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BULLETIN

NO. H00A-016

**SUBJECT: LR5000T GENERATOR FAILURE DUE TO STACK-RUB
PROPER INSTALLATION OF ROTOR AND STATOR**

AFFECTS: LR5000T UT03829

When repairing LR5000T generators exhibiting stack-rub, that is, the rotor contacting the stator during operation, follow the procedure listed below. Please follow the stator to engine alignment procedure to prevent recurrence of the stack-rub failure mode.

Generator Assembly

Loosen engine-mounting bolts so the engine can be tilted slightly to allow generator end to be installed properly.

Wipe engine crankshaft and rotor shaft taper clean of grease and debris.

Assemble the generator by applying thread-locking compound to the bolts securing the generator end bell (item 26) to the engine. Torque the bolts to the specifications listed in Table 1

If a new rotor (item 23) is being installed, remove the fan, if not damaged, from the defective rotor. Install the fan (item 24) and four screws (item 25) on the new rotor. Slide the rotor and fan assembly onto the crankshaft.

Insert the rotor bolt (item 21) through the lock washer (item 22) and rotor into the crankshaft. Tighten the bolt finger tight.

The rotor bolt will be tightened after the assembly of the stator and brush head is complete. The bolt needs to remain loose throughout the assembly procedure to allow the rotor and stator to align properly with the housing and crankshaft.

Inspect stator for excess varnish or bent laminations at end bell mounting surface. Gently slide stator and harness (item 19) over rotor and align over mounting bosses on end bell. Slide two bolts (item 20) into slots at bottom of stator.

Install two lock-washers (item 30) and spacers (item 36) over bolts protruding from bottom of stator. Seat the bolts into the sub-frame (item 32).

Hold brush head assembly (item 1) upside down over stator and plug stator wires onto proper terminals inside brush head assembly. Attach ground wire (green with yellow stripe) to stator with two lock washers (item 34) and screw (item 33) as shown.

Use wire ties to neatly secure all of the electrical leads. Carefully, route the leads behind the circuit breakers so they will not contact the rotor. Install the brushes in the brush holder. Retain the brushes for assembly by inserting the brush holder tool or a straightened paper clip through the housing hole and the brush holder.

Seat the brush head over the rotor and stator. Slide two bolts into the slots at the bottom of the brush head and tighten them finger tight. Install two bolts into the slots at the top of the brush head. Torque the four bolts securing the brush head to the correct specifications per Table 1.

Install two lock washers (item 30) and two nuts (item 31) onto the bolts. Do not tighten at this time.

Tighten the rotor bolt to the proper torque specification.

Install a new expansion plug (item 35) into the rotor bolt opening on the brush head.

Torque the two stator-mounting nuts to the proper specifications.

Torque the engine mounting bolts to the proper specifications.

Important Note: Remove the tool holding the brushes in place.

Verify/Correct Stator Alignment

Place unit on level surface.

Loosen nuts (item 31) on stator bolts (item 20) under sub-frame (item 32).

If spacers (item 36) can be easily rotated and a visible gap exist between the spacers and plate, add additional star washers (P/N 83033) between spacers (item 36) and sub-frame (item 32).

Note: Engine mounting bolts must be loosened so unit can be tilted and washers can be installed.

Re-torque engine mounting bolts to 145-155 In/Lbs.

Re-torque stator bolts (item 20) to 60-80 In/Lbs.

Remove spark plug and pull engine over, listening for interference between rotor and stator.

