

JORDAN

MODEL G EIGHT CYLINDER (1929) SERIAL NUMBERS 130,001 UP

AUTO-LITE GENERATING, STARTING SYSTEM AUTO-LITE IGNITION

BATTERY:—Willard, Type WSB-15, 6 volt. 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 on the left frame member under the front seat.

IGNITION:—Coil Model IG-4078. (Two used.) Ignition coils are mounted at the right of the engine. Ignition current is 3 amperes at 6 volts with engine running and 9 amperes at 6 volts with engine stopped.

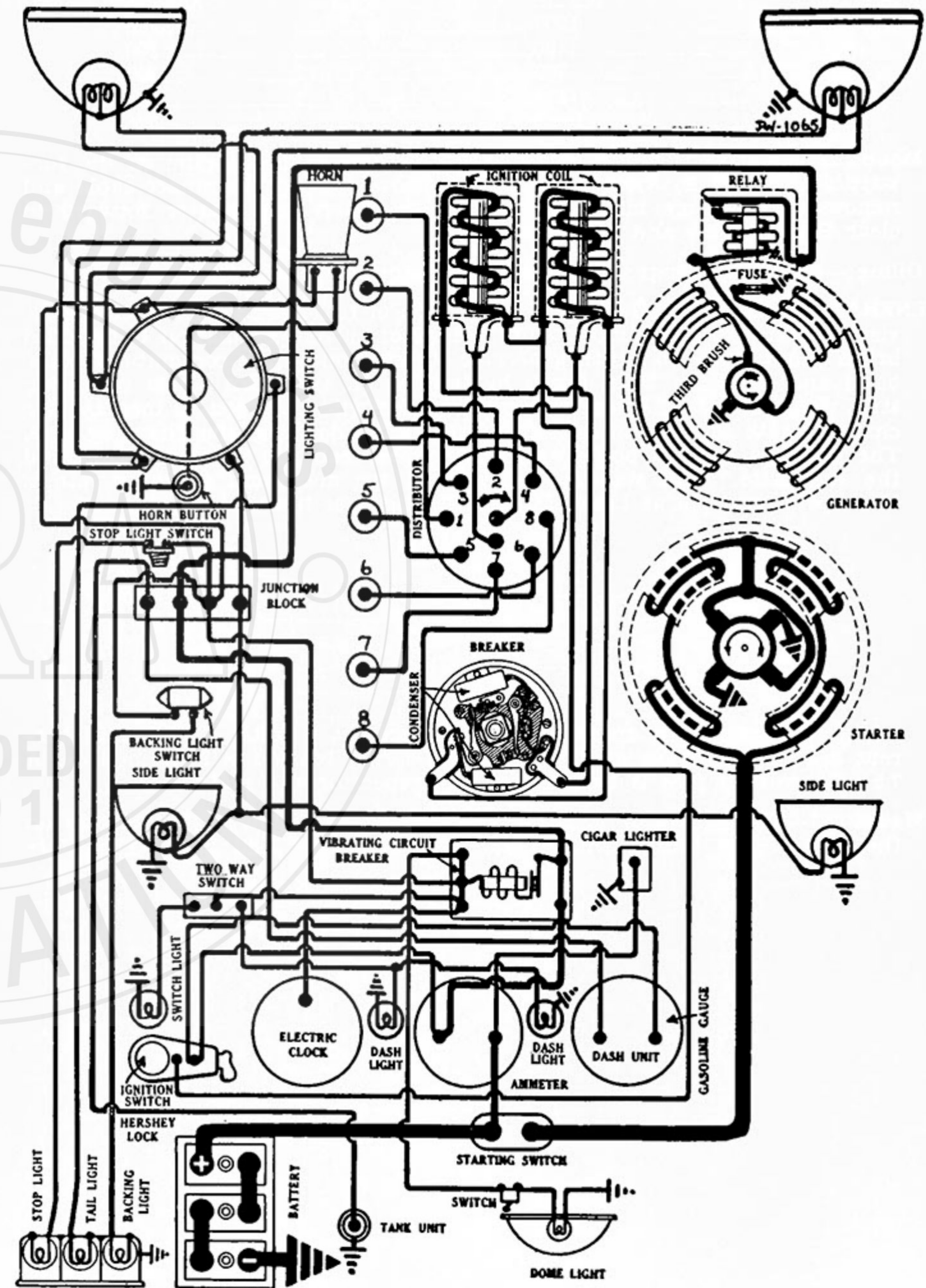
Distributor Model IGJ-4001-A. Breaker contacts separate .024 inch with breaker arm on lobe of cam. Set contact gap of breaker mounted on movable plate by loosening lock nut on stationary contact mounting stud and turning up stud until correct gap is secured with breaker arm on lobe of cam. The other set of contacts are set by loosening the lock screw and turning the eccentric adjusting screw directly behind the breaker arm. Breaker arm spring tension is 16-20 ounces. There are two sets of contacts operating on a four sided cam. Contacts open alternately at intervals of 45 degrees corresponding with 90 degrees of crankshaft rotation, which is the correct firing interval. Contacts must be synchronized for correct performance. See Timing. Distributor is semi-automatic. Maximum manual advance is 15 degrees (engine). Maximum automatic advance is 24 degrees (engine).

Mounting:—Distributor is mounted on the rear of the generator at the right of the engine. To remove distributor, disconnect manual advance rod and primary leads and remove distributor head with cables intact. Then take out hold-down screw in advance arm and lift distributor from place.

Oiling:—Put 8 or 10 drops of light engine oil in the oiler on the side of the distributor every month or each 1000 miles. Every 1000 miles remove the distributor head and rotor and put a small bit of vaseline on the face of the breaker cam.

