

Instruction Book

ESSEX

SUPER-SIX

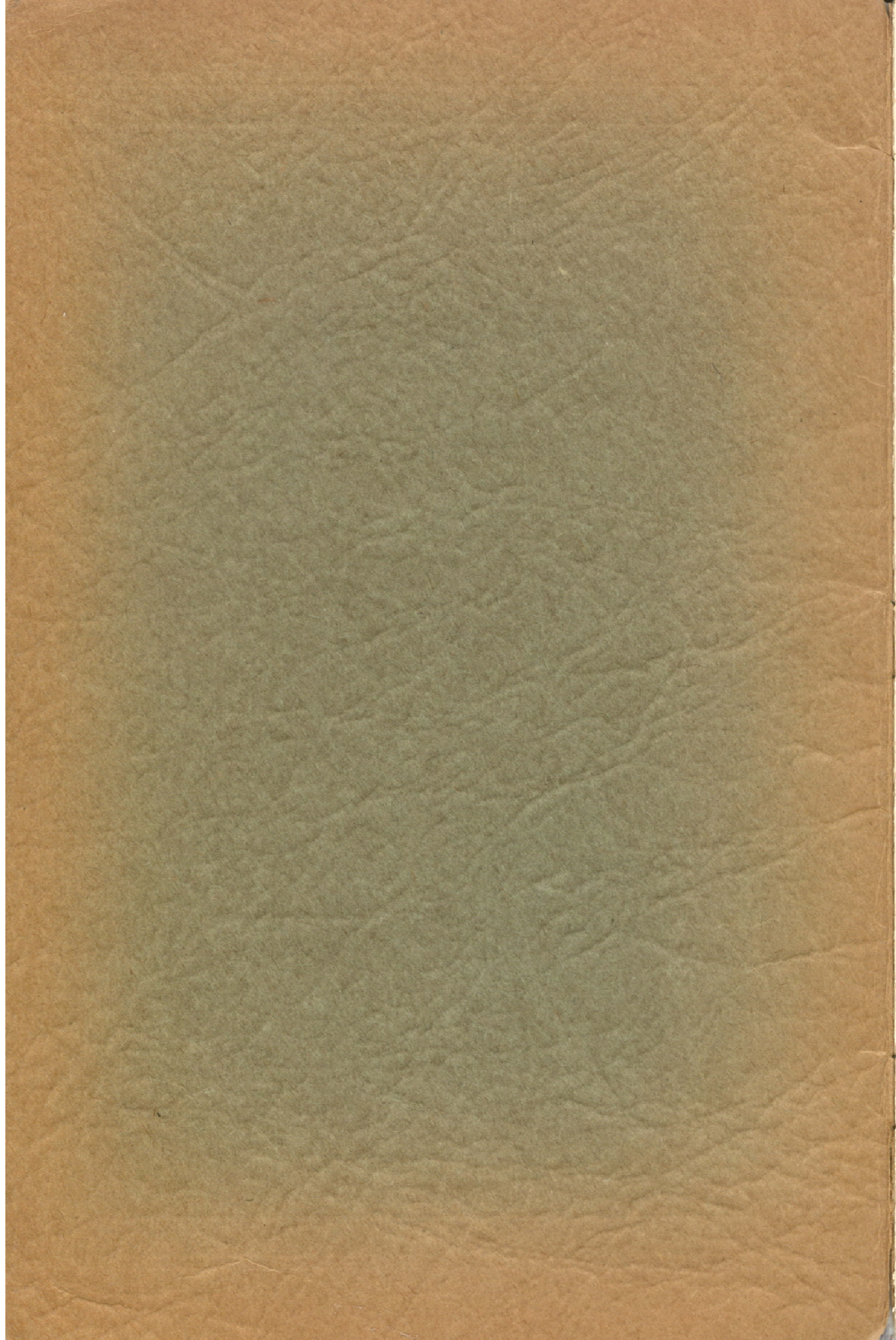


JANUARY

1927

HUDSON MOTOR CAR COMPANY

DETROIT, MICHIGAN, U.S.A.



