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The

# AMBASSADOR

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## OPERATION MANUAL

TENTH EDITION  
O. H. V.



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PUBLISHED BY  
**HINDUSTAN MOTORS LIMITED**

### 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.

# THE AMBASSADOR

## OPERATION MANUAL

TENTH EDITION

O. H. V.

*J. S. S.*  
*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

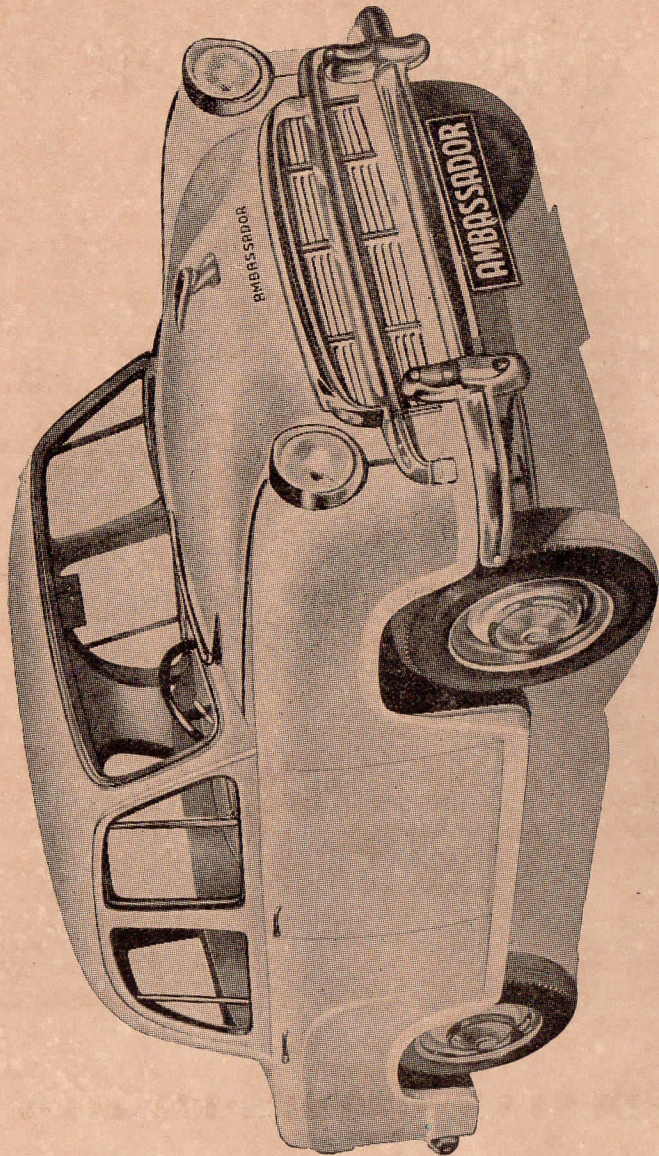
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THE AMBASSADOR

## FOREWORD

**T**HE 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.

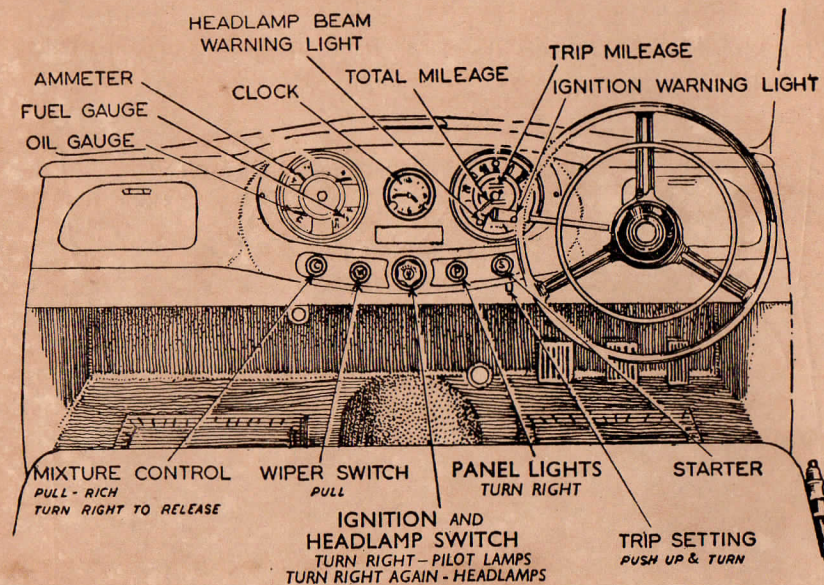
**Chassis Number** This is stamped on the identification plate which is secured to the dash panel beneath the bonnet. The suffix letters indicate to us the model, body finish, etc., and must always be quoted with the number.

