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RAIL

SERVICE BULLETIN

MAINTENANCE OF WAY EQUIPMENT

DATE: 4-2015

BULLETIN NO: 15-008

TITLE: Stub Axle Bolts And Insulated Components

RATING: **DIRECTIVE**
(Action Is Required) **ALERT**
(Potential Problem)

INFORMATION
(Action Is Optional) **PRODUCT IMPROVEMENT**
(Enhance Product)

PRODUCT SERIES / MODEL: HR1500 Series B3 and HR1500 Series C1 HY-RAIL®
Guide Wheel Units

SERIAL NO: N/A

SUMMARY: Harsco Rail has become aware of a possible issue caused by improper assembly procedures of the integral spindle, stub axle assemblies and wheel assemblies. On the affected units there are two potential conditions.

1. The M12 socket head cap screws were not torqued properly and Loctite was not applied.
2. Improper insulation of wheel assembly.

Harsco Rail is pro-actively requesting that you take action on any of your vehicles that have HR1500 Series B3 or HR1500 Series C1 HY-RAIL® Guide Wheel Units manufactured between October 2014 and April 2015. If your vehicle is affected, it must be removed from service and taken to an approved HY-RAIL® guide wheel equipment repair facility.

OPERATIONAL IMPACT: Integral spindle mounting bolts could fail prematurely. Failure of these bolts may result in the loss of the spindle and guide wheel. Improper insulation of the wheel assembly could cause track circuit shunting.

ACTION: The affected vehicle must be removed from service and taken to an approved HY-RAIL® guide wheel equipment repair facility. If no facility is accessible due to remote location, a facility qualified to properly assemble a rail gear may be used. A list of the approved HY-RAIL® guide wheel equipment repair facilities can be found at www.harscorail.com. Follow the instructions in this Service Bulletin to replace the integral spindle mounting bolts, washers, insulating parts and to measure the resistance of the rail gear assembly. The vehicle may be returned to service once the procedure is completed and the guide wheel equipment has been re-aligned and track tested. Always make sure to do a complete walk around inspection of the vehicle and guide wheel equipment daily.

CONTACT: HY-RAIL® Parts Sales: (507) 235-7143
HY-RAIL® Parts Sales Fax: (507) 235-7341
(Contact for external vendor billing / payment)
HY-RAIL® Service: (507) 235-7137

SAFETY INFORMATION

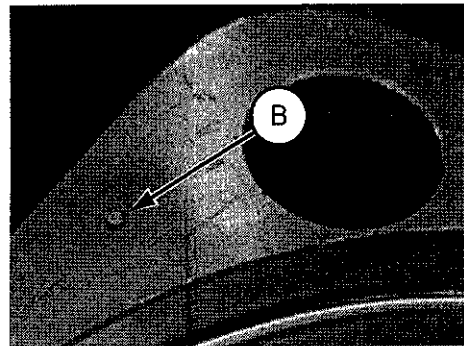
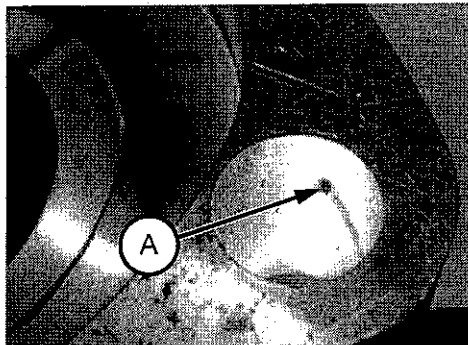


- **FOLLOW APPLICABLE RAILROAD LOCKOUT - TAGOUT PROCEDURES TO DISABLE ENERGY SOURCES WHEN PERFORMING MAINTENANCE, MAKING ADJUSTMENTS OR REPAIRS TO THE VEHICLE OR EQUIPMENT. FAILURE TO HEED THIS WARNING COULD RESULT IN SEVERE BODILY INJURY.**

