

PARTS & SERVICE NEWS

REF NO. AA03142

DATE October 14, 2003

(C)

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SUBJECT: 730E DECK SUPPORT RADIUS CRACK

PURPOSE: To inform the field of a reinforcement procedure for the deck support structure.

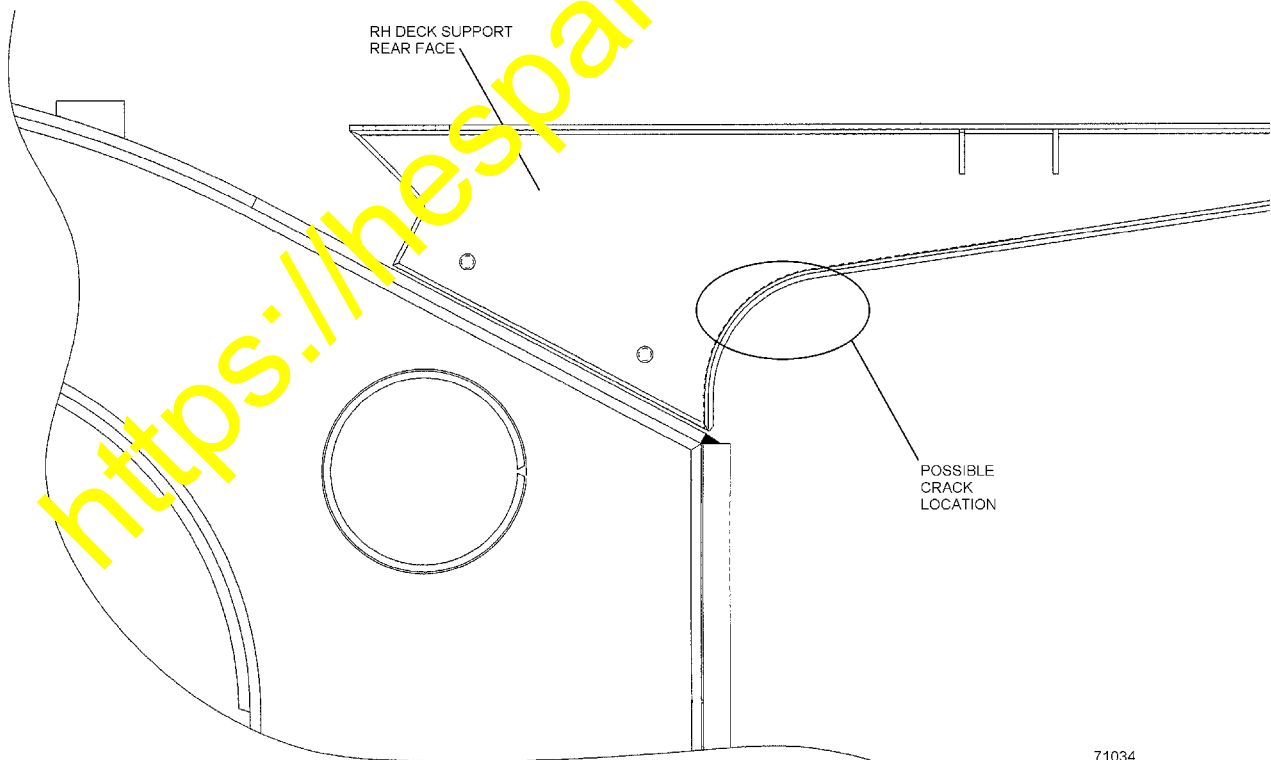
APPLICATION: Komatsu 730E Dump Trucks, A30079 and UP

FAILURE CODE: 4710HB

DESCRIPTION: Reinforcement Procedure: Deck Support Kit RH (XK0263)

Some 730E trucks may experience cracks in the right hand deck support radius. Figure 1 illustrates the typical failure location. If cracks are found, reinforce the area by following the Reinforcement Procedure on page 2.

A new kit (XK0263) has been developed to reinforce the right hand deck support. The contents of the new kit are listed in Table 1. The required components are illustrated in Figures 3 and 4.



