

JORDAN

MODEL AA (1927)

AMERICAN BOSCH GENERATING, STARTING AND LIGHTING SYSTEM AMERICAN BOSCH IGNITION

BATTERY:—Willard, CRR-17, 6 volt. Starting capacity is 130 amperes for 20 minutes. Lighting capacity is 5 amperes for 23 hours. The negative (—) terminal is grounded. Battery is mounted under the driver's seat.

IGNITION:—Coil Model TC-30. Distributor Model T-8202. Breaker contacts separate .014-.016 inch. They are made of tungsten. Resurface contacts on a medium hard oilstone or with a fine flat contact file. Ignition current is 1.3 amperes with engine running and 3-4.5 amperes with engine stopped. Distributor is semi-automatic. Manual advance is 15°. Automatic advance begins at 200 R.P.M. and reaches a maximum of 15° at 2800 R.P.M. Breaker arm spring tension is 18-20 ounces.

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. Put one drop of oil on the breaker arm pivot pin and place a small bit of heavy grease on the face of the breaker cam every month.

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 'DC'. 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.

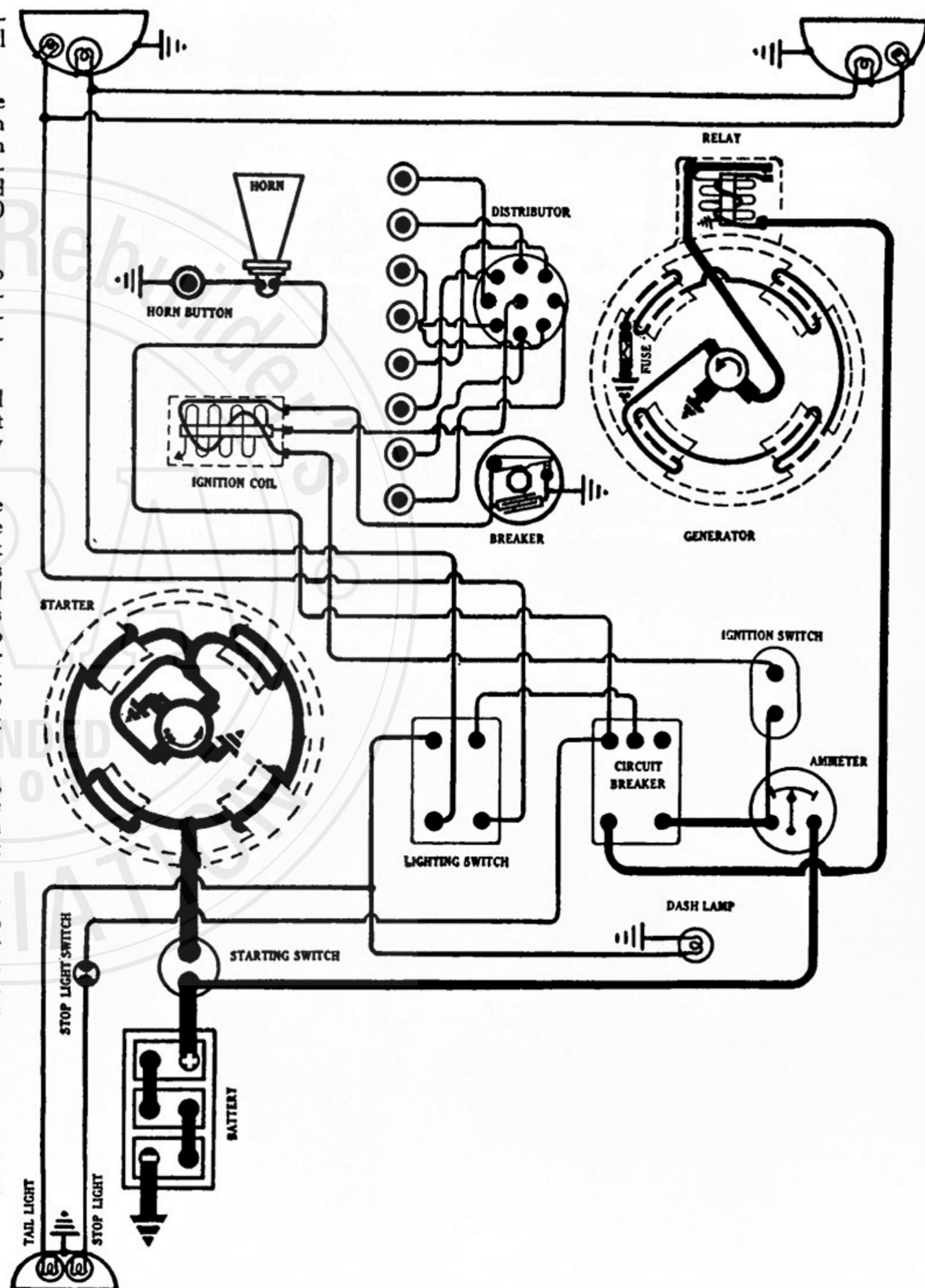
Valve Timing:—INLET VALVES:—Head diameter, 1⅝ inches; stem diameter, .3715-.3705 inch; valve length, 6 1/32 inches (from top of seat to end); valve lift, 5/16 inch; spring pressure, 60 pounds on the outer spring and 20 pounds on the inner or a total of 80 pounds; tappet clearance, .006-.004 inch (hot); inlet valves open 12° past top dead center and close 40° after lower dead center.