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Warranty

The factory obligation with respect to replacement of alleged defective parts is fully covered by our warranty as follows:

"We warrant the automobiles manufactured by us to be free from defects in material and workmanship under normal use and service, our obligation under this warranty being limited to making good any part or parts thereof which shall, within ninety (90) days after delivery of such automobile to the original purchaser, be returned to us with transportation charges prepaid, and which our examination shall disclose to our satisfaction to have been thus defective.

"This warranty is expressly in lieu of all other warranties expressed or implied, and of all other obligations or liabilities on our part, and we neither assume nor authorize any other person to assume for us any other liability in connection with the sale of our automobiles.

"This warranty shall not apply to any Hudson or Essex automobile which shall have been repaired or altered outside of our factory in any way so as, in our judgment, to affect its stability or reliability, or which has been subject to misuse, negligence, or accident.

"We make no warranty whatever in respect to tires, rims, ignition apparatus, tops, upholstery, horns or other signaling devices, batteries, speedometers, or other trade accessories."

HUDSON MOTOR CAR COMPANY

Detroit, Michigan

The factory does not participate in any labor costs incident to the replacement of parts under the warranty. The warranty under which Essex motor cars are sold will be interpreted by the Distributor or Dealer from whom the car was purchased. If you are touring and require service, be sure and get in touch with your nearest authorized Essex Distributor or Dealer.

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LICENSE DATA

Car serial number.....(see plate on front of dash under hood).
 Engine serial number.....(stamped on left side of cylinder, near
 water inlet elbow).
 Number of cylinders—6.
 Diameter of bore— $2\frac{11}{16}$ in.
 Stroke— $4\frac{1}{4}$ in.
 Standard horsepower rating for license purposes—17.32.
 Piston displacement—144.67 cu. in.
 Shipping weight—Coach 2450 lbs., Sedan 2530 lbs., Coupe 2340 lbs.

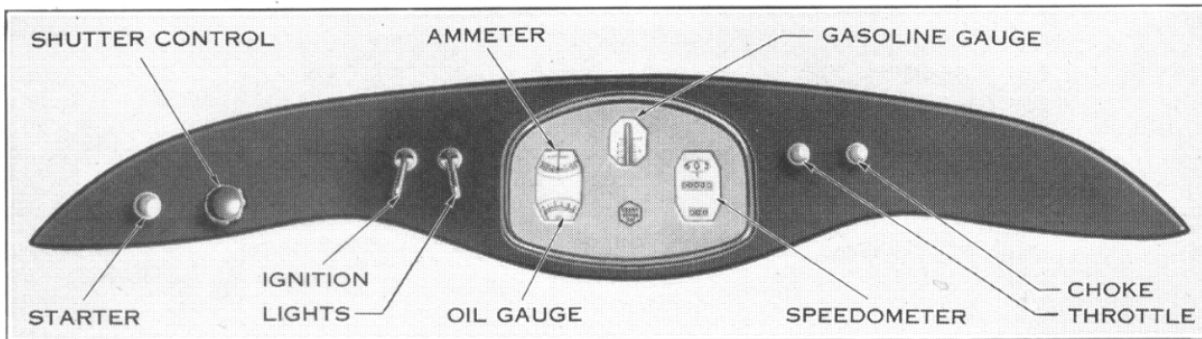
TIRES

Inflate front tires 28 lbs.

Inflate rear tires 32 lbs.

Check pressures once a week.

Starting the Motor



To start the motor, pull out the choke button on the instrument board part way—in cold weather it may be necessary to pull it all the way out. The instrument board throttle button should then be pulled out until the accelerator pedal moves downward about $\frac{1}{8}$ inch, after which the ignition switch lever should be moved to the left in the “on” position. Pulling out the starter button on the instrument board completes the starting operation.

It is important that the choke button be pushed in as far as possible consistent with smooth motor operation as soon as the engine starts to fire, and must be completely in when the motor becomes warmed up.

To obtain maximum performance and efficiency, the shutter control button should be regulated so the motor temperature will agree with the directions on the motometer dial.

Operating Instructions

The care given to a motor car during its first 1000 miles governs, to a large extent, the length and satisfaction of its service.

All moving parts are closely fitted and adjusted. Higher speeds must be approached gradually to give these parts an opportunity to properly “run in” and insure perfect bearing surfaces. During the first few hundred miles, sustained high car speeds should not be indulged in; nor should the motor be raced or speeded up while the car is at rest.

