

HANDBOOK
FOR
BENTLEY 4 $\frac{1}{4}$ LITRE
MK. VI

WITH INSTRUCTIONS FOR RUNNING
AND MAINTENANCE

Liable to Alteration without Notice

Number VIII

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THE information contained in this book has been arranged to facilitate reference, by condensing all essential driving and upkeep instructions in the first two chapters. Numerous references to other parts are provided, whereby any particular instruction may be amplified if required.

Subsequent chapters include explanations of the working of the various units or components, of the chassis, and include detailed directions for lubrication and maintenance.

Owners and drivers should, therefore, familiarise themselves with the first two chapters in order to operate the car successfully, referring to the remainder of the book at leisure, or if necessary.

A set of special spanners and tools is supplied with the chassis. It is most desirable that these should be used when effecting any adjustment, as otherwise vital parts may be seriously damaged.

It is strongly recommended that this book be carefully studied, and the instructions faithfully followed, to ensure the greatest satisfaction.

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THE SECRET OF SUCCESSFUL RUNNING

Before a Bentley car is sold, it is very carefully tested and adjusted by experts. It will run best if no attempt is made to interfere unnecessarily with adjustments.

An owner would do well to instruct his driver as follows:—

Lubricate effectively, in strict accordance with the advice given in this book, and do not neglect *any* part.

Use only those oils which are recommended by Bentley Motors (1931) Ltd., who have made prolonged and searching tests of oils. Considerable harm and expense may result from the use of unsuitable oils.

Inspect all parts regularly, but take care not to alter any adjustments unless really necessary.

SERVICE FACILITIES FOR BENTLEY CARS

Our interest in your Bentley car does not cease when you take delivery of the car. It is our ambition that every purchaser of a Bentley car shall continue to be more than satisfied.

With this end in view, the "Special Retailer", through whom the car was purchased, has established a properly equipped Service Station, staffed by men who have been specially trained in servicing Bentley cars.

In addition, on the staff of Bentley Motors (1931) Ltd., there are experts whose sole duty it is to maintain contact with the "Special Retailers", and they are available, at all times, to be called in for consultation on any matters affecting your car.

If, therefore, you require any assistance, we ask that you should immediately contact the "Special Retailer", who will be only too pleased to place his facilities at your disposal. If necessary he will call in for consultation our expert in that area. It is earnestly hoped that this arrangement will prove of mutual benefit, as we shall thus be kept in constant touch with our Customers, who may be spared the trouble of a long journey to one of our Company's Service Stations.

In the event of it being more convenient to call on us direct for assistance, our main Service Station at Hythe Road, Willesden, London N.W.10, and the one at our factory at Crewe, will be ready at all times to help. (See maps at end of Handbook.)

LEADING PARTICULARS OF CHASSIS

Engine.

Six cylinders, $3\frac{1}{2}$ " (89 m/m.) bore, $4\frac{1}{2}$ " (114 m/m.) stroke, 4,257 c.c., cubic capacity.

Mono-bloc casting, detachable cylinder head, overhead inlet valves, side exhaust valves.

Pistons of patented aluminium alloy.

Engine Lubrication.

Pressure feed to all crankshaft and connecting rod bearings.

Pressure relief valve accessibly located, providing positive low-pressure supply to the valve rocker shaft, from which the inlet valves, push rods and tappets are lubricated.

Two-gallon capacity sump.

Carburetter.

Two special type S.U.

Air intake silencer, with which is incorporated a special air cleaner element.

Fuel System.

Eighteen-gallon tank at rear of chassis. Supply by electric pumps. Fuel level gauge and warning light on instrument board. The warning light indicates when fuel is low.

Cooling System.

By centrifugal pump circulation and fan. Thermostatically controlled. Coolant temperature thermometer on instrument board.

Electrical Equipment.

Twelve-volt system with automatic regulation of dynamo output by vibrator control. Separate starter motor with reduction gear and pinion providing gentle engagement. Battery of 55 ampere-hour capacity approximately.

Gearbox.

Four forward speeds and reverse. Synchromesh on second, third and fourth speeds. Right-hand control lever.

Gear Ratios.

Rear Axle Ratio.	1st Speed.	2nd Speed.	3rd Speed.	4th Speed. (Direct.)	Reverse.
3.73 : 1	11.11 : 1	7.52 : 1	5.0 : 1	3.73 : 1	11.76 : 1

Propeller Shaft.

Large diameter, open, fitted with grease-retaining needle-bearing universal joints.

Rear Axle.

Semi-floating type. Hypoid gears with differential. Torque and brake reactions taken by road springs.

Rear Suspension.

By long semi-elliptic springs enclosed in leather gaiters, and lubricated from the centralised chassis system. Controllable hydraulic shock dampers.

Front Suspension.

Independent, open helical springs in combination with hydraulic shock dampers.

Hydraulic Shock Dampers.

Of Bentley design and manufacture, degree of damping of rear dampers adjustable by hand control on steering wheel.

Steering.

Cam-and-roller type.

Brakes.

Internal expanding on all four wheels, hydraulic operation on front wheels, mechanical operation on rear wheels.

Brake operation assisted by mechanical servo, which is equally effective for both forward and reverse movement of car.

Hand brake operates on rear wheels.

