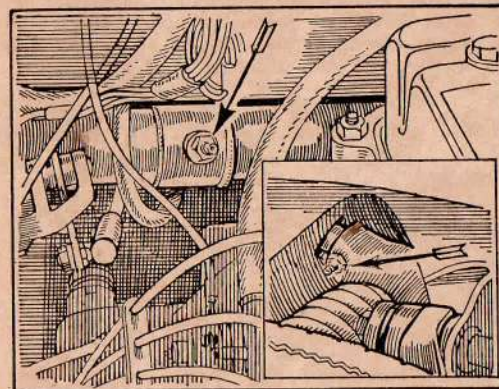
Apply, by means of a brush, a drop of thin machine oil, such as sewing-machine oil, to the pivot pin at the root of the arm. Use only the slightest trace, as an excess will affect the operating mechanism.

For a complete summary of the attention to be given every 6,000 miles (10000 km.) see maintenance summary.

EVERY 12,000 MILES (20000 Km.)

Steering gearbox (B)

A greaser is provided on the rack housing and is accessible from under the bonnet. Replenish the rack assembly with oil to Ref. B (on Lubrication Chart) and avoid overfilling the steering gearbox. Give no more than 10 strokes. A grease nipple is fitted on the pinion shaft to which the oil gun should also be applied and given two strokes (inset.)



The steering rack grease nipple is accessible from beneath the bonnet. Inset shows the nipple for the pinion shaft

Radiator

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

Refill the system with water (preferably soft), or one of the recommended anti-freeze coolants. (See page 14.)

Hydraulic dampers

The hydraulic dampers fitted are carefully set before dispatch. They are non-adjustable and their construction is such that no dismantling can be carried out except by the makers. If they show signs of free movement, lack of adequate resistance, or excessive resistance they must be renewed.

Carburettor piston

The suction chamber and piston should be cleaned approximately every 12,000 miles (20000 km.). After detaching the unit clean the main inside bore of the suction chamber and the outside diameter of the piston with a clean rag moistened in fuel. Reassemble in a clean and dry condition with a few spots of clean thin oil (Ref. F. on Lubrication Chart) on the piston rod only. Do not forget to refill the damper reservoir (see page 35).

Detach the float-chamber by unscrewing the attachment bolt, remove the lid and float, and empty away any sediment which may have collected in the bottom of the chamber.

For a complete summary of the attention to be given every 12,000 miles (20000 km.) see maintenance summary.

BODY ATTENTION

Bodywork

It is advisable to wash the coachwork of the car with an abundant quantity of water to remove all traces of dust and traffic film. Polish the paintwork frequently with a good-quality polish free from abrasives.

Wash chromium parts frequently with soap and warm water; after the dirt has been removed, polish the surface with a clean dry cloth or a damp chamois leather until bright. Metal polishes or abrasives of any sort must not be used on chromium, but a good-quality metal polish may be used on stainless steel.

When cleaning windshields it is advisable to use methylated spirit (de-natured alcohol) to remove tar spots and other stains.

It has been found that the use of some silicon and wax-based polishes for this purpose can be detrimental to the windshield wiper blades.

Upholstery

The upholstery of the car should be cleaned periodically by wiping over with a damp cloth; a little neutral soap may be used if thought to be necessary. Neither detergents, caustic soda, nor spirits of any kind must be used. Accumulations of dirt, if left too long, eventually work into the pores of the leather, giving it a soiled appearance.

Maintenance of the paint finish.

In order to ensure that the paint finish is in good condition on the automobiles, we recommend the following care to be taken :

1. Wash the wheels and under mud-guards every day.
2. If necessary, the car body may be wiped with a soft moist cloth and then with a dry soft cloth every day.
3. Once in a week body can be washed with soap water (use good quality washing soap) followed by clean water and then wipe off with a soft clean cloth.
4. Before washing or wiping with moist cloth as suggested above, the loose dirt and dust settled on the body must be dusted away, as otherwise these will cause scratch marks on the body resulting in loss of gloss.
5. Make sure that the surface is not scuffed with any rough objects which may result in scratches occurring
6. Polish the vehicle with Spartan Polish and Cleaner or Adcolac Wax Polish once in 15 days preferably immediately after washing. Before polishing, please ensure that all road dust is completely dusted away.