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FIGURE 1. POSSIBLE CRACK LOCATION, RIGHT DECK SUPPORT

Reinforcement Procedure

Deck Support Reinforcement

▲ IMPORTANT ▲

Before performing any of the outlined instructions, review all safety precautions as outlined in the General Safety section of the appropriate Operation & Maintenance Manual.

All work is to be completed as detailed in this reinforcement procedure. The attached information explains the details of the removal of the mechanical assemblies, horse collar modification, and reassembly.

The truck should be washed and then parked on level ground with body raised. The best conditions for performing this procedure would be in the truck shop, however, if work is performed outside, weather precautions need to be addressed. Park the truck in a semi-protected area, away from the wind. In addition, ensure the truck is not parked in a low area subject to flooding. Wooden pallets will be needed so that removed parts can be properly stored. Protect removed parts by covering and moving them out of any traffic areas. After all lockout and tagout procedures have been followed, disconnect the batteries and follow any additional local safety shut down procedures.

If any cracks in the deck support exist, gouge out the defects and weld repair the deck support. Follow the guidelines that are outlined in Parts & Service News "FIELD WELDING FOR ASSEMBLY OR REPAIR" (AA00046C), Welding Manual I (SEBF14001), and Welding Manual II (SEBF15002). It is important that these instructions are read, fully understood, and followed. This information is applicable for all 730E trucks.

TABLE 1. DECK SUPPORT KIT RH (XK0263)

ITEM	QUANTITY	PART NUMBER	DESCRIPTION
1	1	EK9011	DECK SUPPORT REWORK DRAWING
2	1	EK9012	BOTTOM PLATE
3	1	EK9013	SIDE REAR PLATE

▲ IMPORTANT ▲

All deck support components are to be manufactured locally. Consult your Komatsu Area Service Manager to ensure component specifications are current.

In order to install deck support kit (XK0263), the removal of the right front suspension will be required. Refer to Section H of the appropriate Shop Manual for information regarding the removal of the front RH suspension.

Welding Repair Process

The following instructions are for the welding repairs. Only qualified welders are permitted to do repairs as detailed. Welders are required to follow all instructions as detailed in the published Parts & Service News (AA00046C). During the repair and modification process it is the responsibility of the maintenance crew to contact your Komatsu Area Service Manager if any questions arise. Photographs are required for all welding procedures and inspection processes.

▲ IMPORTANT ▲

Before proceeding, consult your Komatsu Area Service Manager to ensure component Drawings are current.

1. Manufacture deck support components (Figures 3 and 4).

Thermal Cutting Requirements

The following thermal cutting requirements are to be used when manufacturing gussets. Material shall conform as follows:

- a. Cut edge roughness to be a maximum of 2000 RMS.
- b. Kerf angle deviation four degrees (4°) maximum.
- c. No micro cracks at cut edge.
- d. Remove slag produced by cutting.
- e. Cut edge imperfections greater than .06 inch (2 mm) in depth must be repaired by welding. Imperfections less than .06 inch (2 mm) in depth are to be removed by grinding. The depth of the conditioning depression prior to welding shall be measured from the edge inward and shall be limited to a maximum depth .500 inch (13 mm).

Thermal Cutting General Data

- a. After removal of any crack-like imperfections and prior to welding, the cavity shall be examined by a magnetic particle method or a liquid penetrant method to ensure that the imperfection has been completely removed. When magnetic particle examination is employed, the cavity shall be examined parallel and normal to the length of the cavity.
- b. All weld repairs and adjacent heat-affected zone shall be sound and free of cracks, the weld metal being thoroughly fused to all surfaces and edges without undercutting or overlap. Any visible cracks, porosity, lack of fusion, or undercut in any layer shall be removed prior to deposition of the succeeding layer. Weld metal shall project at least .06 inch (2 mm) above the mill-rolled surface after welding. The projecting metal shall be removed by chipping or grinding. Removing the projecting metal is done in order to make it flush with the rolled surface, and to produce a workmanlike finish (2000 RMS maximum).

