

JORDAN

MODEL JE (1928) SERIAL NUMBERS 125001 UP AUTO-LITE GENERATING, STARTING SYSTEM AUTO-LITE IGNITION

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

IGNITION:—Coil Model IG-4078. Coil is mounted on the right frame member at the right of the engine. Ignition current is 1.2 amperes at 6.2 volts with engine running at 2200 R.P.M. and 4.8 amperes (cold) or 4.4 amperes (hot) at 6.2 volts with engine stopped.

Distributor Model IGD-4001:—Breaker contacts separate .018-.020 inch. To adjust contact gap, loosen lock screw and turn contact screw with a screwdriver. Resurface contacts with a fine flat contact file or on a medium hard oilstone. Breaker arm spring tension is 18-20 ounces at the contact points. Distributor is semi-automatic. Maximum manual advance is 25 degrees of distributor. Automatic advance begins at 500 R.P.M. of engine. Maximum automatic advance is 20 degrees (engine) reached at 3400 R.P.M.

Mounting:—Distributor is mounted on rear of generator at right of engine. To remove distributor, disconnect manual advance rod and primary lead and remove distributor head with cables intact. Remove clamp screw from manual advance arm and lift distributor from place.

Oiling:—Put 8 or 10 drops of light oil in the oiler on the side of the distributor housing every 1000 miles. Put 5 drops of oil on the breaker arm pin every 500 miles. Every 3000 miles put a small amount of vaseline on the face of the breaker cam.

Timing:—Breaker contacts begin to separate when the piston entering power stroke reaches a position $1\frac{1}{2}$ inches (on the flywheel) before top dead center with the manual advance lever fully advanced. To set timing, crank engine until piston No. 1 enters compression stroke (this is the upstroke with both valves closed). Then fully advance spark lever and remove inspection hole cover on flywheel case. Continue to crank engine until flywheel mark 'IGN' is opposite indicator on flywheel case. This mark is $1\frac{1}{2}$ inches before the top dead center position. Then loosen advance arm clamp screw and rotate distributor until contacts begin to separate. Tighten the clamp screw. Connect the segment opposite the rotor to the spark plug in cylinder No. 1 and connect the remaining plugs in order 6-2-5-8-3-7-4 clockwise around the distributor head.

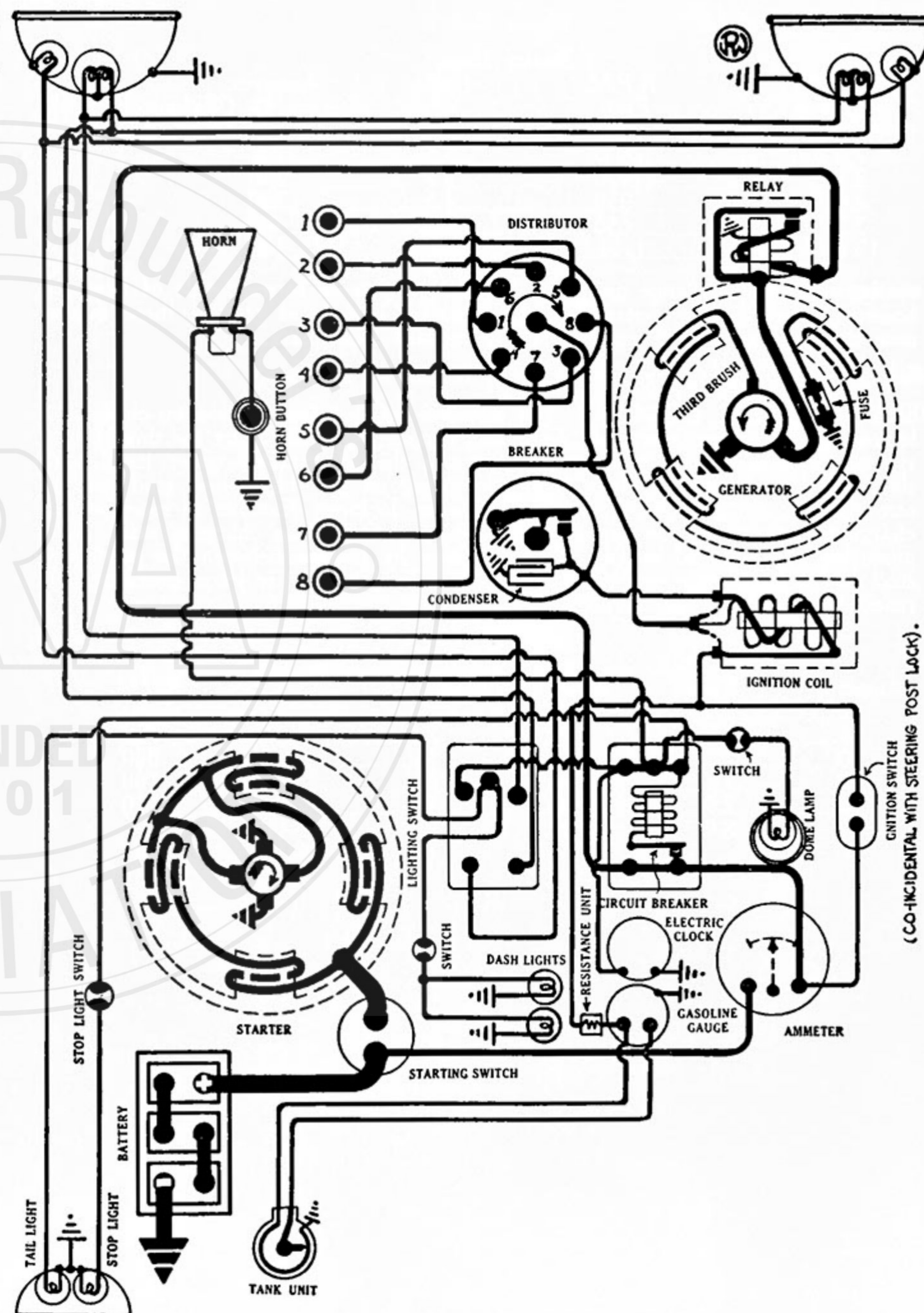
Firing Order:—The firing order is 1-6-2-5-8-3-7-4.