BODY ATTENTION

7. If any place the paint has chipped off or got scratched exposing the bare metal, it is necessary to have this touched up immediately to ensure that no corrosion takes place in those areas. Use Spartan Auto Lacquers and ancillaries for this.
8. It is always preferable to park the vehicle in shade during day time unless practically impossible.
9. It is also essential that the vehicles are parked under cover during nights and rainy days and during winter months to avoid too much of condensation of water on the bodies which would definitely affect the life of the finish.
10. In case moisture has condensed on the surface during exposure before taking the vehicle next day it is necessary to wipe it off completely without allowing the droplets of water slowly evaporating from the surface.
11. In the case of underchassis it is preferable to have it painted with some good quality Chassis Paint, atleast once a year, just before the monsoon, which would protect the underchassis, from getting corroded.

5,00 1,500 & 2,500 MILES

Free Services Attention Important

Items Included in Free Services

During the early life of the car, soon after it has completed 500 miles (800 km.), 1,500 miles (2,500 km.), and 2,500 miles (4,000 km.), you are entitled to have it inspected free of charge by the Hindustan Dealer from whom you purchased it or, if this should not be convenient, by any other Hindustan 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.

THE 500 MILES SERVICE INCLUDES

1. Wash and lubricate chassis. DO NOT SPRAY UNDERCHASSIS.
2. Drain sump, gearbox and rear axle. Flush & refill with proper lubricants.
3. Check underchassis for evidence of water, oil, brake fluid, shock absorber and petrol leaks.
4. Tighten engine, steering joints, U bolts & chassis bolts to torque specifications.
5. Lubricate rear axle bearings. Tighten rear axle shaft nuts to torque specification.
6. Check tyre pressure, including spare. Tighten wheel nuts. Mark tyres.
7. Check operation of body hardware, doors, glasses, locks and keys.
8. Check and fill battery. Clean and tighten terminals. Tighten hold-down clamps.
9. Check operation of all instruments, lights, horns and accessories.
10. Check and adjust fan belt tension.
11. Check clutch pedal free travel and linkage.
12. Adjust brakes. Check and adjust pedal free travel.
13. Check master cylinder fluid.
14. Check wheel alignment.
15. Aim headlights.
16. Tune engine, including adjustment of tappets. Replenish oil in carburettor damper.
17. Road test and
 - (a) Adjust ignition timing & carburettor
 - (b) Check steering operation, brakes, gear shifting and body & chassis noises.
18. Clean body, trim and tyres.

5,00 1,500 & 2,500 MILES

Free Services Attention Important

Items Included in Free Services

THE 1,500 MILES SERVICE INCLUDES

1. Wash and lubricate chassis. DO NOT SPRAY UNDERCHASSIS.
2. Drain sump. Refill with proper lubricant.
3. Check underchassis for evidence of water, oil, brake fluid, shock absorber and petrol leaks.
4. Tighten engine, steering joints, U bolts and chassis bolts to torque specifications.
5. Check tyre pressure, including spare. Tighten wheel nuts.
6. Check operation of body hardware, doors, glasses, locks and keys.
7. Check and fill battery. Clean and tighten terminals. Tighten hold-down clamps.
8. Check operation of all instruments, lights, horns and accessories.
9. Check and adjust fan belt tension.
10. Check clutch pedal free travel and linkage.
11. Check master cylinder fluid.
12. Check engine.
13. Road test and
 - (a) Adjust ignition timing & carburettor.
 - (b) Check steering operation, brakes, gear shifting and body & chassis noises.
14. Clean body, trim and tyres.