Timing:—Timing Distributor to Engine. There are two sets of contacts. Each set of contacts controls one coil and fires four spark plugs. The electrical circuit of each coil is entirely independent. One set of breaker contacts (set mounted on stationary base plate) open when piston No. 1 entering power stroke reaches a position 10 degrees before top dead center when the flywheel mark 'IGN' will be directly opposite the indicator in the inspection hole in the right side of the flywheel case. The manual spark control must be in the fully advanced position with the distributor rotated counter-clockwise as far as possible. To set timing, crank engine over until piston No. 1 reaches firing position. Fully advance spark lever. Then loosen advance arm clamp screw and rotate distributor in a counter-clockwise direction until the contacts begin to open. Tighten the clamp screw. Connect the segment in the distributor head directly opposite the rotor contact which is connected to the center terminal in the distributor head to the spark plug in cylinder No. 1. The remaining spark plugs should be connected in order 3-2-4-8-6-7-5 clockwise around the distributor head (see diagram). The second set of contacts must be synchronized after the distributor has been timed to the engine.

Synchronization of Contacts:—Crank the engine over exactly 90 degrees from firing position of piston No. 1 (after distributor has been timed) when piston No. 6 will reach a position 10 degrees before top dead center with the flywheel mark 'IGN' directly opposite the indicator in the inspection hole. If the second set of contacts are not separating, loosen the two lock screws on the breaker plate and turn the eccentric adjusting screw until the contacts open. Tighten the lock screws. Test lamps should be connected in



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each primary circuit to determine when contacts open. It is impossible to determine this point with sufficient accuracy by other means.

Firing Order:—The firing order is 1-6-2-5-8-3-7-4. Spark plugs are connected 1-3-2-4-8-6-7-5 clockwise around the distributor head.

Spark Plugs:—Spark plugs are 18MM. Metric. Gaps are .030 inch.

VALVE TIMING:—**INLET VALVES:**—Head diameter, 1½ inches. Stem diameter, .3095-.3085 inch. Valve lift, .312-.316 inch. Spring pressure, 102-106 pounds. Tappet clearance, .007 inch (hot). Inlet valves open 8 degrees after top dead center and close 40 degrees after lower dead center.

EXHAUST VALVES:—Head diameter, 1¾ inches. Stem diameter, .3095-.3085 inch. Valve lift, .312-.316 inch. Spring pressure, 100-106 pounds. Tappet clearance, .008 inch (hot). Exhaust valves open 40 degrees before lower dead center and close 8 degrees after top dead center.

STARTER:—Model MUA-4007. Starter is connected to the engine through a Bendix drive. The direction of rotation is clockwise, viewed from the commutator end. Brush spring tension is 1½ pounds.

Starter Data			
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	3.6	480

Mounting:—Starter is flange mounted at left of engine on forward side of the rear motor support. To remove starter, disconnect cable and remove flange mounting cap screws. Then pull starter forward to clear Bendix drive and lift from place.

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

GENERATOR:—Model GAG-4109. The direction of rotation is counter-clockwise, viewed from 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 by tapping on the third brush mounting stud with a screw driver. Shift the third brush in a counter-clockwise direction to increase the charging rate and in the opposite direction to decrease the charging rate. The third brush is held in position by friction between the mounting stud and the end plate. With standard car setting, the maximum charging rate is 18 amperes 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, generator draws 4.75-5.25 amperes at 6 volts. Shunt field current is 3.9-4.4 amperes at 6 volts. Brush spring tension is 24-32 ounces. A 7.5 ampere field fuse is connected in the field circuit. The fuse is mounted on the generator end plate.

Mounting:—Generator is mounted at right of engine on rear of timing chain case. To remove generator, disconnect all ignition wiring or remove distributor. Then remove inspection cover on front of chain case and take off nut on end of generator shaft. Then loosen chain adjustment set screw and take out flange mounting cap screws. Pull the generator to the rear and lift from place. Tie up the timing chain and do not attempt to crank engine with generator out.

Timing Chain Adjustment:—To adjust tension of timing chain, loosen the flange mounting cap screws and turn up the adjusting set screw until the chain begins to hum with the engine running. Then back off the set screw until the chain runs noiselessly and tighten the mounting screws.

Oiling:—Put 4 or 5 drops of light engine oil in the generator bearing oiler every month or each 1000 miles.

RELAY:—Model CB-4012. Relay is mounted on the generator. Relay contacts close at 7-8 M.P.H. or 550 R.P.M. of the generator armature when the voltage reaches 6.75 volts and open with a discharge current of ½-2½ amperes. Charging current at closing of contacts is approximately 3 amperes. Relay contacts open .030 inch. Air gap is .010-.030 inch with contacts closed.

LIGHTING:—Soreng Manegold Switch. Lighting switch is mounted at the lower end of the steering column. Double filament headlights are standard equipment. These headlights use a second 21 cp. filament instead of dimmers. Headlights are 6-8 volt, 21-21 cp. D.C. Mazda 1110. Side (cowl) lights are 6-8 volt, 3 cp. S.C. Mazda 63. Stop light is 6-8 volt, 15 cp. S.C. Mazda 87. Dash lights (ignition switch and instrument board lights) and tail light are each 6-8 volt, 3 cp. S.C. Mazda 63.

FUSES:—Generator field fuse is 7.5 ampere capacity.

CIRCUIT BREAKER:—A vibrating circuit breaker mounted on the dash is connected in the lighting circuits. Circuit breaker begins to vibrate when the current reaches 25-30 amperes and continues limiting the current to 15 amperes.