**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.<sup>2</sup>) and 50 lb./sq. in. (3.5 kg./cm.<sup>2</sup>) 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.

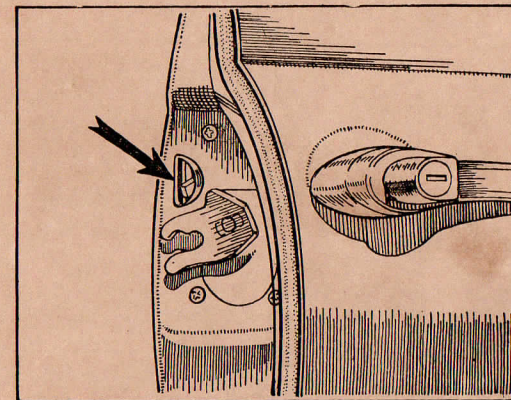
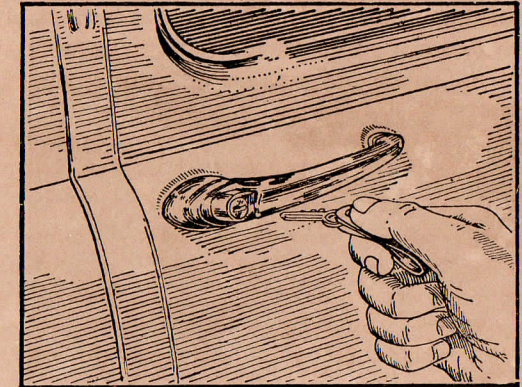
The bulb holders are pulled away from the locations shown above to enable the bulbs to be removed and replaced.

## 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

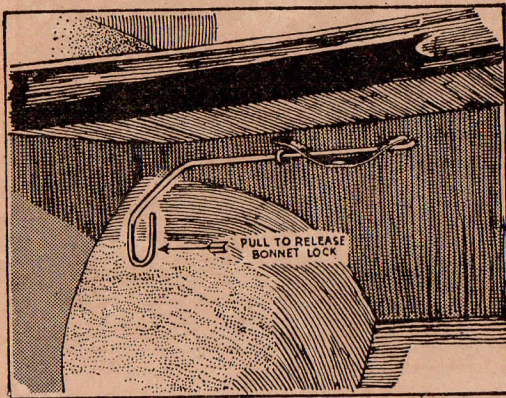
### Window Controls

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.

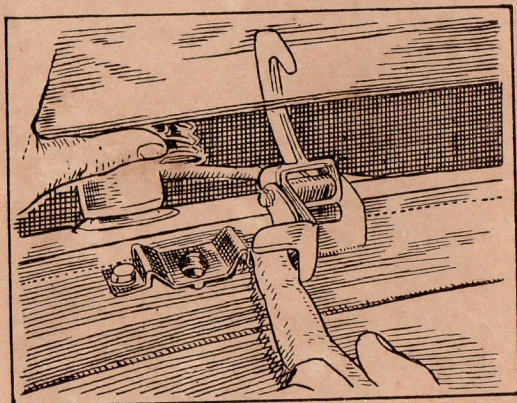
### Releasing the bonnet lock

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

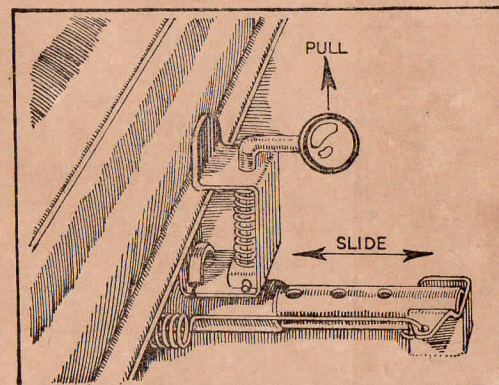
Raise the bonnet until the prop is clear, return it to its clip, and lower the bonnet to engage the safety hook. Apply double hand pressure to the bonnet front to force the bonnet down into the fully closed position. The bonnet lock will be heard to spring into engagement.

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

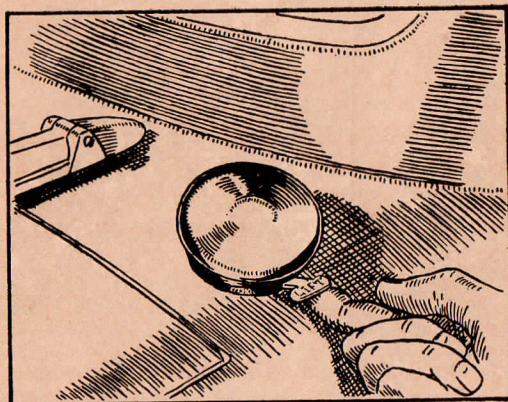
When it is required to use the starting handle, insert the shaft through the hole in the bumper, engaging the dowels with the dog on the engine.