THE 2,500 MILES SERVICE INCLUDES

1. Wash and lubricate chassis. DO NOT SPRAY UNDERCHASSIS.
2. Drain sump. Refill with proper lubricant.
3. Check underchassis for evidence of water, oil, brake fluid, shock absorber and petrol leaks.
4. Tighten engine, steering joints, U bolts & chassis bolts to torque specifications.
5. Check tyre pressure, including spare. Rotate tyres. Tighten wheel nuts.
6. Check operation of body hardware, doors, glasses, locks & keys.
7. Check and fill battery. Clean & tighten terminals. Tighten hold-down clamps.
8. Check operation of all instruments, lights, horns and accessories.
9. Check and adjust fan belt tension.
10. Check clutch pedal free travel and linkage.
11. Adjust brakes. Check and adjust pedal free travel.
12. Check master cylinder fluid.
13. Lubricate front wheel bearings & adjust. Check wheel alignment.
14. Tune engine, including adjustment of tappets. Replenish oil in carburettor damper.
15. Road test and
 - (a) Adjust ignition timing & carburettor
 - (b) Check steering operation, brakes, gear shifting and body & chassis noises.
16. Clean body, trim and tyres.

MAINTENANCE SUMMARY

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

Every 250 miles (400 km.)

Inspect engine oil level ; top up as necessary.

Every 500 miles (800 km.)

Test tyre pressures.

See that radiator is full of water.

Every 1,000 miles (1600 km.)

Top up engine, gearbox, and rear axle oil levels.

Top up carburetter piston dashpot.

Top up radiator.

Check level of fluid in the hydraulic brake and clutch master cylinder.

Make visual inspection of brake lines and pipes.

Check battery cell specific gravity readings and top up levels.

Lubricate all nipples (except steering rack and pinion).

Lubricate carburetter controls.

Check brake pedal free travel and report if adjustment is required.

Check wheel nuts for tightness.

Check tyre pressures.

Examine all hydraulic dampers for leaks.

Check level of oil in air cleaner.

Every 3,000 miles (5000 km.)

Change engine oil

Top up gearbox and rear axle oil levels.

Top up carburetter piston dashpot.

Top up radiator.

Check level of fluid in the hydraulic brake and clutch master cylinder.

Make visual inspection of brake lines and pipes.

Check battery cell specific gravity readings and top up levels.

Lubricate all nipples (except steering rack and pinion).

Lubricate carburetter controls.

Check brakes and adjust if necessary.

Check tyre pressures.

Examine all hydraulic damper for leaks.

Lubricate door hinges, bonnet lock, and operating mechanism.

Lubricate dynamo bearing.

Check and adjust if necessary distributor contact points.

Check automatic ignition control, lubricating drive shaft, cam, and advance mechanism.

MAINTENANCE SUMMARY

Every 3,000 miles (5000 km) (continued)

Check dynamo drive belt tension.

Clean and adjust sparking plugs.

Change wheels round diagonally to regularize tyre wear.

Clean and re-oil air cleaner.

Every 6,000 miles (10000 km.)

Change oil in engine, gearbox, and rear axle.

Top up carburetter piston dashpot.

Lubricate water pump with grease.

Top up radiator.

Check level of fluid in the hydraulic brake and clutch master cylinder or clutch servo supply tank on cars with Manumatic.

Make visual inspection of brake lines and pipes.

Check battery cell specific gravity readings and top up levels.

Lubricate all nipples (except steering rack and pinion).

Lubricate carburetter controls.

Check brakes and adjust if necessary.

Check tyre pressures.

Examine all hydraulic dampers for leaks.

Lubricate door hinges, bonnet lock, and operating mechanism.

Lubricate dynamo bearing.

Check and adjust if necessary distributor contact points.

Check automatic ignition control, lubricating drive shaft, cam, and advance mechanism.

Check dynamo drive belt tension.

Clean and adjust sparking plugs.

Change wheels round diagonally to regularize tyre wear.

Check valve rocker clearances and adjust if necessary.

Clean and re-oil air cleaner.

Check and tighten if necessary door hinges and striker plate securing screws.

Tighten rear road spring seat bolts.

Re-pack front hub caps with grease.

Fit new oil filter element.

Clean carburetter and fuel pump filters.

Check wheel alignment.

Every 12,000 miles (20000 km.)

Remove engine sump and pick-up strainer, clean, and reassemble, filling with fresh oil,

Change oil in gearbox and rear axle.

