

PARTS & SERVICE NEWS

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SUBJECT: RADIATOR REINFORCEMENT KIT (XK0305)

PURPOSE: To introduce reinforcement kit and installation procedure.

APPLICATION: Komatsu Wheel Loaders:
WA800-3LC: A50001 and up;
WA900-3LC: A50001 and up

FAILURE CODE: 0321AF, 0321HA

DESCRIPTION: Reinforcement of radiator top tank to prevent cracks at fill neck joint.

Some wheel loaders may form a crack or pin-hole leak at the radiator fill neck joint to the top tank plate. A new kit (XK0305) welds two external bars to the top tank. The tank is stiffened and stress is reduced at the soldered joint of the fill neck area, thus preventing cracks.

The internal fill neck extension tube is also being eliminated. The elimination of the tube will improve the air vent rate while the radiator is filled with coolant.

Contents of Radiator Reinforcement Kit (XK0305)

Part Number	Description	Quantity	Remarks
EK9529	Radiator Rework Drawing		
XA2522	Fill Neck	1	May not be required.
PC1708	Seat, Fill Pipe	1	May not be required.
427-03-11191	Gasket	1	Required only if top tank is removed.
EF8225	Bar	2	May be sourced locally.

Preparation

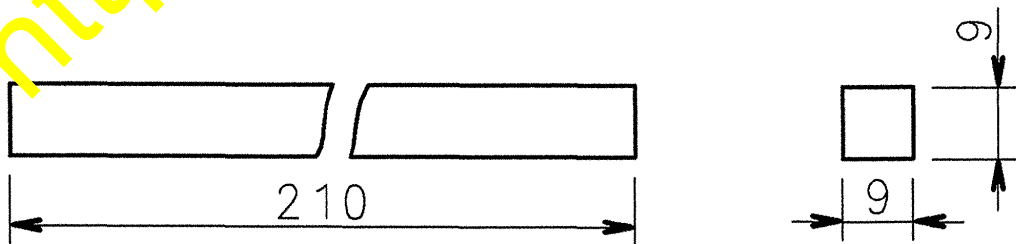
1. Remove the radiator guard. Refer to appropriate Shop Manual and Parts & Service News AA02118A for disassembly details.
2. If it is decided that the solder operation is not possible to perform while the radiator is mounted to the loader frame, further disassembly is required. This may include removing the radiator from the loader frame or removing the top tank from the radiator. The radiator or the top tank can then be moved to a more convenient work place.
3. Prepare the area around the fill neck for disassembly. Remove existing solder and the fill neck sub-parts. Prepare to solder the neck assembly to the tank.
4. Prepare to weld two steel bars to the top surface of the top tank. Preparation for this requires removal of paint and corrosion.

Rework Procedure:

1. Heat the solder and remove the fill neck (2, Figure 2) and seat extension assembly (1) from tank. Clean and flush around the fill hole.
2. Remove the paint from the top tank plate in the area where the bars are to be welded. Weld the two reinforcement bars (5). Refer to Figure 1 for reinforcement bar specifications.
3. Refer to Figure 3. Apply a small amount of solder to seat and to tank and to fill neck surfaces.
4. Refer to Figure 2. Set seat on tank correctly. Set fill neck on seat, using care to set the angle of the overflow tube.
5. Apply heat and solder to fill neck, seat and tank. Solder height should be 2 - 3 mm around neck as shown in Figure 3.
6. Refer to Figure 4. Remove the coolant level sensor and inspect the coolant level sensor port to confirm that the lower and upper passages are unobstructed. Reinstall coolant level sensor.
7. Clean surfaces and apply black touch up paint.

Reassembly:

