

PARTS & SERVICE NEWS

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This Parts & Service News replaces the previous issuance, AA01213, dated October 10, 2001. AA01213 should be discarded.

SUBJECT: REPAIRING STATOR INSULATION ON 930E WHEEL MOTORS (GDY85)

PURPOSE: To inform the field of approved repair procedures for repairing stator insulation.

APPLICATION: Komatsu 930E Dump Trucks: AFE48-A & Up, A30019, A30026 & Up
(equipped with GEB16A1 thru GEB16A3 wheel motors)

FAILURE CODE: 0831BK

DESCRIPTION:

Some wheel motors that have been operating in extremely dry and dusty conditions have experienced wear to the stator insulation inside the motor. The intrusion of excessive dust creates a "sandblasting" effect on the insulation at the pinion end of the motor. The resulting grit from this occurrence is then flung out of the motor.

When repairing or rebuilding a wheel motor, inspect the stator for this type of wear to the insulation. If damage to the insulation is evident, repair the insulation using the resin listed in the table below. Follow the instructions in the "Repair Procedure" for proper guidelines for applying the resin.

▲ IMPORTANT ▲

Currently, GEB16A4 wheel motors are being manufactured. These motors have been fitted with a protective sleeve over the stator for protection against dirt and debris. Wheel motors designated GEB16A1 through GEB16A3 do not contain the protective sleeve and are more susceptible to insulation damage. The following repair procedure only applies to GEB16A1 through GEB16A3 wheel motors. This procedure is not authorized on GEB16A4 or newer wheel motors.

Parts List for Stator Repair

Part Number	Description	Quantity
VJ0990	Resin	5
-	Brush or Tongue Depressor	1

REPAIR PROCEDURE**▲ WARNING**

Use caution when lifting wheel motor components. Ensure that ratings for all lifting devices exceed the weight of the load being lifted.

1. Remove the wheel motor from the wheel motor transmission assembly. Refer to the GE maintenance instructions for proper procedures when disassembling wheel motors.
2. Remove the rotor from the motor and place it on a protective surface on the floor.
3. Steam clean the stator coil and "noise wad" surfaces using a non-corrosive detergent. Dry the stator in an oven at 302° F (150° C) for a minimum of 4 hours after the desired temperature has been achieved. Cool the components at ambient temperature.
4. Megger test the stator at 1000 volts to ensure that no moisture exists within the insulation. Minimum acceptable resistance is 2 megohms.
5. Position the stator in such a fashion that it can be rotated during application of the resin.
6. Mix the resin according to instructions. Apply an even coat of resin to the rotor side of the stator coils and the felt noise wads. The application of resin coating should extend approximately 3 in. (76.2 mm) from the end of the stator. Refer to Figure 1. The resin application should be a minimum of 0.080 in. (2.03 mm) thick. Ensure all exposed copper in the stator coil is coated with epoxy as shown in Figure 2.

▲ IMPORTANT ▲

The 3 in. (76.2 mm) resin application dimension shown in Figure 1 extends past the noise wad material. When applying resin to this area, do not attempt to fill the gaps between the coils. Only apply the resin directly on the surface of the coils.

