PARTS & SERVICE NEWS

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DATE	December 04, 2002

SUBJECT: LIGHT SENSITIVE DIODES IN STATEX AND AC ELECTRIC DRIVE SYSTEMS

PURPOSE: To inform the field of potential problems with battery boost module diodes on alternator exciter panels.

APPLICATION: Komatsu Electric Drive Dump Trucks:
930E-2: A30012, A30098, A30100, A30121 & Up;
930E: 32604-32816, A30019, A30026-A30120;
*830E: 31320-32825, A30544 & Up;
*730E: 32530-32845, A30079 & Up;
*630E (190 ton): 31678-32848, A31431 & Up;
*630E (170 ton): 31670-32866, A31435 & Up;
*685E: 31402 & Up;
*510E: 31222-32259, 31682-32865;
*445E: 32210-32972, 31202-31736, A511091-A511037;
**** equipped with STATEX I, II, OR III SYSTEMS***

FAILURE CODE: 082AZA

DESCRIPTION:

PROBLEM

Some trucks in operation may experience erratic operation of the battery boost circuit in the electric drive system. This erratic behavior may be caused by light sensitive diodes responding to exposure to light.

PARTS AFFECTED

- All VE0687 (GE p/n 41A2778053G2) battery boost modules received during or after February 2002 are suspect. Therefore, any PB8838 (GE p/n 17FM466F1) alternator field static exciter (contains VE0687) beginning with serial number **FM0202**... may be affected.
- Any VE0687 battery boost modules supplied during or after February 2002 as renewal parts for alternator exciter panels may also be affected.

COUNTERMEASURE:

Inspect the circuit card on the VE0687 battery boost module on the PB8838 alternator exciter panel. Observe the color of the diodes (D2, D3, D4 & D5). If the diodes are gray in color (Figure 2), one of the following actions must be performed on the diodes:

- paint with black or other dark colored paint
- color with a permanent, black felt tip marker
- cover with black electrical tape

Performing one of these actions on the diodes will prevent light from affecting diode operation and subsequent malfunctions.

Figure 1 shows normal operating black diodes. If these diodes are found, no action is necessary. Figure 2 shows the gray-colored, light sensitive diodes. Action is required if these diodes are found. Figure 3 shows gray diodes after a countermeasure action has been performed.

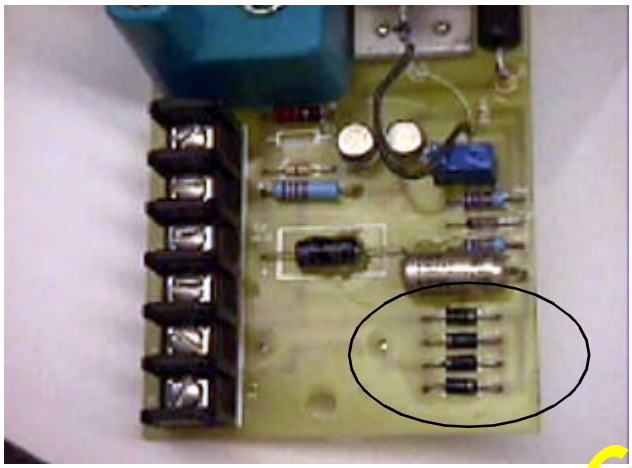

FIGURE 1. BLACK DIODES

FIGURE 2. GRAY-COLORED, LIGHT SENSITIVE DIODES

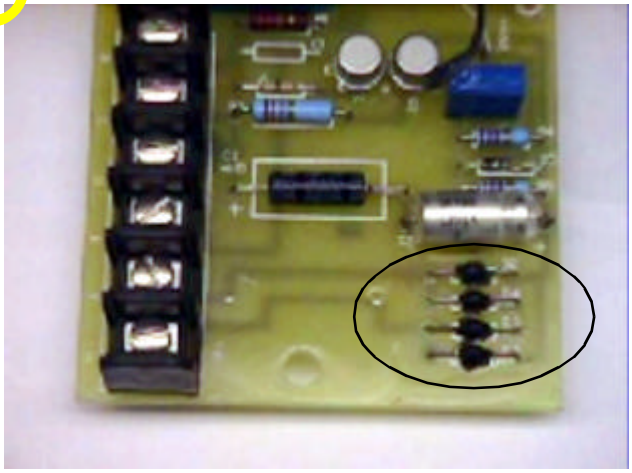

FIGURE 3. SLEEVED GRAY DIODES