Chassis Lubrication.

Centralised chassis lubrication system supplied by foot-operated pump and reservoir on dashboard.

Road Wheels.

Detachable steel wheels, fitted with 6.50" by 16" India Super Silent Rayon tyres.

Dimensions.

Total length overall, including bumpers ...	...	191½"	—	15'	11½"
Width of car ...	...	69"	—	5'	9"
Wheelbase ...	...	120"	—	10'	0"
Track—Front ...	...	56½"	—	4'	8½"
Rear ...	...	58½"	—	4'	10½"
Turning circle, outside edge of tyre ...	...			41'	2"

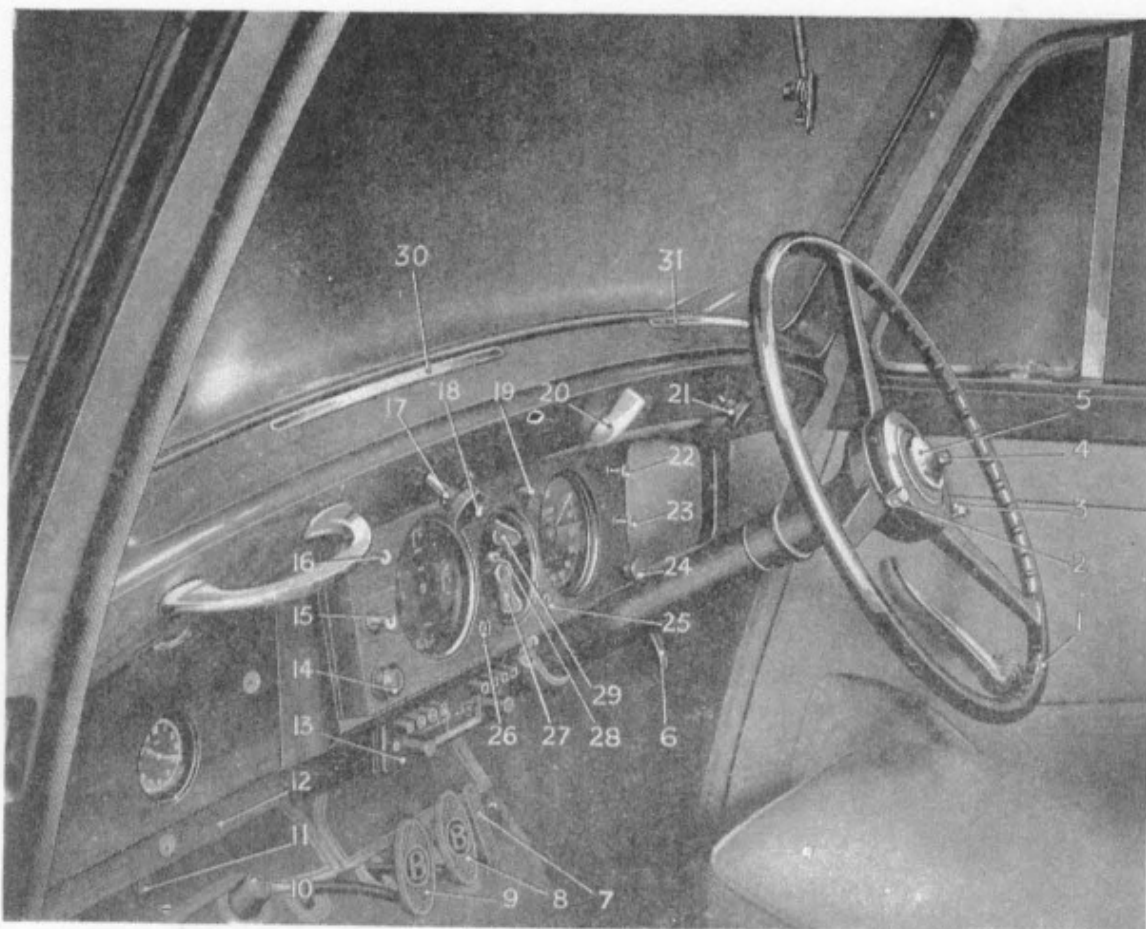


FIG. 1.—GENERAL VIEW OF DRIVER'S CONTROLS.

- | | |
|-------------------------------|------------------------------------|
| 1. Steering wheel. | 16. Windscreen wiper switch. |
| 2. Throttle control. | 17. Windscreen wiper parking knob. |
| 3. Mixture control. | 18. Fuel/oil level switch. |
| 4. Ride control. | 19. Map lamp switch. |
| 5. Horn push. | 20. Trafficator switch. |
| 6. Hand brake. | 21. Windscreen wiper parking knob. |
| 7. Accelerator pedal. | 22. Fog lamp switch. |
| 8. Brake pedal. | 23. De-mister switch. |
| 9. Clutch pedal. | 24. Car heater rheostat. |
| 10. Dip-switch. | 25. Ignition warning. |
| 11. Chassis lubrication pump. | 26. Fuel warning light. |
| 12. Small tool drawer. | 27. Master switch. |
| 13. Radio. | 28. Starter motor switch. |
| 14. Cigar lighter. | 29. Ignition switch. |
| 15. Instrument light switch. | 30. Air vent cover. |
| | 31. Air vent cover. |

CHAPTER I

Starting the Engine and Driving the Car

Starting the Engine—Throttle Control—Mixture Control—Ignition Control—Fuel Feed—Fuel Gauge—Maximum Engine Speed—Gear Changing—Controllable Shock Dampers—Battery Charging—Lighting Control and Switch—Accessories—Radiator Thermostat and Thermometer—Overheating—Coolant Level in Radiator—Frost—Fitting of Snow Chains.

