
SERVICE BULLETIN

MAINTENANCE OF WAY EQUIPMENT

DATE: 10 - 2025

BULLETIN NO: SBUS000132-25

TITLE: Installation instructions for new Head Lift Valve Assembly Kits for RGH10C Rail Grinders

RATING:

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

PRODUCT SERIES / MODEL: RGH10C Rail Grinders

SERIAL NO: N/A

SUMMARY: Installation of this kit reduces hydraulic demand on the head control pumps during the set-down process.

OPERATIONAL IMPACT:

Installing the kit helps ease the load on the head control pump during lift cylinder extension by redirecting hydraulic oil from the rod end of the lift cylinder to the piston end.

ACTION: Remove the existing solenoid directional valve, the DO5 pilot operated check valve and fasteners and replace with new components included in the kit. Repeat for each grinding head. Each kit includes all components required for replacing ten solenoid valves and pilot operated check valves.

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1-800-800-6410
Email: railparts@harsco.com

SAFETY INFORMATION

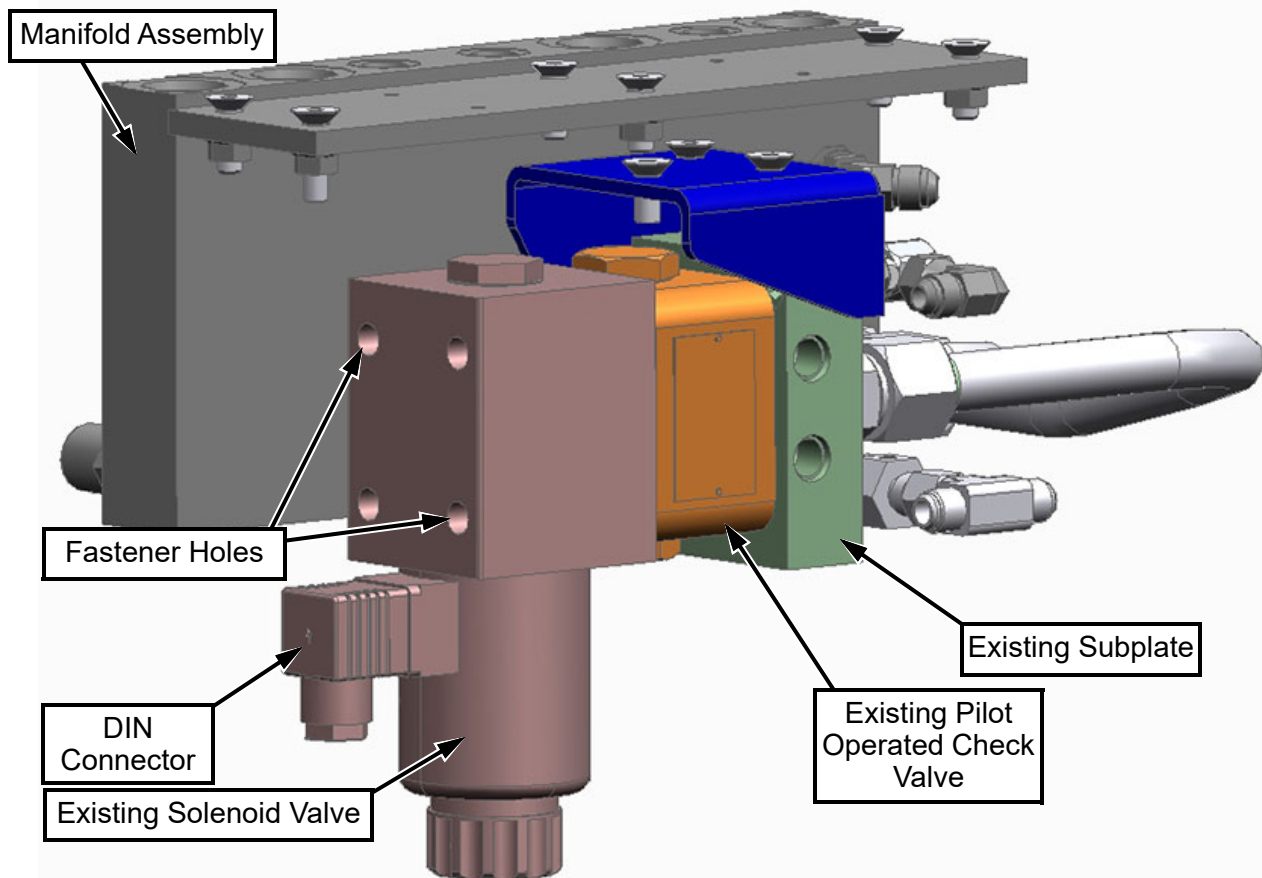


- Follow applicable railroad lockout - tagout procedures to disable energy sources when performing maintenance, making adjustments or repairs to the vehicle or equipment. Failure to heed this warning could result in severe bodily injury.
- Refer to energy control procedure to remove all energy sources from machine before performing maintenance or making adjustments or repairs to machine. Failure to comply could result in severe bodily injury.

