

# STANLEY STEAMER

MODEL 735 (1918-19-20-21-22)

## REMY GENERATING SYSTEM

**BATTERY.**—Willard, Type SJRN-3, 6 volt, 100 ampere-hour. The negative (—) terminal is grounded.

**GENERATOR.**—Model No. 239-A. Generator current regulation is by the third brush system. A thermostat, located in the brush rigging of the generator, cuts a resistance into the field circuit when the temperature of the generator reaches 175° F., reducing the maximum charging rate 6 amperes. The thermostat is intended to change the charging rate as demands of the seasons or car operation requires. Never touch the thermostat points. The maximum current output is 19-20 amperes, reached at 1680 R.P.M. of the armature or 20-25 miles per hour.

Amperes	Generator Data R.P.M.	Volts
0	525	6.4
7	780	7.1-7.2
14	1100	7.8
19.5-20.5	1680	7.8
19.0-20.0	2000	8.6
13.0-15.0	3000	8.0

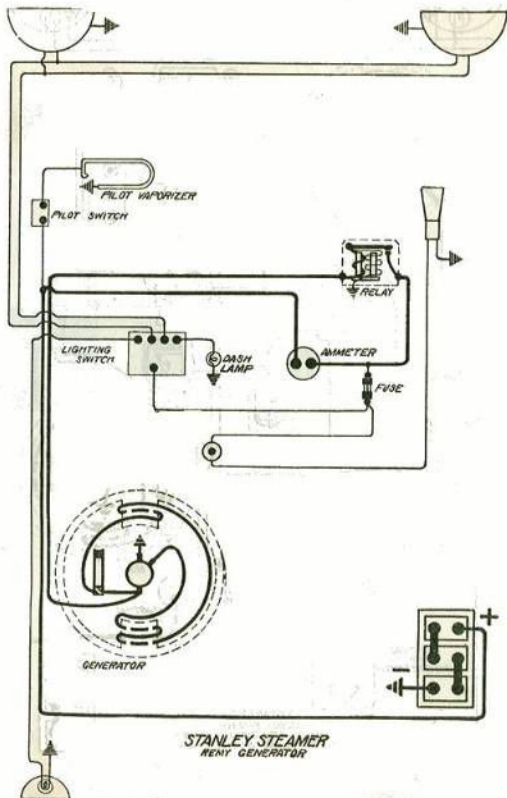
Above tests are made with the relay in the circuit and thermostat points closed. Shunt is 17-20 ounces. Pressure of the third brush is 13-17 ounces. Charging rate is varied field current is 5 amperes at 6.4 volts. Pressure of the main brushes on the commutator by adjusting the third brush setting. Third brush is moved by turning a screw, exposed in the commutator end plate. Turn the screw in a clockwise direction (looking at the commutator end) to increase the charging rate and in a counter-clockwise direction to decrease the charging rate.

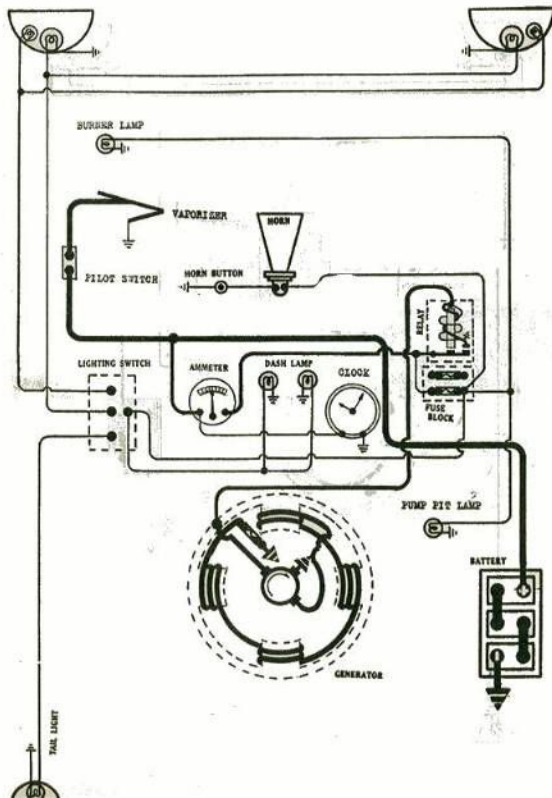
**OILING.**—Put 4 or 5 drops of light engine oil in each of the generator oilers every two weeks. If the car is driven more than 500 miles in two weeks, the oiling must be done every 500 miles.