Starting the Engine.

Switch on the ignition by turning master and ignition switches on the instrument board to **On**.

The master switch controls all the electrical system, excepting the inspection lamp and the roof lamp, the latter being left always available for convenience when entering the car in the dark.

The action of switching on the ignition also switches on the electric fuel pumps, and a few pulsations of the latter may then be heard.

A small red warning light on the instrument board will be illuminated when the ignition is switched on, but will be extinguished when the engine speed is sufficient to cause the cutout contacts to close.

Set the mixture control to **"START"**; it must not be maintained in this position. As soon as the engine starts running, gradually reset the control to **"RUN"**.

With a cold engine the hand throttle control should be opened about one third of its range, but should be re-set to the closed position when the engine has warmed up.

Re-starting with a warm engine, the above is not necessary as the carburetter slow running adjustment has been set to give an adequate idling speed.

Depress the starter button firmly, *an appreciable pause must be made between the operations of switching on the ignition and depressing the starter button, especially when making a start from cold.* This is necessary in order to give the pumps time to fill the float chambers of the carburetters.

When starting the engine for the first time in the day it is a good plan to form the habit of depressing the chassis oil pump pedal once at this stage. Subsequently it should be depressed once every 100 miles. If the car is to be driven only a few miles, however, half a pump-full will be sufficient at the first starting.

When the engine is cold a high oil pressure will be shown on the gauge, due to the greater viscosity of the oil at low temperatures. The pressure will fall, however, as soon as the oil becomes warmer.

A starting handle is carried in the tool kit; in the event of it being used, it should be removed afterwards from the bracket and returned to the tool kit.

Throttle Control.

Under normal running conditions, the hand throttle control should be carried right back at the closed position. An adjustable stop is provided on the carburetter for the throttle lever, which is so adjusted that the engine will idle reliably in these circumstances when the accelerator pedal is released.

Mixture Control.

Under normal running conditions the lever should stand at "**RUN**". This control is only intended for use when starting from cold, and should not be used for varying the mixture strength under running conditions. Actually, its effect decreases rapidly as the throttle is opened.

Ignition Control.

Control of the ignition timing is entirely automatic, no hand control being provided.

Fuel Feed.

Fuel is supplied from the main tank to the carburetter by means of a dual electric pump mounted in the frame (See Fig. 11). The total capacity of the main tank is 18 gallons.

Fuel Gauge.

The electric fuel gauge on the instrument board is graduated to register the total quantity of fuel in the main tank. The gauge is inoperative when the ignition is switched off.

Special contacts carried by the tank unit cause the green warning lamp to light when only about three gallons of fuel remain in the tank.

Maximum Engine Speed.

The engine speed must never be allowed to exceed 4,500 r.p.m. It is, therefore, recommended that as a safe guide, the following speeds should not be exceeded:—

1st Gear	...	...	...	...	27 miles per hour.
2nd Gear	...	...	...	...	43 miles per hour.
3rd Gear	...	...	...	...	65 miles per hour.

The quietness of the Bentley engine and chassis, and the smoothness of the ride provided by the Bentley suspension, make it difficult to judge speed. *Keep an eye on your speedometer.*

Gear Changing.

The position of the gear lever for each of the four speeds and reverse is shown in Fig. 2.

When reverse is required, the top of the lever must be depressed, this operates a catch, and allows the lever to be moved into the reverse gate.

A special synchronising device is fitted to second, third and fourth gears.

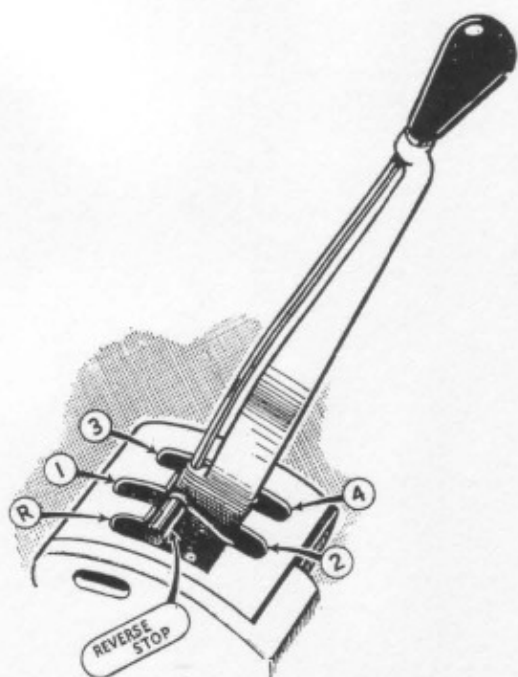


Fig. 2.—GEAR CHANGE LEVER AND GATE.

