The MORRIS EIGHT

SERVICE INFORMATION

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MORRIS

Service Information

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Date of issue : March 1935

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SERVICING OF FLYWHEEL STARTER RING

MORRIS EIGHT

Owing to the special process and heat treatment necessary when assembling starter rings to the Morris Eight flywheels, we strongly recommend that all flywheels requiring new rings should be returned to the Factory.

Arrangements have therefore been made for the supply of reconditioned replacement flywheels, which may be obtained from Morris Distributors or direct from the Works.

Reconditioned flywheels will be charged in full for record purposes, and provided the original flywheels are found on return to be suitable for reconditioning the debit will be adjusted accordingly.

The standard charge for supplying and fitting new starter rings is 12s. 6d. each retail less a discount of 20 per cent., carriage and packing charges are extra. Ltd.,

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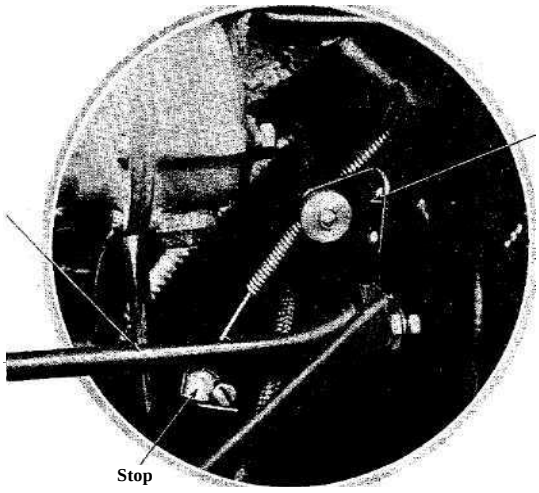
Instructions for Fitting Hand Throttle Control to 1935 Morris Eight Models

1. Fix cable bracket, Part No. 53066, to engine side of scuttle panel, below petrol pump, using the two bolts and nuts supplied. To gain access to the bracket holes already drilled in scuttle panel, it is necessary to ease down the dash masking board covering the electrical and speedometer cables, etc., underneath the instrument panel. This is done by removing the two near side nuts locating it to the instrument board.

2. Remove petrol pump and bracket and drill 5/64 in. diameter hole through accelerator lever in a vertical position, 5 1/2 in. from the carburettor end.

3. Drill a 1/4 in. diameter hole through dash masking board, 8 in. from top and 3 in. towards near-side, from steering column.

4. Pass carburettor end of control cable through hole in dash masking board, and guide it through the elongated hole in scuttle panel. Pass the outer cable through the pinch bolt, approximately one inch, and pass inner wire through the hole drilled in throttle lever. Locate pinch bolt to bracket and tighten up by knurled nut.



5. Locate throttle control to the steering column, immediately above the steering column support bracket, using clip, Part No. 16487 (supplied). Replace dash masking board.

6. With the throttle control set to the fully closed position, fix collar to inner cable, immediately below throttle lever and tighten pinch screw.

7. Replace petrol pump and bracket.

Morris Motors allowance for fitting hand throttle control to these instructions—2/6.

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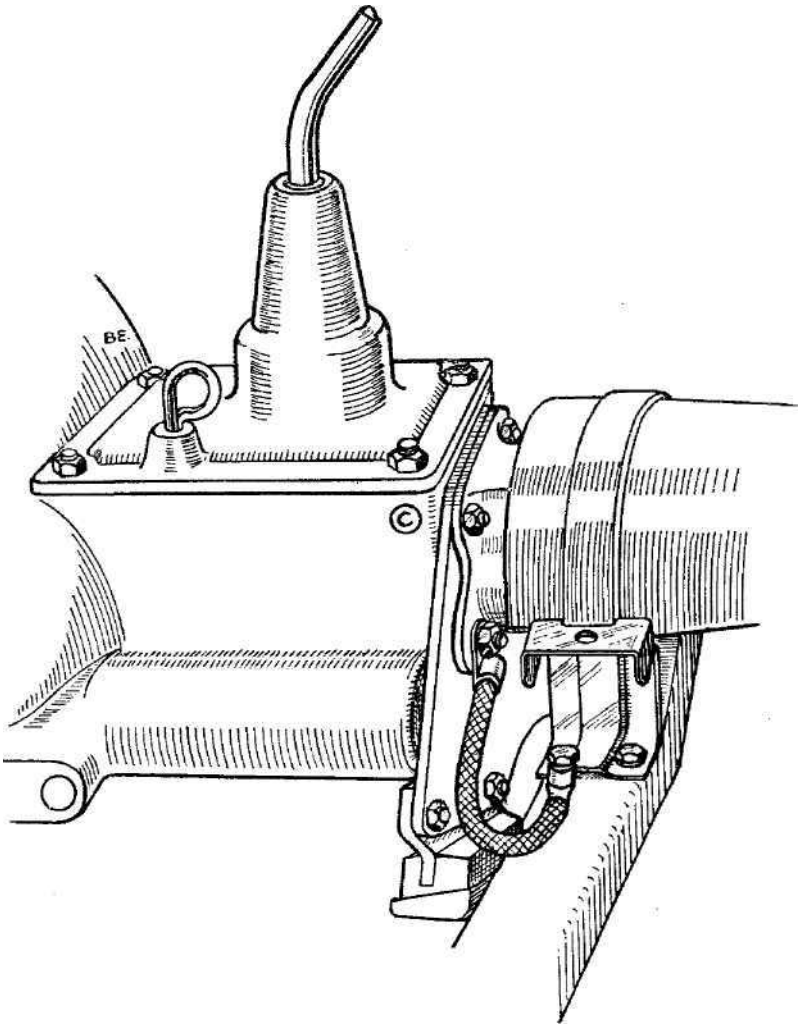
Fitting Earthing Cable to Morris Eight Engine

1. The near-side front floorboard must first be removed by unscrewing the five retaining screws. The floor board may then be lifted out, exposing the side of the gearbox.

2. There are four studs projecting from the back of the gearbox, which are used to retain both the rear engine supporting plate and the speedometer drive casing. The lower of these on the near-side of the engine should have its nut and spring washer removed, and the larger terminal of the earthing cable placed over the stud before replacing the nut. This should be arranged so that the cable comes away from the stud towards the near-side of the car.

3. One of the two small bolts securing the propeller shaft tunnel on the near-side which is nearer the front of the car must now be removed, and after bending the earthing cable in a loop, this bolt should be passed through the free end terminal and replaced through the propeller shaft tunnel bracket into the frame cross member. Before inserting this bolt the enamel should be removed from the bracket to permit the establishment of a good electrical contact.

4. The operation is completed by replacement of the near-side front floorboard. The cable may be fitted completely within half an hour.



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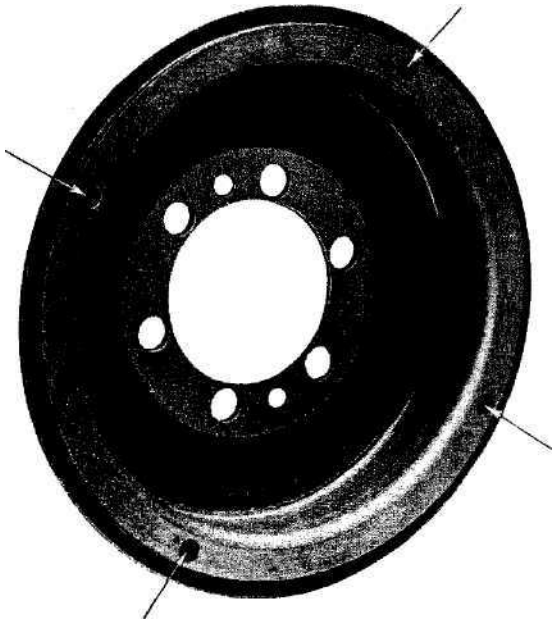
Instructions for Fitting Brake-Drum Shields

In order to prevent water penetration into the brake-drums, a shield, Part No. 5291T, should be riveted to the flange of each drum.

After the brake-drum has been removed, the shield should be placed centrally on the flange, and the four 3/16 in. clearance holes marked off and drilled. After the holes have been suitably countersunk, the shield can be riveted, using four 3/16 in. X 7/16 in. rivets, Part No. 38100. As an alternative, the shields may be located by four 2B.A. round-headed screws and spring washers, Part No. 53720, which would mean tapping the drums to suit.



The four 3/16in. rivet holes are here clearly shown by the arrows.