**RELAY.**—Relay closes at 8-10 miles per hour or 525-600 R.P.M. of the armature, and opens at 6-8 miles per hour or 450-525 R.P.M. of the armature. Relay contacts separate .012 to .015 inch. Air gap between relay armature (moving member) and coil core is .012 to .015 inch, contacts closed. 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.

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

**FUSES.**—Fuse is 20 ampere.





## STANLEY STEAMER

MODELS 740 (1923), 750 (1924-25)

### BIJUR GENERATING AND LIGHTING SYSTEM.

**BATTERY:** — Westinghouse, Type 6-C-13. 6 volt, 105 ampere-hour. The lighting capacity is 5 amperes for 21 hours. The negative (-) terminal is grounded.

**GENERATOR:** — Model L-220, M-1802. The direction of rotation is clockwise, looking at the commutator end. The third brush system is used for current control. The maximum charging rate is 10-14 amperes, reached at 1200 R. P. M. of the generator armature.

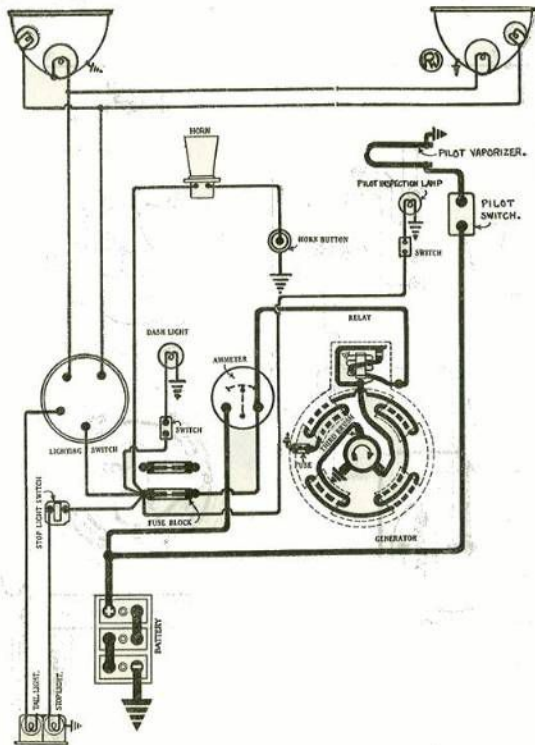
#### Generator Data.

Hot Test (200°F)				Cold Test (70°F)			
Amperes	Volts	R. P. M.		Amperes	Volts	R. P. M.	
0	7.5	500		0	7.5	400	
6	8.1	725		6	8.1	625	
10	8.3	1000		10	8.3	900	
12	8.5	1200		12	8.5	1100	
7	7.9	3300		7	7.9	3200	

To adjust the generator output, remove the commutator cover band and loosen the third brush, bracket slot screw. Then shift the bracket in a clockwise direction to increase the charging rate and in opposite direction to decrease the charging rate. Tighten the screw after making the adjustment. Motoring freely, the generator revolves at 380 R. P. M. taking 5-6 amperes at 6.1 volts. The shunt field draws 5 amperes at 6.1 volts. The pressure of each of the generator brushes on the commutator should be 20 ounces.

