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RAIL

SERVICE BULLETIN

MAINTENANCE OF WAY EQUIPMENT

DATE: 2-24-2011 **BULLETIN NO:** 11-002

TITLE: IN-LINE FUSE REPLACEMENT

RATING:

<input type="checkbox"/>	DIRECTIVE (Action Is Required)	<input type="checkbox"/>	ALERT (Potential Problem)
<input checked="" type="checkbox"/>	INFORMATION (Action Is Optional)	<input type="checkbox"/>	PRODUCT IMPROVEMENT (Enhance Product)

PRODUCT SERIES / MODEL: All 6700S Tampers Manufactured 1997 - 2003

SERIAL NO BNSF: 152888 - 152894, 152920 - 152925, 152991 - 153002, 152966 - 152971, 153054 - 153059, 153090 - 153085, 153109 - 153120, 153143 - 153158, 153203 (6700SJ), 153204 - 153215

UPRR: 152755 - 152763, 152903 - 152911, 152982 - 152990, 153060 - 153068, 153127 - 153129

Other: 137119, 146761, 152722 - 152730, 152733 - 152735, 152742 - 152745, 152747 - 152753, 152773 - 152797, 152899, 152900, 152953 - 152962, 152976, 152977, 153032 - 153046, 153071 - 153079, 153088 - 153090, 153105, 153121, 153122, 153124 - 153133, 153174 - 153176, 153185 - 153187, 153197 - 153201, 153221, 153222

SUMMARY: Beginning in 1997, a 50 amp in-line main fuse was installed in the engine shroud which provided the main electrical feed to the cab. In 2004, this fuse was replaced by a 60 amp resettable circuit breaker and relocated to an area that was more accessible for maintenance.

OPERATIONAL IMPACT: The in-line fuse location was not conducive to maintenance and the location was also prone to oil baths which coated the fuse and associated wiring.

ACTION: Harsco Rail Conversion Kit # 5005744 is available which provides parts and instructions for replacing the in-line fuse with a circuit breaker and moving it to a location that provides better maintenance access.

CONTACT: If you have any questions or if we can be of any service, please contact:

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SAFETY INFORMATION

- **FOLLOW APPLICABLE RAILROAD LOCKOUT - TAGOUT PROCEDURE TO REMOVE MACHINE FROM ENERGY SOURCES. FAILURE TO COMPLY COULD RESULT IN SEVERE BODILY INJURY.**

CONVERSION KIT INSTALLATION - See Drawing # 5005744

1. Battery disconnect switch should be in the OFF position.
2. Disconnect the Positive terminal from the battery to ensure there is no live voltage present.
3. Locate an area at the right front of the engine shroud to mount the circuit breaker pad.
 - a. This can be welded in place, or bolted on using the two 1/4" mounting holes (See Figure 1 on Drawing).
4. Install the circuit breaker to the pad.
5. Locate the Fuse Block in the engine compartment on the right side frame member (See Figure 2 on Drawing).
6. Remove the two #324A wires from the fuse block.
 - a. One #324A wire goes to the Hydraulic Tank Fill Solenoid SOL3552.
 - b. Thoroughly inspect the insulation on this wire. If the insulation is deteriorated in any way (crumbly, spongy, etc.), replace the wire.
 - c. Route this wire from the solenoid to the Circuit Breaker and connect to the AUX terminal. Label as Wire #324A.
 - d. The other #324A wire provides the main voltage feed into the cab.
 - e. Thoroughly inspect the insulation on this wire as it is to be re-used. If the insulation is deteriorated in any way (crumbly, spongy, etc.), cut off the failed portion of the wire and butt splice on a new section of #8 wire (use butt connector and heat shrink tubing).
 - f. Route this wire to the Circuit Breaker and connect to the AUX terminal. Label as Wire #324A.
7. Locate Wire #301A running from the Fuse Block to the E-Pump solenoid.
 - a. Remove this wire and discard.
 - b. Install a #8 wire from the E-Pump solenoid to the Circuit Breaker and connect to the BAT terminal.
 - c. Label as Wire #301A.