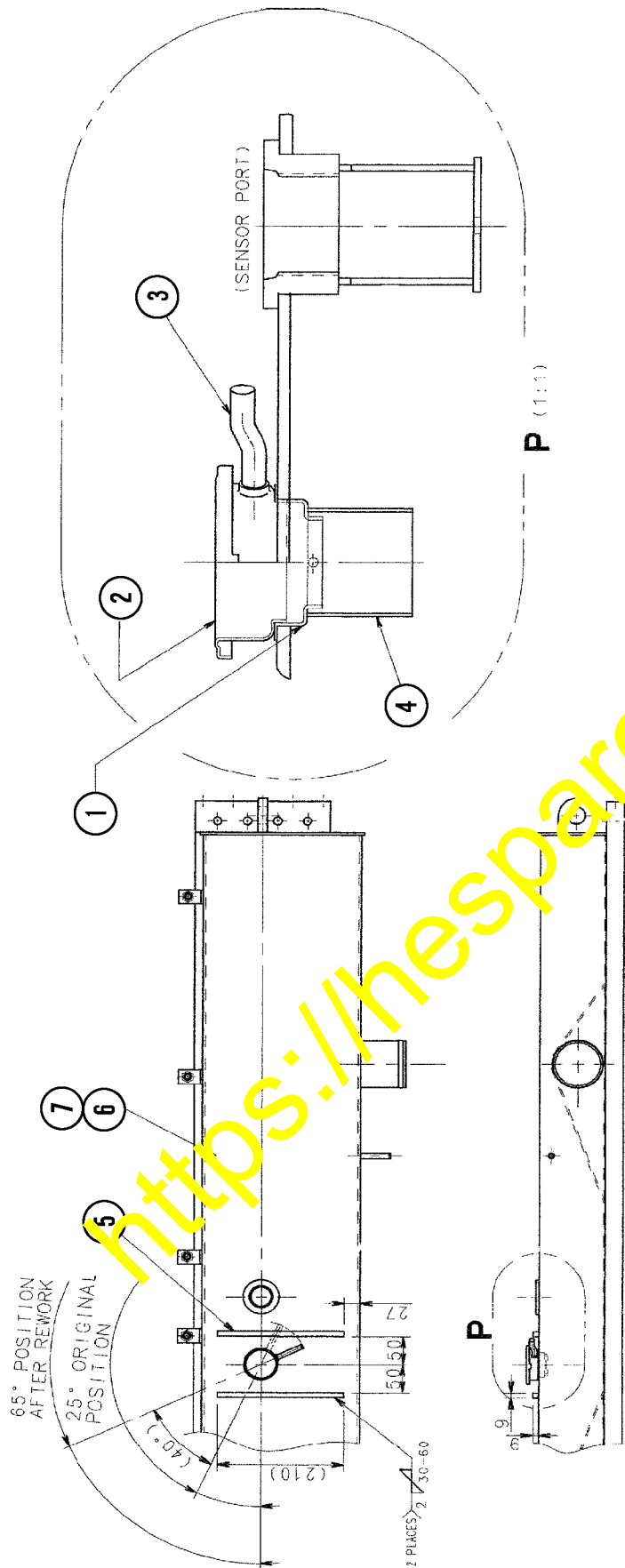
1. If disassembled, reassemble the radiator and top tank using a new gasket (427-03-11191).
2. Reinstall radiator to loader frame, reconnect hoses, attach any other items removed.
3. Reinstall the radiator guard. Refer to the appropriate Shop Manual and Parts & Service News AA02118A for installation instructions.
4. Replace coolant and check for leaks.



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Material Spec: SS400, ASTM A36

FIGURE 1. BAR (EF8225)



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1. Heat the solder and remove the fill neck and seat extension assemblies from tank.
2. Weld the two reinforcement bars (EF8225) as shown above.

FIGURE 2. RADIATOR REWORK

- | | |
|--------------------------------|-------------------------------------|
| 1. Seat Assembly | 5. Reinforcement Bar (EF8225) |
| 2. Fill Neck/Overflow Assembly | 6. Upper Tank (427-03-25410) |
| 3. Overflow Tube | 7. Radiator Assembly (427-54-21400) |
| 4. Extension Tube | |