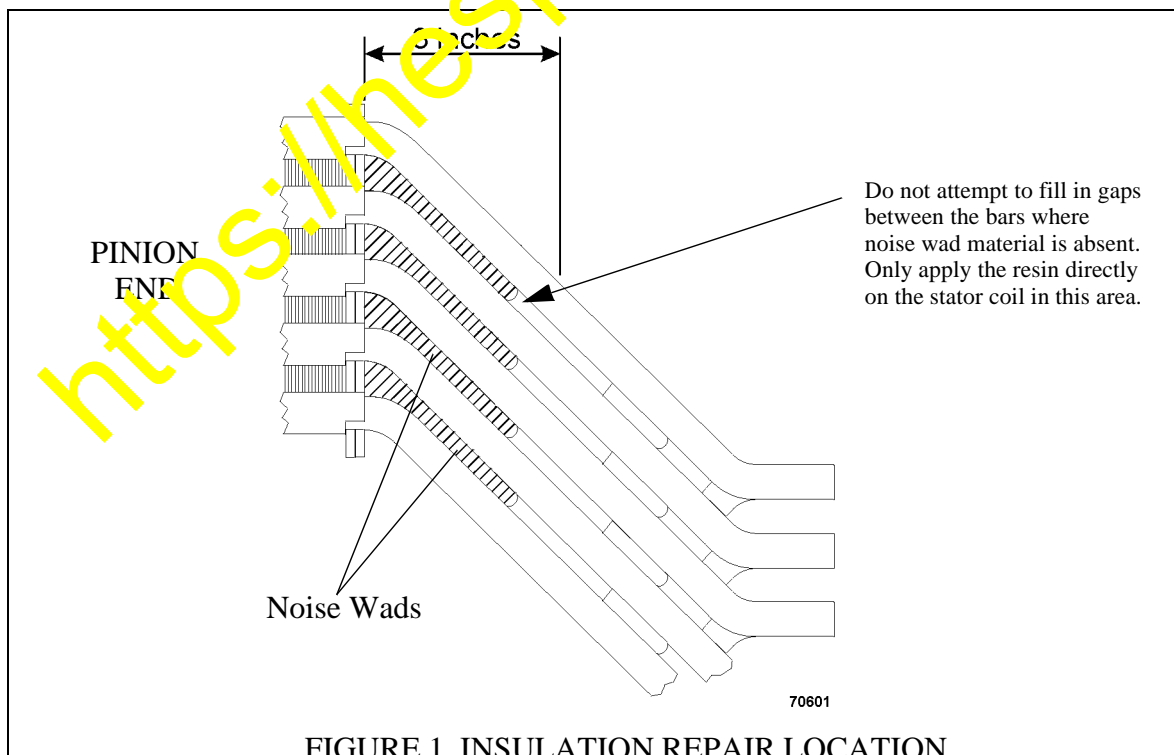


FIGURE 1. INSULATION REPAIR LOCATION

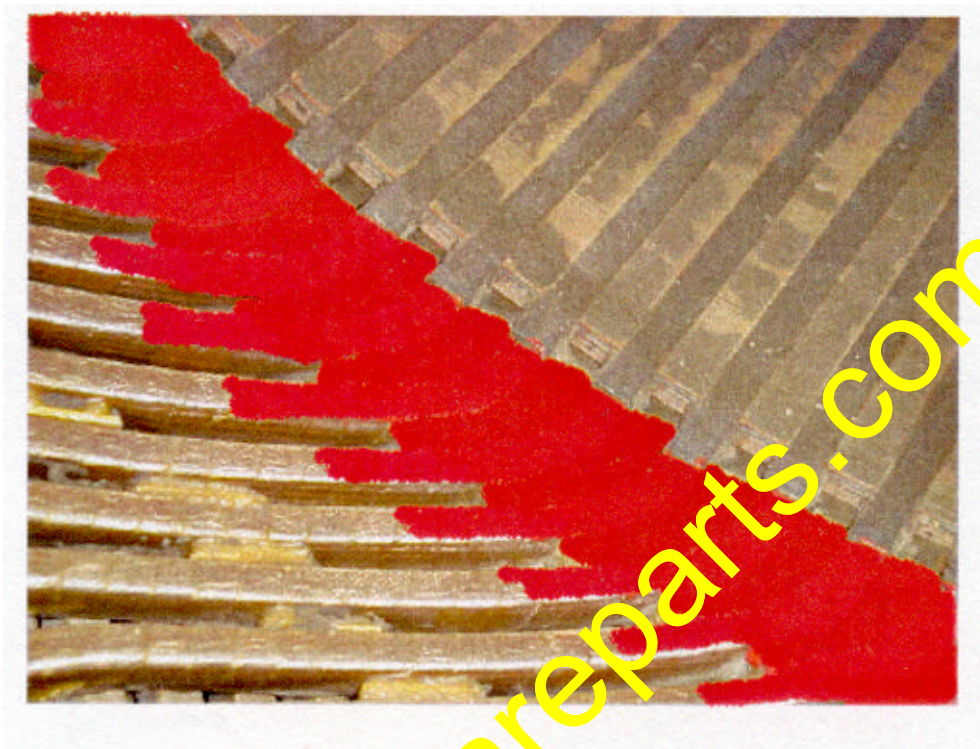


FIGURE 2. APPLICATION OF RESIN

7. Allow the application to cure for about six hours. After this time period, ensure the resin has a hard, glossy finish before reassembly of the motor. Allow for additional curing time as necessary.