Any change into these gears—up or down—is facilitated by this easy change mechanism. All that it is possible to ensure by such a synchronising mechanism is that the gear members to be engaged cannot be brought together until they are both rotating at the same speed. It does not synchronise the engine and clutch shaft speeds. This must be done by the driver before re-engaging the clutch, otherwise there will be an unpleasant jerk, causing unnecessary wear and tear of the clutch and strain on the transmission.

It is necessary to depress the clutch pedal fully when changing gear. The gear lever should then be moved gently into the required gear position and, before re-engaging the clutch, the engine should be speeded up when changing down, or allowed to slow down when changing up, so that its speed shall suit the car speed on the required gear.

The change from second to first must be made in the usual manner by double de-clutching.

If an owner prefers to start from rest in second speed, this is in no way detrimental to the transmission or clutch, and, in fact, with the Bentley Mk. VI is the recommended procedure under normal conditions.

Controllable Shock Dampers.

In order to provide comfortable riding at all speeds, controllable shock dampers are fitted to the rear axle.

The control is effected by the lever, mounted above the steering wheel, and marked **Ride Control**.

For ordinary town work, or touring with moderate loads, it will be found that the damper loadings as set by the pump are adequate when the hand lever is at **Normal**.

With heavy loads, improved riding comfort will be obtained by moving the lever towards **Hard**, the control being progressive.

Battery Charging.

This is entirely automatic, as the provision of an automatic output regulator in conjunction with a shunt wound dynamo, adjusts the charge rate to suit the state of the battery.

When the battery is low in charge, the ammeter on the instrument board will show a higher reading towards **Charge** than it will when the battery is well charged. In making such a comparison, however, other factors which affect the ammeter reading must be taken into account, chiefly engine speed and current-consuming apparatus in use at the time.

Whenever the master switch and the ignition switch are **On**, and the engine running above idling speed, the battery is being charged. This should be checked by reference to the ammeter.

Further information regarding the electrical system is given in Chapter X.

Lighting Control and Switch.

As already mentioned, the movement of the master switch and the ignition switch to **On** not only switches on the ignition and charge, but brings into operation the electric fuel pumps and fuel gauge.

The ignition switch also switches on a red warning light on the instrument board, which is automatically extinguished when the engine is running at a speed sufficient to cause the dynamo to excite up to battery voltage.

This red lamp consequently serves two purposes, viz.:—

- (a) When alight it shows the driver that the ignition switch is on, and, therefore, warns him to switch off if he is leaving the car, and

- (b) When it becomes extinguished this indicates that the dynamo is exciting. (It does not follow that the dynamo is charging the battery. This should be ascertained by reference to the ammeter.)

The master switch controls the head, side and tail lamps, alternative **On** positions being provided, viz.:—

S and **T**.—Side and Tail lamps on.

H, S and **T**.—Head, Side and Tail lamps on.

PL.—"Parking" lights on, e.g. Side and Tail lamps on, accessories off.

In addition, a foot operated switch is provided, by means of which, the beam of the driving lights is altered to allow anti-dazzle precautions to operate, thus extending courtesy and safety to passing traffic.

Accessories.

The control of the Windscreen Wiper and De-mister is provided by means of switches on the instrument board.

A press button switch is also available for ascertaining the engine oil level which reads on the fuel gauge. (See Fig. 1.)

These are all controlled by the master switch, and it is recommended that the master switch be regularly used to avoid leaving the car with one of the accessories in operation.

Radiator Thermostat and Thermometer.

A thermostat is provided in the upper radiator coolant pipe which automatically restricts the flow through the radiator, until the coolant in the system attains a temperature of about 78° C.

A thermometer is provided on the instrument board to indicate that the thermostat is operating properly and that there is no shortage of coolant.

Overheating.

If on long ascents which call for full throttle, "boiling" should occur due to abnormal conditions of atmospheric temperature, and/or, following winds, etc., it is preferable to change into a lower gear and reduce the throttle opening.

Adjustment of the fan belt may be necessary, and this should receive attention.

Coolant Level in Radiator.

The radiator filler cap, which is located beneath the bonnet on the left-hand side, should be removed occasionally for inspection of the coolant level, but it *must not be removed when the engine is running.*

The level of the coolant should be maintained at approximately one inch below the bottom of the filling orifice. Top up if necessary with the correct anti-freeze mixture. (See page 80.)

Frost.

The car is delivered with a suitable anti-freeze mixture in the cooling system. (See page 77.)

If the original coolant has been replaced with water, and the car has to stand exposed to frost with the engine not running, it is of vital importance that the system should be drained by opening the drain taps on the water pump inlet pipe, and on the cylinder block (1, Fig. 33), and releasing the filler cap. The car heater must also be drained by opening the tap on the return pipe.

Before attempting to start, or even move the engine again, hot water should first be poured over the water pump, as otherwise damage may be caused to the pump rotor by the presence of particles of ice within the casing. Warm water can be used with advantage for refilling the radiator.

Fitting of Snow Chains.

In the event of snow chains being necessary, they should be fitted to the rear wheels only.

A Parsons chain, known as the "Special Bentley Type", is available. It is recommended that these be obtained through Messrs. Bentley Motors (1931) Ltd., or one of their "Special Retailers", in order to ensure the supply of the correct type.

