OVERLAND

MODEL 93 (1925-26)
AUTO-LITE GENERATING, STARTING AND LIGHTING SYSTEM
AUTO-LITE IGNITION

BATTERY:—U.S.L. Type 3-CVX-5X. 6 volt. The starting capacity is 96 amperes for 20 minutes. The lighting capacity is 5 amperes for 16.8 hours. The negative (—) terminal is grounded.

IGNITION:—Coil Model IG-4060. Distributor Model IG-4057-A. Breaker contacts separate .018 inch. They are made of tungsten. When the condition of the contacts affects the ignition, remove and resurface on a medium hard oilstone.

Oiling:—Turn up the grease cup on the distributor shaft two turns every month or each 1000 miles if the car is driven more than 1000 miles in a month.

Timing:—Breaker contacts begin to separate when the piston entering power stroke is 20° before top dead center (measured on the flywheel) with the spark control lever in the fully advanced position or when the piston reaches top dead center with the spark control lever and breaker assembly in the fully retarded position.

Firing Order:—The firing order is 1-5-3-6-2-4.

Spark Plugs:—Spark plug diameters are 7/8 inch. Gaps are .025 inch.

STARTER:—Model MN-4104. Starter is connected to the engine through a Bendix drive. The direction of rotation is counter-clockwise, looking at the commutator end.

Starter Data.

Torque	R.P.M.	Volts	Amperes
0 lb. ft.	4000	5.	60
.6 "	2700	5.5	100
2.9 "	1500	5.	200
5.5 "	850	4.5	300
8.2 "	410	4.	400
17.6 "	Lock	4.	600

Oiling:—Put 4 or 5 drops of light engine oil in the starter oilers every month or each 1000 miles if the car is driven more than 1000 miles in a month.

GENERATOR:—Model GP-4103. The direction of rotation is counter-clockwise, looking at the commutator end. Current regulation is by the third brush system. To adjust the charging rate, loosen the generator cover band and the hexagon headed nut holding the third brush mounting arm and shift the third brush. Shifting the brush in the direction of armature rotation increases the charging rate and in the opposite direction decreases the charging rate.

Generator Data.

Cold Test			Hot Test		
Amperes	Volts	R.P.M.	Amperes	Volts	R.P.M.
0	7.	375	0	6.5	475
4	7.2	500	4	6.8	640
8	7.4	650	7	7.4	800
12	7.8	875	10	7.6	1200
16	8.	1600	10.6	7.8	1540
13	7.8	2400	8.2	7.8	2400

Motoring freely, generator draws 4.5 amperes at 6 volts. Shunt field current is 2.2 amperes at 6 volts.

Oiling:—Put 4 or 5 drops of light engine oil in each of the generator bearing oilers every two weeks or each 500 miles if the car is driven more than 500 miles in two weeks.

RELAY:—Relay contacts close at 350 R. P. M. of the generator with a generator voltage of 7.5 volts and open at 250 R.P.M. with a discharge current of 1-2 amperes. Relay contacts separate .025-.035 inch. Air gap between relay armature and coil core is .010-.015 inch, contacts closed.

LIGHTING:—Briggs and Stratton Switch Model 39320. Head lamps are 6-8 volt, 21 cp. S.C. Dash and tail lamps are connected in series. They are each 3-4 volt, 2 cp. S.C.

FUSES:—Generator field fuse is 5 amperes. Lighting fuse is 20 amperes.