We recommend that the oil in the crankcase be completely changed after the first 250 miles and every 500 miles thereafter. Other parts of the chassis should be lubricated according to the instructions given in the following pages of this book.

Strict adherence to the following suggested car speeds with respect to speedometer mileage will amply repay you in improved performance, and will minimize your future maintenance costs.

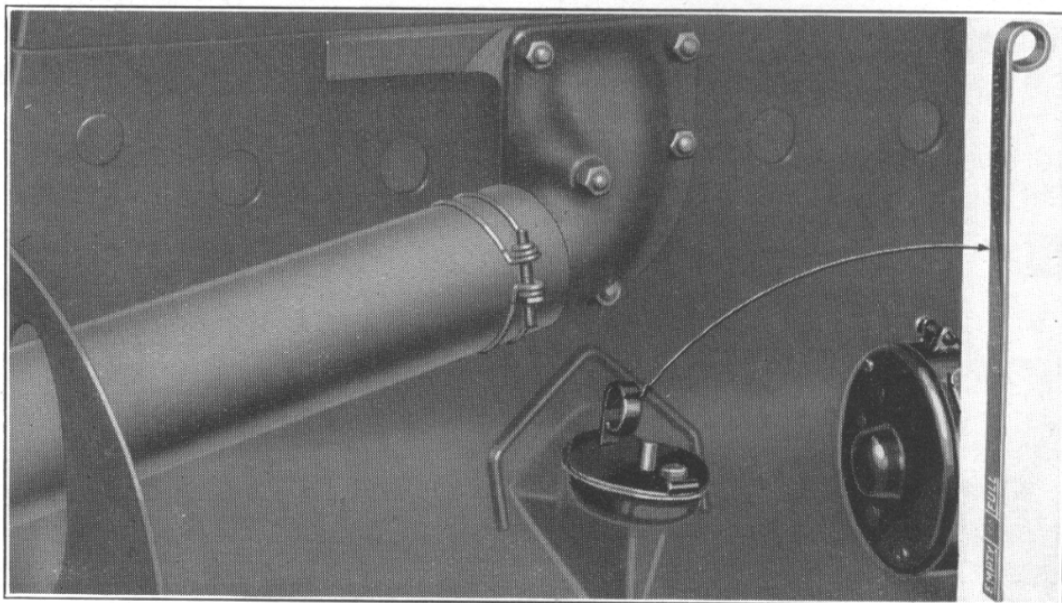
Speedometer Reading

- 0 to 250 miles—Do not exceed 35 m. p. h. high gear; 15 m. p. h. intermediate gear.
- 250 to 500 miles—Do not exceed 45 m. p. h. high gear; 20 m. p. h. intermediate gear.
- 500 to 1000 miles—Do not exceed 50 m. p. h. high gear; 20 m. p. h. intermediate gear.

IMPORTANT—Do not under any consideration attempt to maintain a high rate of speed until the motor is thoroughly warmed up, the oil gauge showing pressure, and you are sure that there is plenty of good oil in the crankcase.

General Lubrication Instructions

Motor Lubrication



Use only high-grade oil of heavy body.

In cold weather, use only high-grade heavy body oil which will flow at low temperatures.

