

HUPMOBILE

SERIES R-2 (1919)

REMY GENERATING, STARTING AND LIGHTING SYSTEM

ATWATER KENT IGNITION

BATTERY:—Battery is 6 volt, 94-ampere-hour. The positive (+) terminal is grounded.

IGNITION:—Contacts separate .005 inch to .008 inch. They are made of tungsten. When the condition of the points 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.

Timing:—Contacts begin to separate when the top dead center mark on flywheel is 2 inches past indicator, spark control lever and breaker assembly midway between the fully advanced and fully retarded position.

Firing Order.—The firing order is 1, 2, 4, 3.

Spark Plug Gaps.—Spark plug gaps are .023 inch.

Oiling.—Put several drops of light engine oil in the oil hole, exposed when distributor cap is removed, every two weeks. At the same time put a very small amount of vaseline on the cam, applying with a toothpick. If car is driven more than 500 miles in two weeks, these attentions must be given every 500 miles.

Starter.—Starter is connected to engine through a Bendix drive.

STARTER DATA, MODEL 305-E			
Torque	R. P. M.	Amperes	Volts
1 lb. ft.	2500	110-130	5.4-5.6
2 lb. ft.	1900	165-175	5.1-5.4
3 lb. ft.	1500	215-225	4.8-5.2
4 lb. ft.	1000	265-275	4.6-4.9
5 lb. ft.	650	325-335	4.3-4.5
9 lb. ft.	Lock	540-560	3.5-3.65

Oiling.—Put several drops of light engine oil in each of starter oilers every month.

Generator.—Generator current regulation is by third brush system. A thermostat located in the brush rigging of the generator, cuts in a resistance at a temperature of 175° F., reducing the maximum charging rate 6 amperes. Resistance also acts as a shunt field fuse. The thermostat is intended to change the charging rate as demand of seasons or car operation requires. Never touch the thermostat points.

GENERATOR DATA, MODEL 234-C			
Amperes	R. P. M.	Volts	
0	525	6.4	
7	780	7.1-7.2	
14	1100	7.8	
19.5-20.5	1680	8.6	
19.0-20	2000	8.6	
13.0-15	3000	8.0	

Above tests must be made without ignition, relay in circuit and thermostat contacts closed. Ampere output may be varied by moving third brush. Moving third brush in direction of armature rotation increases the output. Moving it in the opposite direction decreases the output. Pressure of main brushes on commutator is 17 to 20 ounces. Pressure of third brush on commutator is 13 to 17 ounces. Shunt field takes 5 amperes at 6.4 volts.

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

Relay.—Relay closes at 8-10 miles per hour, or 550-600 R. P. M., of armature. Charging current is 1-3 amperes at closing and the discharge current 0-1 ampere at opening of relay contacts. The air gap between relay armature (moving member) and coil core is .012 inch to .015 inch. Contacts separate .012 inch to .015 inch. Clean relay contacts by drawing a piece of unglazed paper between them. If badly burned or pitted, resurface with a strip of well worn No. 00 sand paper, and then draw a piece of unglazed paper between them to remove all grit. Adjust before again putting into service.

Lamps.—Head lamps are 6-8 volt, 15 cp. Dash lamp is 6-8 volt, 2 cp. Tail lamp is 6-8 volt, 2 cp.