Spark Plugs:—Spark plugs are $\frac{7}{8}$ -18 S.A.E. Standard. Gaps are .025 inch.

VALVE TIMING:—Specifications:—Head diameter, $1\frac{1}{2}$ inches (inlet valves), $1\frac{3}{8}$ inches (exhaust valves); stem diameter, .3095-.3085 inch; length, $5\frac{61}{64}$ inches (from top of head to end). Valve lift, $\frac{5}{16}$ inch. Tappet clearance, .006-.004 inch (hot). Spring pressure, 61 pounds outer spring and 26 pounds inner spring or 87 pounds total. Valve stem guides are removable. Oversize valve stems are made.

Timing:—Inlet valves open 8 degrees past top dead center and close 40 degrees past lower dead center. Exhaust valves open 40 degrees before lower dead center and close 8 degrees past top dead center. Inlet opening and exhaust closing point is indicated by mark '#1-EX.CL'.

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 $1\frac{1}{2}$ pounds each.



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Starter Data

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

Mounting:—Starter is flange mounted at left of engine on forward side of flywheel case. To remove starter, disconnect cable and remove 3 flange mounting cap screws. Then slide starter forward and lift from place.

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

GENERATOR:—Model GAG-4105. 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 commutator cover band and shift third brush by tapping on mounting stud with a screwdriver. Shift third brush in a counter-clockwise direction to increase the charging rate and in the opposite direction to decrease the charging rate. The brush is held in any position by friction between the mounting stud and the end plate. The maximum charging rate is 18 amperes at 8 volts reached at 1400 R.P.M. or 23-24 miles per hour.

Generator Data

Amperes	Volts	R.P.M.
0	6.4	475
4	6.75	575
8	7.1	700
12	7.45	850
16	7.8	1050
18	8.0	1300

Motoring geenrator draws 5 amperes at 6 volts. Shunt field current is 4.5 amperes at 6 volts. Brush spring tension is 22-28 ounces.

Mounting:—Generator is flange mounted at right of engine on rear of timing chain case. To remove generator, disconnect all ignition wiring or remove distributor. Then disconnect generator lead and remove three nuts from flange mounting bolts. Slide generator to rear and lift from place. Be careful not to disturb timing chain.

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

RELAY:—Model CB-4012. Relay is mounted on the generator. Relay closes at 7-8 M.P.H. at 550 R.P.M. of armature when generator voltage reaches 6.5-7 volts and opens with a discharge current of $\frac{1}{2}$ -2 $\frac{1}{2}$ amperes. Charging current at closing of contacts must not exceed 3 amperes. Relay contacts separate .030 inch. Air gap is .010-.030 inch with contacts closed.

LIGHTING:—Kellogg Switch Model 418. Switch is mounted on the steering column. Head lights are 6-8 volt, 21-21 cp. (double filament-double contact base using second 21 cp. filament instead of dimming) Mazda No. 1110. Stop light is 6-8 volt, 15 cp. S.C. Mazda No. 87. Dome light is 6-8 volt, 6 cp. S.C. Mazda No. 81. Auxiliary head lights (in head lamps) are 6-8 volt, 3 cp. S.C. Mazda No. 63. Dash and tail lights are each 6-8 volt, 3 cp. S.C. Mazda No. 63.

FUSES:—Generator field fuse is 7.5 amperes capacity.

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