**RELAY:** — Model 27. Relay contacts close when the voltage of the generator reaches 6.75 volts and open with a discharge current of 2 to 3.2 amperes. The contacts separate .020 inch. The air gap between the relay armature and the coil core should be .015 inch.

**LIGHTING:** — Head lamps are 6-8 volt, 21 cp. Dimmer lamps are 6-8 volt, 4 cp. Dash tail, side and dome lamps are each 6-8 volt, 4 cp.



## STANLEY

MODEL 770 (1928)  
SERIAL NO. 28001 UP

### AMERICAN BOSCH GENERATING AND LIGHTING SYSTEM

**BATTERY:**—Exide, Type 3-XC-13-1, 6 volt. The negative (—) terminal is grounded. Battery is mounted under the rear seat.

**GENERATOR:**—Model 1272. The direction of rotation is clockwise, looking at the commutator end. Generator current regulation is by third brush shunt field. To adjust generator output, on early generators loosen the nut on generator end plate holding third brush mounting plate and shift third brush. Shifting the third brush in a clockwise direction increases the charging rate and in the opposite direction decreases the charging rate. Tighten the nut after making the adjustment. On later model generators, shift the third brush by inserting a special Bosch key in the hole provided on the end plate and turning the key. The third brush may be shifted by hand if the key is not available by first removing the commutator cover band. The third brush mounting plate is held in any desired position by friction clamp washers. The maximum charging rate is 17-19 amperes reached at 1100-1300 R.P.M. or 30 M.P.H.

#### Generator Data

Amperes	Cold Test Volts	R.P.M.	Amperes	Hot Test Volts	R.P.M.
3.....	6.75.....	600	3.....	6.5.....	725
7.....	7.1.....	700	8.....	7.5.....	900
13.....	7.6.....	900	10.....	7.8.....	1000
17.....	8.0.....	1200	13.....	8.0.....	1350
13.....	8.0.....	1950	11.....	7.8.....	2000

Running as a motor, generator draws 6.6 amperes at 6 volts. Shunt field current is 6 amperes at 6 volts. Generator brush spring tension is  $1\frac{1}{2}$ - $1\frac{3}{4}$  pounds each.

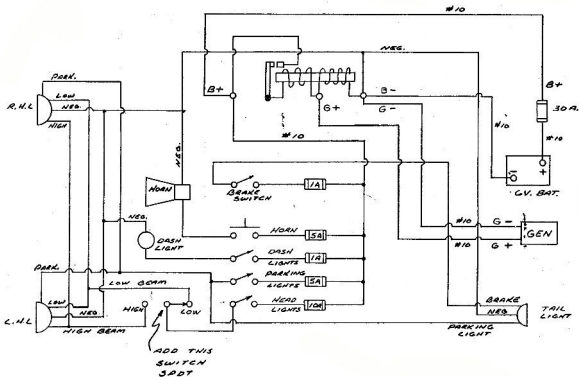
**Mounting:**—Generator is mounted in pump pit. To remove generator, disconnect lead and loosen mounting strap. Then lift generator from place.

**Oiling:**—Put 4 or 5 drops of light engine oil in each of the generator bearing oilers every two weeks or each 500 miles.

