

PARTS & SERVICE NEWS

REF NO.	AA01070
DATE	March, 20, 2001

- SUBJECT:** AIR CONDITIONING COMPRESSOR CLUTCH DIODE
- PURPOSE:** Inform the field that the removal of compressor clutch diode will improve compressor clutch longevity.
- APPLICATION:** Komatsu Electric Drive Dump Trucks:
 445E: AFE39-A & up, AFE41-A & up;
 510E: AFE40-A & up, AFE44-A & up;
 630E: AFE42-A & up, AFE46-A & up;
 685E: AFE43-A & up;
 730E: AFE47-A & up, A30079 & up;
 830E: AFE32-A & up, AFE50-A & up, A30544 & up,
 930E: AFE48-A & up, A30019 & up;
 Komatsu Mechanical Drive Dump Trucks:
 530M: AFP49-A and up;
 HD1500-5LC: A30039 and up;
that are equipped with A/C compressors PB9069, PB9288, or PC0454.

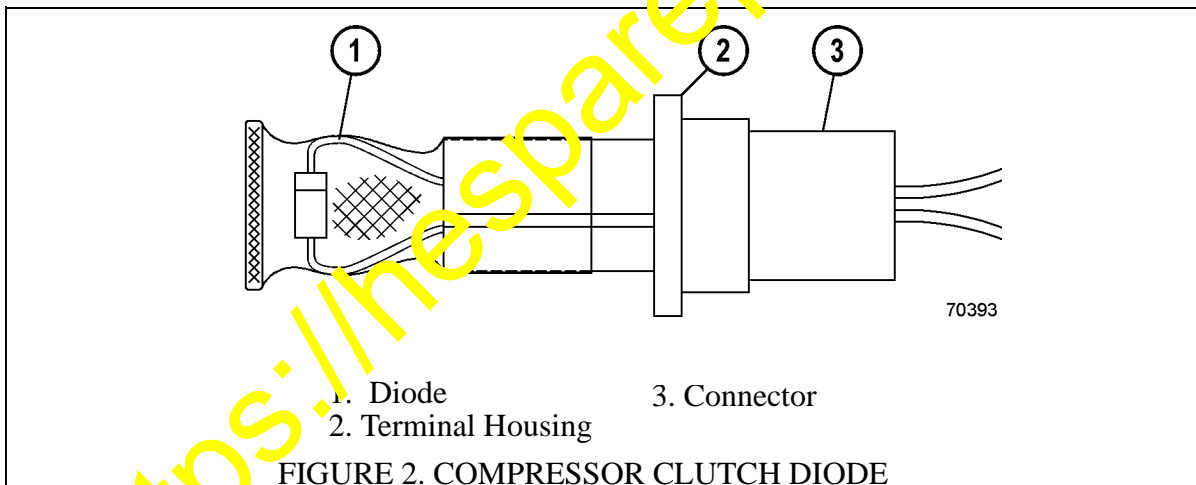
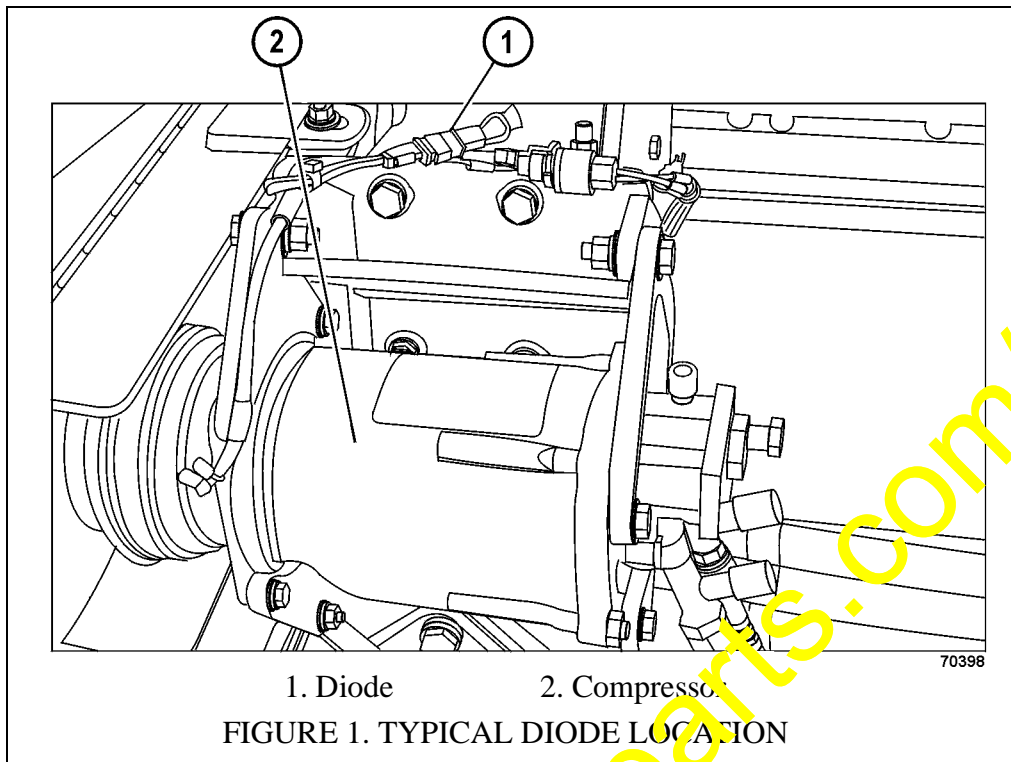
FAILURE CODE: 876BZ9

DESCRIPTION: Removal of this diode from the clutch circuit permits the compressor clutch to disengage quicker. This, in turn, eliminates much of the drag and wear on the clutch that resulted from a slower disengagement speed. This enhancement provides an increase in the life span of the compressor clutch.

The diode in the compressor clutch circuit was originally included to prevent electrical feedback from the clutch from invading other machine circuitry. It has since been discovered that this diode is unnecessary for that purpose. It is also recommended that the diode be removed in order to prevent excessive wear on the compressor clutch.

DIODE REMOVAL PROCEDURE

1. Park the truck on a hard, level surface and turn the key switch "OFF". Engage the parking brake and chock the wheels.
2. Trace the wiring for the compressor clutch from the clutch coil back to the diode. The diode should be located on or adjacent to the compressor. Refer to Figure 2 for an illustration of the diode. Figure 1 shows the typical location of a diode. On some trucks, the diode may be located along the frame rail near the compressor.



3. Disconnect connector (3, Figure 2) from terminal housing (2) and discard the terminal housing and diode (1). Seal the exposed portion of connector (3) with shrink tubing.

▲ IMPORTANT ▲

Ensure that the terminals in the connector are completely sealed and are not able to come in contact with water or any metal components. Failure to properly seal the connector may result in a short circuit within the compressor clutch circuit resulting in damage to circuit components