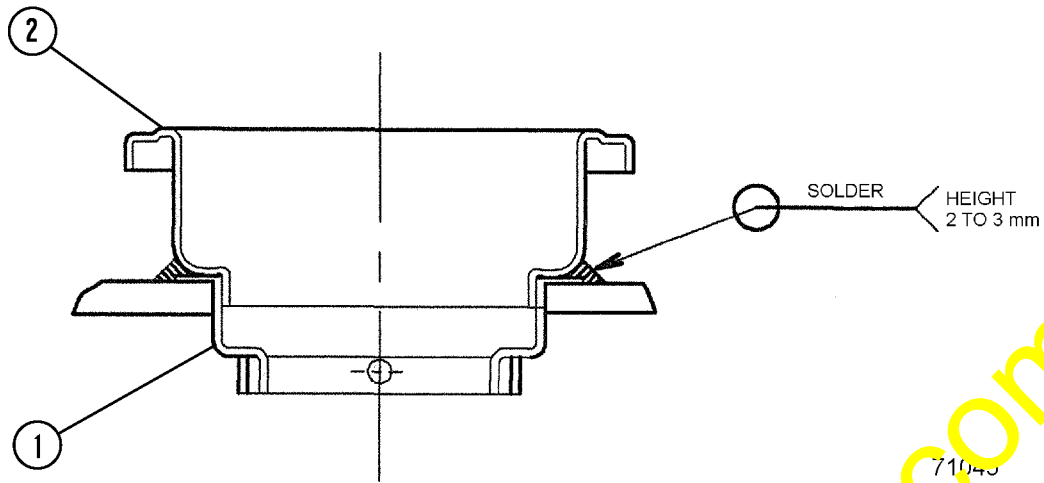


FIGURE 3. SOLDER NECK ASSEMBLY TO TANK

1. Seat Assembly

2. Fill Neck / Overflow Assembly

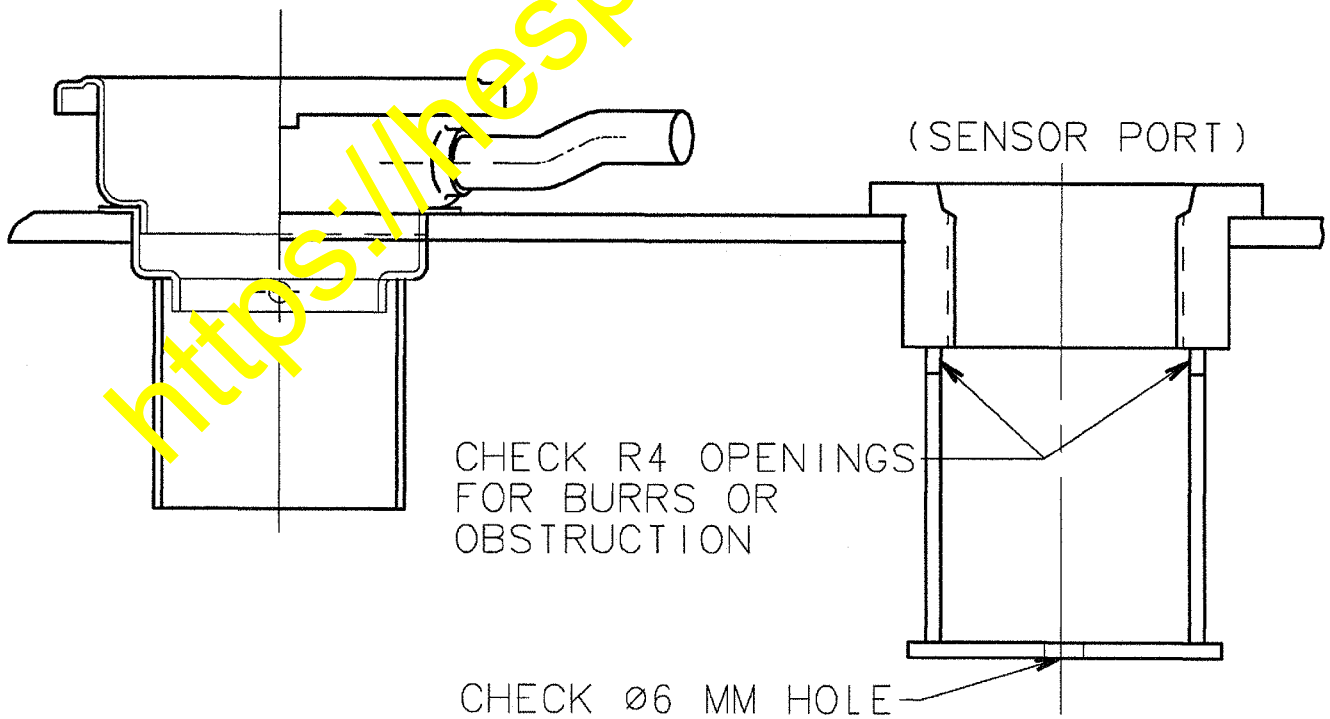


FIGURE 4. SENSOR PORT INSPECTION

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