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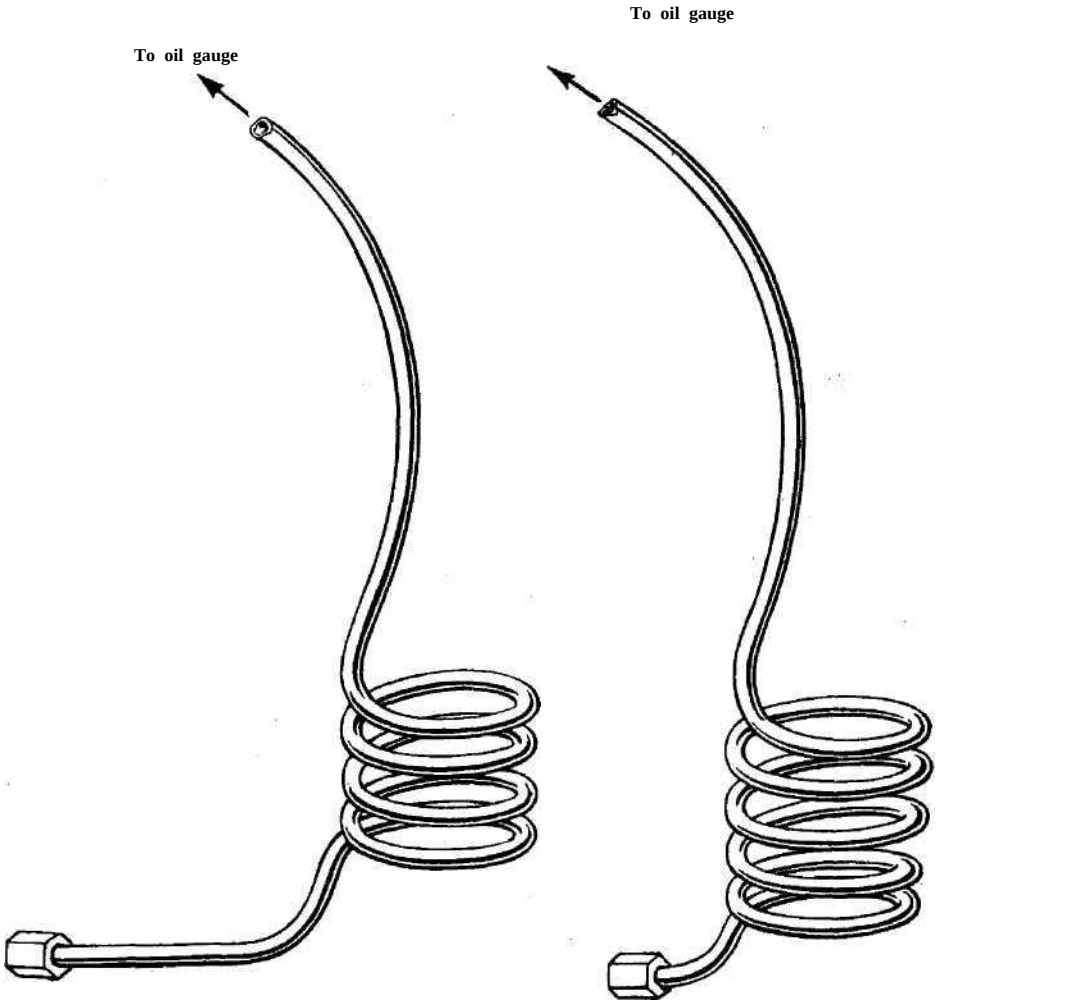
Oil Gauge Pipes

In order to prevent fracture of the oil gauge pipe at the union nut of the shut-off cock, it is necessary to modify the pipe as shown in the illustration.

All pipes having four coils should be modified by disconnecting at the shut-off cock, inserting a suitable mandrel through the coil and making a further coil (5 in all), so that the distance between the union and first coil is considerably reduced.



As originally fitted.

Should be fitted as above with one extra coil.

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Modification to Prevent Water Leakage through Rear Quarter Lights into Body. Two-Door Saloon Models

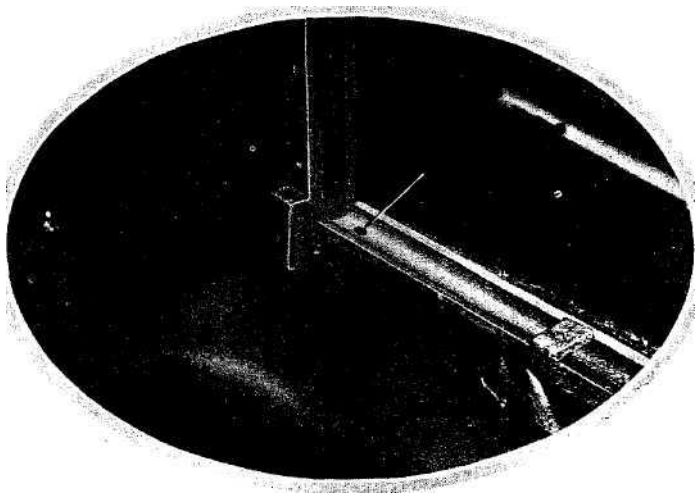
1. Remove rear quarter capping moulding, together with centre pillar upholstery fillet and rear quarter upholstery panel, after the window winding handle has been detached.

2. Remove window winding mechanism complete with garnish rail, by undoing six screws (three at each end). To do this it is necessary to place quarter light in lowered position, and remove garnish rail by pulling inwards at top.

3. Drill a 1/2 in. diameter hole, using a ratchet brace, through the existing hole already drilled in grooved bottom rail into wheel arch panel and rear wing. See diagram.

4. Advantage can be gained by adding a fillet along bottom grooved rail to take up space between it and garnish rail. Cover outer hole in garnish rail, exposing winding spring by a suitable piece of rexine glued in position.

5. Reassembly of the various parts takes place in the reverse order.



The correct position to drill the 1/2-in. dia. drain hole is indicated by the arrow.

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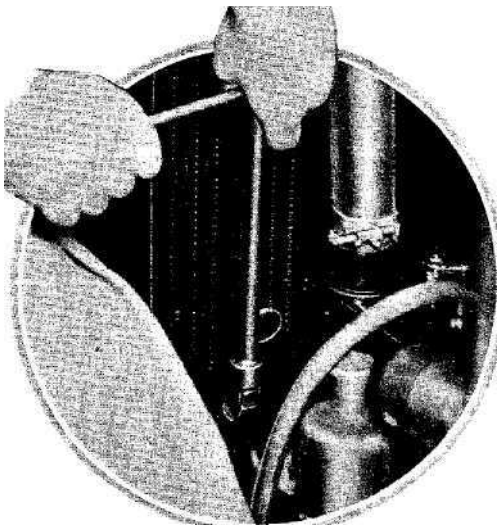
Instructions for Adjusting Tappets

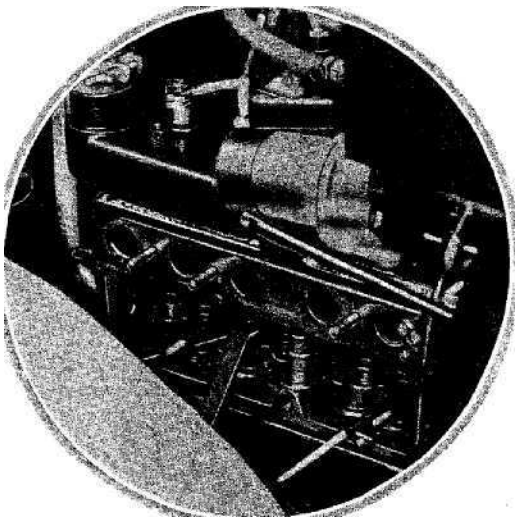
1. Disconnect the flexible petrol pipe from the carburettor union and detach the connecting link between the throttle and accelerator lever at accelerator lever end by unscrewing 1/8 in. nut.

2. Unhook the throttle return spring from the connecting link and detach mixture control inner cable from the jet lever by partially slackening the nut.

3. Disconnect the exhaust pipe from the manifold by undoing the nut from the stud at the rear and removing the remaining two nuts and bolts. A 5/16 in. universal joint T-handled socket wrench is required to undo the two bolts.



Left.—The two bolts of the exhaust pipe flange are best removed by the use of a 5/16 in. universal joint T-handled socket wrench.



Right. — This illustration indicates the two special tappet adjusting spanners from the tool kit in engagement with the tappet screw and its lock nut.

4. By means of a 1/4 in. T-handled universal joint socket wrench, remove the four nuts locating the manifold to the cylinder block. This will enable the induction and exhaust manifold to be removed, complete with carburettor, giving access to the tappet cover.

5. After the cover is removed, adjust all tappets to a dead .019 in. clearance, whilst the tappet in adjustment is on the back of the cam. To do this easily, observe the following table.

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

When replacing tappet cover and gasket, see that the longer halves go to the top.

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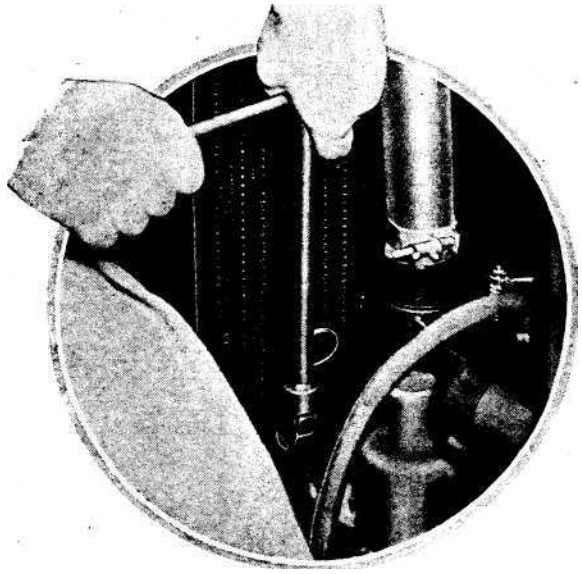
To Decarbonise Engine and Grind-in Valves

1. Drain water from radiator, and at the same time remove bonnet by detaching the radiator stay rods at the forward end, and pulling the radiator forward to release the centre rod from its bearing.

2. Disconnect the flexible petrol pipe from the carburettor float-chamber and petrol pump, and detach the connecting link between the throttle and accelerator lever at the accelerator lever end by unscrewing the ball joint nut.

. 3. Unhook the throttle spring from the connecting link, and detach the mixture control inner cable from the jet lever, by partially slackening the nut.



The two bolts of the exhaust pipe flange are best removed with a 5/16 in. universal joint T-handled socket wrench. The third nut for the flange stud is best dealt with by a short box spanner.

4. Disconnect the exhaust pipe from the manifold, by undoing the nut from the stud at the rear and removing the remaining two nuts and bolts. A 5/16 in. universal joint T-handled socket wrench is required to undo the two
bolts.