Top up carburetter piston dashpot.

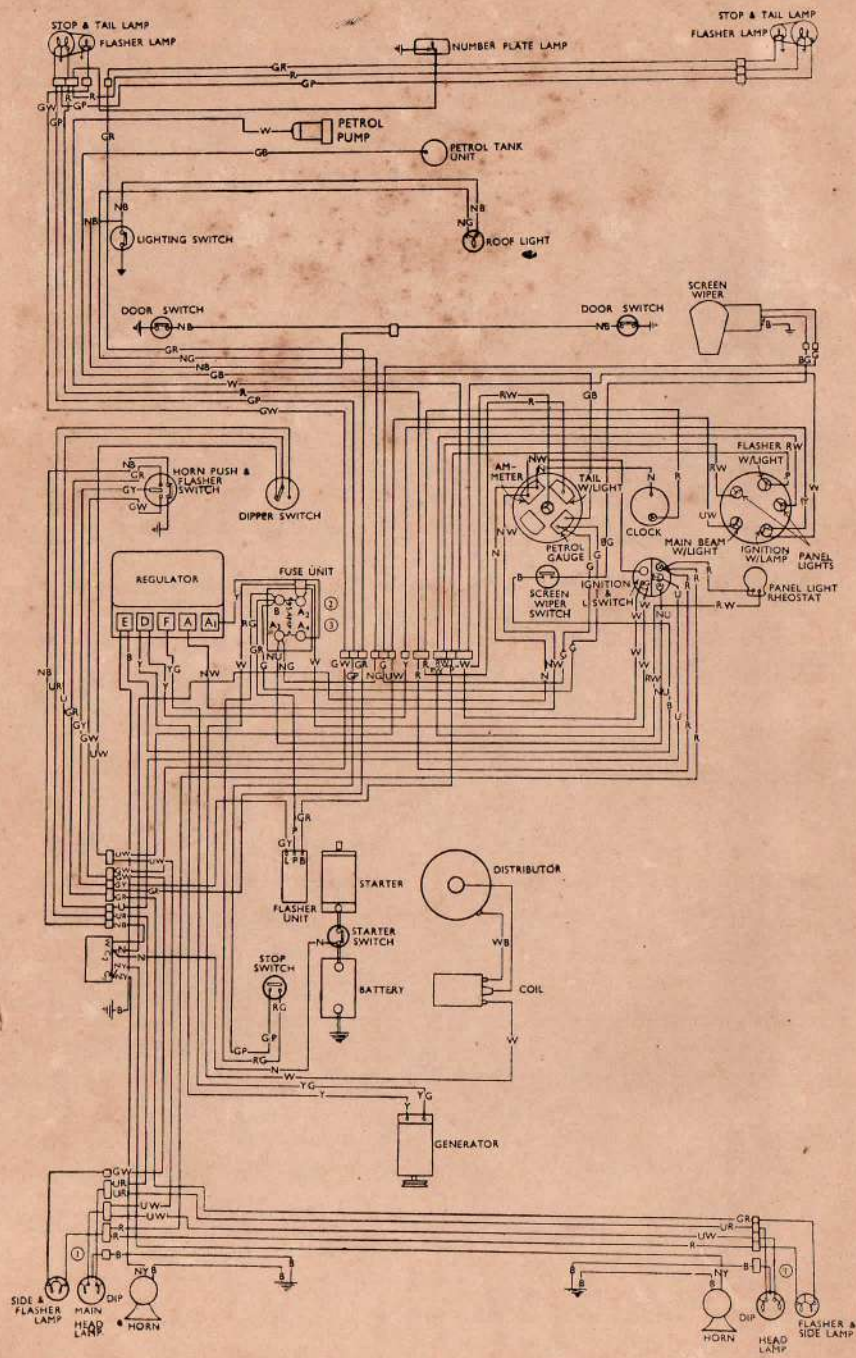
Every 12,000 miles (20000 km.) (continued)