When fitting these special chains, it is *essential* to commence by fastening the one hook on the inside of the wheel and always to take up the adjustment on the outside, where two fastening clips are provided. The tensioning springs which are supplied to go on the outside of the wheel must always be fitted.

CHAPTER II

Periodic Lubrication and Attention

LUBRICANTS RECOMMENDED

Bentley Motors (1931) Ltd. recommend a first quality oil of viscosity S.A.E. 20 for the engine all the year round, and viscosity 30 for the gearbox.

Any of the following oils are suitable:—

			"A"	"B"
			Engine.	Gearbox.
Price's Motorine ...	...	...	E.	M.
Wakefield's Castrol ...	...	...	Castrolite.	XL.
Vacuum Mabiloil ...	...	...	Arctic.	A.
Shell ...	...	...	Single.	Double.
Duckham's Adcoidised ...	...	...	NP. "Twenty"	NP. "Thirty"
Essolube ...	...	...	20.	30.
Silvertown Speedolene ...	...	...	20.	T.
Sternol ...	...	...	WW.20.	WW.30.

In the instructions which follow, reference is made to Oil "A" or "B" as above, i.e., viscosity 20 or 30.

Rear Axle.

Wakefield's Special Castrol Hi-press S.C. (If circumstances make this unobtainable, any one of the following may be used. Do **not** mix these oils; drain and refill.)

Price's ...	...	...	...	Motorine Hypoid.
Wakefield's ...	...	...	...	Castrol Hypoy.
Vacuum ...	...	...	...	Mobilube GX.
Shell ...	...	...	...	Spirax E.P.90.
Duckham's ...	...	...	...	Adcol Hypoid 90.
Essolube ...	...	...	...	Essoleum Expee Compound 90.
Silvertown ...	...	...	...	Speedolene Hypoid 90.
Sternol ...	...	...	...	Hypoid 90.

Carburettor Air Valve Damper.

Viscosity 10 oil, any of the following may be used:-

Price's ...	...	...	...	Motorine U.C.L.
Wakefield's ...	...	...	...	Wakefield Oilit.
Vacuum ...	...	...	...	Mobil Handy Oil.
Shell ...	...	...	...	Donax A.I.
Essolube ...	...	...	...	Esso Shock Absorber Light.

Steering Box—Chassis Oil Pump—Starter Motor Gears.

Viscosity 30 oil, as under "B" above.

Hydraulic Shock Dampers.

Viscosity 20 oil, as under "A" above.

Propeller Shaft—Contact Breaker Cam.

Vacuum Mobilgrease No. 2.

Distributor Grease Cup.

High Melting Point Grease.

Hydraulic Brake Fluid.

Lockheed Brake Fluid—Orange.

CAPACITIES

Engine ...	...	...	...	...	...	16 pints approx.
Gearbox	...	...	...	...	...	6 pints ,,
Rear Axle	...	...	...	...	...	1 $\frac{3}{4}$ pints ,,
Chassis Oil Pump	...	...	...	...	...	2 pints ,,
Cooling System	...	...	...	...	...	3 $\frac{3}{4}$ gallons ,,
Fuel Tank	...	...	...	...	...	18 gallons ,,

GENERAL

In addition to the points supplied with oil by the centralised system, there are others which, for various reasons, cannot be fed in this way and must, therefore, be lubricated by hand.

In the notes which follow, these points are classified as far as possible under mileages, or according to the usage of the car.

It is important that careful attention should be given to their lubrication so as to reduce wear and eliminate mysterious squeaks and rattles.

Further notes are included covering the periodic operations and adjustments which are necessary.

Points for Regular Attention according to Use of Car

FREQUENTLY, OR DAILY IF LONG JOURNEYS ARE CARRIED OUT

1.—Engine Oil.

Inspect oil level on dip-stick or electric gauge **when engine is not running**, and top up as necessary with correct oil. Do not run engine with oil level down to "Min." mark. (See page 41.)

2.—Chassis Lubrication.

Use foot-operated pump according to mileage travelled. Depress pedal once when car is being started for the first time each day, and then once every 100 miles. Use the pump more frequently during bad weather.

Replenish reservoir as necessary, but do not overfill. Leave one inch between oil level and bottom of filler orifice.

WEEKLY

3.—Radiator Coolant.

Inspect coolant level and, if necessary, top up with the correct anti-freeze mixture to maintain the level at about one inch below the bottom of the filling orifice.

4.—Tyres.

Check the tyre pressures.

These should be:—Front, 25 lbs./sq. in. } Cold.
Rear, 30 lbs./sq. in. }

5.—Distributor Grease Cup.

Give grease cup one turn; when empty, fill with the correct grease. (See page 28.)

MONTHLY

6.—Battery.

Check level of acid in each cell and top up with distilled water if necessary. Check more frequently when big mileages are covered or when the car is being run during hot weather.

7.—Brakes.

See Chapter VI for description.

To check the adjustment, rotate the adjusters in a clockwise direction until obvious resistance is felt. This resistance should be equal for all four brakes, and should the last "click" on any one adjuster require noticeably greater force to obtain, this adjuster should be turned back to the previous "click". (See page 55.)

8.—Carburettors.

Inspect oil level in oil reservoir of automatic air valve guide, and top up with the recommended oil. (See page 27.)

