

JORDAN

MODEL J (1927)

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

BATTERY:—Willard, Type CWR-15, 6 volt. Starting capacity is 114 amperes for 20 minutes. Lighting capacity is 5 amperes for 20 hours. The negative (—) terminal is grounded. Battery is mounted under the driver's seat.

IGNITION:—Coil Model IG-4078. Distributor Model IB-4004A. Breaker contacts separate .018-.022 inch. They are made of tungsten. Resurface contacts with a fine flat jeweler's file or on a medium hard oilstone. Ignition current is 1.3 amperes with engine running and 3-4.5 amperes with engine stopped. Distributor is semi-automatic. Manual advance is 14°. Automatic advance begins at 200 R.P.M. and reaches a maximum of 14° at 2800 R.P.M.

Mounting:—Ignition coil is mounted in the frame, right hand side rail adjacent to generator. Distributor is mounted on generator at rear end and driven by armature shaft. To remove distributor, disconnect primary lead and remove distributor head with high tension cables intact. Then remove screw from manual advance arm and lift distributor from place.

Oiling:—Fill the oiler on the side of the distributor housing with light engine oil every month or each 1000 miles. At the same time put one drop of oil on the breaker arm pivot pin and put a small bit of heavy grease on the face of the breaker cam.

Timing:—Breaker contacts begin to separate when the piston entering power stroke reaches a position 1½ inches (on the flywheel) before top dead center with the manual spark control lever in the fully advanced position. To set timing, crank engine until piston No. 1 enters compression stroke (the upstroke with both valves closed). Fully advance spark control lever and continue to crank engine until the mark 'IGN' on the flywheel is opposite the pointer in the flywheel case. This mark is 1½ inches before the top dead center mark 'D.C.'. If breaker contacts do not separate at this point, loosen advance lever clamp screw and rotate distributor housing until contacts begin to separate. This can be checked by connecting a six volt lamp in ignition circuit or by watching dash ammeter. Tighten the clamp screw after making the adjustment and see that the rotor is opposite the segment connected to the spark plug in cylinder No. 1.

Valve Timing:—INLET VALVES:—Head diameter, 1½ inches; stem diameter, .3095-.3085 inch; valve length, 5 61/64 inches (from top of seat to end); valve lift, 5/16 inch; spring pressure, 61 pounds on the outer spring and 26 pounds on the inner or a total of 87 pounds; tappet clearance, .006-.004 inch (hot); inlet valves open 8° past top dead center and close 40° past lower dead center.

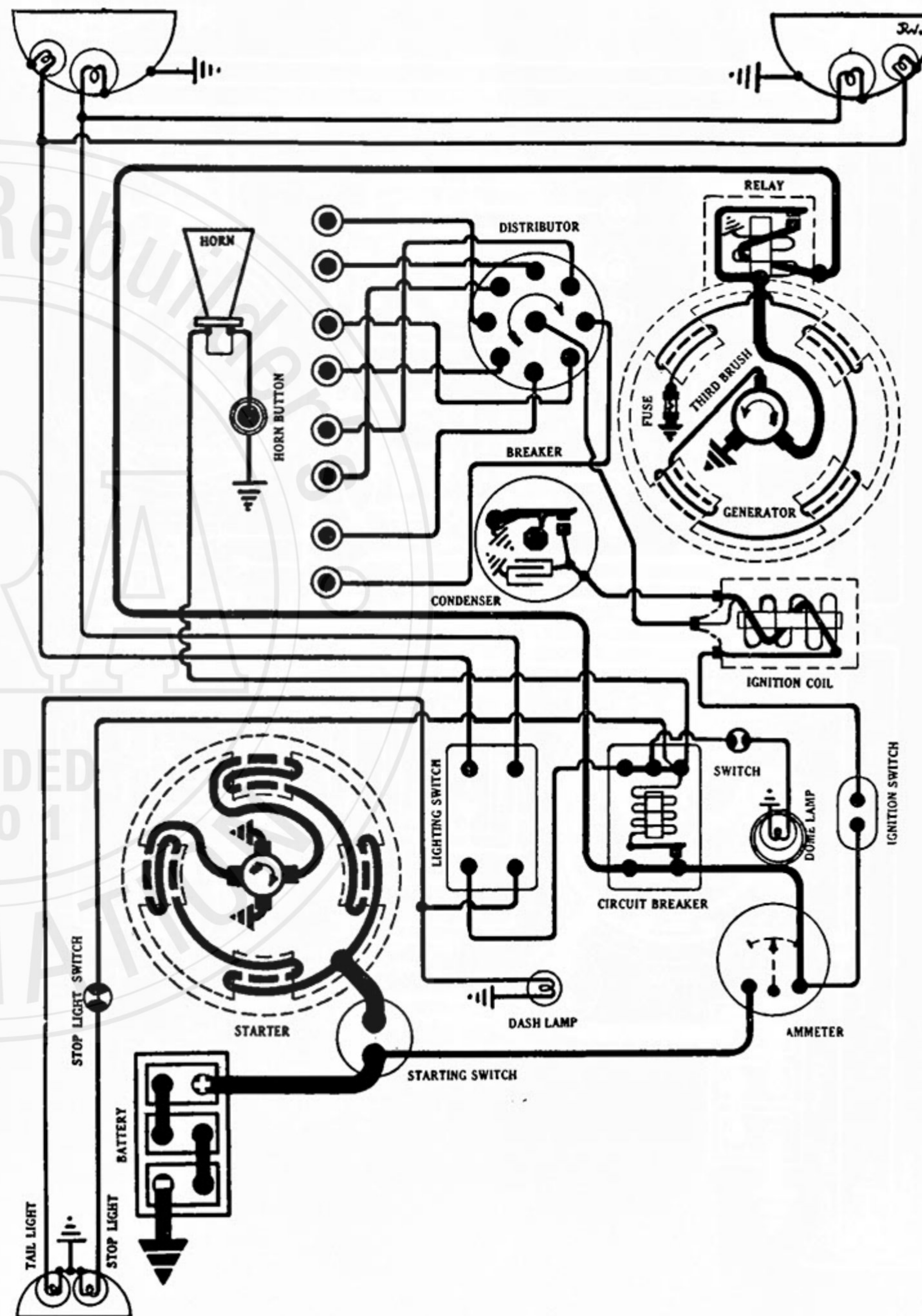
EXHAUST VALVES:—Head diameter, 1⅜ inches; stem diameter, .3095-.3085 inch; valve length, 5 61/64 inches (from top of seat to end); valve lift 5/16 inch; spring pressure, 61 pounds on the outer spring and 26 pounds on the inner or a total of 87 pounds; tappet clearance, .006-.004 inch (hot); exhaust valves open 40° before lower dead center and close 8° after top dead center. This point is marked on the flywheel by the mark '#1-EX.CL'. Valve stem guides are removable. Oversize valve stems are made on order.

