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## SERVICE BULLETIN

### MAINTENANCE OF WAY EQUIPMENT

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**DATE:** 8-2013

**BULLETIN NO:** 13-011

**TITLE:** Verification of P.O. Check Valve Installation

**RATING:**

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

**PRODUCT SERIES / MODEL:** HR4100 Series B Rear HY-RAIL® Guide Wheel Units

**SERIAL NO:** N/A

**SUMMARY:** It has come to the attention of HarSCO Rail that there is a possibility that the hydraulic cylinders on the HR4100B1 Rear Guide Wheel Unit may have cavity plugs installed in the valve body instead of P.O. check valves. HarSCO Rail is providing this procedure for checking the hydraulic cylinders to verify that P.O. check valves are installed in the valve body. HarSCO Rail recommends the inspection procedure be performed at an approved HY-RAIL® guide wheel equipment repair facility.

**OPERATIONAL IMPACT:** Provided that the guide wheel unit has been properly maintained and the unit locks are operating properly, the units will function as designed without the P.O. check valves. If the locks, manual, pneumatic and / or hydraulic, are not operating properly and / or not engaged, the guide wheel unit will drift down from the highway position or raise from the rail position if the P.O. check valves are not installed in the valve body on the hydraulic cylinder.

**ACTION:** Follow the instructions in this service bulletin to verify that P.O. check valves are installed in the valve body on the hydraulic cylinders. If the P.O. check valves are not present, install new P.O. check valves, HarSCO Rail # 188360. HarSCO Rail recommends the inspection and installation procedures be performed at an approved HY-RAIL® guide wheel equipment repair facility.

**CONTACT:** HarSCO Rail Service Department  
Columbia, SC Facility  
(803) 822-7546

HY-RAIL® Repair Parts: (507) 235-7143

**SAFETY INFORMATION**

- **FOLLOW APPLICABLE RAILROAD LOCKOUT - TAGOUT PROCEDURES TO DISABLE ENERGY SOURCES WHEN PERFORMING MAINTENANCE, MAKING ADJUSTMENTS OR REPAIRS TO THE VEHICLE OR EQUIPMENT.**
- **THE GUIDE WHEEL UNIT LOCKS MUST BE ALWAYS BE ENGAGED WHEN OPERATING ON RAIL, ON HIGHWAY AND WHEN SERVICING THE HY-RAIL® GUIDE WHEEL EQUIPMENT.**
- **FAILURE TO HEED THESE WARNINGS COULD RESULT IN SEVERE BODILY INJURY.**

**Procedure for Inspection / Installation of P.O. Check Valves**

See Figures 1, 2 and 3

1. Locate the vehicle on straight level track.
2. Place the automatic transmission in park or manual transmission in neutral. Apply the parking brakes.
3. Disengage the rear guide wheel unit locks. Using the control valve, lower the guide wheels until they are resting on the rail. Do not fully lower the guide wheels and place any of the vehicle load on the guide wheels.
4. Stop the hydraulic power source. Stop the vehicle's engine. Move the guide wheel raise / lower control valve back and forth several times to relieve hydraulic pressure to the hydraulic cylinders.
5. Place a catch pan under the hydraulic cylinder to catch hydraulic fluid that may spill.
6. Using the correct size wrench, slowly loosen the cavity plug or P.O. check valve (1). If hydraulic fluid comes out around the cavity plug or P.O. check valve, stop loosening until the hydraulic fluid stops to ensure pressure is fully relieved in the hydraulic cylinder valve body (2).
7. Continue to unscrew the cavity plug or P.O. check valve (1) until it is removed from the valve body (2).
8. Inspect the removed item (1).
  - a. If the removed item is the P.O. check valve as shown in Figure 1, reinstall it. Torque the P.O. check valve to 30 - 35 lb-ft (41 - 47 Nm).
  - b. If the removed item is the cavity plug as shown in Figure 3, it must be replaced with the P.O. check valve Harsco Rail # 188360. Torque the P.O. check valve to 30 - 35 lb-ft (41 - 47 Nm). Discard the cavity plug.
9. Perform the above procedure on all four P.O. check valves on the guide wheel unit.

**Procedure for Inspection / Installation of P.O. Check Valves**

- 10. After completing the procedure, start the vehicle engine and hydraulic power source. Raise and lock the guide wheel unit in the highway position.

FIGURE 1  
HYDRAULIC CYLINDER MOUNTED ON GUIDE WHEEL UNIT

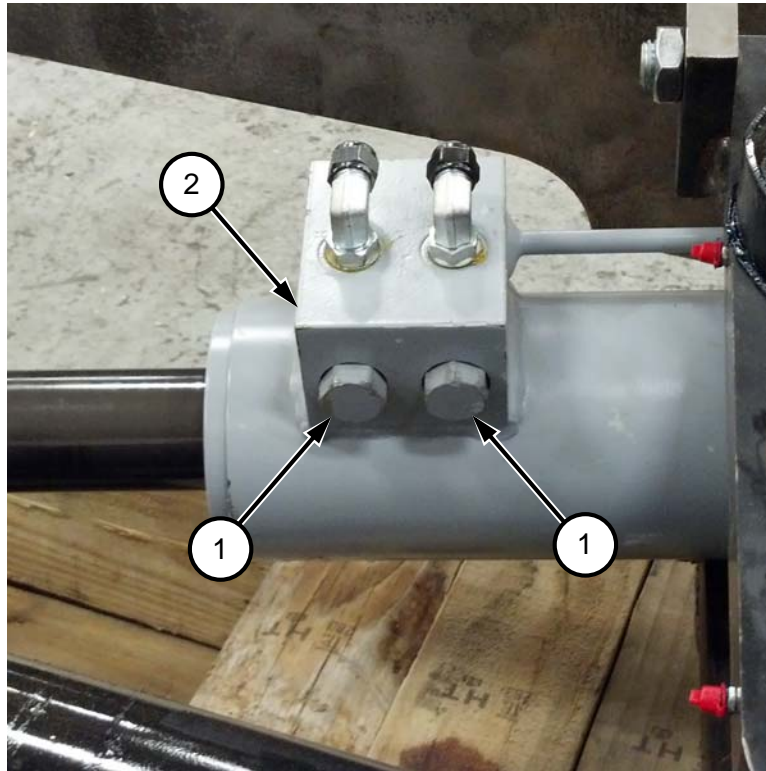


FIGURE 2  
P.O. CHECK VALVE - CORRECT



FIGURE 3  
CAVITY PLUG - INCORRECT



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