- Check level of fluid in the hydraulic brake and clutch master cylinder.
- Make visual inspection of brake lines and pipes.
- Check battery cell specific gravity readings and top up levels.
- Lubricate water pump with grease.
- Lubricate carburettor controls.
- Check brakes and adjust if necessary.
- Check tyre pressures.
- Examine all hydraulic dampers for leaks.
- Lubricate door hinges, bonnet lock, and operating mechanism.
- Lubricate dynamo bearing.
- Check and adjust if necessary distributor contact points.
- Check automatic ignition control, lubricating drive shaft, cam, and advance mechanism.
- Check dynamo drive belt tension.
- Fit new sparking plugs.
- Change wheels round diagonally to regularize tyre wear.
- Check valve rocker clearance and adjust if necessary.
- Clean and re-oil air cleaner.
- Check and tighten if necessary door hinges and striker plate securing screws.
- Tighten rear road spring seat bolts.
- Repack front hub caps with grease.
- Fit new oil filter element.
- Clean carburettor and fuel pump filters.
- Check wheel alignment.
- Lubricate steering rack and pinion.
- Drain, flush out, and refill radiator.
- Check steering and suspension moving parts for wear.

Use of the oilcan

Keep an oilcan filled with a light oil (Ref. F. on L. C.) to apply to the bonnet lock and prop mechanism and the door locks and hinges, etc., at frequent intervals. Attention to such details ensures trouble-free action and prevents undue wear. Make sure all articulated points receive attention.

WIRING DIAGRAM



KEY TO WIRING DIAGRAM

B — Black
 G — Green
 N — Brown
 P — Purple
 R — Red
 U — Blue
 W — White

L.H. side & flasher lamp.
 L.H. headlamp.
 L.H. horn.
 R.H. side & flasher lamp.
 R.H. headlamp.
 R.H. horn.
 Generator.
 Stop switch.
 Battery.
 Coil.
 Starter switch.
 Flasher unit.
 Starter.

Distributor.
 Fuse unit.
 Regulator.
 Screenwiper switch.
 Ignition & light switch.
 Panel light Rheostat.
 Petrol gauge.
 Clock
 Main-beam W/Light.
 Ignition W/Lamp, Panel lights.
 Am-meter.
 Tail W/Light.
 Flasher W/Light.

Dipper switch.
 Horn push & flasher switch.
 Door switch.
 Screen wiper.
 Lighting switch.
 Roof light.
 Petrol tank unit.
 Petrol pump.
 L.H. stop & tail lamp.
 L.H. flasher lamp.
 Number plate lamp.
 R.H. stop & tail lamp.
 R.H. flasher lamp.

