

JORDAN

MODEL E SIX CYLINDER (1929) SERIAL NUMBERS 95,001 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 under the front seat on the right frame member.

IGNITION:—Coil Model IG-4066. Coil is mounted on the generator at the right of the engine. Ignition current is 1.5 amperes at 6 volts with engine running and 4.5 amperes at 6 volts with engine stopped.

Distributor Model IGB-4006. Breaker contacts separate .020-.024 inch. Set contact gap by loosening lock screw on stationary contact mounting bracket and turning up contact stud until the correct gap is secured with the breaker arm on the lobe of the cam. Resurface contacts when necessary with a fine flat contact file or on a medium hard oilstone. Breaker arm spring tension is 16-20 ounces. Distributor is semi-automatic. Maximum manual advance is 28 degrees (engine). Automatic advance begins at 400 R.P.M. (engine). Maximum automatic advance is 30 degrees reached at 2800 R.P.M.

Mounting:—Distributor is mounted on the rear of the generator at the right of the engine. To remove distributor, disconnect primary lead and manual advance rod and remove distributor head with cables intact. Then remove 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 shaft every month or each 1000 miles. Every 1000 miles put a small bit of vaseline on the face of the breaker cam.

Timing:—Breaker contacts begin to separate when the piston entering power stroke reaches a position 10 degrees on the flywheel before top dead center with the manual spark control fully advanced. To set timing, crank engine over until piston No. 1 enters compression stroke (the up stroke with both valves closed). Fully advance the spark and remove the cover over the inspection hole in the upper flywheel case on the right side. Continue to crank engine until piston No. 1 reaches a position 10 degrees before top dead center when the flywheel mark 'IGN' will be directly opposite the pointer in the inspection hole. Then loosen advance arm clamp screw and rotate distributor until contacts begin to open. Tighten the clamp screw and connect the segment opposite the rotor to the spark plug in cylinder No. 1. Connect the remaining spark plugs in order 5-3-6-2-4 clockwise around the distributor head.

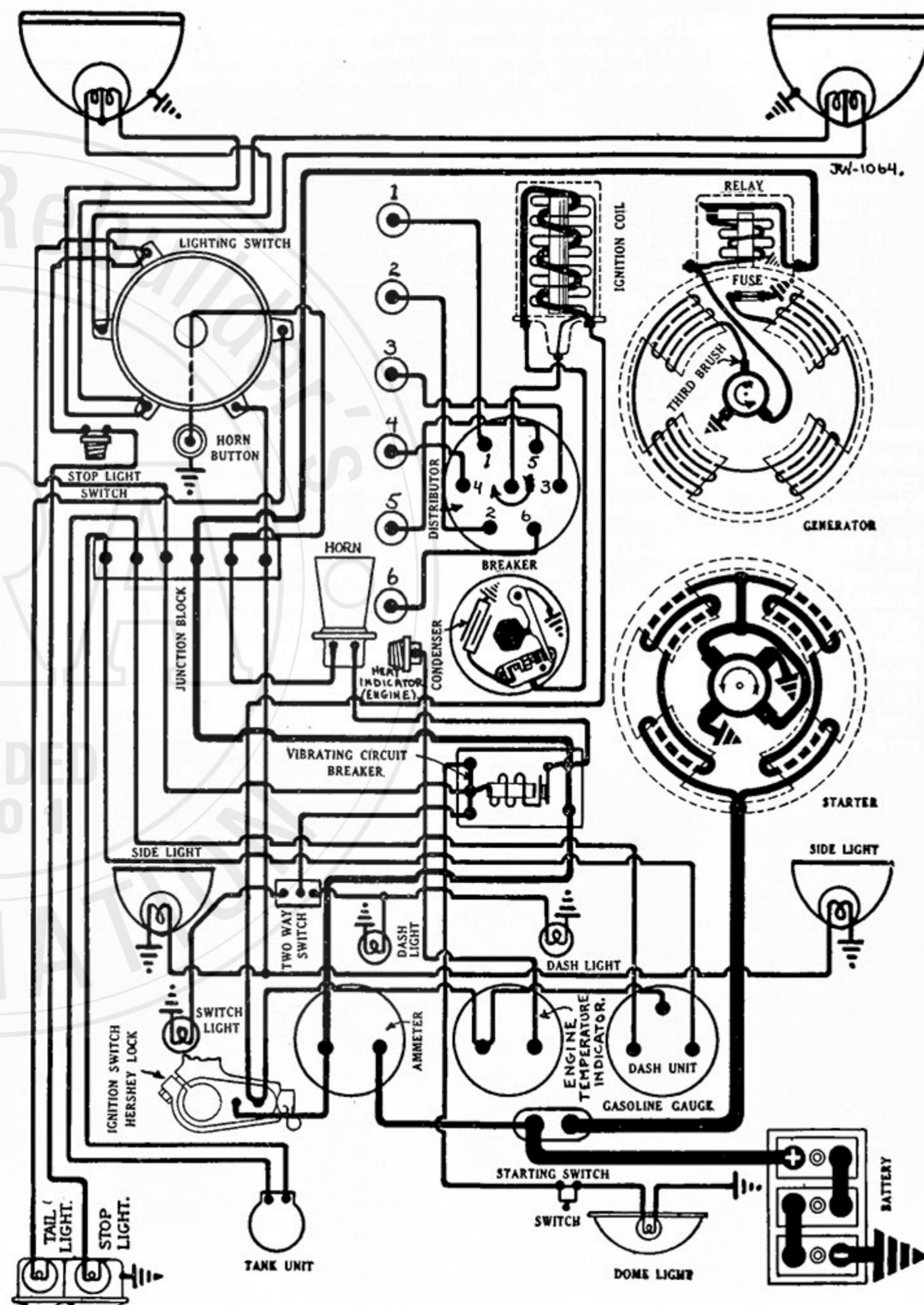
Firing Order:—The firing order is 1-5-3-6-2-4.

