

HAYNES

MODEL 48 (1920)

LEECE-NEVILLE GENERATING, STARTING AND LIGHTING SYSTEM DELCO IGNITION

BATTERY.—Willard, 6 volt, 120 ampere-hour. The two-wire system is used.

IGNITION.—Model No. 5155. Breaker contacts separate .018 inch. They are made of tungsten. When the condition of the contacts affects the ignition, remove and resurface with fine emery cloth or against the flat side of an emery wheel, finishing on a hard oil stone.

OILING.—Put 3 or 4 drops of light engine oil in the two oil holes in the top of the distributor driving-gear housing every two weeks. If the tracks of the rotor buttons in the distributor heads are not well polished, apply a small amount of vaseline with a soft cloth. Every six months remove the plate on the top of the unit and repack the housing with soft cup grease.

TIMING.—Breaker contacts begin to separate when the piston entering power stroke is on top dead center, spark control lever and breaker assembly one-third advanced.

FIRING ORDER.—The firing order is 1R, 6L, 4R, 3L, 2R, 5L, 6R, 1L, 3R, 4L, 5R, 2L.

SPARK PLUGS.—Diameter, $\frac{7}{8}$ inch. Spark gaps are .025 inch.

STARTER:—Model No. 166-M. Starter is connected to the engine through a Bendix drive. Starter cranks the engine at 100-150 R.P.M., taking 150-250 amperes. Running freely starter takes 60 amperes, armature revolving at 4000 R.P.M. Lock torque is 16-pound feet, current being 700 amperes at 3.5 volts.

OILING.—Put 5 or 6 drops of light engine oil in the starter bearing oilers every month.

GENERATOR:—Model No. G-109. Rotation is counter-clockwise, looking at commutator end. Generator current regulation is by the third brush system. Normal maximum charging rate is 16 amperes, reached at 20 miles per hour, or 1200 R.P.M. of the armature. Charging rate is varied by turning the thumb screw at the rear of the generator. Turn to the right (facing rear end of generator) to increase the charging rate and to the left to decrease the charging rate. Never increase the maximum charging rate above 20 amperes. Field fuse, mounted on the relay base, is 5 ampere.

OILING.—Put 5 or 6 drops of light engine oil in the generator oilers every two weeks. If the car is driven more than 500 miles in two weeks, the oiling must be done every 500 miles.

RELAY.—Relay is mounted on the generator frame. Relay closes at 8-10 miles per hour or 500 R.P.M. of the armature and opens at 6-8 miles per hour or 450 R.P.M. of the armature. Clean relay contacts by drawing unglazed paper between them. If badly burned or pitted, resurface with well worn No. 00 sandpaper. Remove all grit. Adjust before again putting into service.

LAMPS.—Head lamps are 6-8 volt, 16 cp. Dimmer lamps are 6-8 volt, 4 cp. Dash and tail lamps are 6-8 volt, 2 cp.

FUSE.—Generator field fuse is 5 ampere, $\frac{5}{8}$ inch long.

CIRCUIT-BRAKER.—A circuit-breaker takes the place of fuses in the lighting and ignition circuits.