Lubrication and Maintenance

EVERY 5,000 MILES

1.—Gearbox.

Inspect oil level in the gearbox by means of dipstick. If necessary replenish with the correct oil to level of mark on dipstick. (See page 60.)

2.—Rear Axle.

Inspect oil level in rear axle when warm, by removing level plug (Fig. 22), and, if necessary, top up with correct oil to level of hole. (See page 63.)

If the correct oil is not obtainable, do not add a different oil, but if replenishment is necessary, drain off and refill with an alternative oil as directed on page 27.

3.—Steering Box.

Remove plug and fill casing with correct oil to mouth plug of orifice. (See page 65.)

4.—Ignition Governor.

Remove the distributor cover and lift off rotor. Apply two or three drops of oil "A" to governor spindle. (See page 91.)

5.—Contact Breakers.

Apply one drop of oil "A" with oil-can to the pivot pin of each rocker arm. (See page 91.)

6.—Distributor Cam.

Smear a trace of grease on the cam surface. (See page 91.)

7.—Control Mechanism.

Apply a few drops of oil "A" with oil-can to controls on steering wheel (oil hole), accelerator pedal mechanism, clutch pedal mechanism, and all other control points and bearings.

8.—Brake Connections, etc.

Apply liberally oil "A" with oil-can to all joints and pins of brake rods and connections, or spray with penetrating oil.

9.—Bonnet Fasteners and Locks.

Carefully lubricate with oil "A" bonnet fasteners and locks.

10.—Sparking Plugs.

Alternative plugs are Champion Type N8, or Lodge Type CLN, 14 m/m. non-detachable. Plugs should be serviced on special plug cleaning and testing machine, which should be available in all service stations. Set gaps to .025" (.635 m/m.)

EVERY 10,000 MILES**1.—Starter Motor.**

Remove plug on side of reduction gear casing, and fill to plug orifice with oil "B". (See Fig. 40.)

2.—Engine Oil Sump.

When engine is warm drain crankcase and refill with oil "A" to the correct level.

3.—Dynamo.

Inspect brushes for wear; to do this, unscrew securing screws and remove cover to expose brushes. (See page 84.)

If renewal is necessary, remove dynamo, clean out dust and fit new brushes, making sure that they are bedding correctly on the commutator. Refit dynamo. (See page 84.)

4.—Hydraulic Shock Dampers.

Inspect oil level and add more oil if necessary.

Use only correct oil. (See page 28.)

5.—Universal Joints and Propeller Shaft.

Inject grease by means of grease-gun into lubricator located at centre of each universal joint, and also into the lubricator on the sliding joint. (See Fig. 21.)

6.—By-Pass Oil Filter.

Replace by-pass oil filter element, on right-hand side of engine, with a new one. See that the cover joint is oil-tight thereafter. (See page 40.)

7.—Valve Rocker Clearances.

Check the inlet valve rocker clearances and re-set if necessary. This operation should be performed *when the engine is cold.*

The method of adjusting the valve rocker clearances is illustrated in Fig. 3.