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

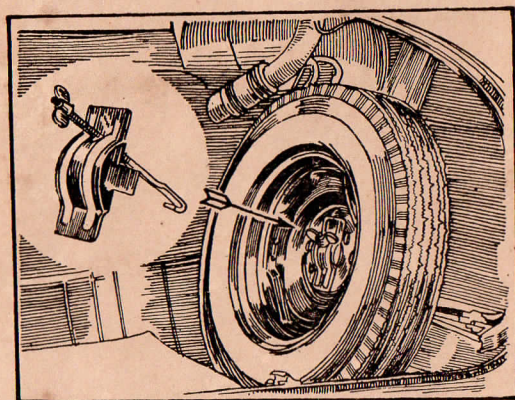
### Filling up with fuel

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.

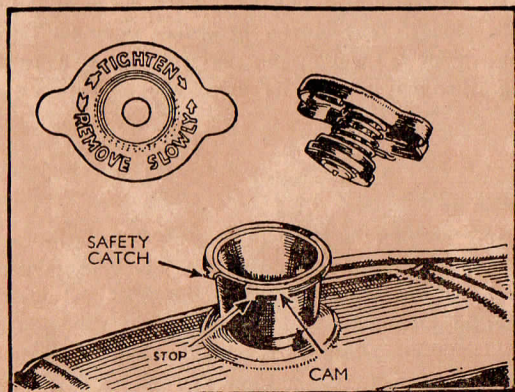
Gradually return the mixture control knob to the 'off' position as quickly as the warming engine will allow.

# 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 Nevafrze, 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

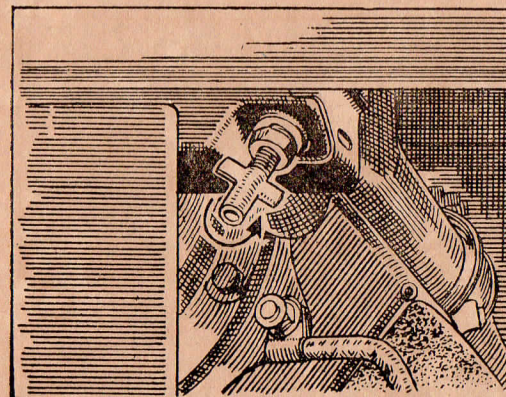
# COOLING SYSTEM

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.

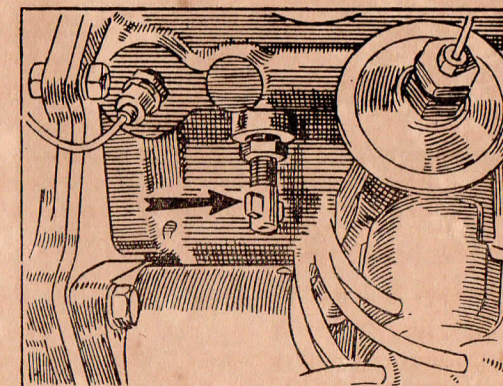
## Draining the cooling system

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

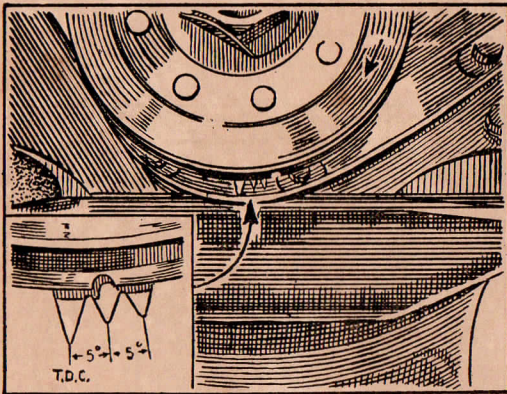
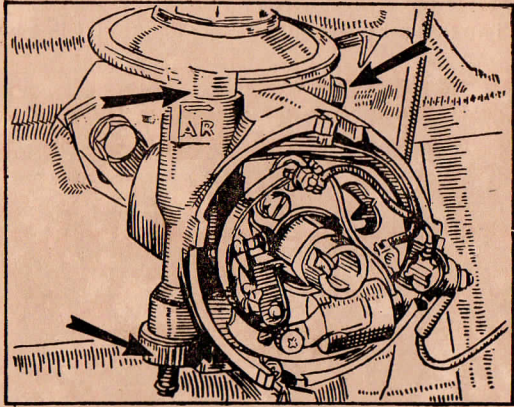
Adjustment is provided for the ignition point to enable the best setting to be attained to suit varying fuels.

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  $\frac{1}{4}$  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.