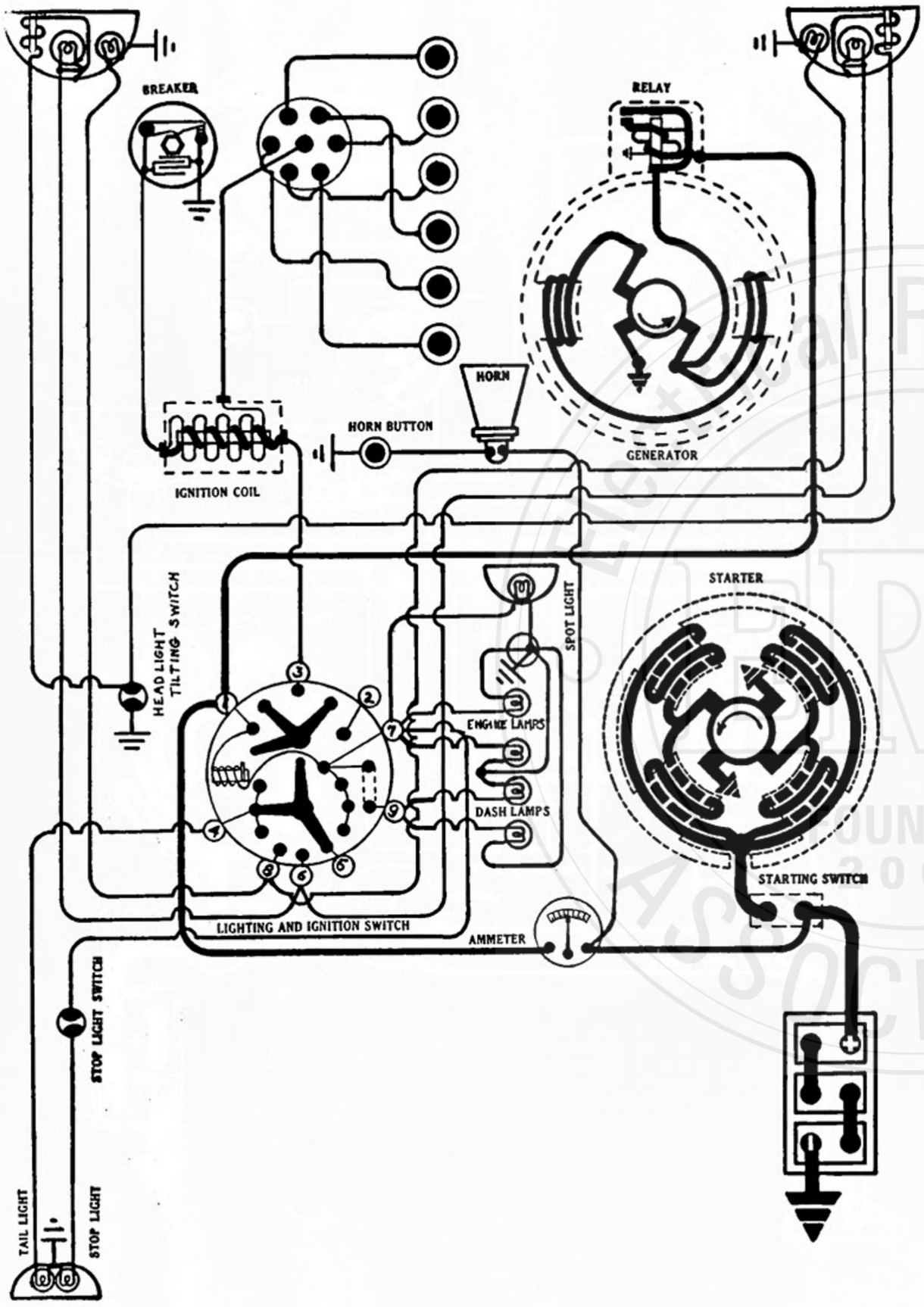

H. C. S.

SERIES 4 MODEL 6 (1923-24-25)
DELCO GENERATING, STARTING AND LIGHTING SYSTEM
DELCO IGNITION

BATTERY.—Willard, Type SJR-4, 6 volt, 120 ampere-hour. The negative (—) terminal is grounded.

IGNITION: — Coil Model No. 2178. Distributor Model No. 5259. Breaker contacts separate .018 inch. They are made of tungsten. When the condition of the contacts 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 4 or 5 drops of light engine oil in the distributor shaft bearing every two weeks. If the track of the rotor button in the distributor head is not well polished, apply a small amount of vaseline with a soft cloth. If the 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 No. is one-half inch past top dead center on compression stroke, with the 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:—Diameter, 7/8 inch. Spark gaps are .030 inch.

STARTER.—Model No. 185. .The direction of rotation is counter-clockwise, looking at the commutator end. Starter is connected to the engine through a Bendix drive. The lock torque is 24 lb. ft. at 2.75 volts. Running free the starter draws 50 amperes at 6 volts. The tension of each of the starter brushes should be from 2¼ to 2¾ pounds.

Oiling:—Put 5 or 6 drops of light engine oil in the starter oilers every month.

GENERATOR:—Model No. 256. Rotation is counter clockwise, looking at the commutator end. Generator current regulation is by the third brush system. Maximum charging rate is 14 amperes, reached at 1000 R.P.M. of the armature, or 16-20 miles per hour.

Amperes	Generator Data	R.P.M.
Neutral		285
9.5		500
14		1000
12.5		1400
10		2000

Charging rate is varied by adjustment of the third brush setting. To vary the charging rate, loosen the generator cover band and shift the third brush mounting plate by means of the handle attached. Shift the third brush in the direction of rotation (counter-clockwise) to increase the charging rate and in the opposite direction to decrease the charging rate. The maximum charging rate must not exceed 17 amperes. The tension of the generator brushes should be from 1¼ to 1¾ pounds each.

Oiling:—Put 4 or 5 drops of light engine oil in each of the generator bearing oilers every two weeks. If the car is driven more than 500 miles in two weeks, the oiling must be done every 500 miles.

RELAY:—Relay is mounted on the generator frame. Relay closes at 285-300 R.P.M. of the armature or 7-8 miles per hour, and opens at 250-285 R.P.M. of the armature or 5-6 miles per hour. Relay contacts separate .046 to .062 inch. Air gap between relay armature and coil core is .020 to .035 inch, contacts closed. To adjust relay, connect a voltmeter between the positive (+) generator brush and the ground. Then slowly speed up the generator and adjust the relay spring tension by bending the long brass stop until the contacts close when the voltmeter indicates 6¾-7½ volts. Clean relay contacts by drawing unglazed paper between them. If badly burned or pitted, resurface with well worn No. 00 sandpaper. Remove all grit and adjust before again putting into service.

LAMPS.—Head lamps are 6-8 volt, 21 cp. Dimmer lamps are 6-8 volt, 4 cp. Dash and tail lamps are 6-8 volt, 2 cp.

CIRCUIT BREAKER:—A vibrating circuit-breaker mounted on the back of the switch takes the place of fuses. It requires a current of 25-30 amperes to start this device vibrating. While vibrating, the current is 10-15 amperes.