5. By means of a 1/4 in. T-handled universal joint socket wrench, remove the four nuts locating the exhaust manifold
to the cylinder block. This will enable the induction and exhaust manifold to be removed complete with the car buretter.

6. Disconnect positive lead from battery and, after disconnecting the cables from the ignition coil, remove coil.

7. Remove the dynamo by undoing the two bolts and nuts and set screw locating dynamo to bracket. In addition, detach the horn from the cylinder head, when both horn and dynamo can be rested on the steering gearbox at off-side of engine.

8. Remove the high-tension leads from the sparking plugs, noting carefully from which plugs they are taken. To save confusion, the brass terminal on each cable can be marked with the number of the cylinder from which it is taken.

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To Decarbonise and Grind-in Valves—*continued*

9. After noting the position of the distributor from the marking on the quadrant, remove by unscrewing the 3/16 in. set screw.

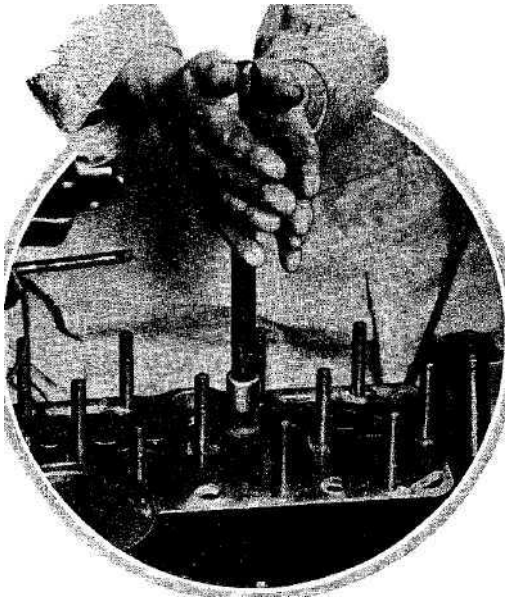
10. Disconnect and remove the rubber hose from the cylinder head and radiator.

11. Remove all nuts locating the cylinder head to the cylinder block, which will enable the cylinder head and dynamo bracket to be lifted clear of the engine. A 5/16 in. T-handled universal socket wrench is required to undo the cylinder head nuts at the rear.

12. Remove the cylinder head gasket and the tappet chamber cover and gasket.

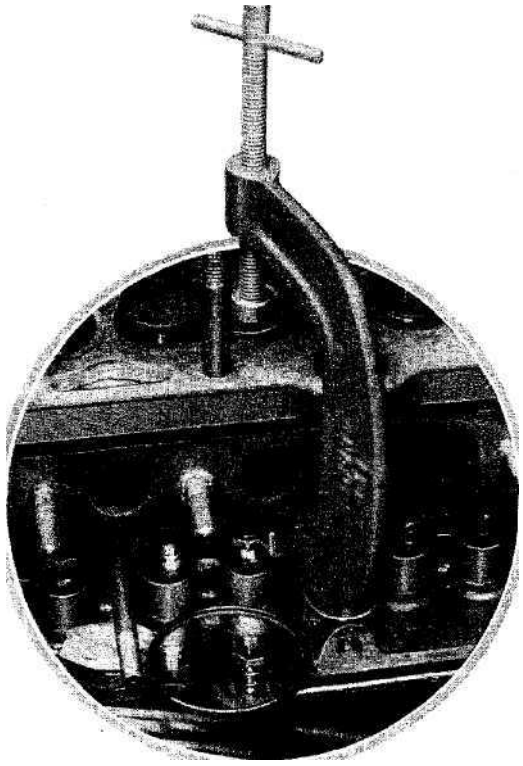
13. Cover by means of a piece of clean rag, the holes in the tappet chamber leading to the sump, and remove the valves by means of the spring compressor, Part No. 38378, taking care not to lose any of the retaining split cotters.

14. It is not altogether necessary to remove the valve springs to grind in the valves, providing the tappet adjusting screws have been turned back before the valves are removed.



g.—The valve spring compressing tool in use. Note the small mirror in which the positioning of the valve cotters can be observed.

Left.—The special suction type valve grinding tool in use.



15. If the valves are to be ground in by hand, a grinder Part No. 55540 is required. See diagram.

16. After the carbon deposit has been removed and the valves ground in, the valves and cotters can be replaced by means of the spring compressor, Part No. 38378, and by the aid of a small mirror as shown above.

Continued

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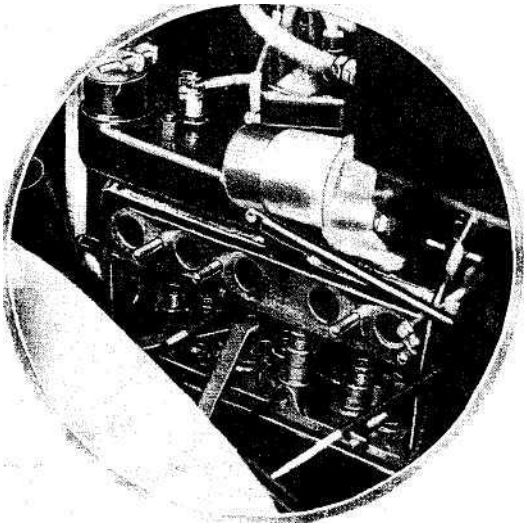
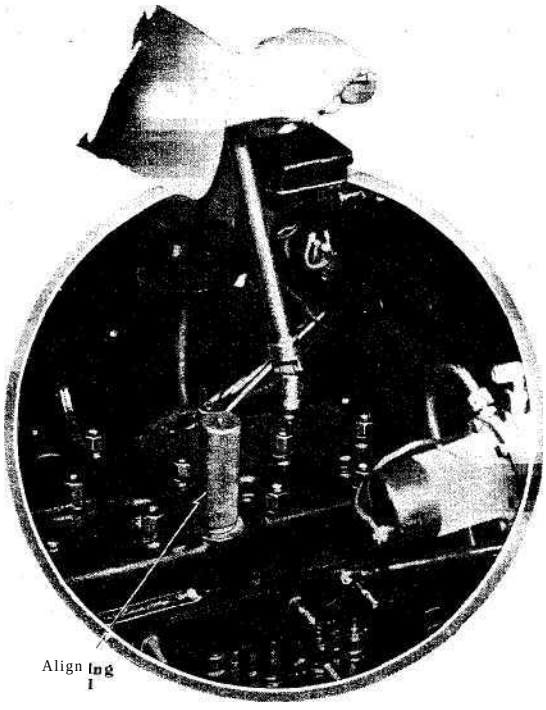
To Decarbonise and Grind-in Valves—*continued*

17. After the valves have been replaced and the tappets adjusted to the correct clearance, see Sheet No. E/7, replace the cylinder head and gasket, using the cylinder head distributor shaft alignment gauge, Part No. 38385, to keep the distributor bearing holes in the cylinder head and block in line with each other.

18. Reassembly of the remaining parts of the engine takes place in the reverse order to that of dismantling.



Left.— The two special tappet spanners in the tool kit are here shown in proper engagement with the tappet screw and the tappet lock nut.



Right.— When replacing the cylinder head the special aligning tool must be used while the cylinder head stud nuts are tightened up. The universal joint socket wrench is also shown tightening up the rear cylinder head nut partly masked by the dash.

Aligning

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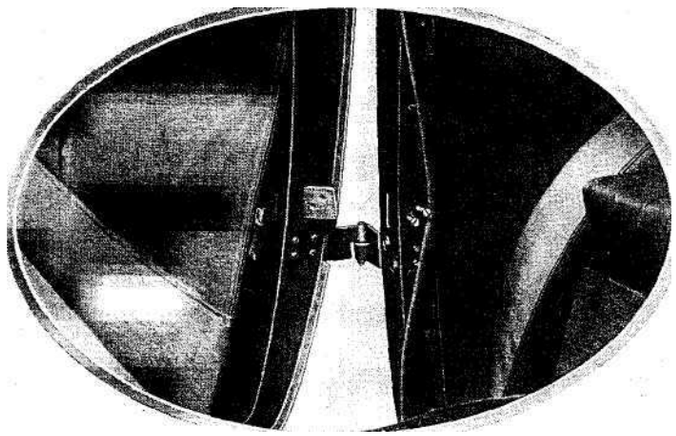
To Replace Door Check Straps—Two-Door Saloon Models

1. Remove the centre pillar upholstery fillet and extract the two wood screws locating check strap to door pillar.

2. Remove three wood screws locating door upholstery panel to door at the bottom inside corner. Prise out panel by a suitable screwdriver opposite to check strap until sufficient clearance exists to enable strap to be removed.

3. The replacement strap is threaded through in the reverse manner.



The method of removing and replacing the door check s traps can clearly be followed from this illustration.