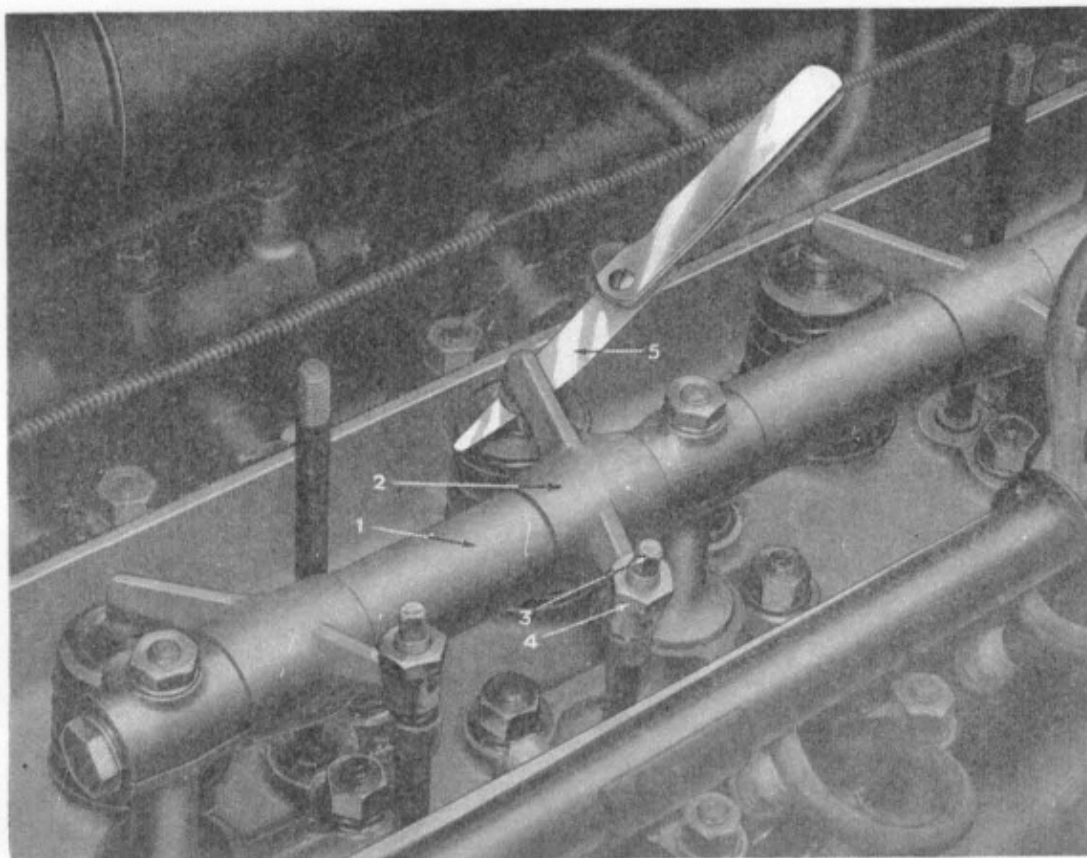


Fig. 3—ADJUSTING THE INLET VALVE ROCKER CLEARANCES.

- | | |
|------------------------------|------------------|
| 1. Rocker shaft. | 4. Locknut. |
| 2. Rocker. | 5. Feeler gauge. |
| 3. Ball ended contact screw. | |

Before commencing to adjust a tappet, it should be ascertained that the lower tappet operating the push rod is on the base circle of its operating cam. This is best done by turning the crankshaft by hand until the valve has opened and closed, and then cranking round half a revolution beyond this point.

The ball ended contact screw (3) is screwed into the rocker and locked with a nut (4). On releasing the nut the screw can be turned by means of the special spanner provided.

The correct clearance for the inlet rockers is .006" (.152 m/m.). A feeler gauge is provided in the tool kit, and is shown in position (5), for measuring the clearances.

As each contact screw is adjusted, its locknut should be securely tightened up.

The correct clearance for the exhaust tappets is .012" (.305 m/m.), *with the engine cold*. These should need no attention between de-carbonising periods of the engine.

8.—Air Cleaner.

Remove cleaner element from front end of silencer, after unscrewing the wing-nut and taking off end cover. Carefully wash element in petrol or paraffin and afterwards oil with oil "A". Drain off excess oil before re-fitting.

It should be noted that if the car is being run under particularly dusty conditions, the element may need cleaning more frequently. (See page 51.)

9.—Doors.

Oil lock bolts and hinges with oil "A". (See page 106.)

10.—Hydraulic Master Cylinder.

Remove the filler plug (2), Fig. 18, and check the fluid level, top up if necessary with the recommended fluid (see page 27) so as to maintain the level at one inch below the filler cap.

EVERY 20,000 MILES**1.—Gearbox.**

Drain out all the oil, by removing the drain plug, and refill with oil "B", up to the mark on the dipstick. (See page 60.)

This operation is more easily performed when the gearbox is warm.

2.—Fuel Strainers.

Remove and clean gauzes of strainer, located on cross-member of frame in front of main tank. Drain and clean strainer sump. (See page 45.)

Also, remove and clean gauze strainer on fuel inlet to carburetter float chamber, taking care, first, to see that the ignition is switched off, and fuel pumps are therefore inoperative. (See page 46.)

3.—Fuel Tank.

Release—but do not remove—drain plug at bottom of main tank to allow any accumulated water to escape. (See page 45.)

4.—Rear Axle.

Drain axle when warm, and refill. Approximately $1\frac{3}{4}$ pints of oil will be required.

None but the recommended oil should be used, and this should be warmed before inserting.

5.—Chassis Lubrication System.

Remove and discard felt strainer pad, located at base of chassis oil pump. (See page 36.) Replace with new pad.