Valve Replacement Disassembly Instructions - See Figure 1

1. Before disassembling, close all hydraulic ball valves in the Head Control Piping circuitry to reduce oil loss. Use a clean container to capture oil from components during disassembly.
2. Clean the area to reduce the risk of contaminating the hydraulic system.
3. Disconnect DIN connector from existing Solenoid Valve.
4. Remove the fasteners (screws, lock washers) securing the existing Solenoid Valve, and Pilot Operated Check Valve to the Subplate.
5. Discard the fasteners, existing Solenoid Valve and existing Pilot Operated Check Valve. They will not be re-used.
6. Also refer to Harsco Rail Engineering print 5150801 - KIT, 10 STONE HEAD LIFT VALVE ASSEMBLY for installation instructions, reference views and parts list.

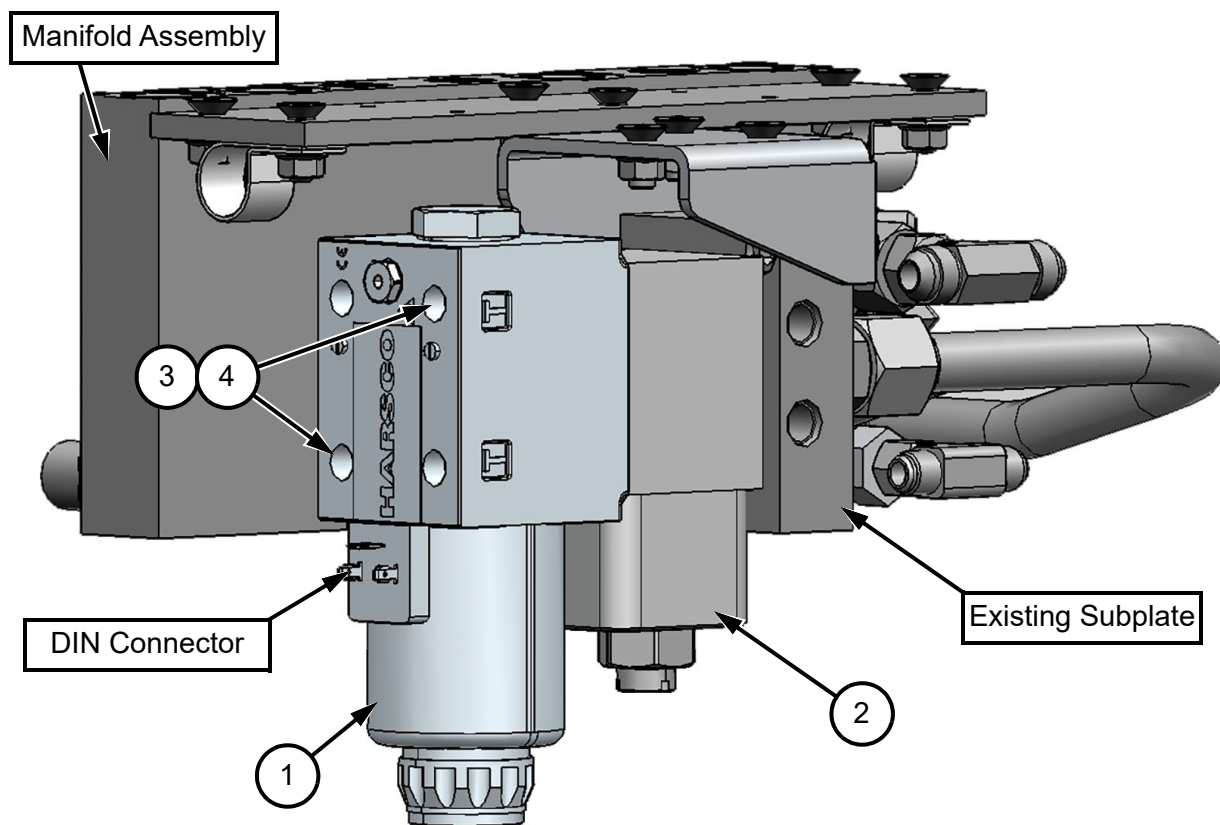
FIGURE 1
HEAD LIFT VALVE ASSEMBLY - DISASSEMBLY

**Valve Replacement Assembly Instructions - See Figure 2**

1. The new Pilot Operated Check Valve (2) comes supplied with a Seal Plate. Apply O-Ring Lube to the Seal Plate and O-Rings and place them on the Subplate.
2. Apply O-Ring Lube to the O-Rings of the new Solenoid Directional Valve (1).
3. Install the new Pilot Operated Check Valve (2) on top of the Seal Plate.
4. Place the new Solenoid Directional Valve (1) on top of the Pilot Operated Check Valve.