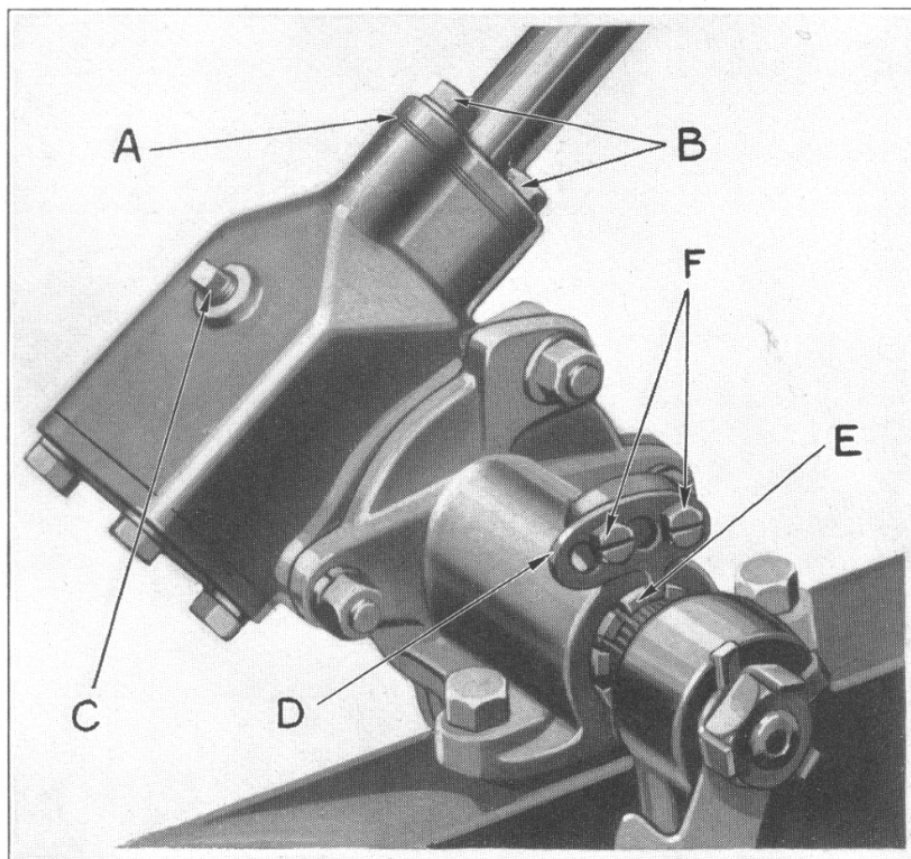
Consult your dealer if you are in doubt as to what oil to use.

The oil gauge must always register when the motor is running. To determine the amount of oil in the reservoir, pull out oil level gauge, shown above, wipe it clean, then turn slide and drop gauge into reservoir. When withdrawn, the exact oil level will be shown.

Every 250 miles, add oil as found necessary to bring contents up to "full" mark. Drain the reservoir and replenish with new oil at 500-mile intervals, adding 5 quarts.

Steering Gear

The steering gear case should be filled with steam cylinder oil to the level of the pipe plug "C," as shown. Any up and down motion or play in the column which might develop after extensive service can be eliminated by the removal of shims shown at "A" in illustration. Remove



screws "B" holding upper cap in place, take out a shim, tighten down cap, and test. If necessary, repeat and remove additional shims.

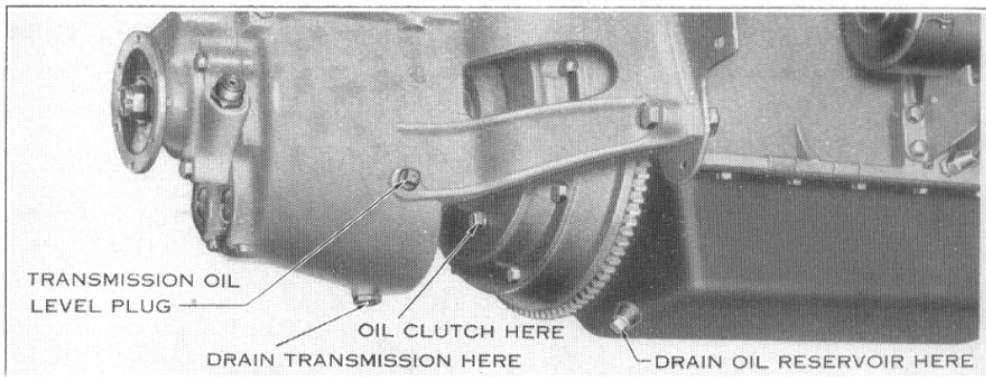
Excessive play or lost motion between the worm and worm wheel can be taken up by adjusting the worm wheel eccentric bushing shown at "E." Remove the cap screws "F" and lock plate "D," then turn bushing in housing until only a slight amount of play is felt. The lock plate should then be replaced and the steering wheel turned from extreme right to left positions to make sure there is no tendency to bind.

Should binding take place after either of the above adjustments have been made, it will be necessary to replace a shim or back off the bushing a notch to insure proper lubrication.