Service Bulletin Instructions - See Figures 1 and 2

1. Estimated time for disassembly, assembly, string lining and track testing: 4 hours.
2. Make sure the vehicle transmission is in PARK or NEUTRAL and the parking brakes are applied. Stop the vehicle engine. Lock-out / Tag-out vehicle ignition switch.
3. To be able to remove and replace the three M12 socket head cap screws (1), washers (2) and the relevant insulated components provided in the Service Group Kit properly, the stub axles will need to be removed from the guide wheel unit.
4. Remove the four 1/2"-20 disc lock nuts, 1/2" washers and 1/2" hex head cap screws to remove the stub axle from the guide wheel unit.
5. Remove the three M12 socket head cap screws (1), M12 washers (2), insulated washers (3) and insulated bushings (4) inside the mounting holes to remove the integral spindle from the stub axle. Remove the insulated gasket (5) and insulated ring (6) from the inside the stub axle. Discard the M12 socket head cap screws (1), M12 washers (2) and insulated components (3, 4, 5 and 6) that were removed.
6. Clean the threaded holes and the flat mating surface of the integral spindle. Clean the mating and seating surfaces of the stub axle. Remove any weld spatter (A) from clearance holes for insulated bushing (4) and flat surfaces (B) that contact insulating gasket (5). Inspect the threads, holes and mating faces of the removed components for damage. If any damage is found, the component must be replaced.