CONVERSION KIT INSTALLATION - See Drawing # 5005744

8. Check to make sure there are no more wires terminated to the Fuse Block.
 - a. Wires that remain need to be removed from the Fuse Block and routed to the Circuit Breaker for connection.
 - b. Inspect the insulation of the wire before connection and replace if necessary.
 - c. Make sure the connection is on the correct terminal of the Circuit Breaker.
9. Install the plexiglas cover onto the circuit breaker pad.
10. Re-connect the Positive terminal of the battery.
11. Turn the battery disconnect switch to the ON position.
12. Verify all electrical circuits are functional.

CONVERSION KIT PARTS LIST - See Drawing # 5005744

ITEM	PART NO	DESCRIPTION	QTY
	5006252	CONVERSION KIT	1
10	5005585	Circuit Breaker, Mounting Plate	1
20	2011507	Circuit Breaker, 60 AMP	1
30	2013183	Hex Standoff - #10-32 x 5/16"	4
40	5005718	Circuit Breaker Cover	1
50	250046-210	Screw - Machine, Pan Head, #10-32 x 3/8"	4
60	150968-7	Washer - Star, Internal Tooth, #10	4
70	150973-2	Washer - Plain, 1/4"	2
80	250010-3	Screw - Hex Head Cap, 1/4"-20 x 3/4"	2
90	254473-1	600V Butt Connector, Short	3
100	2557	Terminal - Ring #8 AWG 1/4" Stud	6
110	6104	Terminal - Ring #8 AWG 5/16" Stud	6
120	155708-1	Terminal - Ring #8 AWG 3/8" Stud	2
130	350545-6	Wire - 8 AWG 600V, Poly-Rad XT	30
140	151655-1	Heat Shrink Tube w/ Sealant 3/8" x 1/8" ID	1
150	5002404	Hard Copy Of Drawing And Bill Of Material	1
160	5006252	Wire Markers For 50005744	1