Clutch

The clutch lubricant should be inspected and replenished if necessary every 2500 miles, or oftener if the action becomes harsh or jerky, as follows:

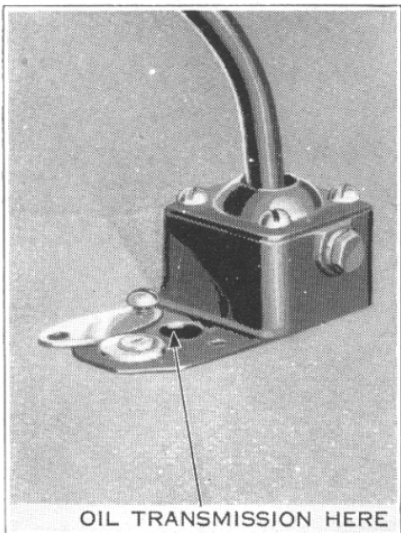
Remove one bolt at side of flywheel pan, also cap screw holding rear end of pan to transmission case, and swing pan to one side.



Turn flywheel until square head filler plug in clutch cover is at its lowest position. It is important that the flywheel be in exactly this position; otherwise too much oil will be introduced, resulting in clutch slippage.

Remove plug and fill to the level of the bottom of the plug opening with a mixture of equal parts of light motor oil and kerosene, using an oil gun. Replace filler plug tightly and fasten flywheel pan in position.

Transmission



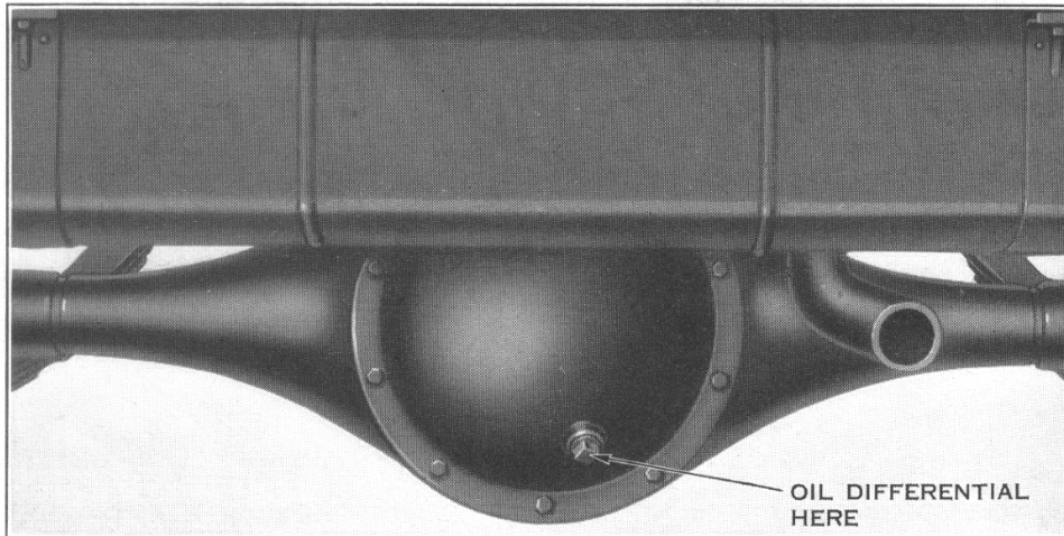
The transmission oil filler is located immediately forward of the transmission lock. We suggest that one screw be removed, and the other one loosened. The transmission lock should then be pushed down and the plate will slide over, giving free access to the opening.

For transmission lubrication, we recommend the use of high-grade heavy body motor oil which will meet the specifications listed on page 5 under Motor Lubrication. Do not use grease. Oil should not be carried above the level of the test plug, which is located on the right-hand side of the transmission case. Remove this plug and fill

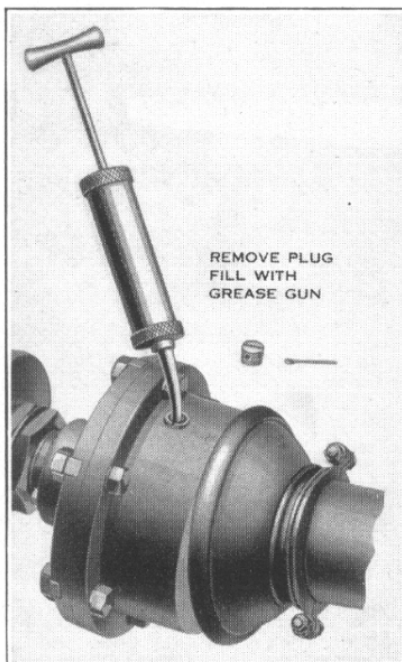
only until oil drips from the opening. Every 5000 miles the transmission should be drained, flushed out with kerosene and refilled with new oil to the proper level.