5. Apply Loctite to threads of the four Socket Head Cap Screws (3). Install new fasteners - the screws (3), lock washers (4) through the Valve Stack and torque to 10 ft/lbs.
6. Re-attach the DIN Connector to the new Solenoid Directional Valve (1).
7. Repeat these steps for each Grinding Head Circuit.
8. Re-open all hydraulic ball valves that were closed earlier at disassembly steps.
9. Check hydraulic oil level in hydraulic reservoir and top off if necessary.
10. Also refer to Harsco Rail Engineering print 5150801 - KIT, 10 STONE HEAD LIFT VALVE ASSEMBLY for installation instructions, reference views and parts list.

FIGURE 2
HEAD LIFT VALVE ASSEMBLY - INSTALLATION



Kit, 10 Stone Head Lift Valve Assy - (see 5150801 print for Illustration)

ITEM	PART NO	DESCRIPTION	QTY
	5150801	HEAD LIFT VALVE KIT	
1	5146115	SOLENOID DIRECTIONAL VALVE	10
2	0-3336003-0-05	VALVE, PO CHECK, D05	10
3	250070-23	SCREW-SHC, .25-20 X 4.00 LG	40
4	F012241	WASHER, LOCK, 1/4", HIGH COLLAR	40

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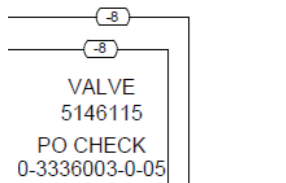
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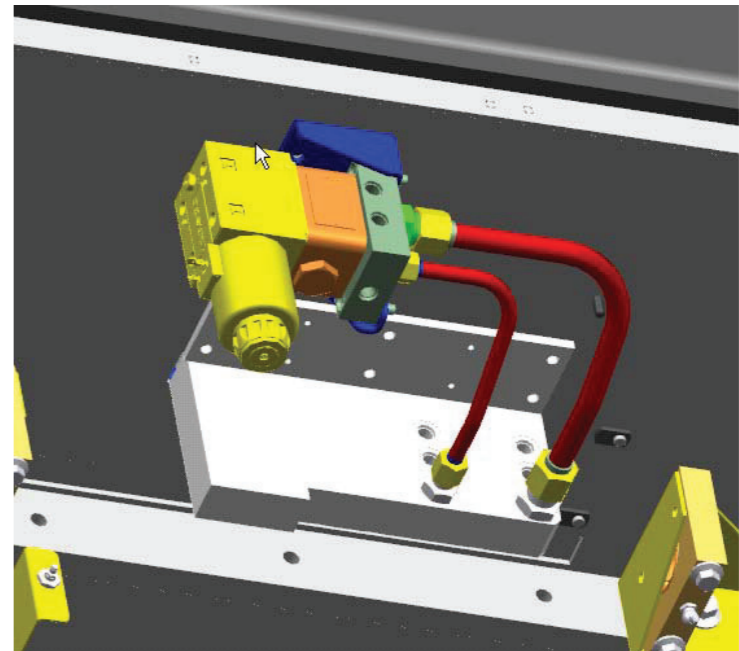
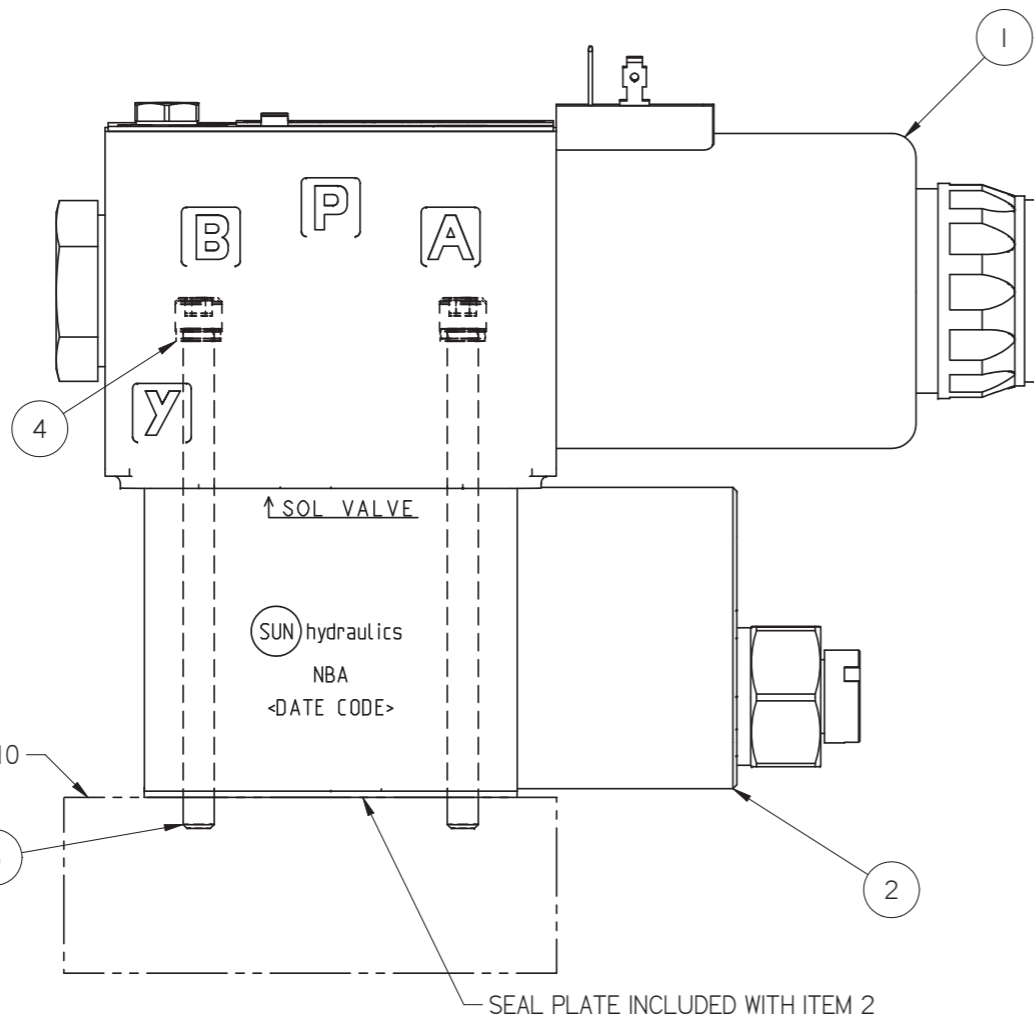
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NEW SCHEMATIC