Firing Order:—The firing order is 1-6-2-5-8-3-7-4.

Spark Plugs:—Spark plugs are Champion No. 4. Gaps are .030-.025 inch.

STARTER:—Model MUA-4003. Starter is connected to the engine through a Bendix drive. The direction of rotation is clockwise, looking at the commutator end. Starter switch is Model SW-3646. Brush spring tension is 1½ pounds each.

Starter Data			
Torque	R.P.M.	Volts	Amperes
0 lb. ft.	2000	6	60
22	Lock	3.5	500



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Oiling:—Starter bearings are oilless. They require no attention.

GENERATOR:—Model GAB-4002. The direction of rotation is counter-clockwise, looking at the commutator end. Generator current regulation is by third brush shunt field. To adjust generator output, remove the commutator cover band and shift the third brush and mounting plate by tapping on the mounting stud with a screwdriver. Shift the third brush in a counter-clockwise direction to increase the charging rate and in the opposite direction to decrease the charging rate. Maximum charging rate is 17.5 amperes reached at 1300 R.P.M. or 25 M.P.H.

Generator Data					
Cold Test			Hot Test		
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			

Generator motoring draws 6 amperes at 6 volts. Shunt field current is 6.6 am-

peres at 6 volts. Brush spring tension is $1\frac{1}{2}$ - $1\frac{3}{4}$ pounds each.

Mounting:—Generator is flange mounted on right of engine on rear face of timing chain case. To remove generator, disconnect generator lead and remove three nuts from flange mounting screws. Then slide generator to the rear. This does not change timing chain adjustment.

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

RELAY:—Model CB-4012. Relay is mounted on top of the generator. Relay closes at 600-650 R.P.M. when voltage of the generator reaches 6.5-7.5 volts, and opens with a discharge current of 1-3 amperes. Charging current at closing of contacts must not be over 2 amperes. Contacts separate .025-.035 inch. Air gap between relay armature and coil core is .010-.030 inch, contacts closed.

LIGHTING:—Kellogg Switch Model 404. Head and stop lamps are each 6-8 volt, 21 cp. S.C. Auxiliary head lamps are 6-8 volt, 6 cp. S.C. Dome lamp is 6-8 volt, 4 cp. S.C. Dash and tail lamps are each 6-8 volt, 2 cp. S.C.

CIRCUIT BREAKER:—A vibrating circuit breaker protects the lighting circuits. The ignition current does not pass through the circuit breaker.

FUSES:—Generator field fuse is 7.5 amperes.