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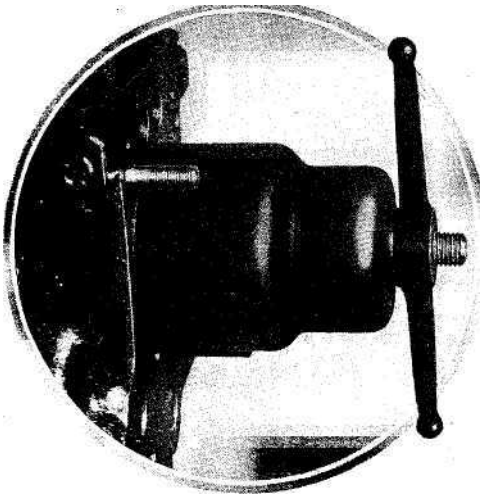
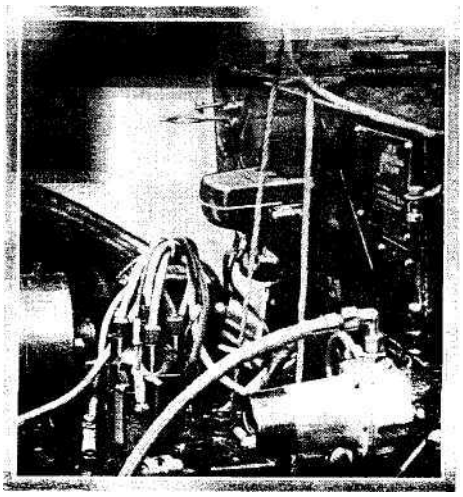
Removing Gearbox Sliding Shaft, leaving Gearbox in Position on Engine

1. Remove front seats, floor mats and floorboards, together with gearbox rubber cover.
2. Unscrew the hand brake adjusting nut and pull the hand brake lever upwards clear of the connecting rod.
3. Remove front well by unscrewing the attachment bolts and set screw.
4. Detach the hand brake cross shaft by removing the necessary bolts and nuts from the anchorage brackets.
5. Disconnect the propeller shaft from the back end of the gearbox by removing the six nuts and bolts locating the fabric disc to the spiders, both on propeller shaft and gearbox sliding shaft.
6. Remove the speedometer cable from the gearbox.
7. Take the weight of the engine by means of a suitable block and tackle, and a sling placed round the rear.



Above.— The special extractor in position on the end of the sliding shaft.



Right.— The most convenient method of supporting the engine unit while the gearbox speedometer casing is removed.

Remove the engine rear rubber mountings from the plate at the rear end of the gearbox.

Extract universal joint flange spider, after unscrewing its locating set screw.

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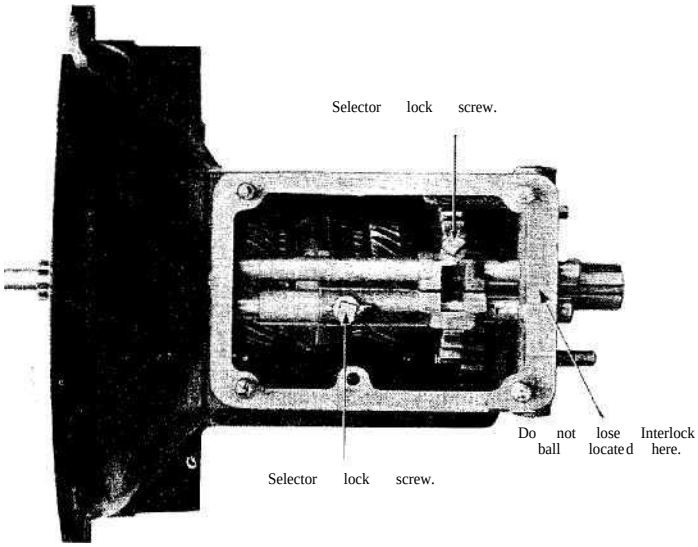
Removing Gearbox Sliding Shaft—*continued*

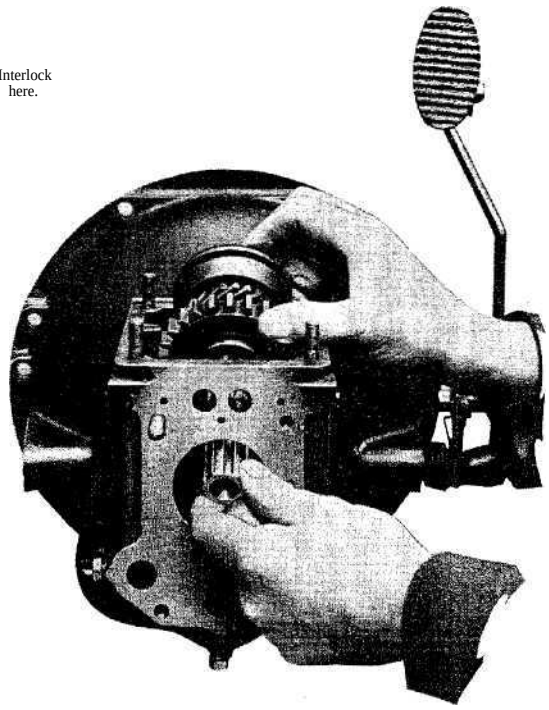
10. Undo the four speedometer casing nuts and spring washers, and remove speedometer casing with engine rear mounting.

11. Remove gearbox cover with gear lever.

12. With a suitable screwdriver, unscrew the shifter shaft lock ball and spring plugs at each side of gearbox, and remove balls and springs.

13. Unscrew the selector fork square-headed set screws and withdraw selector spindles, taking care not to lose the lock ball which is between both spindles at the rear end of the gearbox.





Left.—The method of withdrawing the sliding shaft is here clearly shown.

14.. Withdraw gearbox sliding shaft towards the rear, until the ball race is clear of its recess.

15. Remove ball race from shaft.

16. Take out shaft, complete with synchromesh unit and first gear, from the inside of the gearbox.

17. The sliding shaft is replaced, complete with the reverse, first and second gears in position, together with synchromesh sliding hub, by passing the assembly through from the inside of the gearbox into the sliding shaft journal bearing housing.

18. Locate the sliding shaft into the spigot bearing in the gearbox drive gear and fit the sliding shaft journal bearing with the oil thrower washer at the front of race.

19. After the gearbox sliding shaft has been replaced in this manner, reassembly of the gearbox takes place in the reverse manner.

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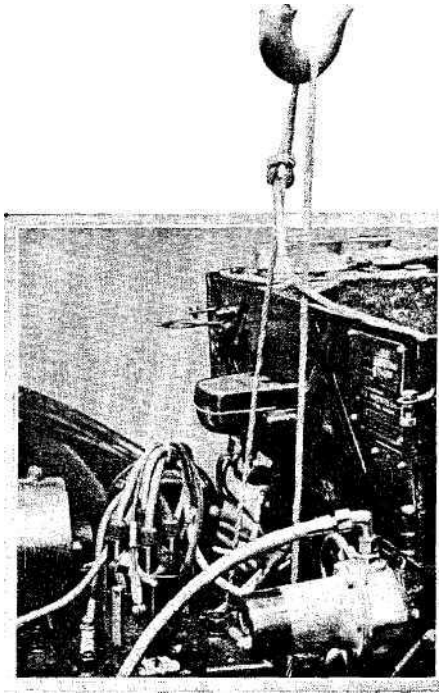
To Remove Gearbox Unit and Dismantle Clutch

1. Remove front seats, floor mats and floorboards, together with gearbox rubber cover.
2. Unscrew the hand brake adjusting nut and pull the hand brake lever upwards clear of the connecting rod,
3. Remove front well, by unscrewing the attachment bolts and set screw.
4. Detach the hand brake cross shaft by removing the necessary bolts and nuts from the anchorage brackets.
5. Disconnect the propeller shaft from the back end of the gearbox, by removing the nuts and bolts from propeller shaft spider, leaving the fabric disc attached to the gearbox sliding shaft spider.
6. Remove the speedometer cable from the gearbox.
7. Unscrew the clutch pedal quadrant nut from its stud and remove washer.
8. Take the weight of the engine by means of a suitable block and tackle, and a sling placed round the rear.



The most satisfactory method of supporting the rear end of the engine unit while the gearbox is removed.

9. Remove the engine rear rubber mountings from the plate at the rear end of the gearbox.
10. After the seven 1/4 in. set screws locating the clutch casing to the cylinder block and sump have been removed, pull the gearbox assembly rearwards about half an inch, to enable the clutch pedal to be cleared from its bearing.
11. After the engine is raised slightly, taking care not to damage the radiator by the fan blades, the gearbox assembly can be withdrawn and removed from the chassis.

Continued

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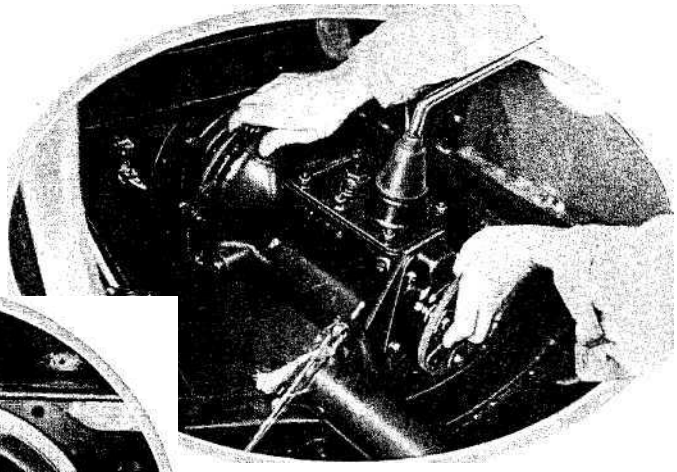
To Remove Gearbox Unit and Dismantle Clutch—*continued*

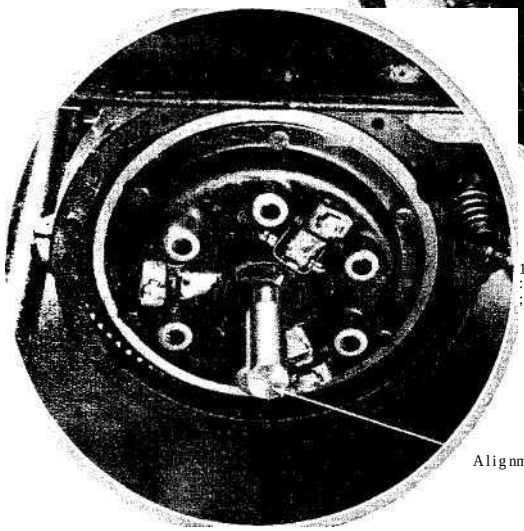
12. The clutch can now be dismantled to gain access to the driven plate, by unscrewing the six 1/4 in. set screws locating the cover plate to the flywheel a partial turn at a time, using a 1/4 in. speed brace.