Spark Plugs:—Spark plugs are 18MM. Metric. Gaps are .025 inch.

VALVE TIMING:—Specifications:—Head diameter, 1 $\frac{3}{8}$ inches. Stem diameter, .370-.371 inch. Valve lift, .3125 inch. Spring pressure, 98-108 pounds. Tappet clearance, .007 inch (inlet) and .008 inch (exhaust) hot. Valves with over-size stems are made.

Timing:—Inlet valves open 5 degrees after top dead center and close 45 degrees after lower dead center. Exhaust valves open 40 degrees before lower dead center and close 8 degrees after top dead center.

STARTER:—Model MAB-4104. Starter is connected to the engine through a Bendix drive. The direction of rotation is counter-clockwise, viewed from the commutator end. Starter brush spring tension is 1 $\frac{3}{4}$ -2 $\frac{1}{4}$ pounds.



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Starter Data			
Torque	R.P.M.	Volts	Amperes
.6 lb. ft.	1900		100
3.5 "	1100		200
6.6 "	700		300
10.2 "	410		400
24 "	Lock		725

Mounting:—Starter is flange mounted at the right of the engine on the forward side of the flywheel housing. To remove starter, disconnect cable and remove three 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-4114. 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. 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 brush is held in position by friction between the mounting stud and the end plate. With standard car setting, the maximum charging rate is 17 amperes reached at 1350 R.P.M. or 23 miles per hour.

Generator Data		
Amperes	Volts	R.P.M.
2	6.6	525
6	6.9	625
10	7.3	735
14	7.65	900
17	8.0	1350
12	7.45	2125

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 mounted on the generator end plate.

Mounting:—The generator is flange mounted at the right of the engine on the rear of the timing chain case. The distributor and ignition coil are

mounted on the generator. To remove the generator, disconnect all ignition wiring or remove distributor and coil. Then disconnect generator lead and remove chain inspection cover in chain case cover directly over the generator sprocket. Remove the nut holding the generator sprocket on the armature shaft. Take out flange mounting cap screws and pull generator to the rear, leaving the sprocket in the engine. Tie up the chain to prevent slipping on camshaft sprocket and do not attempt to crank the engine with the generator out.

Adjustment of Timing Chain:—Timing chain is adjusted by shifting generator. To take up timing chain, loosen the flange mounting screws and pry the generator away from the engine until the chain begins to hum with the engine running. Then back generator off until chain runs noiselessly and tighten mounting screws. With proper adjustment there should be approximately 1/2 inch up and down play in the chain between the sprockets.

Oiling:—Put 4 or 5 drops of light engine oil in the oiler on the commutator end of the generator every month or each 1000 miles. The drive end bearing is oiled from the chain case.

RELAY:—Model CB-4012. Relay is mounted on the generator. Relay closes at 620-690 R.P.M. when the generator voltage reaches 7-7.5 volts and opens with a discharge current of 0-2.5 amperes. Charging current at closing of contacts is approximately 2 amperes. Relay contacts separate .025-.035 inch. Air gap is .010-.030 inch with contacts closed.

LIGHTING:—Soreng Manegold Switch. Lighting switch is mounted at lower end of steering column. Headlights are equipped with double filament bulbs using the 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 and tail lights are each 6-8 volt, 3 cp. S.C. Mazda 63.

CIRCUIT BREAKER:—A vibrating is mounted on the dash. It is connected in the lighting circuits to protect them against overload. The circuit breaker begins to vibrate at 25-30 amperes and continues limiting the current to 15 amperes.

FUSES:—Generator field fuse is 7.5 ampere capacity.