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SUGGESTED LOCATIONS

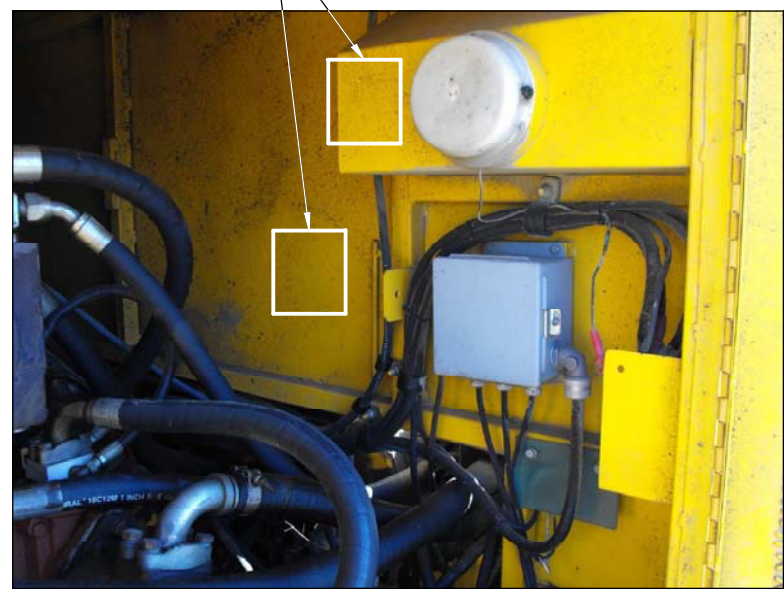


FIG 1. SUGGESTED LOCATION FOR CIRCUIT BREAKER MOUNTING

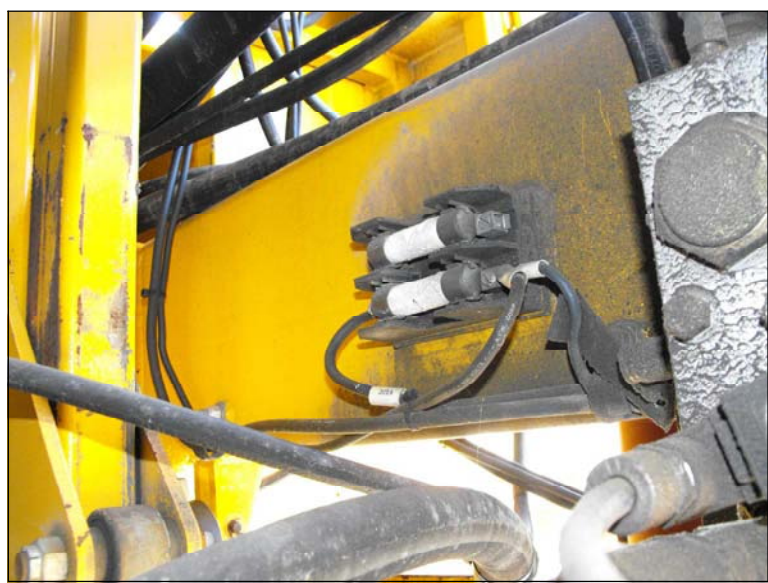


FIG 2. EXISTING FUSE BLOCK

IN-LINE FUSE CONVERSION

MAKE IT SAFE

1. Battery disconnect switch should be in the OFF position
2. Disconnect the Positive terminal from the battery to ensure there is no live voltage present.

INSTALL THE CIRCUIT BREAKER

3. Locate an area at the right front of the engine shroud to mount the circuit breaker pad.
 - a. This can be welded in place, or bolted on using the two 1/4" mounting holes (See Fig 1).
4. Install the circuit breaker to the pad.