Rear Axle

The rear axle drive gears and differential are lubricated by removing the large pipe plug in the housing cover. The oil supply in the housing should be kept up to the level of the filler plug opening.



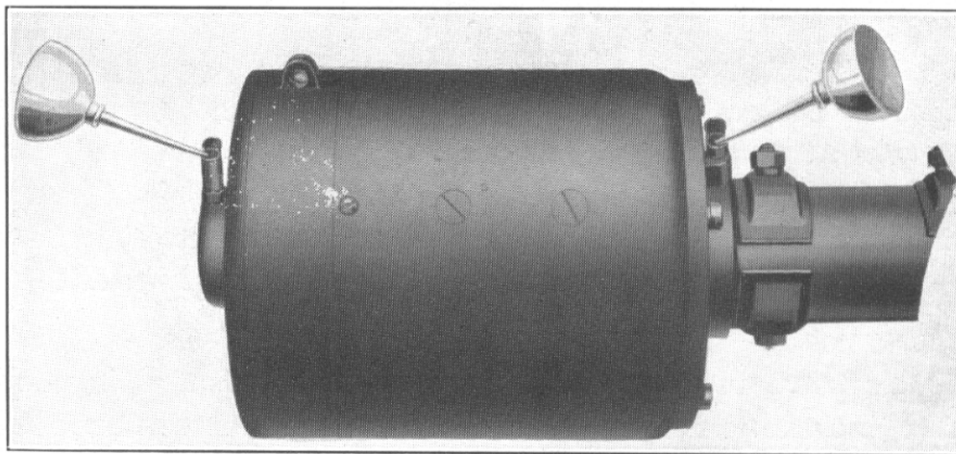
Use only good rear axle or differential oil that will flow at low temperatures. Do not use grease. Once a year drain axle by removing lower cap screw from housing cover and refill with new oil.



Universal Joints

The universal joints, because of the severe service to which they are put, require adequate lubrication attention. Every 2000 miles remove plugs and fill with fiber grease.

Electrical Units



Generator

Three or four drops of light motor oil at points designated every 1000 miles.



Distributor

Fill distributor base with motor oil once a month or every 500 miles to the level of the oil cup.

Starting Motor

The starting motor is fitted with oilless bearings and requires no lubrication.

Horn

The horn should be lubricated occasionally by removing the cover screw and cover and placing a few drops of light oil in the oil holes provided.

Electrical System

The electrical system requires little attention other than that of proper lubrication.

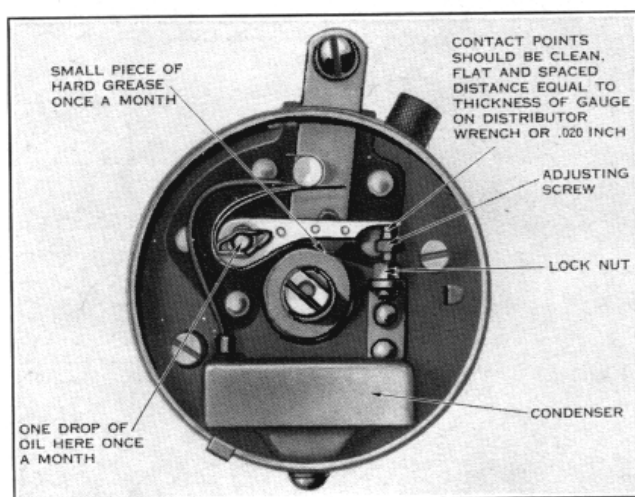
Within five days after delivery of a new car the purchaser should take it to the nearest Electric Auto-Lite Service Station in his territory for registration and inspection of the electrical units. An identification card will be received by him which will entitle him to free inspection service on the electrical apparatus at any Electric Auto-Lite Service Station during the guarantee period.