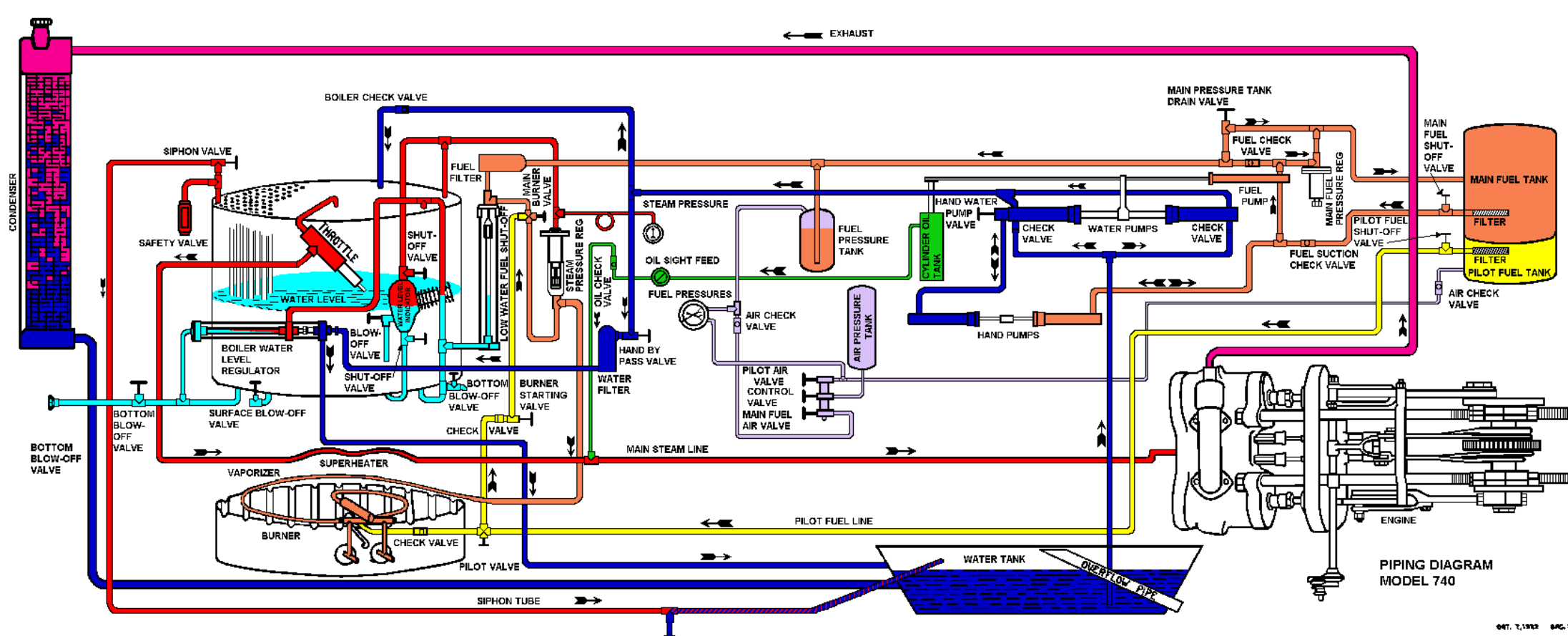
**RELAY:**—Relay closes at 480 R.P.M. or 15 M.P.H. when the voltage of the generator reaches 6.5-7.5 volts and opens at 350 R.P.M. or 10 M.P.H. with a discharge current of 1-3 amperes. Charging current at closing of contacts must not exceed 3 amperes. Relay contacts separate .015-.030 inch. Air gap between relay armature and coil core is .010 inch, contacts closed.

**LIGHTING:**—Clum Switch Model 10073. Mounted on the instrument board. Head lights are 6-8 volt, 21 cp. S.C. Mazda No. 1129. Auxiliary lights are 6-8 volt, 6 cp. S.C. Mazda No. 81. Side, dash and dome lights are 6-8 volt, 6 cp. S.C. Mazda No. 81. Stop and tail lights are 6-8 volt, 6 cp. S.C. Mazda No. 81.

**FUSES:**—Generator field fuse is 7.5 amperes. Lighting fuse on switch is 10 amperes.



ELECTRICAL SCHEMATIC  
1917 STANLEY STEAM CAR



This diagram shows every essential part of the Stanley car except the axle, body, and steering gear assemblies. It includes boiler, burner and engine; fuel, steam, and water systems complete, with every valve and pipe on the car. It makes obvious the utter simplicity of the Stanley as compared with internal explosive cars.

947, 7, 1912 84C, 8

Revised, cleaned up, and redrawn by Luke Chaplin