13. When replacing, the clutch driven plate must be held in alignment by using the clutch aligning tool, Part No. 38461.

14. Reassembly takes place in the reverse order to that of dismantling.



Removing the gear-box unit from the car.



When reassembling the clutch the use of a special alignment tool is necessary.

Alignment tool.

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Final Drive Assembly

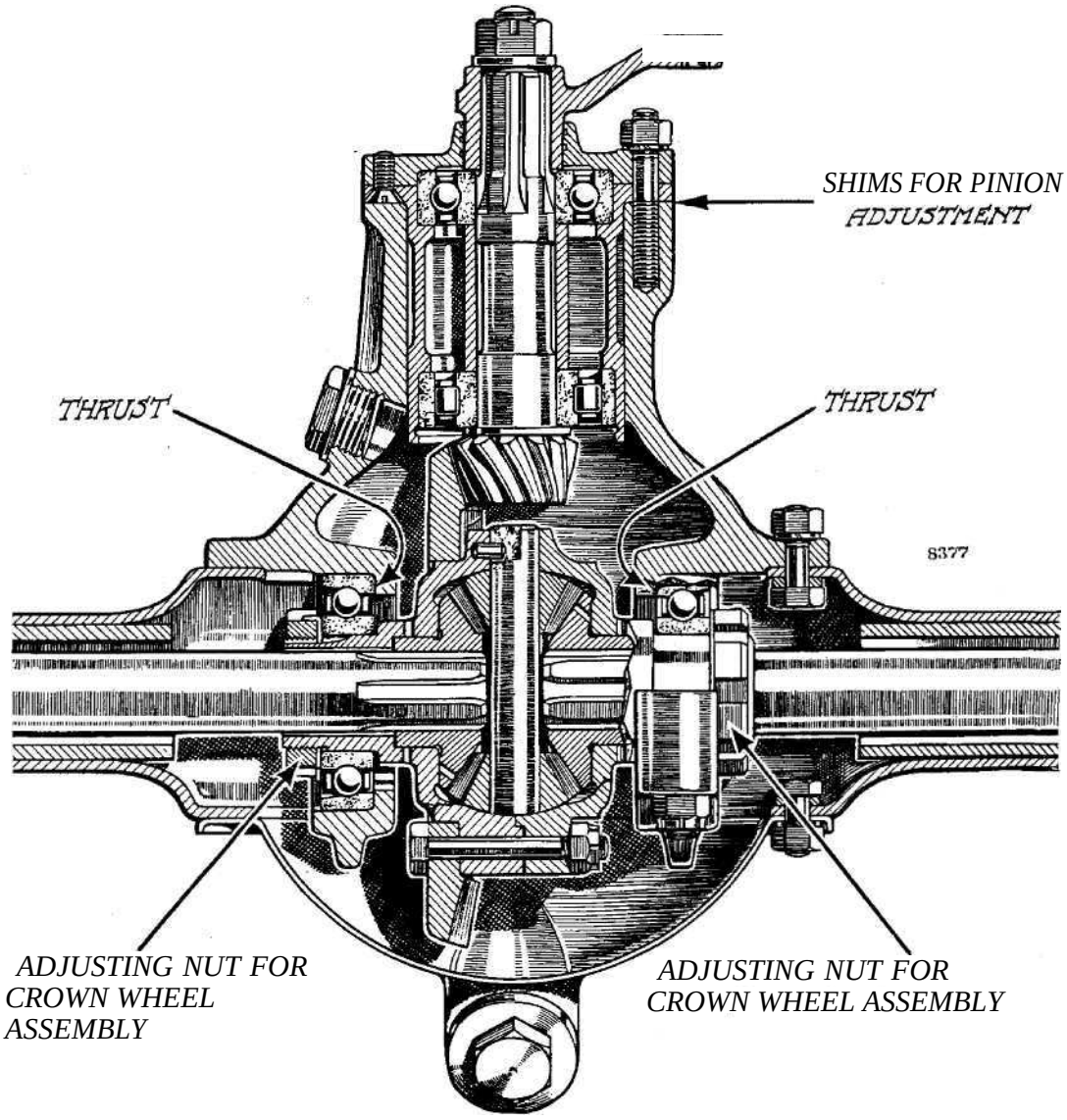
Repairs and adjustments to the Morris Eight final drive assembly are comparatively simple to effect, since the differential carrier, complete with drive pinion, can be removed from the axle by withdrawing the half shafts, disconnecting the flexible coupling at the rear end of the propeller shaft and unscrewing the stud nuts securing the differential carrier to the banjo casing.

As the position of the bevel pinion in relation to its crown wheel is controlled by shims fitted between the bevel pinion housing and differential carrier, and is set correctly when the car leaves the Works, any future adjustment to correct the meshing of the teeth should be obtained by adjusting the differential bearing nuts. Adjustments of this nature can, of course, be done after removal of the rear axle cover only, although advantage is certainly gained by taking the complete assembly away from the axle, when the operator will obtain a clear view of the mechanism.

Where it is found necessary to fit replacement parts, or dismantle the axle for overhaul, care should be taken to assemble and adjust the various components correctly. No difficulty in this respect should be experienced if the following points are carefully noted.

To simplify matters the adjustments will be dealt with under the following three headings :—

1. The assembling of the bevel pinion in its housing.
2. The mounting of the crown wheel complete with differential gear and drive pinion in the differential carrier.
3. Final adjustments to obtain the correct meshing of the bevel pinion and crown wheel teeth.



(1) The parts comprising the bevel pinion housing are the bevel pinion, bevel pinion housing, bevel pinion housing cap and countersunk screws, roller and ball bearings, roller bearing spring ring, bearing distance piece, thrust washer, and universal joint spider, nut and washer.

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Final Drive Assembly—*continued*

The roller race should be fitted to its recess in the bevel pinion housing and kept in position by inserting the spring ring. The bevel pinion, with thrust washer in place against the gear, can then be passed through the roller race until the washer bears against the inner ring of the race. After this, the bearing distance piece can be passed over the pinion, when the ball bearing can be pressed home until it seats in the bottom of its recess in the bevel pinion housing. This leaves for replacement the bevel pinion housing cap, which is secured to the housing by means of the two countersunk screws, the heads of which are countersunk into the housing flange. To make sure the bevel pinion is right home in the housing the universal joint spider should be fitted and drawn up tight by means of the nut and washer. When tightened the nut can be secured by a suitable split pin.

(2) The parts comprising the differential assembly are the crown wheel complete with right- and left-hand differential cases and differential gears assembled, the two differential thrust races, the adjusting nuts and lock washers, and differential thrust bearing caps.

The differential thrust bearings are pressed on to the differential case spigots, care being taken to see that the two faces marked " thrust " face each other. At this stage the assembly can be fitted to the differential carrier, the lock washers placed in position, and the adjusting nuts screwed home until the thrust bearings are pressed into the machined recesses in the differential carrier. After this, the thrust bearing caps with shoulders towards the centre of the axle can be fitted, and the stud nuts tightened and secured by suitable split pins. The assembly is now ready for mounting with the bevel pinion housing.

(3) Should it be found, when the bevel pinion housing is fitted to the differential carrier, that no backlash can be felt between the crown wheel and bevel pinion teeth, the off-side differential case adjusting nut should be slackened off and the near-side nut tightened, to set the crown wheel farther away from the bevel pinion.

The correct position of the bevel pinion in relation to its crown wheel is such that the forward and rear edges of the teeth shall be flush with each other. This adjustment is determined by fitting the correct number of shims between the bevel pinion housing and differential carrier.

The final adjustment is obtained by setting the position of the crown wheel in relation to the bevel pinion by means of the off-side and near-side differential adjusting nuts until .007 in. to .010 in. backlash can be felt between the teeth when the crown wheel is oscillated by hand. When the correct position of the crown wheel has been finally determined the adjusting nuts should be tightened sufficiently to take the thrust of the bearings. *Excessive tightening of these nuts is quite unnecessary, and will only induce rapid wear in the differential bearings.* After this, the nuts can be locked by bending a tongue of the lock washers into a corresponding recess.

If the foregoing points have been carried out correctly the action of the bevel pinion and crown wheel will be perfectly quiet under all road conditions. Supposing, however, the axle is noisy on the drive, it denotes the bevel pinion and crown wheel are meshing too deeply, and if noise is audible on the overdrive then the teeth are not meshing deeply enough. In both cases it will be possible to obtain all the necessary adjustments by means of the differential case adjusting nuts without disturbing the bevel pinion housing.