The electrical units covered by the Electric Auto-Lite Company Guarantee include: Starting Motor, Generator, Distributor, Coil and Switch.

The wiring employed in the light circuits is protected by a 20-ampere fuse located on the back of the ignition switch, as shown in the illustration on page 22. If for any reason the lights do not burn, examine this fuse; if necessary, replace with a spare of the proper capacity.

Spares will be found in the fuse carrier at the bottom of the switch back.

Persistent blowing of the fuses indicates a short in the wiring, and the circuits should be inspected by your dealer at the earliest opportunity.



The ignition distributor requires no attention other than that pointed out in the illustration.

Ignition Timing

The ignition distributor is equipped with an automatic spark control device, which automatically times the ignition according to the motor speed. This renders a hand spark advance unnecessary. The initial setting at the factory is correct and should not be altered unless these parts have been removed or disturbed.

To check the spark timing when necessary, proceed as follows: Remove No. 1 spark plug and crank the motor by hand until the rush of air from the plug opening indicates that the piston is coming up on compression stroke. This can be readily determined by placing a finger over the spark plug opening. The motor should then be turned very slowly until the dead center mark on the flywheel coincides exactly with the lower edge of the square sight hole on the right side of the motor rear plate. When this is done, the motor is on dead center.

Remove the distributor cap and rotor, and see that the contact points are just separating.

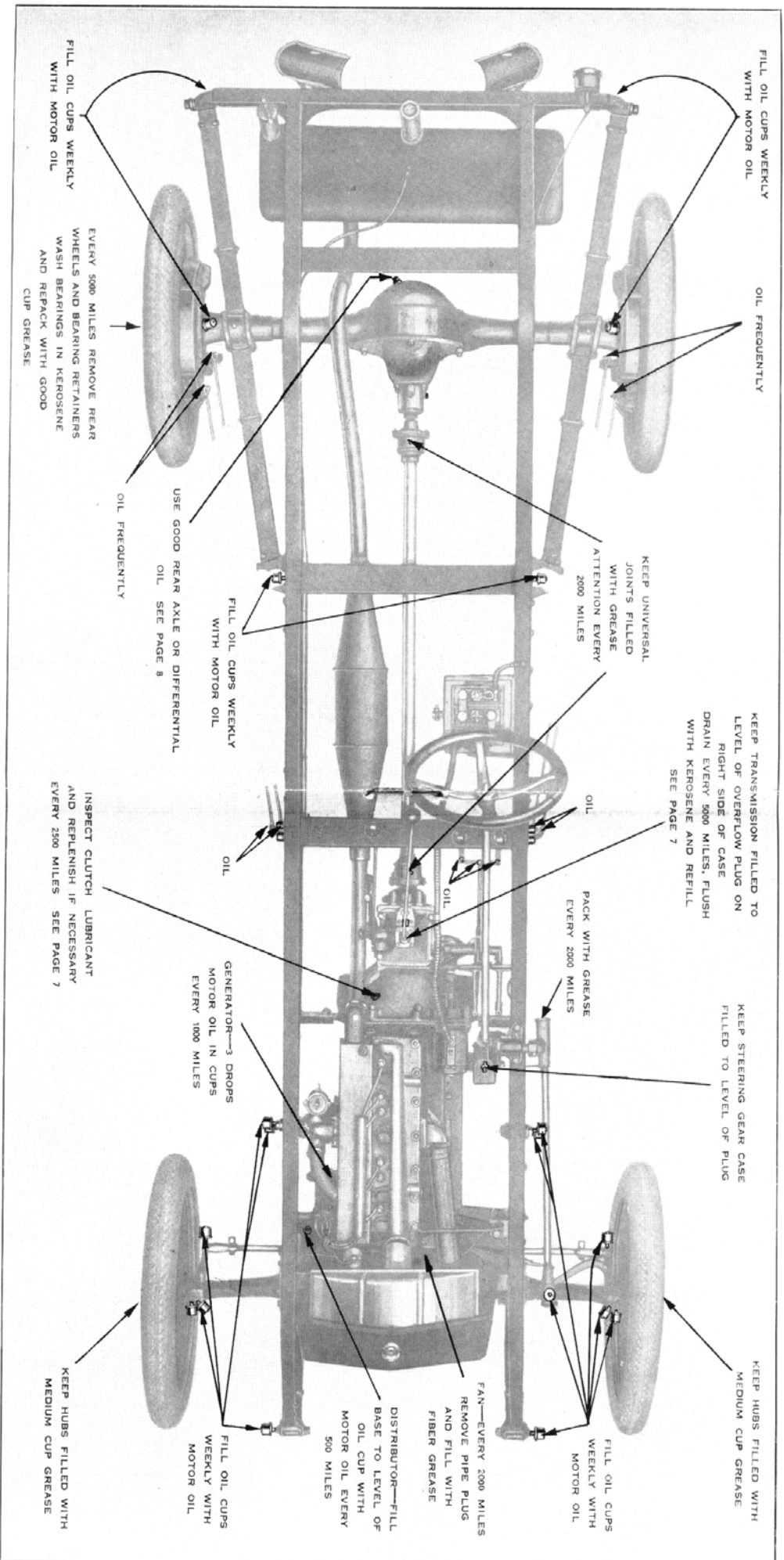
To adjust, if necessary, loosen the nut on the distributor lock pin, shown in the illustration on page 9, and turn the distributor slightly in the proper direction. Turn the distributor to the right, or clockwise, to retard the ignition; to the left, or anti-clockwise, to advance. Then re-tighten the lock pin nut.

