FILE IN THE **GEF**

prestolite SERVICE MANUAL

GENERATOR SECTION

(Issued 3-16-78)

VOLTS 12 RATED OUTPUT See tabulation VENTILATED See tabulation

ROTATION See tabulation BRUSHES 2 POLES 2

CONTROL Vibrating Current-Voltage Regulator

GROUND POLARITY See tabulation BEARINGS Ball at drive end. Absorbent bronze at commutator end.

LUBRICATION — Periodically add 5 drops of medium engine oil to end head oilers. At overhaul, pack open ball bearings 1/4 to 1/2 full with a good ball bearing lubricant. NOTE - Some ball bearings are sealed, these units are prelubricated and require no additional lubrication.

BRUSH SPRING TENSION — 35 to 53 ounces with new brushes. Measure brush spring tension with the scale hooked in the hole in the end of the brush arm and pulled on a line perpendicular to the top of the brush. Take the reading just as the arm leaves the brush.

FIELD COIL DRAW (70°F.) — 1.0 to 1.2 amperes at 10.0 volts.

MOTORING DRAW (70°F.) — 2.1 to 2.7 amperes at 10.0 volts. (Have field terminal grounded to frame.)

OUTPUT TESTS (70°F.)
(Test 1) 14.2 volts, 4.0 amperes at 1150 maximum RPM.
15.0 volts, 18.0 amperes at 1750 maximum RPM.
(Test 2) 14.2 volts, 4.0 amperes at 1150 maximum RPM.
15.0 volts, 12.0 amperes at 1550 maximum RPM.

COMMUTATOR END HEAD — Before assembling the armature and C.E. head, remove felt wick. Have the armature shaft oiled and the felt wick soaked in oil when assembled. After assembling, be sure felt wick lies on the bottom of the oil pocket and fill the oiler with light engine oil until pocket is filled to over flow hole.

Unit	Rated Output (Amperes)	Vent.	Rot.	Grd. Pol.	Test No.	Internal Wiring	Special Instructions
GEF-4801AA	18	Yes	CW	Positive	1	Fig. 1	
GEF-4801AAT	18	Yes	CW	Positive	1	Fig. 1	Note 1
GEF-4804	12	No	CCW	Positive	2	Fig. 2	
GEF-4806, B	18	Yes	CW	Positive	1	Fig. 1	
GEF-4811AM	18	Yes	CW	Positive	1	Fig. 1	Note 2
GEF-4813A, C, D, S	12	No	CW	Positive	2	Fig. 1	Notes 3, 4
GEF-4813DT	12	No	CW	Positive	2	Fig. 1	Notes 1, 3, 4
GEF-4815MA	12	No	CCW	Negative	2	Fig. 2	Note 2
GEF-4816	12	No	CW	Positive	2	Fig. 1	
GEF-4817	12	No	CCW	Positive	2	Fig. 2	
GEF-4819S	12	No	CW	Negative	2	Fig. 1	Notes 3, 4
GEF-4820A	12	No	CCW	Positive	2	Fig. 2	Note 3
GEF-4901M	12	No	CW	Positive	2	Fig. 1	Note 2
GEF-4902M	12	No	CCW	Positive	2	Fig. 2	Note 2
GEF-5001	12	No	CW	Positive	2	Fig. 1	Note 3
GEF-5001T	12	No	CW	Negative	2	Fig. 1	Notes 1, 3
GEF-5002	12	No	CCW	Positive	2	Fig. 2	Note 3
GEF-5003, A	12	No	CW	Negative	2	Fig. 1	
GEF-5004, A	12	No	CCW	Negative	2	Fig. 2	

Note 1 - After inspection of the various parts, paint terminal stud and brush holder insulation with red glyptol. Cover glyptol and all metal surfaces except pilots, head seats, threads, commutator and bearing surfaces with an air-drying, fungus-resistant varnish. Allow varnish to soak into field coils and armature windings. Drain and dry thoroughly before assembling generator.

Note 2 - After installation of new field coils, paint the inside of the frame and soak the field coils with air-drying varnish. Keep varnish off of brush leads, pilot seats and threads. When re-using the original armature, its core and windings should be given the same treatment, being careful to keep the commutator and bearing surfaces clean.

Note 3 - Assemble drive end bearing with shield toward outside of generator.

Note 4 - Allow 1.5 amperes additional motoring current due to the drag of the felts used in tractor generators.

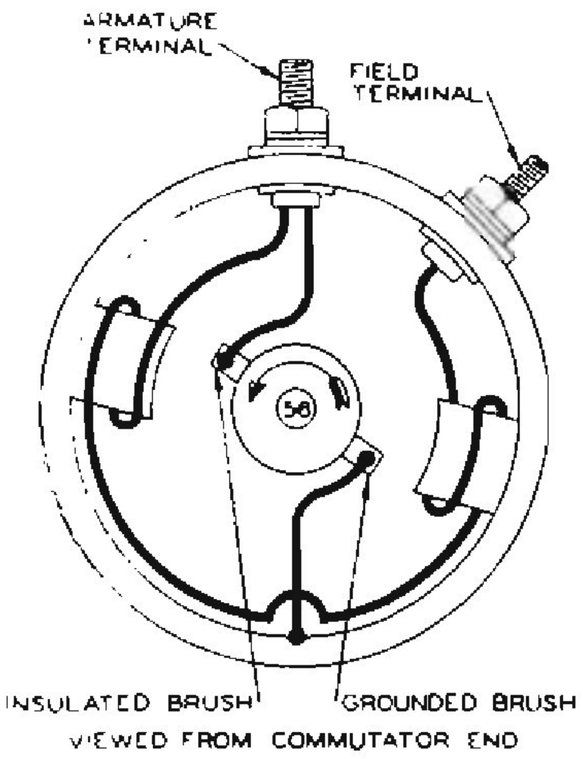

Figure 1

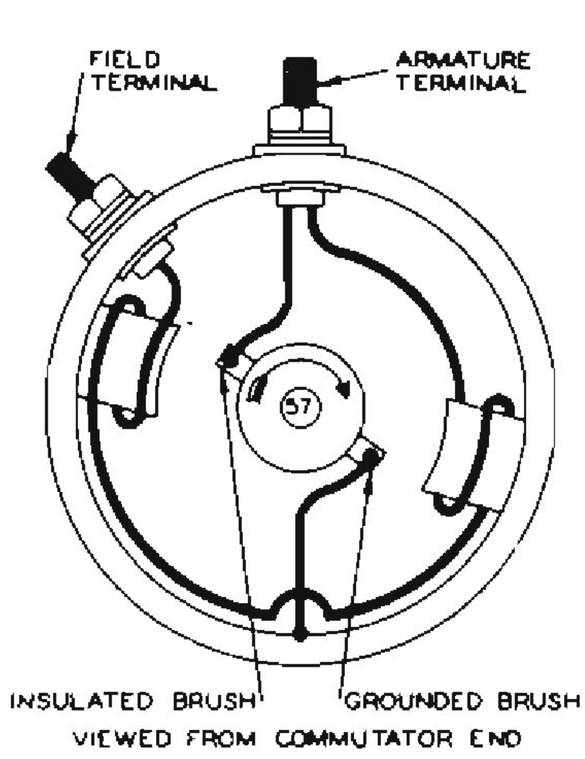

Figure 2