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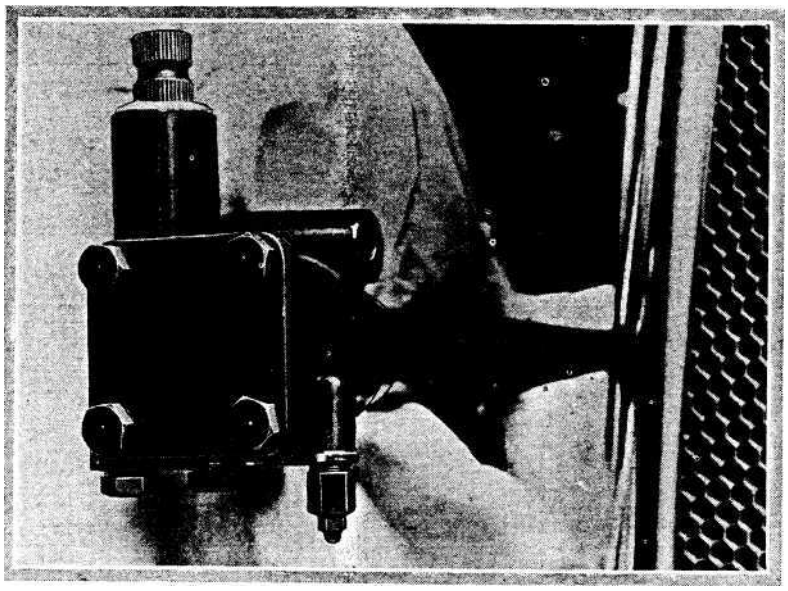
To Remove Steering Gearbox Assembly. Dismantle, Adjust and Reassemble

1. By means of a suitable extractor, Part No. 38655, remove the steering wheel after the locating set screw has been undone.

2. Remove the dip and signal switch bracket by unscrewing the 3/16 in. plated set screw and release the cable from the steering column by removing the spring clips. The cable is finally cleared by removing the clip located by one of the steering box cover set screws.

3. Remove front floor mat and the steering column bracket at the metal scuttle dash.

4. After the steering drop arm pinch bolt has been extracted, remove drop arm.



The steering gearbox assembly can be withdrawn forwards between the radiator and headlamps in the manner shown. The wing and lamps should be protected during the removal process.

5. Opposite to the steering column bracket bolt on the chassis side member will be found a small plate covering an elongated hole in the front mudwing. This must be removed before the steering column bracket bolt can be extracted.

6. The steering assembly can now be removed from the car by lifting up at the box end, clear of the dynamo cables and guiding upwards between the radiator and headlamp. The front wing and headlamp should be protected by suitable covers to prevent damage by scratching. See illustration.

7. To dismantle the steering box, remove the three bolts locating the thrust cover in position. This will enable the rocker shaft to be withdrawn.

8. Extract the steering wheel key from the steering mast, and remove the felt steady bearing from the column.

9. Remove the four \ in. bolts locating the steering box bottom bracket, when the cam and mast can be with drawn downwards, complete with the journal thrust bearings.

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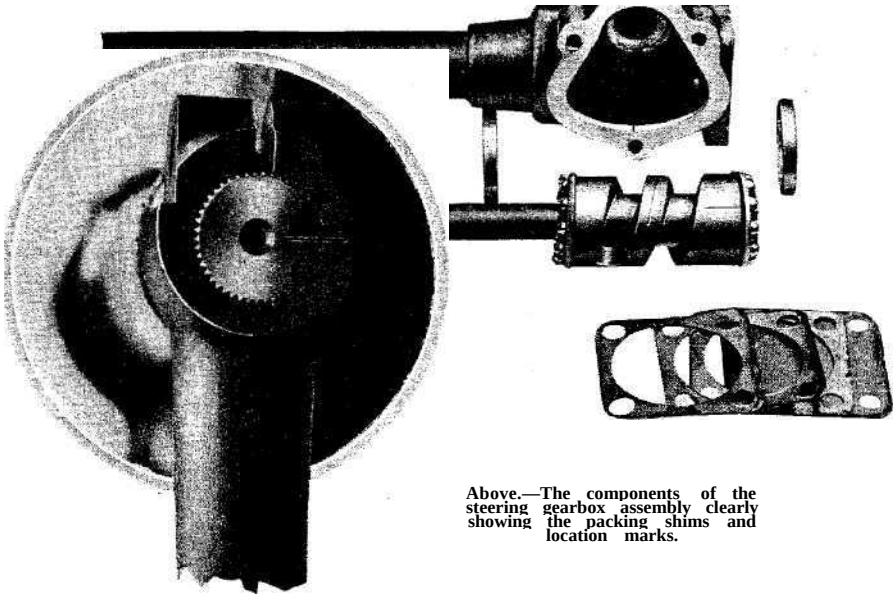
Removing Steering Gearbox Assembly—*continued*

10. If end float is present on the mast, it can be taken up by adding suitable shims behind the top journal thrust race cup and removing shims from between the bottom cover and box. Adjustments should be carried out m this manner until all end float has been removed, but at the same time the centre line on the cam (see illustration) is dead opposite to the corresponding line on the box. When completed, the mast should be able to turn on its bearings freely by the fingers.



Above.—The components of the steering gearbox assembly clearly showing the packing shims and location marks.

Left.—When the steering drop arm is reassembled care should be taken to see that it is replaced on the splines so that the marks on the drop arm boss and gearbox spindle coincide.

11. After the rocker shaft has been replaced, shims should be removed from between the thrust cover and box until there is no appreciable movement evident between the rocker and cam in the dead " mid " position. Movement, however, between the rocker and cam is permissible at either end of the stroke. The paper gaskets should be is position when the adjustments are made.

12. After the felt steady bearing and steering wheel key have been replaced, the assembly is ready for mounting on the car.

13. When reconnecting the steering drop arm, care should be taken to see that the line on the rocker shaft corresponds with the line on the drop arm. See illustration.

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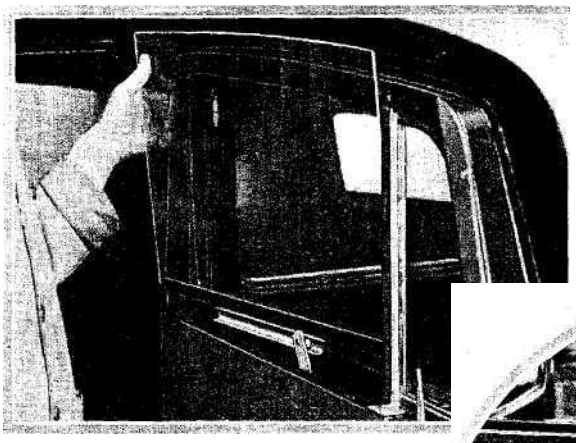
To Remove Window and Winding Mechanism from Door. Two-Door Saloon Models

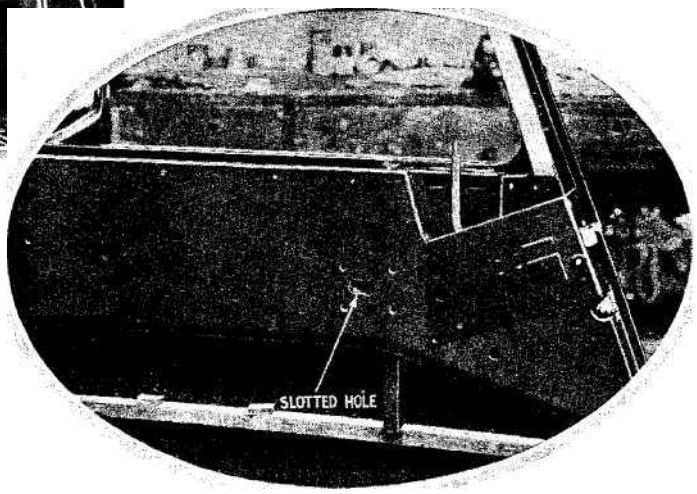
1. Remove door handle and top capping moulding, together with door upholstery panel with pocket. To remove panel it is necessary to unscrew all round headed screws and prise off panel from door by inserting a screw driver to remove panel pins.

2. Remove draught sealing strip from garnish rail.

3. With the door glass in the lowered position, remove chromium plated finishing strip, by unscrewing the six screws.



Showing the manner In which the window glass should be withdrawn.



In order to remove the winding mechanism it is necessary to slot the metal panel next to the spindle hole.

4. Remove the hinge pillar glass channel by unscrewing the three wood screws. Wind up glass by winder to full extent. The glass can then be withdrawn by turning it slightly towards inside of car from hinge pillar side and pulling it inwards to release from lifting arm.

5. To remove winding mechanism, after the four locating screws have been extracted, it is necessary to slot the centre spindle hole in metal panel approximately half an inch towards centre of door as shown in diagram.

6. Reassembly takes place in the reverse order.

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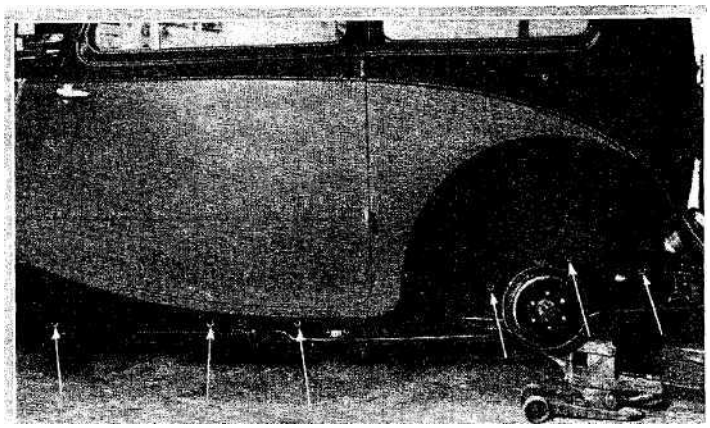
Instructions for Removing Body Complete from Chassis

1. Remove off-side front wing by undoing the nine screws locating wing to petrol tank shroud and body, and the two coach bolts with rubber distance pieces at running-board. It is necessary to jack up the rear axle and remove wheel to gain access to the wing bolts.

2. Detach running-board from body and front wing by undoing the three 1/2 in.X 1/4 in. bolts from rear stay and the two bolts passing through stay and chassis frame. After undoing the five 1/4 in X 3/4 in. bolts and nuts holding running-board to front wing and the three 1/4 in X 3/4 in. screws locating board to body, the board can be removed, complete with front stay.