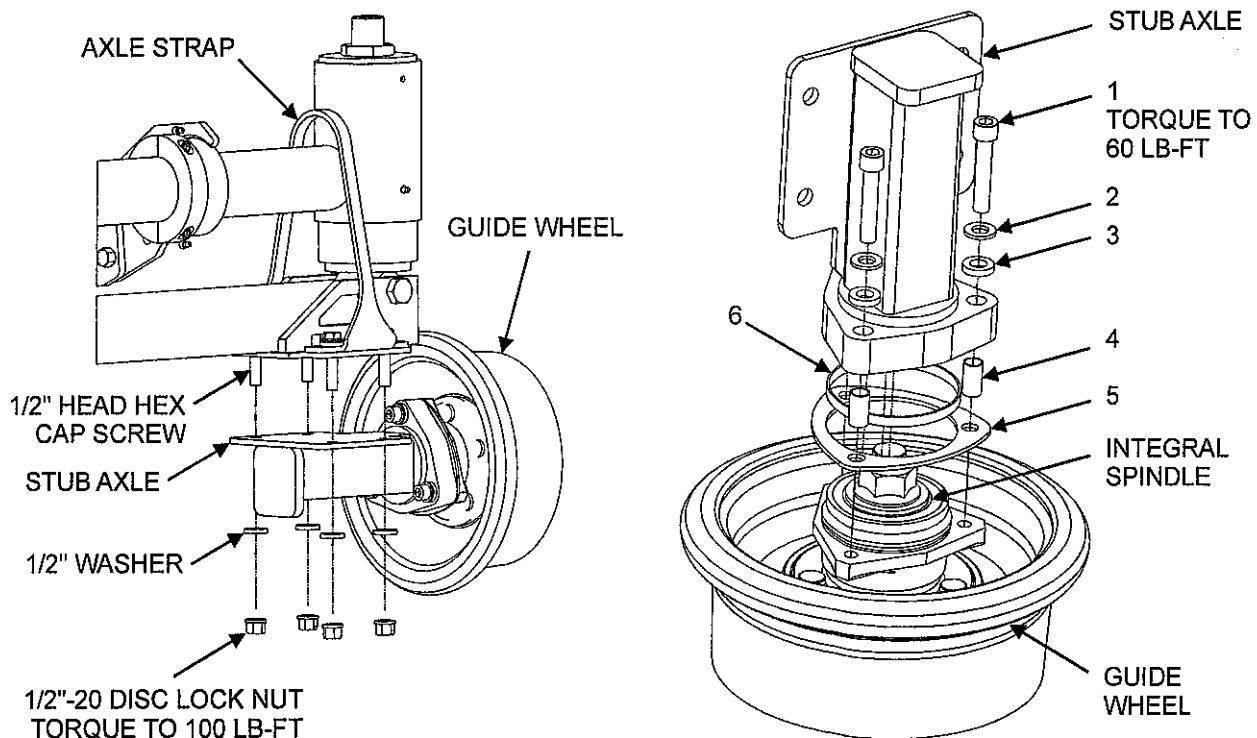
FIGURE 1
WELD SPATTER INSPECTION



Service Bulletin Instructions - See Figure 2

7. Inspect all hardware to be re-used for damage. If any hardware is found to have damage, the hardware must be replaced.
8. Install the new insulated ring (6) in the stub axle. When installing, ensure that the insulated ring (6) sits flush within the seating surface of the stub axle. Install the new insulated gasket (5) on the integral spindle.
 - a. If 1/16" thick gaskets (5) are supplied in the kit, use two per wheel.
 - b. If 1/8" thick gaskets (5) are supplied in the kit, use only one per wheel.
 Align the holes between the new gaskets (5) and the holes on the integral spindle surface. Insert the new insulated bushing (4) into the mounting holes of the stub axle. Install the stub axle onto the integral spindle.
9. Secure the integral spindle to the stub axle with the three new M12 x 60 mm socket head cap screws (1), three new M12 washers (2). Make sure the M12 washers and new insulated washers (3) are properly in place between the M12 socket head cap screws (1) and the flange on the stub axle. Torque the M12 socket head cap screws (1) to 60 lb-ft (81 N-m).
10. Using a quality digital multi-meter such as a Fluke 77, or equivalent, measure the resistance from one rail wheel, lug nut or stud to the stub axle. The measurement should read OL or open circuit for both wheels. If so, proceed to step 11. If not, do not use this spindle / stub axle assembly and order a complete replacement assembly, Harsco Rail # 5054992.

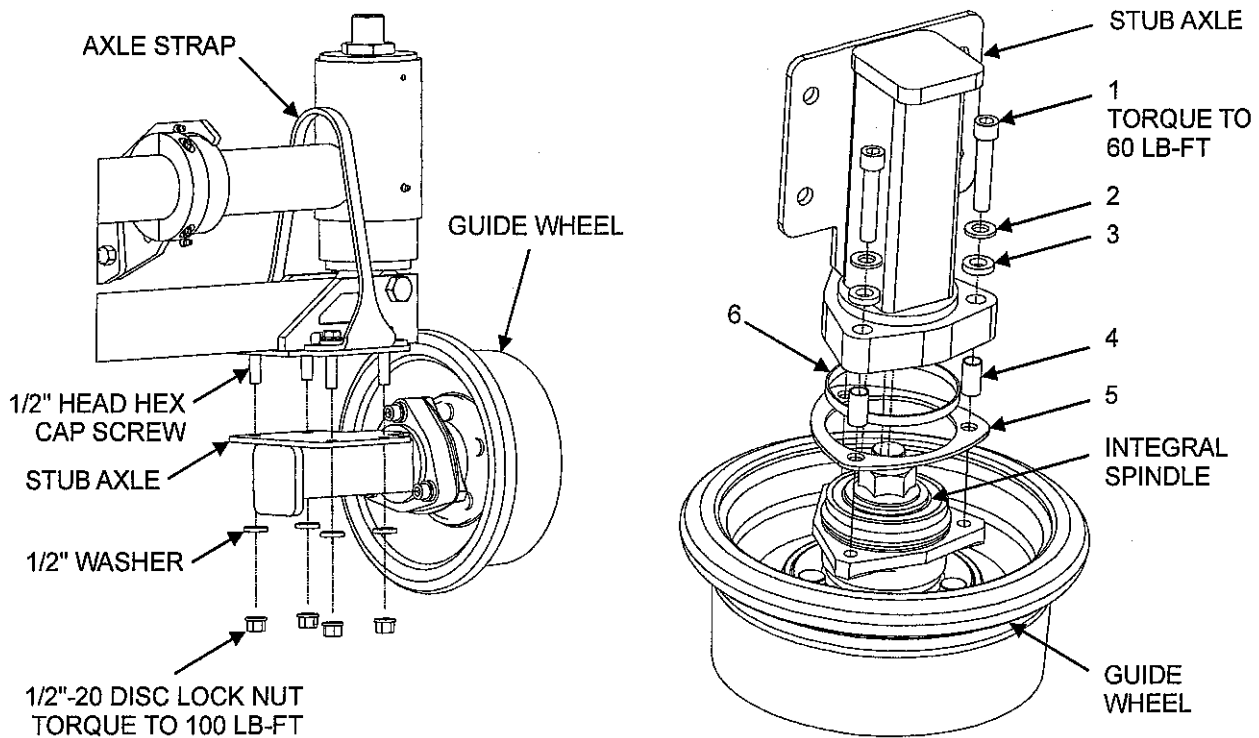
FIGURE 2
STUB AXLE DISASSEMBLY / ASSEMBLY



