

HUDSON

SUPER-SIX (1927)

AUTO-LITE GENERATING, STARTING AND LIGHTING SYSTEM AUTO-LITE IGNITION

BATTERY:—Prest-O-Lite, Type 6-15-JFK, 6 volt. Starting capacity is 120 amperes for 20 minutes. Lighting capacity is 5 amperes for 20 hours. The negative (—) terminal is grounded.

IGNITION:—Coil Model CE-4001. Distributor Model IGA-4011. Breaker contacts are set to separate when new at .020-.024 inch; after 800 to 1000 miles operating contacts should be checked and set, if necessary, at .018-.020 inch. Resurface contacts with a fine, flat jeweler's file or on a medium hard oilstone.

Oiling:—Put 6 or 8 drops of light engine oil in the oiler on the side of distributor housing every two weeks or each 500 miles if the car is driven more than 500 miles in two weeks. Put one drop of oil in the breaker arm pivot pin every 250 miles. Place a small bit of vaseline on the face of the breaker under the fiber bumper every 5000 miles.

Timing:—Breaker contacts begin to separate when piston No. 1 on compression stroke reaches a position when the flywheel marking "A" is opposite the mark on the flywheel case. The manual advance lever must be in the fully advanced position.

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

Spark Plugs:—Spark plugs are Metric standard. Gaps are .025 inch.

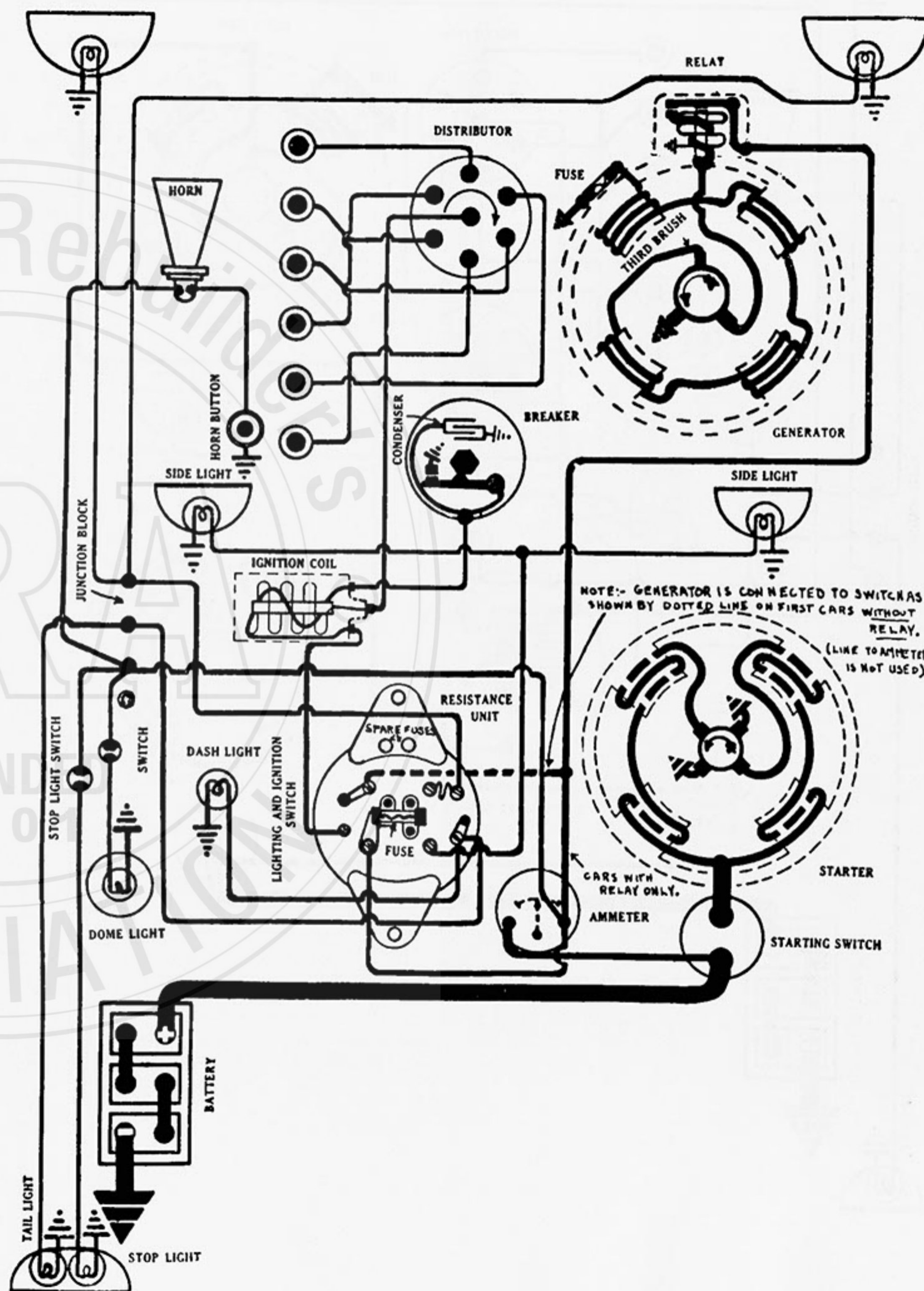
VALVE TIMING:—Specifications:—Head diameter, 1 15/16 inches. Stem diameter, 3/8 inch. Stem length, 6 7/8 inches. Spring pressure, 62 pounds. Tappet clearance, .003 inch (inlet), .005 inch (exhaust).