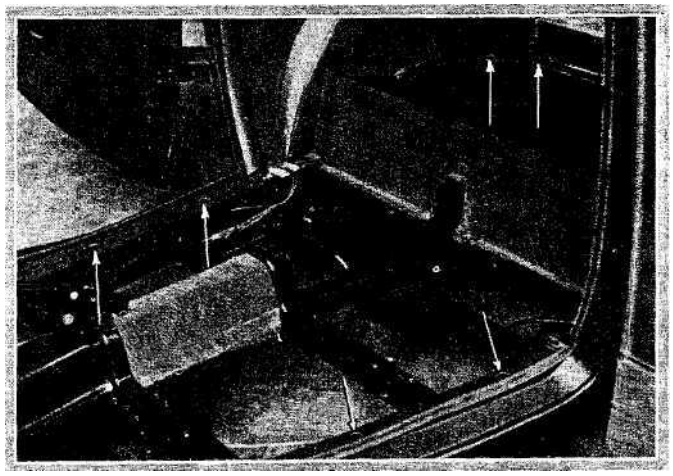
3. Release front wing rear stay by removing two 3/4 in. X 5/16 in. bolts and nuts and one 1/4 in. X 3/4 in. bolt and plate from wing valance.

4. Remove the six 14 in. X 3/4 in. screws holding the rear apron and spare wheel carrier to body.



The six bolts by which the body is fastened to the flange of the chassis frame are here clearly shown.

Eight bolts attach the rear portion of the body to the chassis and are here clearly shown except the two which are obviously masked by the door pillar in this photograph.



5. Remove near-side rear wing and running-board as per above instructions.

6. Detach bonnet by releasing radiator stay rods at scuttle dash, and pulling radiator forward to release bonnet rod.

7. Remove front seats, platforms, rear squab and front floor- and foot-boards. The rear squab is removed by pulling forward at bottom and lifting upwards.

8. Remove propeller shaft rear cowl which is held in position by two bolts and nuts and one set screw.

Continued

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Removing Body from Chassis—*continued*

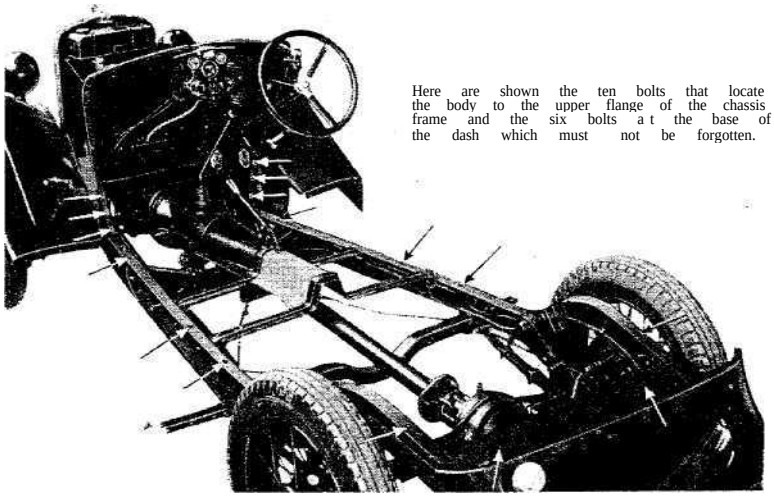
9. Remove four 1/4in. hexagon headed set screws at rear of body under seat, together with six countersunk screws (three each side) at both sides of body inside. See diagram.

10. Remove steering column support bracket, and the two cubby hole facia mouldings.

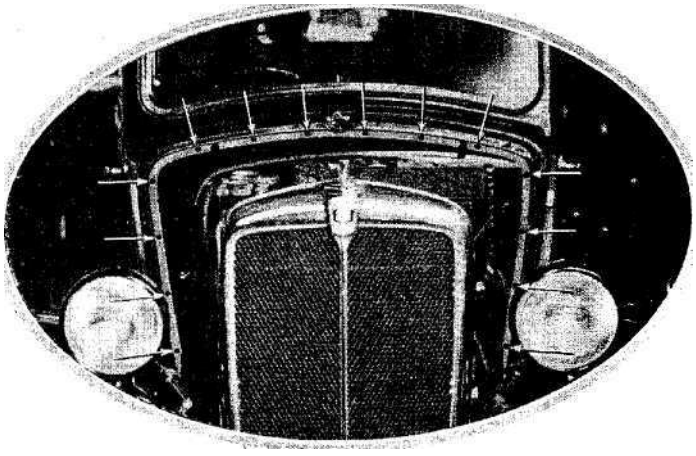
11. Remove dash masking board (protecting cables, etc.) by undoing the four screws.

12. Remove bottom boards forming cubby holes by undoing six screws on each.

13. Pull down and leave suspended cubby linings from top.



Here are shown the ten bolts that locate the body to the upper flange of the chassis frame and the six bolts at the base of the dash which must not be forgotten.



This illustration shows the location of the fourteen bolts attaching the upper portion of the steel dash to the body scuttle. The remaining six are located inside the body and are shown in the upper picture.

14. Remove all scuttle dash bolts, twenty in all, not forgetting three each side inside body at bottom. By means of a screwdriver ease rubber packings between metal dash and scuttle frame. See diagram.

15. Disconnect positive cable from battery and undo windscreen wiper cable at junction box from terminals, marked " Aux." and " Earth."

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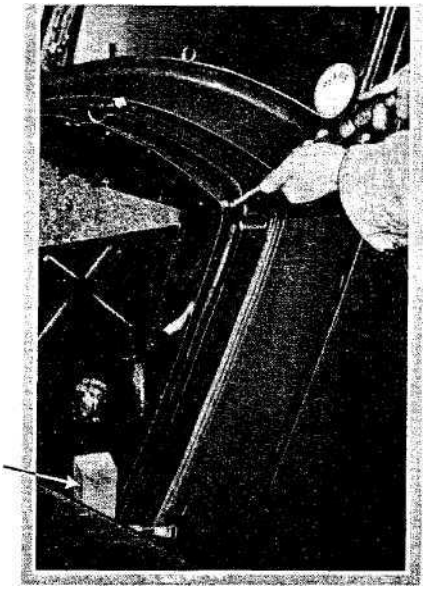
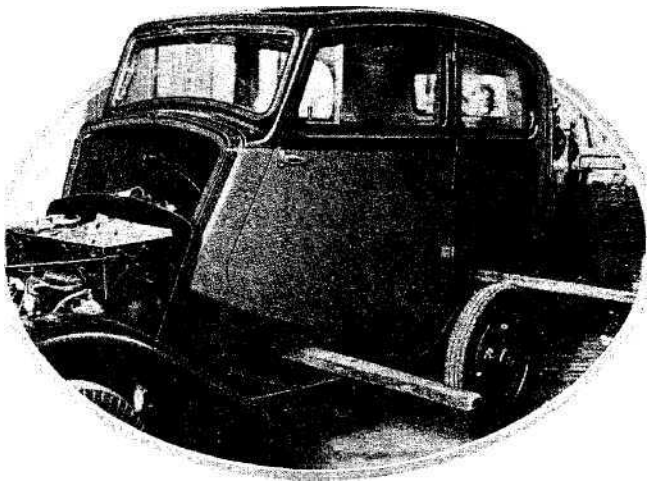
Removing Body from Chassis—*continued*

16. Disconnect both automatic signal arm wires at junction opposite off-side centre pillar by first of all undoing the insulating tape and detaching bayonet connections.

17. Remove fourteen (seven each side) 1/4 in. X 3/4 in. nuts and bolts locating body to chassis frame side members. See diagram.

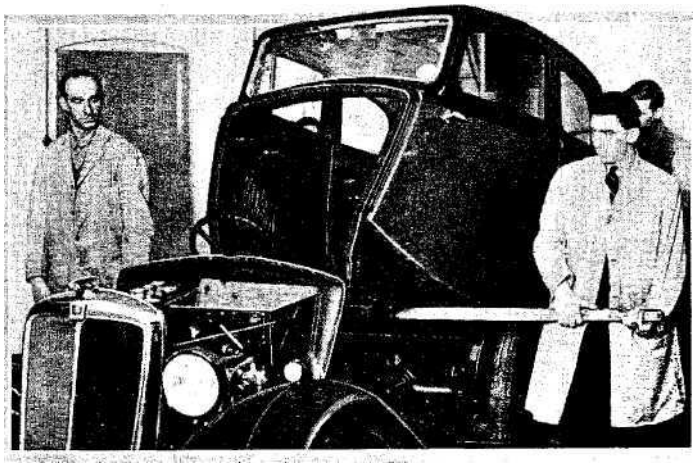


Above.—The body scuttle should be released from the steel dash in the manner shown and wedges introduced between the wings and the dash to give the necessary clearance.



The lifting poles in position between the body and the chassis frame.

Left.—The body lifted clear with four assistants on the wood poles.



18. Insert suitable wedges between front wings and scuttle dash to clearance wings from body. See diagram.

19. Withdraw luggage grid and lift body at rear end, taking it backwards about 6 in., and place a suitable lifting pole between body and chassis, over rear wheels. Lift front end of body and place a second pole between body and chassis just behind hand brake lever. See diagram.

20. Four assistants, one at each end of poles, are required to lift body and carry it backwards clear of chassis," taking care that it does not come into contact with the steering column or wheel.

21. In replacing the body on the chassis it should be lifted as near to the scuttle dash as possible before it is lowered over the chassis side members.

22. The rubber packings should be inserted carefully between the metal dash and scuttle dash, not forgetting the two short pieces at each corner, after which the bolts can be placed through from the inside of body and the nuts added and tightened against metal dash.