EXHAUST VALVES:—Head diameter, 1½ inches; stem diameter, .3715-.3705 inch; valve length, 6 1/32 inches (from top of seat to end); valve lift, 5/16 inch; spring pressure, 60 pounds on the outer spring and 20 pounds on the inner or a total of 80 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 7/8 inch. Gaps are .025 inch.

STARTER:—Model 937. Starter is connected to the engine through a Bendix drive. The direction of rotation is counter-clockwise, looking at the commutator end. Starter switch is Model S-203. Brush spring tension is 1½ pounds each. Starter cranks the engine at 93 R.P.M.



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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 housing. To remove starter, disconnect starter cable and remove three flange mounting bolts. Then slide starter forward from place.

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

GENERATOR:—Model 1261. 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 the hexagonal headed screw holding the third brush mounting plate. Then shift the third brush in a counter-clockwise direction to increase the charging rate and in the opposite direction to decrease the charging rate. Tighten the screw after making the adjustment. The maximum charging rate is 16-18 amperes reached at 1300 R.P.M. of the generator armature or 23 M.P.H.

Generator Data					
Cold Test			Hot Test		
Amperes	Volts	R.P.M.	Amperes	Volts	R.P.M.
0	6.75	550	0	6.5	625
7	7.0	700	2.5	6.5	700
12	7.6	850	8	7.5	900
17	8.0	1300	13	8.0	1300
12.6	8.0	2000	11	8.0	2000
9.5	7.6	2800	9	7.0	2800

Motoring freely, generator draws 6 amperes at 6 volts. Shunt field current is 6.1-6.8 amperes at 6 volts. Brush spring tension is 1½ pounds.

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

RELAY:—Relay is mounted on top of the generator. Relay closes at 500-600 R.P.M. when the generator voltage reaches 6.5-7.5 volts and opens with a discharge current of 0.3 amperes at 400-500 R.P.M. Charging current at closing of contacts must not exceed 3 amperes. Relay contacts separate .015 inch. Air gap between relay armature and coil core is .010 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. Dash and tail lamps are each 6-8 volt, 2 cp. S.C.

CIRCUIT BREAKER:—A vibrating circuit breaker is mounted on the back of the switch. It protects the lighting and horn circuits. Ignition current does not pass through the circuit breaker.

FUSES:—Generator field fuse is 7.5 amperes.

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