Storage Battery

Immediately upon delivery of a new car, the purchaser should take it to the nearest authorized Prest-O-Lite Battery Service Station for an initial inspection and filling in of the registration card which will entitle him to service during the warranty period.

This card is enclosed in the tool equipment and the instructions appearing thereon should be closely followed.

During the winter months, the greater use of lights and the starting motor naturally drains the battery more quickly than in summer. Let your nearest battery station inspect the battery frequently and advise you as to its condition.



The Carburetor

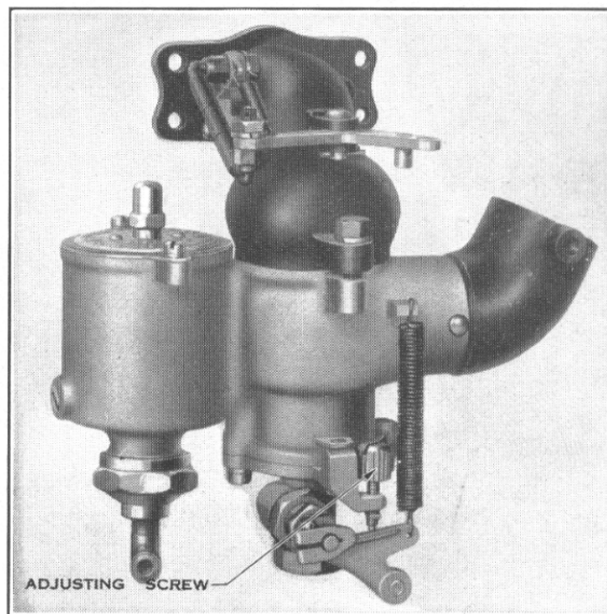
After a new car has been run approximately two hundred miles, it is advisable to alter the carburetor adjustment so the car will operate on a leaner mixture. To adjust the carburetor for best fuel economy, proceed as follows:

Run the motor a sufficient length of time for it to attain a normal running temperature; then close the throttle.

Decrease the amount of fuel by turning the knurled adjusting screw at bottom of carburetor to the left, until the motor begins to miss or stalls. This may require several complete turns.

The adjustment should then be reversed; that is, turned to the right, a notch at a time, until the motor fires evenly. This will require about one-half a turn. This one adjustment automatically insures correct carburetion throughout the entire operating range.

In hot weather better performance will be obtained by opening the sliding covers on the hot air stove.



Cooling System

The cooling system should be kept full of pure water at all times. If the water in your locality is known to contain alkali or lime, avoid its use if possible and use rain water.

It is important that the cooling system be drained and thoroughly flushed out with clear water at frequent intervals to prevent the formation of deposits which would tend to obstruct the water passages in the radiator.

Keep the radiator shutters adjusted so as to maintain an efficient operating temperature as indicated by the directions on the motometer dial.

See that the fan belt does not slip. An adjustment is provided for taking up slack.