23. Reassembly takes place in exactly the same order as that of removal.

WIRING DIAGRAM

NOTE.—Colours indicate coloured sleevings on ends of leads.

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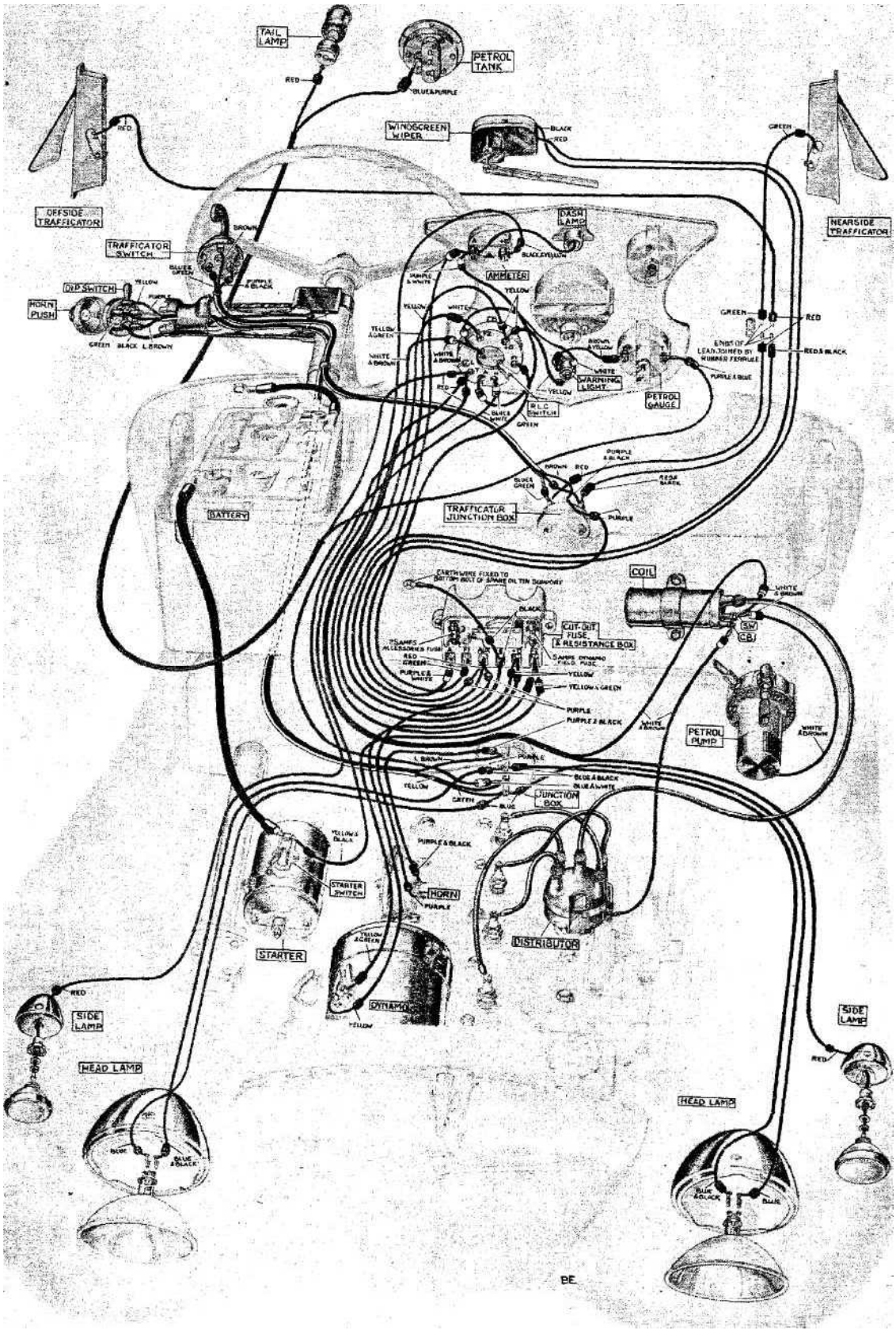


DATA FOR LUCAS EQUIPMENT

Dynamo	.....	**C45E**	**Cut-out**	...	...	**CFR2**
Starter	.....	**M35A**	**Coil**	...	...	**6Q6**
Switch	.....	**PLC**	**Coil**	...	...	**DK4A**

PARTICULARS OP BULBS

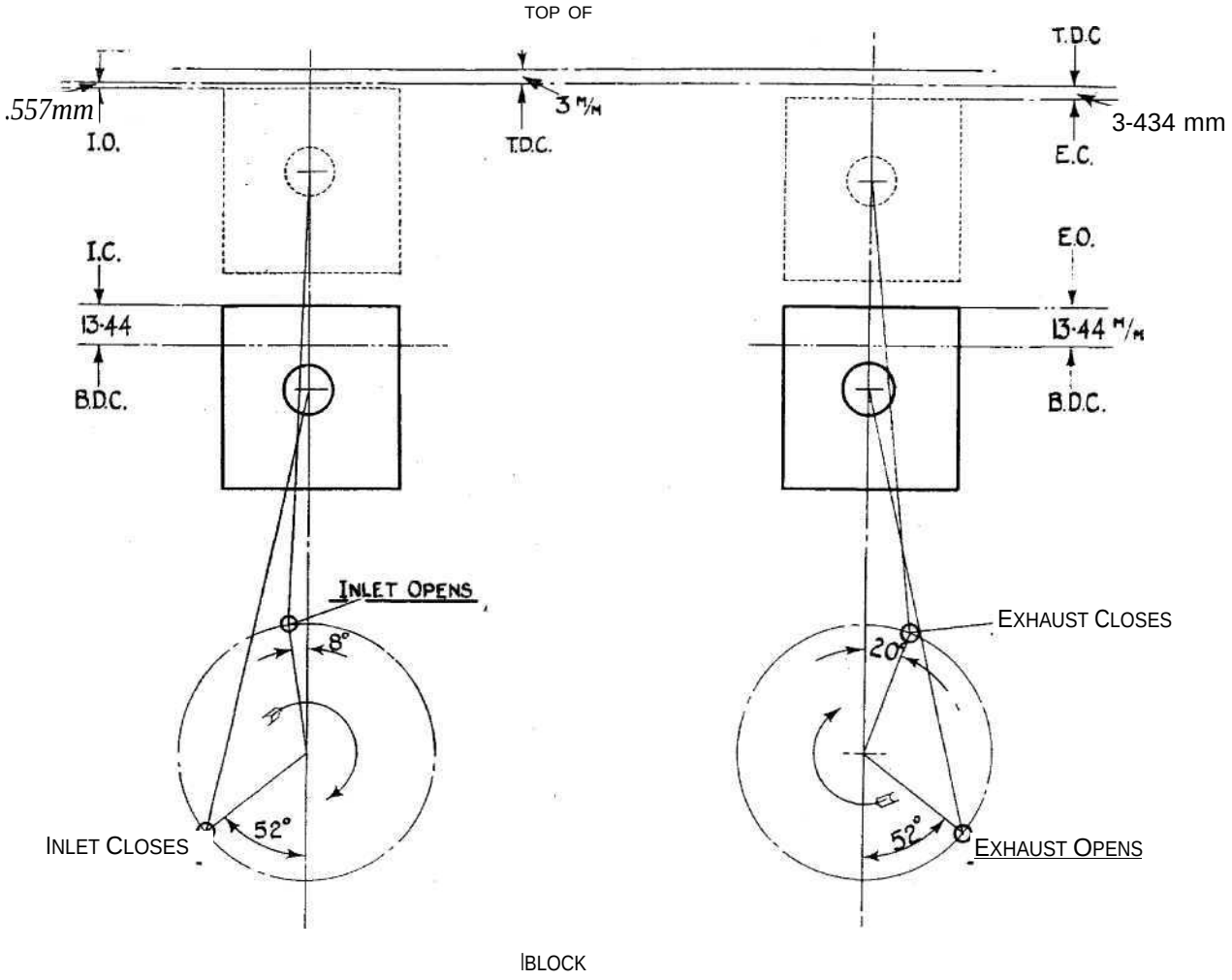
Headlamps	**No. 624D.V.**
SWolamntalbtirhachlmnns	**R.A.S.No.SS**
Ignition warning lamp	**No252MES**
Traffic ators	No T63F.

MORRIS MOTORS LTD. SERVICE INFORMATION NO. E/17

MODEL : MORRIS EIGHT, 1935	No. OF SHEETS 1	SHEET NO. 1

Date of issue : March, 1935

Valve Timing Diagrams



Valve timing diagrams for .020 in. clearance and full period of cams.

Running clearance 19/1000" inlet and exhaust set hot.

To check timing with cold engine set an inlet at 25/1000" easy when valve should open at T.D.C.

Date of issue : March, 1935

Servicing of Flywheel Starter Ring

OWING to the special process and heat treatment necessary when assembling starter rings to the Morris Eight flywheels, we strongly recommend that all flywheels requiring new rings should be returned to the Factory.

In order to facilitate quick overhauls and repairs, reconditioned replacement flywheels will be forwarded immediately on receipt of an order, quoting engine number.

Such replacement flywheels will be invoiced at full cost for record purposes, and provided the original flywheels are found on return to be suitable for reconditioning, the debit will be adjusted accordingly.

Flywheels for reconditioning should be forwarded, carriage paid, together with a letter of advice, addressed to :—

Morris Motors Limited
Service (Technical) Department
COWLEY, OXFORD

The standard charge for supplying and fitting new starter rings is 12s. 6d. each retail, plus carriage charges, and is subject to a discount of 25%.