2. Using dye penetrant, inspect the entire work area for cracks. Document each step with photographs.
3. If any cracks are found in the vertical side and bottom plates of the deck support they are to be repaired first. Follow all procedures for crack repairs as detailed in the Parts & Service News (AA00046C).

⚠ CAUTION

Do not grind into the top of the horse collar structure. The weld should be ground flush to the parent material.

4. Review the installation drawing. Grind the existing welds as detailed. Clean all surfaces. Check for any cracking. Repair as required.
5. Grind edges of existing bottom plate of deck support front and rear as detailed in Figure 2.
6. Locate the side gusset plate on rear. Additional grinding may be required for proper fit up. Once located, tack into location.
7. Locate bottom rolled plate as shown in Figure 2. Clamp rolled plate tight to insure no gaps in rolled portion.
8. Preheat area and weld as detailed in Parts & Service News (AA00045C).

⚠ IMPORTANT ⚠

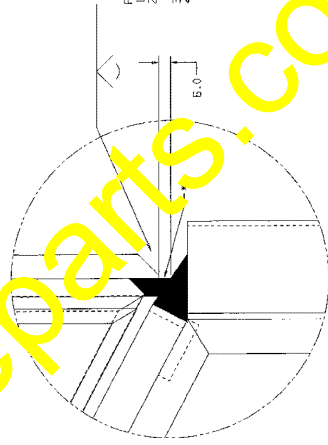
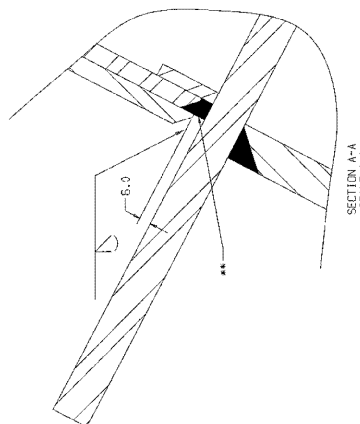
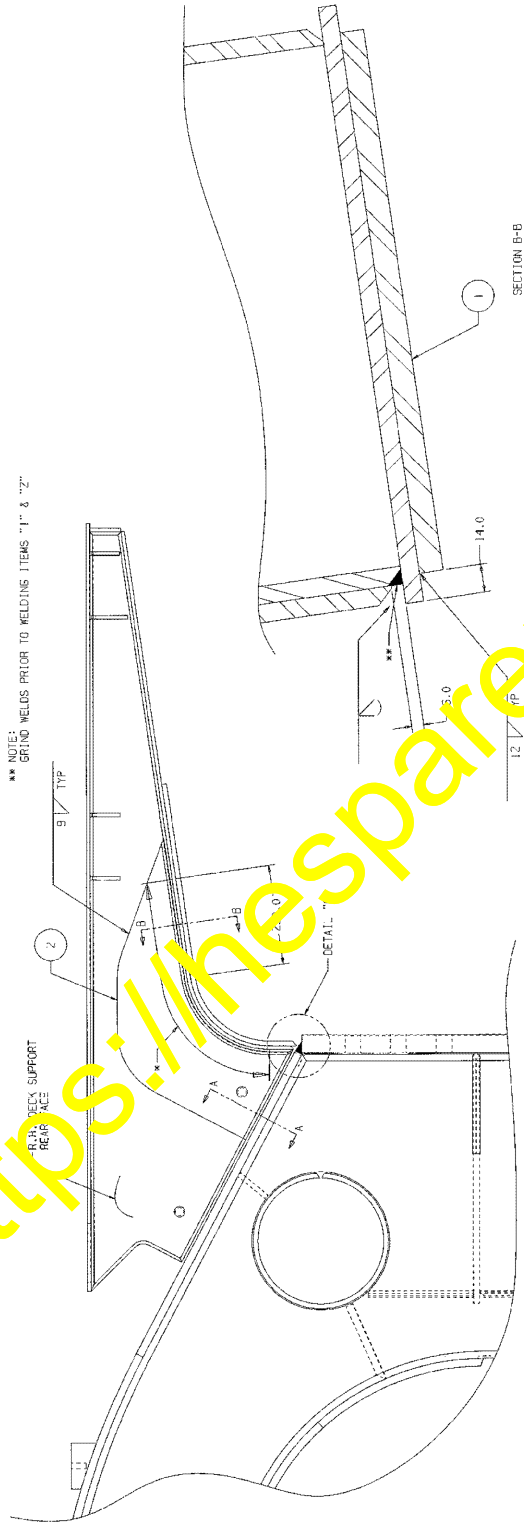
Plate position and fitup is critical for a good weld joint.