Timing:—Inlet valves open 7 degrees after top dead center and close 42 degrees after lower dead center. Exhaust valves open 55 degrees before lower dead center and close 8 degrees after top dead center.

STARTER:—Model MUA-4001 (R.H. Drive), Model MUA-4002 (L.H. Drive). Starter is connected to the engine through a sliding gear shift built in the starting switch. Pressing down on the starting pedal meshes the gears and closes the starting switch. When the pedal is released a spring reverses these operations. Starter brush tension should be 1 3/4-2 1/4 pounds each. Starter cranks the engine at 110 R.P.M. taking 250 amperes at 5.5 volts.

Starter Data Model MUA-4001			
Torque	R.P.M.	Volts	Amperes
0 lb. ft.	4200	6	50
2 "	1500	5.3	130
4 "	1000	5.0	200
6 "	600	4.6	275
8 "	450	4.2	340
12.7 "	Lock	3.6	480

Starter Data Model MUA-4002			
Torque	R.P.M.	Volts	Amperes
0 lb. ft.	4200	6	50
2 "	1500	5.3	130
4 "	1000	5.0	200
6 "	600	4.6	275
8 "	450	4.2	340
22 "	Lock	3.5	500



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Oiling:—Starter has oilless graphite-bronze bearings. They require no attention.

GENERATOR:—Model GAB-4001. The direction of rotation is counter-clockwise, looking at the commutator end. Generator current regulation is by the third brush system. To adjust charging rate, remove commutator cover band and shift the third brush mounting plate by tapping on the mounting lug with a screwdriver. Shift the third brush in counter-clockwise direction to increase the charging rate and in the opposite direction to decrease the charging rate. The mounting plate is held in any desired position by the friction between the mounting lug and the generator end plate. Maximum charging rate of 17.5 amperes is reached at 1300 R.P.M. of the generator.

Generator Data

Cold Test (72°F)			Hot Test (206°F)		
Amperes	Volts	R.P.M.	Amperes	Volts	R.P.M.
4.....	6.8.....	630	4.....	6.8.....	750
10.....	7.4.....	780	10.....	7.6.....	1000
14.....	7.8.....	950	13.....	8.0.....	1400
17.....	8.0.....	1300	11.....	7.8.....	2000
13.....	7.8.....	1950			

Motoring freely at 355-390 R.P.M. generator draws 4.7-5.2 amperes at 6 volts.

Shunt field current is 6.1-6.8 amperes at 6 volts. Tested separately each coil draws 24.4-27.2 amperes at 6 volts. Generator brush tension should be 1.0-1.5 pounds. Generator GAB 4008 has a 7½ ampere field fuse mounted on top of generator just forward of commutator end head. It also carries a circuit breaker mounted on top of the generator just forward of the field fuse. (Further data on relay is given under RELAY.)

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:—On generator GAB 4001 no relay is used. The generator is connected to the battery through the ignition switch. With engine stopped and ignition switch on battery discharges through generator windings.

On generator GAB 4008 relay model CB-4014 is used. Relay closes at 545-620 generator R.P.M. at 7.9 volts. Charging current at closing of contacts not over 5 amperes. Contacts separate .025-.035 inch. Air gap is .010-.030 inch with points closed.

LIGHTING:—Clum Switch Model 10643. Auto-Lite No. XA-319. Head and stop lamps are each 6-8 volt, 21 cp. S. C. Side, dash and tail lamps are each 6-8 volt, 3 cp. S. C.

FUSES:—Lighting fuse mounted on switch is 20 amperes.

