

Newmar Corporation Warranty Department

Technical Service Bulletin			
Date Issued	Model Year(s) Affected	Model(s) Affected	TSB #
7/13/09	2009-present	Diesel Pusher/Bus	362
Brand		Type	
All Star <input checked="" type="checkbox"/>	Bay Star <input type="checkbox"/>	Canyon Star <input type="checkbox"/>	Grand Star <input type="checkbox"/>
Ventana <input checked="" type="checkbox"/>	Dutch Star <input checked="" type="checkbox"/>	Dutch Aire <input checked="" type="checkbox"/>	Mountain Aire <input checked="" type="checkbox"/>
Essex <input checked="" type="checkbox"/>	King Aire <input checked="" type="checkbox"/>	London Aire <input type="checkbox"/>	
<input type="checkbox"/> Air Conditioning & Heating <input type="checkbox"/> Appliances & Accessories <input type="checkbox"/> Cabinets & Furniture <input type="checkbox"/> Chassis Components <input type="checkbox"/> Construction Components		<input type="checkbox"/> Electrical Components <input type="checkbox"/> Exterior Components <input type="checkbox"/> Interior Components <input type="checkbox"/> Plumbing & Bath Components <input type="checkbox"/> Windows, Awnings, Vents, & Doors	
Description of Problem			
<p>Certain quick release valves manufactured by Haldex and distributed by Meritor Wabco to Spartan Chassis, Inc. contain a rubber diaphragm that may delaminate and cause air leakage that exceed permissible specifications or could cause a restriction or blocking of the air flow, thereby affecting pressure delivery and release to the foundation brakes.</p>			
Recommended Solution			
<p>Follow instructions to locate, identify and replace valve if its date code is in the range as listed by the Spartan Chassis documentation attached.</p>			



SPARTAN MOTORS CHASSIS, INC.

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NHTSA # 09V-184

June, 2009

RECALL SERVICE BULLETIN

SUBJECT: Brake System – Haldex QR1 & QR1C Valves

APPLIES TO: Certain Spartan Motorhome , Firetruck & Ambulance Cab/Chassis equipped with Haldex Quick Release 1 (QR1) or Quick Release 1C (QR1C) Valves, and having a VDM (Vehicle Date of Manufacture) of July 1, 2008 through December 12, 2008.

CONDITION: Diaphragms are delaminating

CAUSE: Bad Materials

CORRECTION: Improved Materials

PLEASE READ THE ENTIRE BULLETIN BEFORE PROCEEDING WITH ANY WORK AND CONTACT SPARTAN CHASSIS INC. IF THERE ARE ANY CONCERNS WITH THE PROCEDURES CONTAINED IN THIS DOCUMENT.

PART / SERVICE INFORMATION:

Inspection Only: 1.00 Hrs.

Labor Time: 1.50 Hrs.

<u>QTY.</u>	<u>Part Number</u>	<u>Description</u>
1	S-2138-001	Kit- Tandem Axle W/RR Disc
1	S-2138-002	Kit- Single Axle W/RR Scam
1	S-2138-003	Kit- Single Axle W/Disc
As needed	81801 or equivalent	Pipe Sealant w/Teflon

Kit # S-2138-001 Contains:

<u>QTY.</u>	<u>Part Number</u>	<u>Description</u>
1	0832-MM5-007	Valve - QR1
1	RSB09-320-001	Document Instructions

Kit # S-2138-002 Contains:

<u>QTY.</u>	<u>Part Number</u>	<u>Description</u>
1	2249-MM5-001	Valve - QR1C
1	RSB09-320-001	Document Instructions

Technical Service Bulletins are intended for use by Professional Technicians only. They are written to guide Professional Technicians in performing service to vehicles of product specific nature in conjunction with industry standards. Professional Technicians are appropriately trained on industry standards and have the tools and equipment to perform procedures safely and properly.



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Kit # S-2138-003 Contains:

<u>QTY.</u>	<u>Part Number</u>	<u>Description</u>
1	0832-MM5-007	Valve - QR1
1	2249-MM5-001	Valve - QR1C
1	RSB09-320-001	Document Instructions

STEP-BY-STEP INSTRUCTIONS:

1. Observe all applicable industry safety standards and secure vehicle to allow for inspection/installation of quick release valve.