Service Bulletin Instructions - See Figure 3

11. Assemble the stub axle and axle strap to the guide wheel unit re-using the four 1/2"-20 hex head cap screws, washers and disc lock nuts. Position the stub axle as close as possible to its original position when it was removed.
12. Torque the four 1/2"-20 disc lock nuts to 100 lb-ft (135 N-m).
13. **Important:** Re-align and track test the guide wheel equipment on the vehicle before returning the vehicle to service.
14. For labor reimbursement, record the truck number and guide wheel unit Serial Number. Include these number on the invoice and Fax to Harsco Rail, HY-RAIL® Parts Sales Fax: (507) 235-7341

FIGURE 3
STUB AXLE DISASSEMBLY / ASSEMBLY



Service Group Parts List - See Figure 3

ITEM	PART NO	DESCRIPTION	QTY
	5055102	STUB AXLE BOLTS AND INSULATED COMPONENTS	1
1	5055010	Socket Head Cap Screw with Nylock Patch, M12-1.75 x 60 mm	3
2	3415900	Washer, 12 MM, Hardened.	3
3	3415867	Insulated Washer	3
4	3415895	Insulated Bushing	3
5	200415	Insulated Gasket.	1
6	200417	Insulated Ring.	1

Note: Quantities listed are for one Stub Axle Assembly.

Current open list as of 6/25/15.

Please call to confirm units have not been completed prior to starting any work.

Open Serial Number as of 6/25/15

62727	665010	665540	666019	666394
62779	665011	665541	666020	666395
62804	665012	665542	666021	666398
62805	665013	665543	666022	666399
62810	665014	665544	666023	666402
62811	665015	665545	666024	666403
62812	665016	665546	666025	666404
62813	665017	665547	666026	666405
62816	665018	665548	666027	666406
62817	665019	665549	666028	666407
62818	665030	665932	666029	666460
62819	665031	665933	666038	666461
62820	665062	665944	666039	666462
62821	665063	665945	666250	666463
62822	665064	665946	666251	666470
62823	665065	665947	666252	666471
62824	665066	665948	666253	666472
62825	665067	665949	666264	666473
62826	665350	665958	666265	666474
62827	665351	665959	666266	666475
65508	665376	665962	666267	666488
65509	665377	665963	666270	666489
65520	665394	665964	666271	
65521	665510	665965	666360	
65524	665511	665966	666361	
65525	665512	665967	666362	
65571	665513	666004	666363	
65572	665514	666005	666364	
65574	665515	666006	666365	
65575	665518	666007	666366	
65622	665519	666008	666367	
65623	665526	666009	666370	
65711	665527	666010	666371	
65713	665532	666011	666372	
65938	665533	666012	666373	
65939	665534	666013	666374	
65940	665535	666014	666375	
65941	665536	666015	666388	
665006	665537	666016	666389	
665007	665538	666017	666392	
665008	665539	666018	666393	
665009				

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