DIAGRAM
CHASSIS LUBRICATION SYSTEM

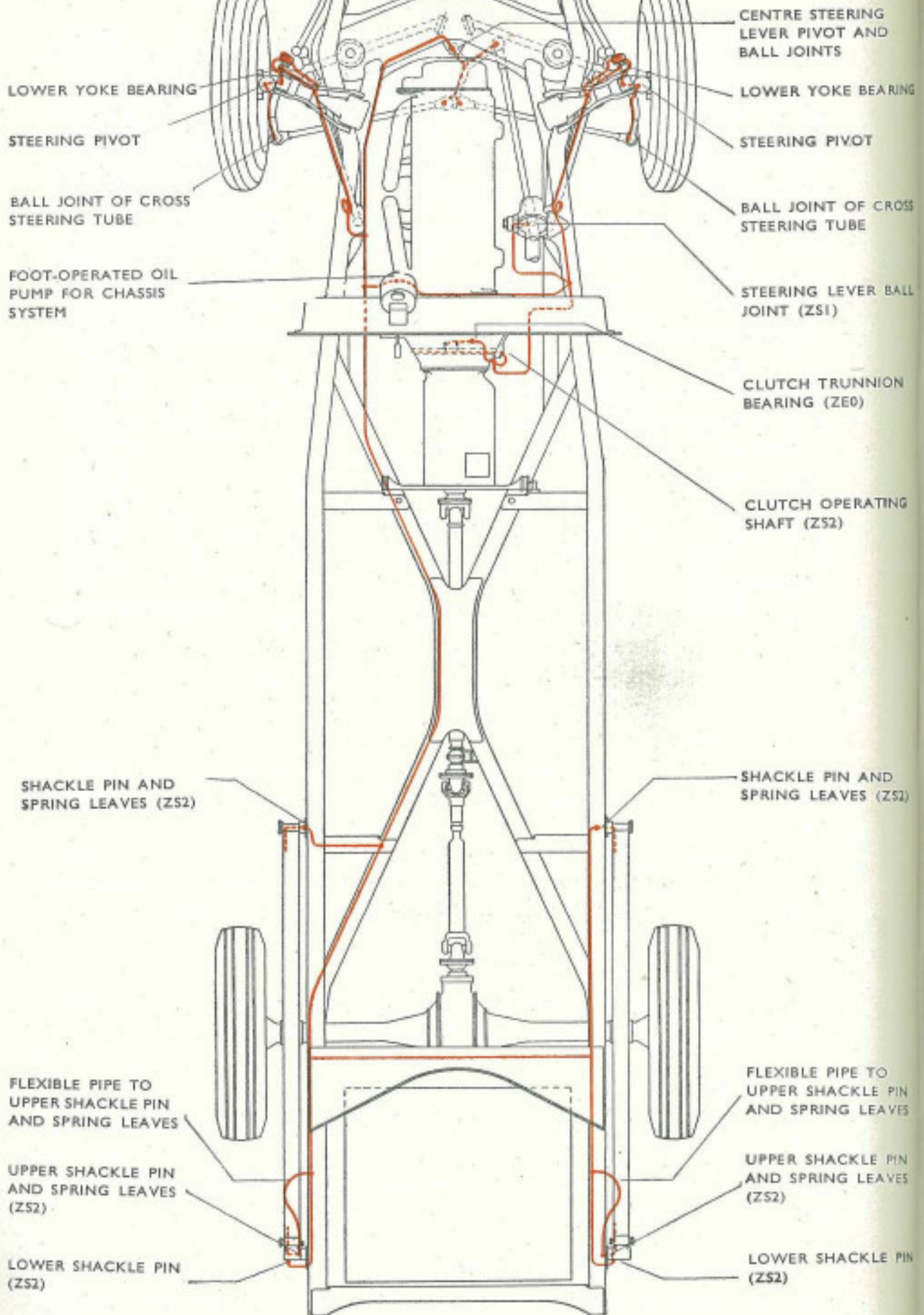


Fig. 4.—DIAGRAM OF CHASSIS LUBRICATION SYSTEM.

CHAPTER III

Centralised Chassis Lubrication

General — Foot operated Oil Pump — Drip Plugs.

General.

A foot-operated pump, with which is combined an oil reservoir, is located on the front of the dashboard, and supplies oil under pressure for chassis lubrication.

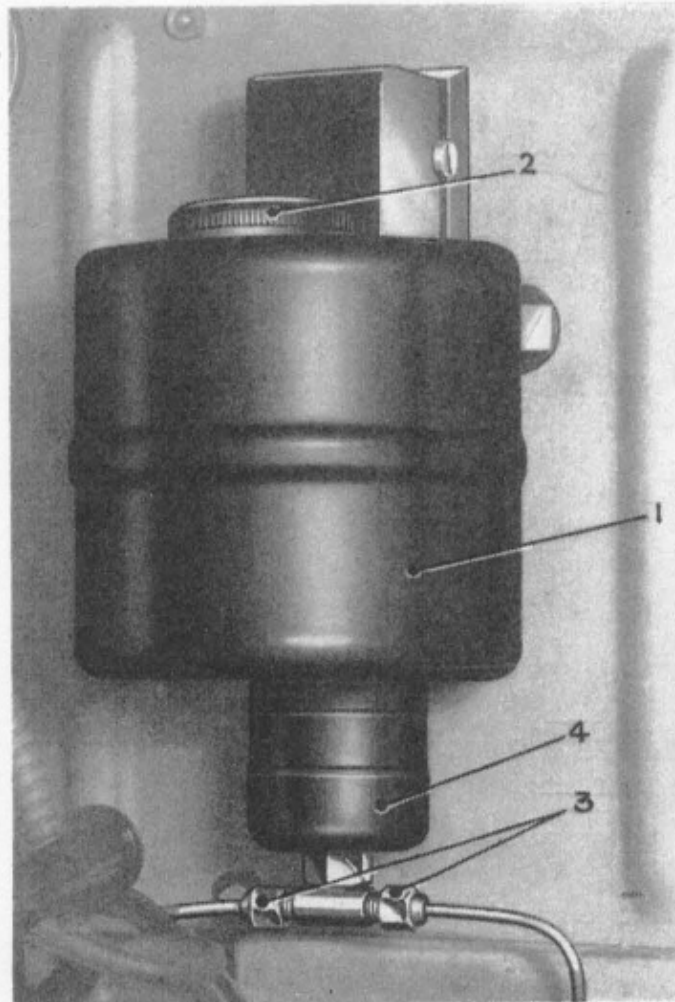


Fig. 5.—CHASSIS OIL PUMP AND RESERVOIR.

- | | |
|----------------|-----------------|
| 1. Reservoir. | 3. Pipe unions. |
| 2. Filler cap. | 4. Strainer. |

A diagram of the complete system is given in Fig. 4, the piping being coloured red. Red discs indicate the positions of drip plugs, and the rating of each is given in parentheses against the description of the part lubricated.