NOTE: Refer to FIG. 3-1, 3-2, 3-3. Some Firetruck Cab/Chassis may be equipped with 1 (one) QR1 and/or 1 (one) QR1C valve. Valve mounting location may vary, from front crossmember near transmission for QR1 Valve to Rear Axle for QR1C Valve and in certain cases both locations.

2. Refer to Haldex Bulletin Pgs. 4-6. Locate and Inspect quick release valve(s) to identify date code. If valve date code is in the specified range of May 27, 2008 through October 15, 2008, with production date codes of 148 through 289. The QR1 & QR1C valve(s) will need to be replaced.
3. Disconnect brake drop hoses and/or air lines from quick release valve(s).
4. Loosen and remove quick release valve(s) from relay valve assembly or crossmember. Retaining mounting hardware for reuse.

NOTE: In all of the installations, further variation can occur with the type of fittings that are installed to the valves, driven mostly by air line type (Nylon vs. Wire Braid), but there may be some other variation due to other air option (example ESC vs. non-ESC). The air line connections and mounting on the new valve must replicate how they were attached on the old valve.

5. Remove fittings from old valve(s), retaining all fittings for reuse. Valve(s) must be destroyed.

NOTE: Apply 81801 pipe sealer w/Teflon or equivalent to pipe threads only.

6. Install fittings into new quick release valve(s) and secure.

NOTE: Apply 81801 pipe sealer w/Teflon or equivalent to pipe threads only.

7. Install new quick release valve into relay valve assembly or on crossmembers.
8. Reconnect brake drop hoses and/or air lines to new valve(s).

9. If any power source was disconnected reconnect power source.

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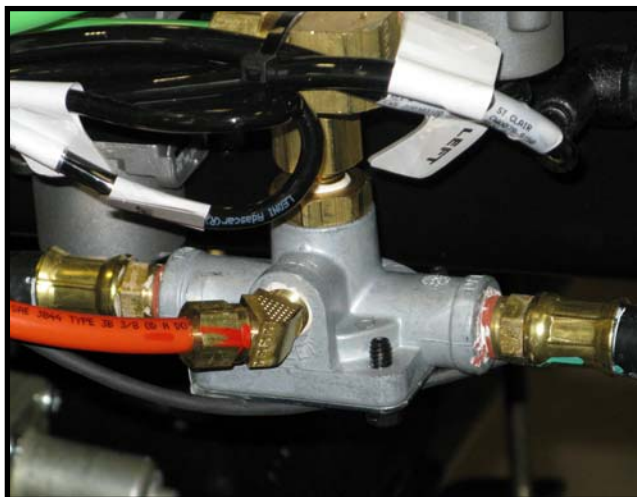
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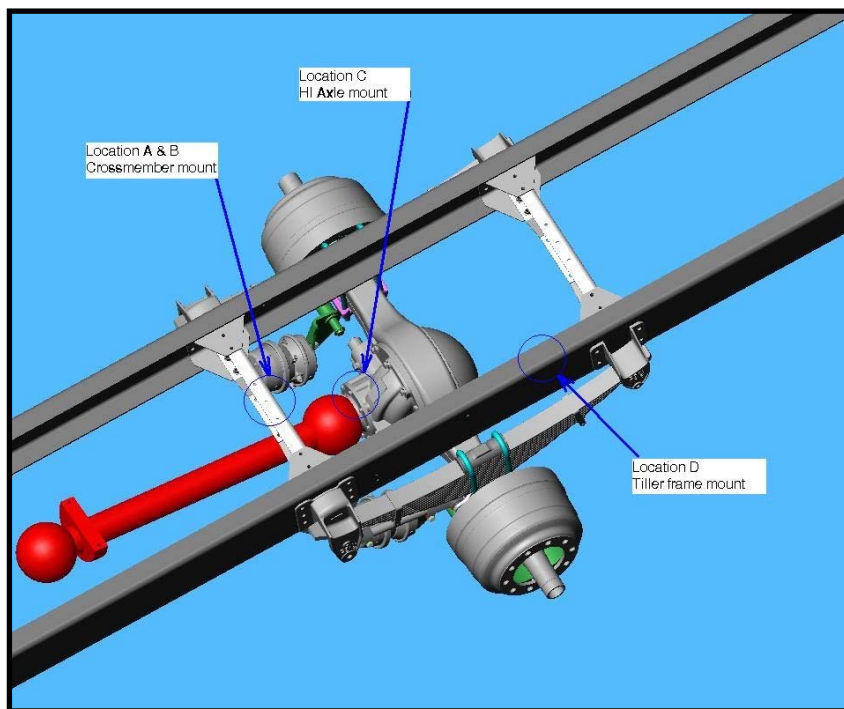
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QR1 VALVE
FIG. 3-2