9. Post heat as detailed in Parts & Service News (AA00046C).
10. Inspect, clean, and paint the entire area.

ITEM NO.	QTY	PART NO.	DESCRIPTION
1	1	EK 9012	PLATE, BOTTOM
2	1	EK 9013	PLATE, SIDE REAR

* NOTE: GRIND EDGE OF ROLLED PLATE TO REMOVE BURRS FROM STRUCTURE PRIOR TO WELDING ITEMS "1" & "2".

** NOTES: GRIND WELDS PRIOR TO WELDING ITEMS "1" & "2".



PROCEDURE NOTE:
 1) REPAIR ALL CRACKS PER KOWATSI PARTS AND SERVICE "AA03146C".
 2) GRIND EDGES OF ROLLED BOTTOM PLATE FRONT AND REAR ON EXISTING FLIGHT HAND DECK SUPPORT IN AREA MARKED "A".
 3) GRIND WELDS TO BE WELDED AS SHOWN.
 4) INSTALL ALL PARTS AS SHOWN.

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FIGURE 2. DECK SUPPORT KIT REWORK DRAWING (EK9011)

The components required to reinforce the deck support are illustrated below:

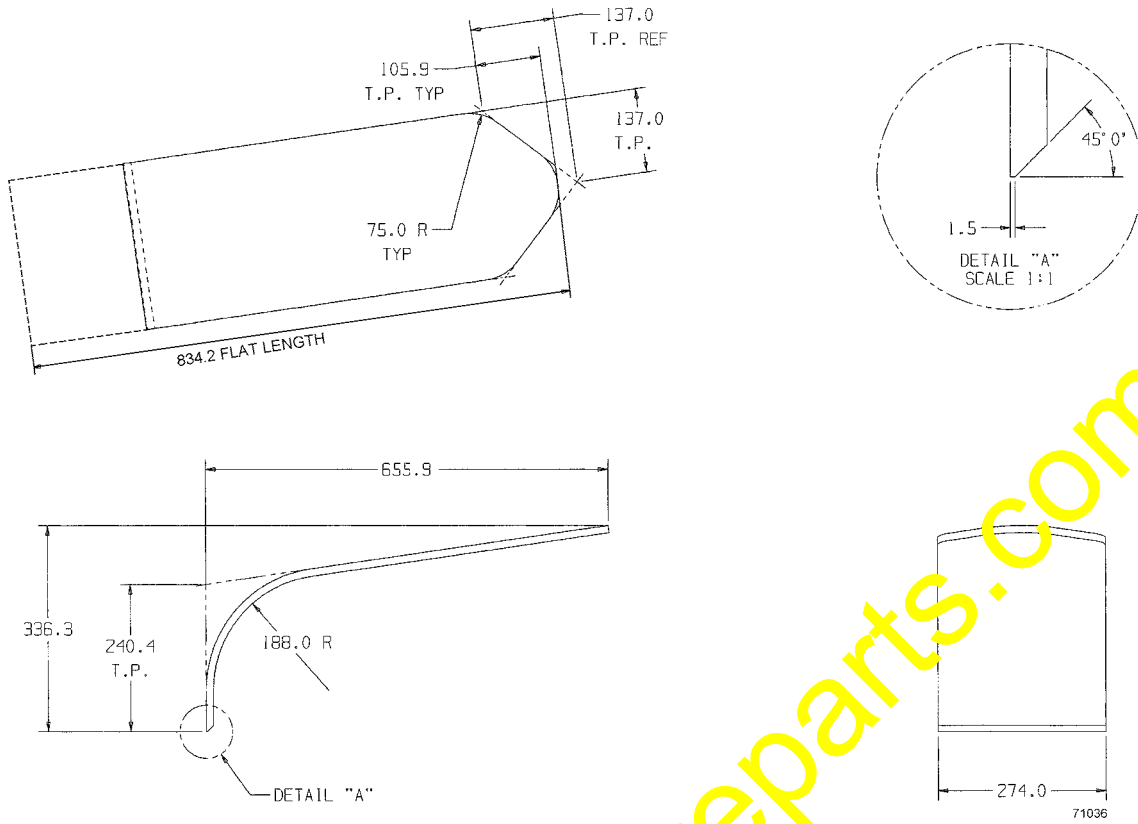


FIGURE 3. BOTTOM PLATE (EK9012)

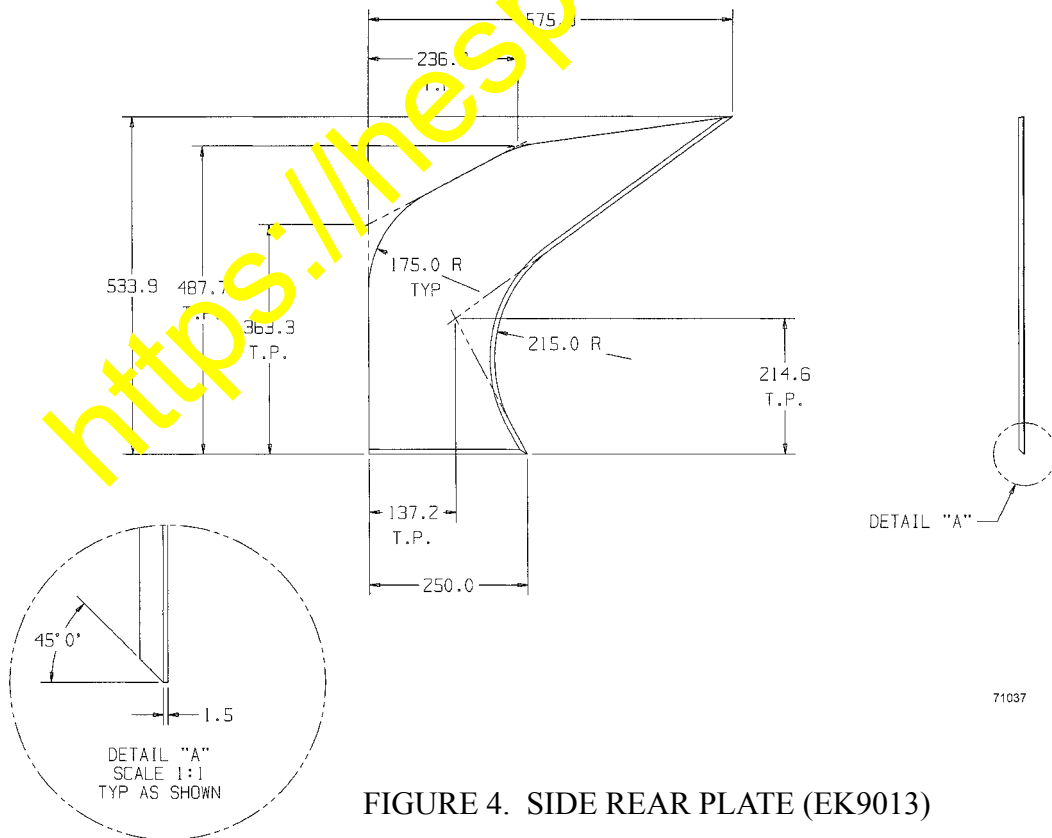


FIGURE 4. SIDE REAR PLATE (EK9013)