WIRE IT UP

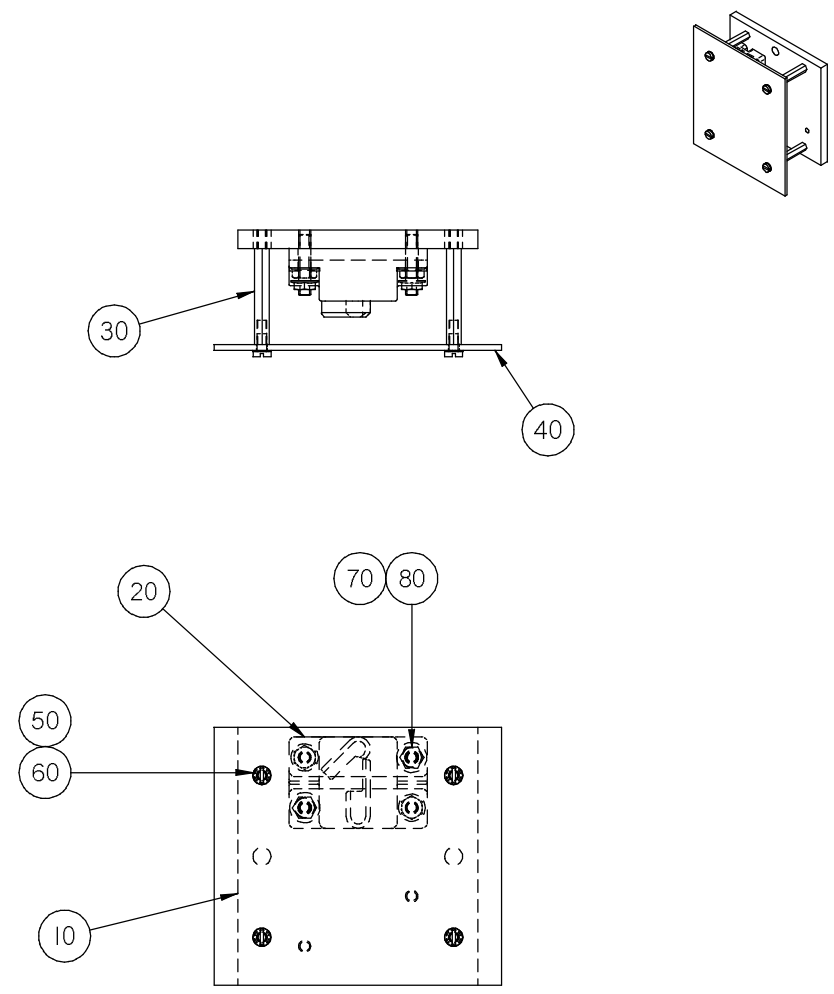
5. Locate the Fuse Block in the engine compartment on the right side frame member (See Fig 2).
6. Remove the two # 324A wires from the fuse block.
 - a. One wire goes to the Hydraulic Tank Fill Solenoid SOL3552.
 - b. Inspect the insulation on this wire. If the insulation is crumbly or spongy, replace the wire.
 - c. Route the wire from the solenoid to the circuit Breaker and terminate at the AUX connection. Label as Wire # 324A.
 - d. The other 324A wire provides the main voltage feed into the cab.
 - e. Thoroughly inspect the insulation on this wire as it is to be re-used.
 - i. If the insulation on the wire is crumbly or spongy, cut off the failed portion of the wire and butt splice on a new section of #8 wire (use butt connector and heat shrink tubing).
 - f. Route this wire to the Circuit Breaker, label as Wire # 324A, terminate to AUX terminal.
7. Locate Wire # 301A running from the Fuse Block to the E-Pump solenoid.
 - a. Remove this wire and discard.
 - b. Install a #8 wire from the E-Pump solenoid to the Circuit Breaker BAT terminal.
 - c. Label as Wire # 301A.
8. Check to make sure there are no more wires terminated to the Fuse Block.
 - a. Wires that remain need to be removed from the Fuse Block and routed to the Circuit Breaker for termination.
 - b. Inspect the insulation of the wire before termination and replace if necessary.
 - c. Make sure the connection is on the correct terminal of the Circuit Breaker.

FINISH IT UP

9. Install the plexiglass cover onto the circuit breaker pad.
10. Re-connect the Positive terminal of the battery.

Item Number	Document Number	Quantity	Title
10	5005585	1	CIRCUIT BREAKER, MTG PLATE
20	2011507	1	CIRCUIT BREAKER, 60 AMP
30	2013183	4	31 HEX STANDOFF- #10-32
40	5005718	1	CIRCUIT BREAKER COVER
50	250046-210	4	SCREW-MACH, PAN HD, #10-32 X .38 LG
60	150968-7	4	WASHER- STAR, INT TOOTH, #10
70	150973-2	2	WASHER- PLAIN, 25
80	250010-3	2	SCREW-HHC, 25-20 X .75 LG
90	254473-1	3	600V BUTT CONN. SHORT
100	2557	6	TERMMINAL-RING #8 AWG .25 STUD
110	6104	6	TERMINAL-RING #8 AWG .31 STUD
120	155708-1	2	TERMINAL-RING #8 AWG .37 STUD
130	350545-6	30	WIRE-8 AWG, 600V, POLYRAD XT
140	151655-1	1	HEAT SHRINK TUBE W/SEALANT .37-12 ID
150	5002404	1	HARD COPY OF DRAWING AND BOM
160	5006252	1	WIRE MARKERS FOR 50005744

NOT SHOWN (90) (100) (110) (120) (130) (140) (150) (160)



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<p>Material</p> <p>4.5 lbm</p>	<p>Weight</p> <p>4.5 lbm</p>	<p>Drawn</p> <p>bedel</p>	<p>Date Drawn</p> <p>2/14/2011</p>	<p>Part Number</p> <p>5005744</p>	<p>Sheet</p> <p>1 of 1</p>					