QR1C VALVE
FIG. 3-1



MOUNTING LOCATIONS FOR QR1C VALVE
FIG. 3-3

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Haldex Quick Release Valve Date Code Identification

The specification used by Haldex to identify Quick Release Valves defines a six (6) character alpha numeric date code. The first three (3) digits indicate the Gregorian Calendar day of the year. The fourth alpha character indicates the production shift. The fifth digit indicates the last number of the year of manufacture. The last alpha character indicates the manufacturing location.

The Date Code on the
Haldex QRV Valve shown
here indicates:

Gregorian Date -183 (July 1st)

Shift - A (First Shift)

Year - 8 (2008)

Location - K (Iola, Kansas)



Shift and Location indicators used by Haldex on Quick Release Valves:

Shift

A = First
B = Second
C = Third

Location

A = Apodaca, Mexico	M = Grand Haven, Michigan
B = Blue Springs, Missouri	N = Marion, North Carolina
C = Lang Fang, China (ASIMCO)	S = Landskrona, Sweden
G = Heidelberg, Germany	T = Paris, Tennessee
H = Hungary	U = Redditch, U.K.
K = Iola, Kansas	Z = Suzhou, China

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Attachment 3



Quick Release Valve Replacement Instructions

The quick release valve (QRV) may be located in several different places, depending on the make and model of vehicle. Please refer to an air system schematic diagram for the particular vehicle to determine where the quick release valve is installed in the vehicle air system.

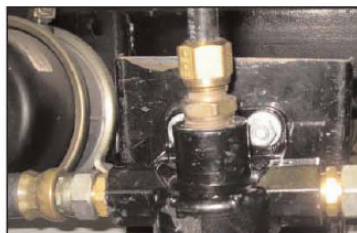
CAUTION: Block vehicle wheels. Take proper precautions when working with compressed air. Drain all air pressure from the air system and wear safety glasses before beginning any service.

Step 1

Locate the QRV(s) on the vehicle.

Fig. 1 shows a QRV as it is typically installed on the frame.

Fig. 1



Step 2

Remove all of the hoses from the Supply and Delivery Ports of the valve. Mark/identify hoses as they are removed to assure proper reassembly.

Fig. 2 shows removal of the hoses.

Fig. 2



Step 3

Remove the bolts holding the QRV to the vehicle and remove the valve from the vehicle. Haldex recommends replacing the bolts.

Fig. 3 shows removal of the bolts.

Fig. 3



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Attachment 3

Quick Release Valve Replacement Instructions Continued

Step 4

If required, assemble the appropriate size D.O.T.-approved fittings into the new QRV. Haldex recommends lightly coating the threads of the new fittings with a PTFE (Teflon) thread sealant. Do NOT use Teflon tape. Torque the fittings to a range of 75 to 200 in-lbs.

Fig. 4 shows installation of the fittings.

Fig. 4



Step 5

Install the QRV onto the vehicle with 5/16 inch bolts. Recommended bolt torques:

- 5/16"-18 Grade 5 bolts = 17 ft-lbs
- 5/16"-24 Grade 5 bolts = 19 ft-lbs
- 5/16"-18 Grade 8 bolts = 24 ft-lbs
- 5/16"-24 Grade 8 bolts = 27 ft-lbs

Fig. 5 shows the QRV being mounted onto the vehicle.

Fig. 5



Step 6

Install the vehicle air hoses onto the valve. Use wrenches on both the fitting and the hose to make certain that fitting torques into the QRV remain in the range of 75 to 200 in-lbs.

Fig. 6 shows a hose being connected.

Fig. 6



Step 7

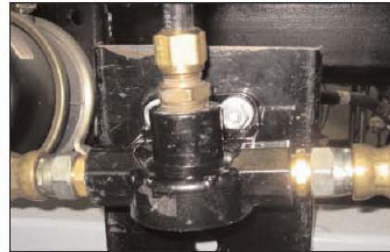
Verify that all connections are tight.

Pressurize the air system and check the connections for leaks.

Check the brake system for proper operation before driving the vehicle. Road test the vehicle.

Fig. 7 shows a correctly replaced Quick Release Valve.

Fig. 7



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