CABLE COLOUR CODE

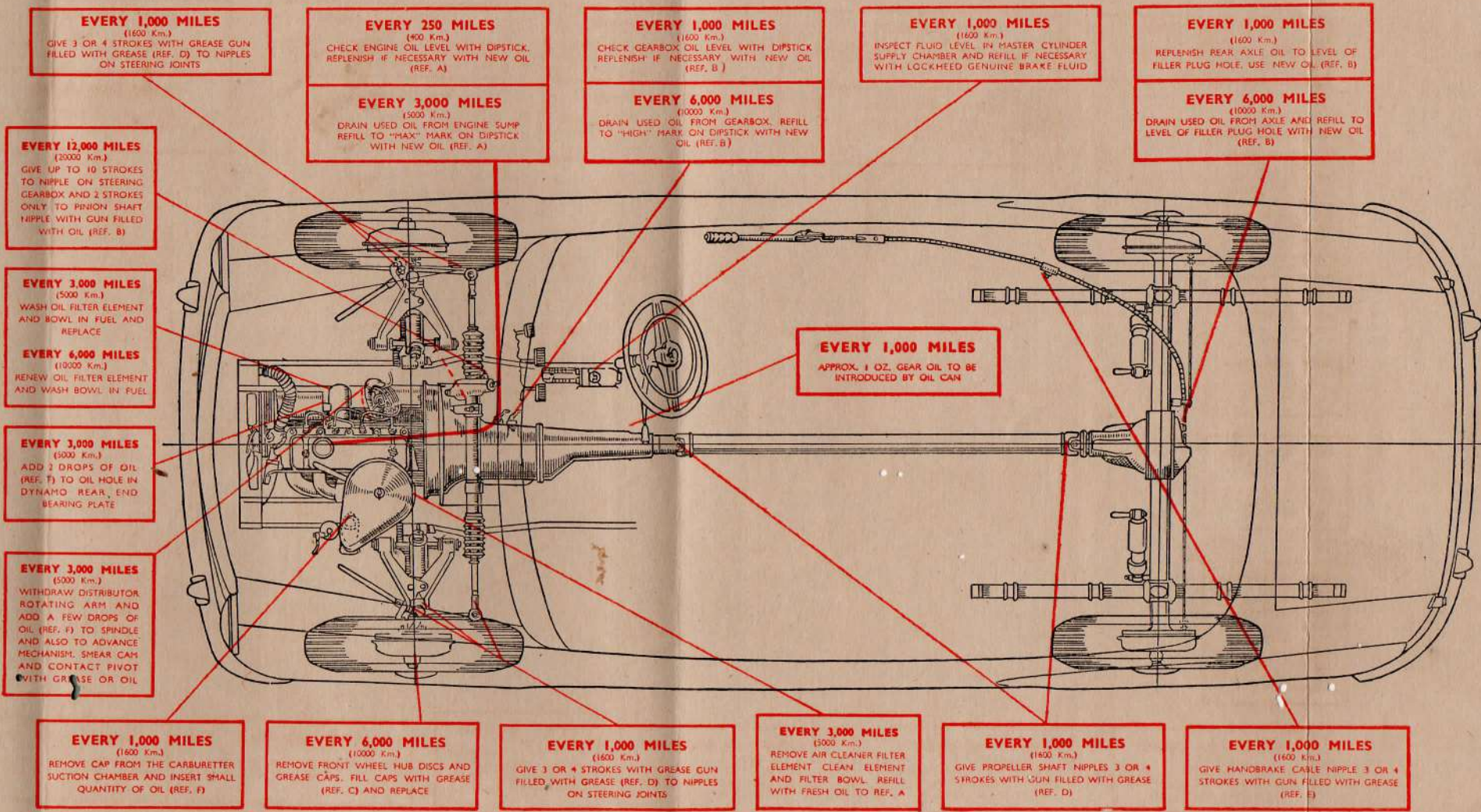
Y — Yellow
 GB — Black Green
 GB — Green Black
 GP — Green Purple
 GR — Green Red
 GW — Green White
 GY — Green Yellow

NB — Brown Black
 NG — Brown Green
 NU — Brown Blue
 NW — Brown White
 NY — Brown Yellow
 RG — Red Green

RW — Red White
 RY — Red Yellow
 UR — Blue Red
 UW — Blue White
 WB — White Black
 YG — Yellow Green

THE AMBASSADOR LUBRICATION CHART

"Shell" Upper Cylinder Lubricant or Shell Donax U	"Caltex" Upper Cylinder Lubricant
"Shell" X-100 20/20W	"Caltex" RPM Motor Oil SAE 20 HD
"Shell" Retinax A	"Caltex" Marfak 2 HD
"Shell" Retinax A	"Caltex" Marfak 2 HD
"Shell" Retinax A	"Caltex" Marfak 2 HD
"Shell" Spirax 80 "E.P."	"Caltex" Universal Thuban 80
"Shell" Spirax 90 "E.P."	"Caltex" Universal Thuban 90
"Shell" X-100 10W	"Caltex" RPM Motor Oil SAE 10/10W
"Shell" X-100 20/20W	"Caltex" RPM Motor Oil SAE 20 HD
"Shell" X-100 30	"Caltex" RPM Motor Oil SAE 30 HD
"SHELL" (Burmah Shell)	"CALTEX"



Every 1,000 Miles (1600 Km.). Use oilcan filled with oil to Ref. F on all control joints, door lock, bonnet locks, hinges, etc.

Every 6,000 Miles (10000 Km.). Remove grease plug from fan and water pump housing and insert a small amount of grease to Ref. C in opening, with the fingers only.

NOTE. In extreme cold use the lighter lubricants indicated for extreme conditions.