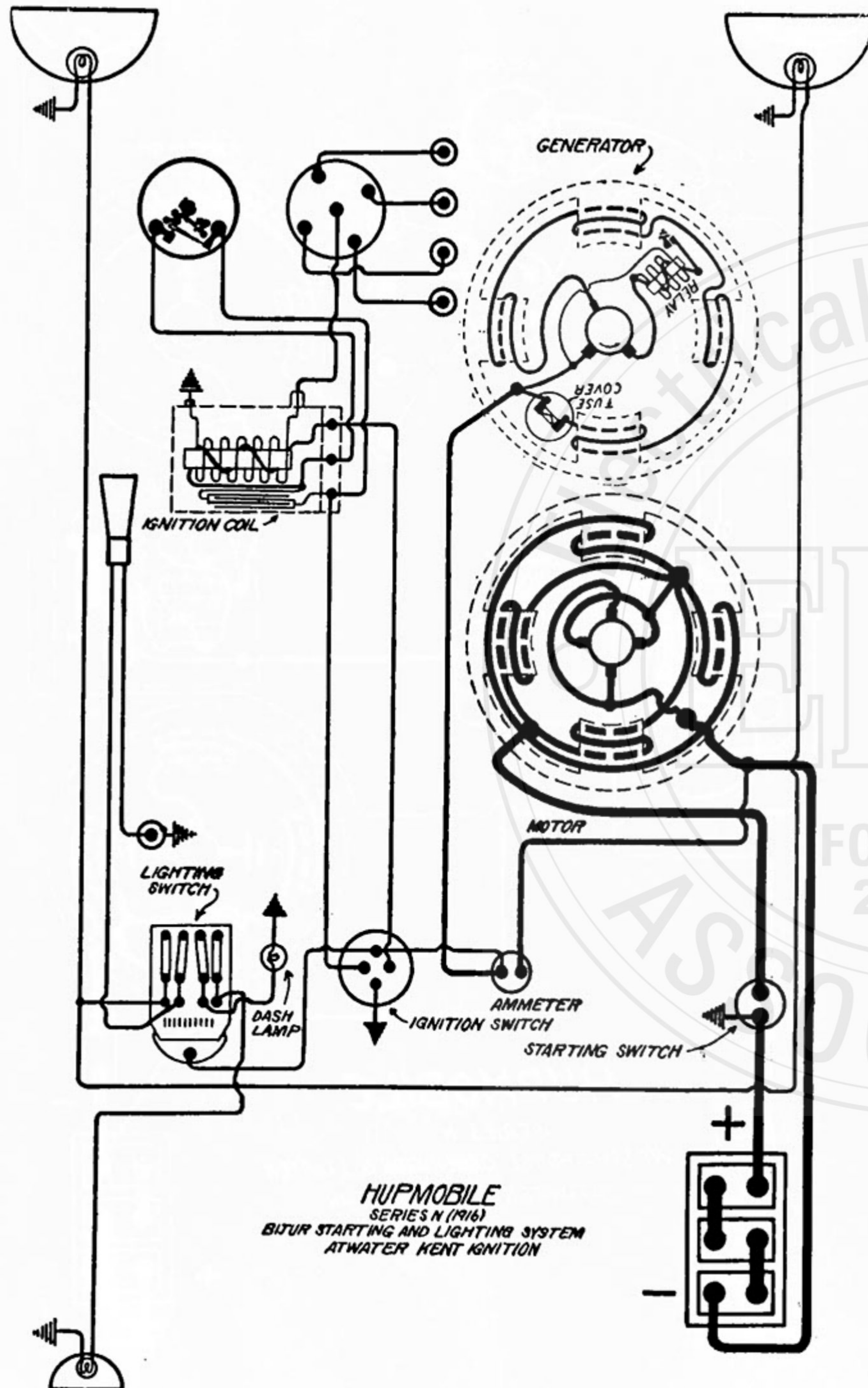


HUPMOBILE

SERIES N (1916) SERIAL NOS. 60,001 TO 75,000

BIJUR GENERATING, STARTING AND LIGHTING SYSTEM ATWATER-KENT IGNITION



BATTERY.—Battery is 6 volt, 100 ampere-hour. The positive (+) terminal is grounded at the starting switch.

IGNITION.—Breaker contacts separate .010 to .012 inch. They are made of tungsten. When the condition of the points affects the ignition remove and resurface with fine emery cloth or against the flat side of an emery wheel, finishing on a hard oil stone.

OILING.—Put a drop of light machine oil on each of wearing parts of breaker and 4 or 5 drops in oil hole beside notched shaft every 2 weeks. If car is driven more than 500 miles in two weeks, oiling must be done every 500 miles.

TIMING.—Breaker contacts separate when the top dead center mark on flywheel is 2 inches past indicator, spark control advanced one-half.

FIRING ORDER.—The firing order is 1, 2, 4, 3.

STARTER.—Type E 68, M 250. Anti-clockwise rotation, commutator end. Starter is connected to engine through a pinion shifted by operator.

OILING.—Put several drops of light engine oil in starter bearing oilers every month.

GENERATOR.—Type L 61, M 251. Anti-clockwise rotation, commutator end. Generator regulation is by third brush system. Maximum generator output is 12-16 amperes, reached at 20-25 miles per hour, or 1200-1600 R.P.M. of armature. Output may be varied by shifting third brush. Third brush is secured to generator by two stud bolts, the nuts of which appear in a recess in the front head of generator. Loosen these nuts with a socket wrench and shift the brush by gently tapping the shank of the wrench. Shifting brush in the direction of armature rotation will increase the output. Shifting brush in the opposite direction will decrease the output. Shifting the brush 1/16 inch will vary the output from 2 to 3 amperes. Tighten nuts after adjusting brush. Brush adjustment should be made to give the desired rate with generator hot and charging a 3 cell battery of 1.250 solution or higher. There is a 10 ampere fuse in the small aluminum cap on generator housing to protect generator windings, should excessively high resistance occur in the charging circuit. Pressure of brushes on commutator is 14 ounces.

OILING.—Put 5 or 6 drops of light engine oil in each of the generator oilers every two weeks. Refill grease cup on end of fan shaft with soft cup grease and turn down at the same time. If car is driven more than 500 miles in two weeks, these attentions must be given every 500 miles.

RELAY.—Relay closes at 600-650 R.P.M. of armature or 8-9 miles per hour and opens at 550-600 R.P.M. or 6-7 miles per hour. Charging current is 1-3 amperes at closing and the discharge current 0-1 ampere at opening of relay. Clean relay contacts by drawing unglazed paper between them. If badly burned or pitted, resurface with well worn No. 00 sandpaper. Remove all grit. Adjust before again putting into service. Relay contacts separate .045 inch. Air gap between relay armature (moving member) and coil core is .035 inch.

LAMPS.—Head lamps are 6-8 volt, 15 cp. Dash lamp is 6-8 volt, 2 cp. Tail lamp is 6-8 volt, 2 cp.

FUSES.—Fuses are 10 ampere.