REF IMAGE: UNDER THE CARRIAGE

INSTRUCTIONS:

1. CLEAN THE AREA TO REDUCE THE RISK OF CONTAMINATING THE SYSTEM
2. CLOSE ANY BALL VALVES TO REDUCE OIL LOSS
3. REMOVE DIN CONNECTOR FROM VALVE 0-3333037-0-10
4. REMOVE EXISTING VALVE 0-3333037-0-10, PO CHECK 0-3336003-0-01 AND BOLTS
5. APPLY O-RING LUBE TO THE SEAL PLATE AND O-RINGS AND PLACE THEM ON THE SUBPLATE
6. INSTALL THE PO CHECK ON TOP OF THE SEAL PLATE
7. APPLY O-RING LUBE TO THE O-RINGS OF THE NEW DIRECTIONAL VALVE
8. PLACE 5146115 DIRECTIONAL VALVE ON TOP OF THE PO CHECK
9. INSTALL THE BOLTS, LOCKWASHERS AND TORQUE TO 10 Ft/Lbs.
10. REPEAT THESE STEPS FOR EACH HEAD

ENGINEERING NOTE:

THE INTENTION OF THIS KIT IS TO USE THE OIL COMING OUT OF THE ROD END OF THE CYLINDER AND REDIRECT IT INTO THE PISTON END. THIS REDUCES THE DEMAND ON THE HEAD PUMP DURING THE SET DOWN PROCESS.

SERVICE PARTS: SEE COMPONENT DRAWINGS

ITEM	PART NO	QTY	DESCRIPTION
1	5146115	10	SOLENOID DIRECTIONAL VALVE
2	0-3336003-0-05	10	VALVE, PO CHECK, D05
3	250070-23	40	SCREW-SHC, .25-20 X 4.00 LG
4	F012241	40	WASHER, LOCK, 1/4", HIGH COLLAR

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NOMINAL SIZE RANGE		INCH PLUS OR MINUS		NOMINAL SIZE RANGE		METRIC PLUS OR MINUS	
OVER	TO	2 PLACE DECIMAL	3 PLACE DECIMAL	OVER	TO	1 PLACE DECIMAL	2 PLACE DECIMAL
0	6	.03	.005	0	150	.8	.13
6	24	.04	.008	150	600	1.0	.20
24	-	.06	.010	600	-	1.5	.25

CHANGE	R/L	REVISION	DR	DATE
EC621417	A	NEW RELEASE	BPA	8/1/25

Description		Machine Type		Size	
KIT, 10 STONE HEAD LIFT VALVE ASSY		RGH10C1		C	
Weight	9.1 lbm	Drawn	badler	Date Drawn	7/31/2025
Material		Part Number		Sheet	
SOLID EDGE DRAWING		5150801		1 of 1	

Inch [mm]

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