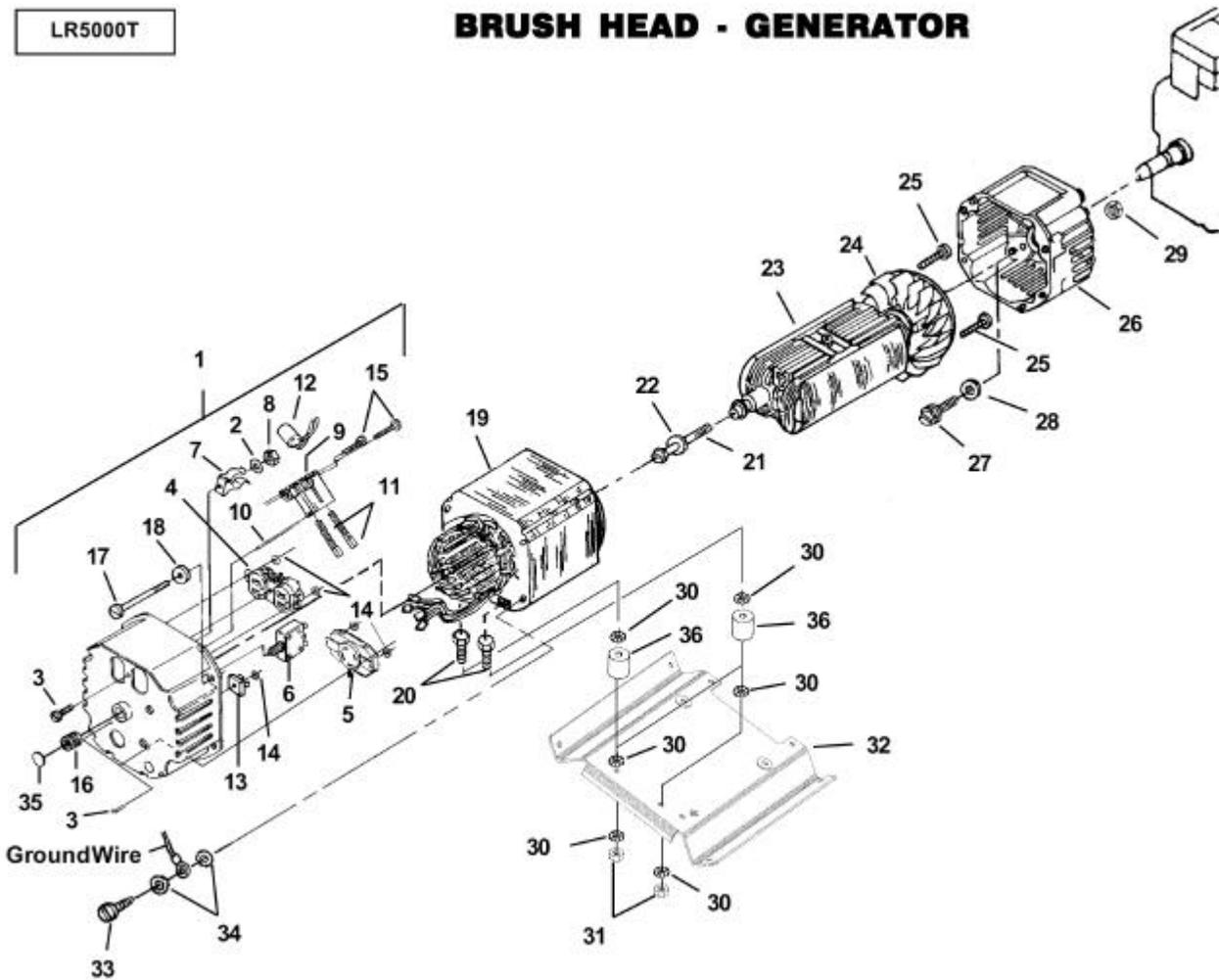
If no interference is heard, replace spark plug and start unit. Run unit at no load and again listen for any interference.

If no interference is heard, apply full load and verify proper performance.

If at any point interference is heard immediately, shut unit down and add additional star washers P/N 83033 as required.

LR5000T

BRUSH HEAD - GENERATOR



1. Torque Specifications

Table 1

	SIZE & TYPE	QTY.	APPLICATION	TORQUE LIMITS in-lb
	7/16-18 Hex Knurl Nut (supplied with breakers)	1	Circuit Breaker to Brushhead	15-20
	5/16-24 x 9.250 Hex Machine Screw	1	Rotor Bolt	100-140
	¼-20 x 7.00 Hex Machine Screw	4	Stator Bolts	60-80
	5/16-18 x 1.500 Hex Machine Screw	4	Engine to Subframe	145-155
	5/16-18 x 1.250 Hex Machine Screw	1	Ground Screw	145-155
	5/16-18 x 1.75 Hex Cap Screw	2	Stator to Subframe	150-155
	8-32 x .875 Pan Washer Slotted Machine Screw	2	Heat Shield to Tank Support	8-12
	5/16-24 x .750 Hex Washer Machine Screw	4	End Bell to Engine Housing	150-175
	6-32 x .500 Pan Washer Slotted Head Machine Screw	4	Receptacles	9-13
	5/16-18 Hex Nut	8	Isolator to Subframe	145-155
	6-19 x .750 Pan Head Plastite Screw	2	Brush Holder	12-16
	6-19 x .750 Pan Head Plastite Screw	4	Fan to Rotor	12-16
	10-24 x .750 Truss Head Taptite Screw	1	Ground Wire to Stator	45-55
	10-24 x .750 Truss Head Taptite Screw	1	Ground Stud	45-55
	10-24 x .500 Pan Head Machine Screw	8	Tank Support to Frame	25-35

DATED: 12/00