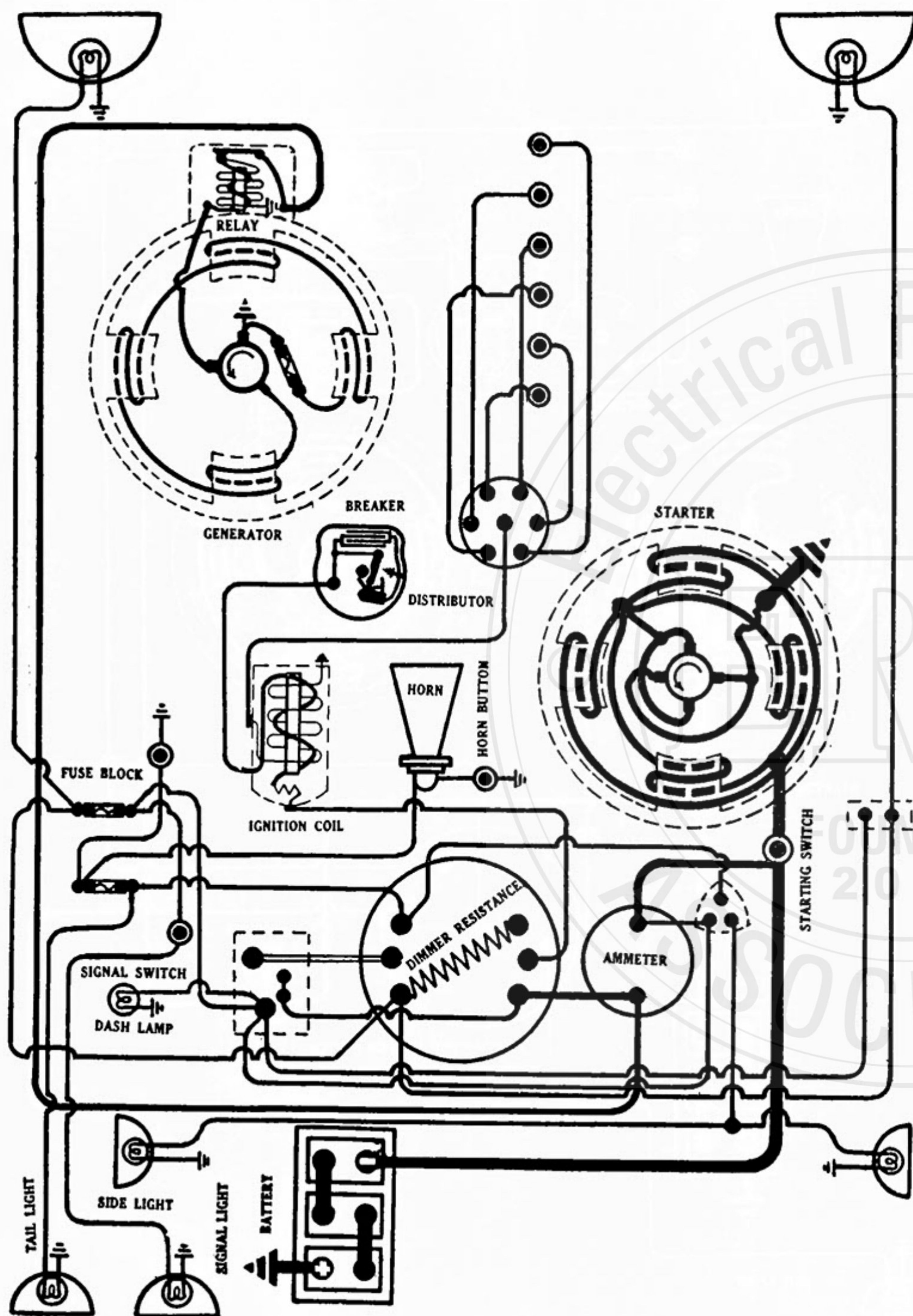




GRANT

SERIES 65000 (1922)

BLJUR GENERATING, STARTING AND LIGHTING SYSTEM ATWATER-KENT IGNITION

BATTERY.—Prest-O-Lite, Type 613-RHN, 6 volts, 105 ampere-hours. The starting capacity is 120 amperes for 20 minutes. The lighting capacity is 5 amperes for 20 hours. The positive (+) terminal is grounded.

IGNITION.—Coil Model N3. Distributor Model 46-CC. Breaker contacts separate .015 inch, fully separated. The contact points are made of tungsten. If the condition of the contact points affects the ignition, remove and resurface on a medium hard oil-stone.

Oiling.—Remove distributor cap every two weeks and put 4 or 5 drops of light engine oil into exposed oil hole. Put a small amount of vaseline on the cam, applying with a tooth-pick. If car is driven more than 500 miles in two weeks, these attentions must be given every 500 miles.

Timing.—Breaker contacts begin to separate when piston entering power stroke is on top dead center, spark control lever and breaker assembly in the fully retarded position.

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

Spark Plugs.—The spark plug diameters are $\frac{7}{8}$ inch. Spark plug gaps are .025 inch.

STARTER.—Type FD-140, M-1380. The starter is connected to the engine by a Bijur drive. Motor running freely at 5000 R.P.M. takes a current of 35-45 amperes, 5.8 volts. Cranking the engine at 150 R.P.M., requires a current of 250 amperes, 5 volts. Lock torque is 11.6 pounds-feet, current being 550 amperes, 4 volts. Pressure of brushes on the commutator is 30 ounces.

Oiling.—Put 5 or 6 drops of light engine oil into each of the starter bearing oilers every month.

GENERATOR.—Type P-230, M-1345. Generator current regulation is by the third brush system. Maximum current output is 14 amperes, reached at 1200 R.P.M. of the armature or 23 M.P.H. Charging rate reduces to 12 amperes at 30-40 M.P.H. Charging rate is varied by inserting a special toothed wrench in the adjusting hole in the commutator end plate and moving the third brush assembly through a ratchet engagement. Turn the adjusting wrench in a clockwise direction to increase the charging rate, and in the opposite direction to decrease the charging rate.

Generator Test Data

Hot Test		Cold Test	
Amperes	R.P.M.	Amperes	R.P.M.
12	1200	14	1200

Oiling.—Put 4 or 5 drops of light engine oil in commutator end oiler every two weeks. If the car is driven more than 500 miles in two weeks, this care must be given every 500 miles. Drive end of generator is oiled by the splash of the engine.

RELAY.—Relay closes at 450 R.P.M. of armature, or 9 M.P.H., or 7-7.5 volts, and opens at 200-300 R.P.M., or 4-6 M.P.H., or 0-1 ampere discharge. The contact gap is .015 inch. The air gap between relay armature and coil core is .015 to .020 inch, contacts fully closed.

LAMPS.—Head lights are 6-8 volts, 21 cp. Tail, side and dash lamps are 6-8 volts, 2 cp. Signal lamp is 6-8 volts, 21 cp. Dimmer resistance is used. All lamps have single contact base.

FUSES.—Lighting fuses are 15 amperes, $1\frac{1}{4}$ inch long. Generator fuse is 15 amperes $\frac{5}{8}$ inch long.