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SERVICE BULLETIN

MAINTENANCE OF WAY EQUIPMENT

DATE: 5-2013

BULLETIN NO: 13-007

TITLE: Grinding Head Accumulator Pre-Charge Pressure Change

RATING:

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

PRODUCT SERIES / MODEL: PGM96 Series C - China Rail Corporate (Formally MOR)

SERIAL NO: All Harsco Rail Grinding Cars

SUMMARY: The grinding head accumulators are used to help smooth the movement of the grinding heads as they are lowered and raised from the rail. The accumulators also provide a reserve of hydraulic pressure and oil volume that is used when all of the grinding heads are raised from the rail at the same time. Harsco Rail has determined that by lowering the accumulator pre-charge pressure, a greater volume of oil is held in reserve to assist with storing the grinding heads and grinding carriage if there is an issue with the engine / pump that normally provides hydraulic pressure and flow.

OPERATIONAL IMPACT: Lowering the accumulator pre-charge pressure will assist with storing the grinding heads and grinding carriage if there is an issue with the engine / pump that normally provides hydraulic pressure and flow.

ACTION: Follow the instructions in this Service Bulletin to check and adjust the accumulator pre-charge pressure to 55.2 - 56.6 bar (800 - 850 PSI) on all four accumulators on each rail grinding car.

CONTACT: Harsco Rail Service Department
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Safety Information



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

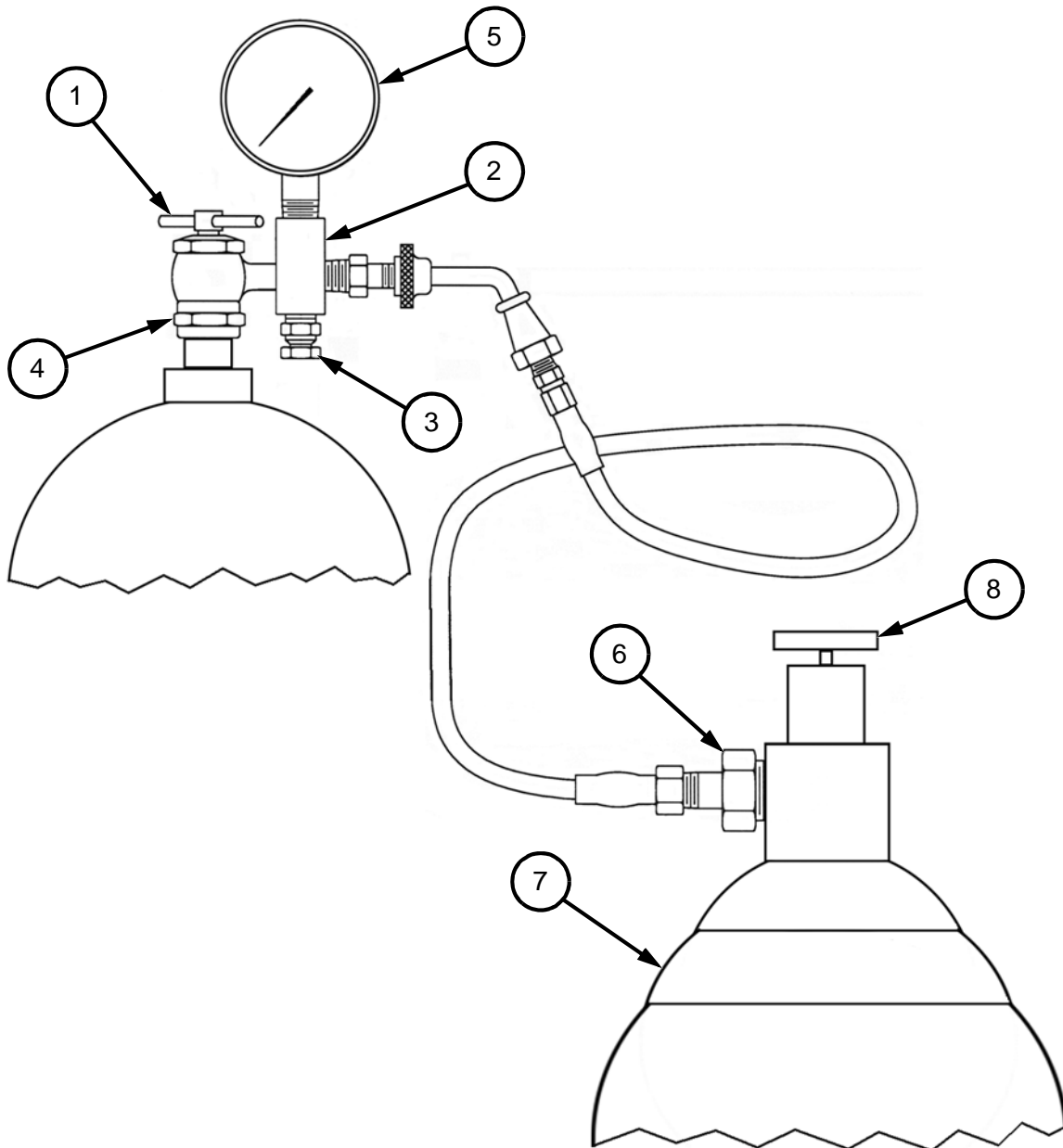
Checking And Charging Accumulators - See Figure 1

1. The accumulators are used to help smooth the movement of the grinding heads as they are lowered and raised from the rail. The accumulators also provide a reserve of hydraulic pressure that is used when all of the grinding heads are raised from the rail at the same time.
2. There are four accumulators on each Harsco Rail grinding car. The accumulators are located under the deck, along the inside of the frame, near the front and rear ends of the carriages.
3. All existing and new accumulators are pre-charged to 72.4 - 79.3 bar (1050 - 1150 PSI). The accumulators pre-charged pressure must be reduced to 55.2 - 58.6 bar (800 - 850 PSI). All hydraulic pressure must be relieved from the system before charging the accumulators. Use Harsco Rail nitrogen charging kit #152783-1 to check and charge the accumulators.
4. Remove gas valve guard and gas valve cap from the accumulator.
5. Rotate the gas chuck "T" Handle (1) counter-clockwise all of the way out before attaching charging assembly (2) to the accumulator gas valve.
6. Make sure the bleed valve (3) on the charging assembly is closed.
7. Attach swivel nut (4) to the gas valve and tighten to 1.13 - 1.69 N-m (10-15 lb-in).
8. Turn gas chuck "T" Handle (1) until the gauge (5) starts showing the pressure in the accumulator. Do not turn the "T" Handle all the way down, as it will damage the valve core.
9. If the pressure indicated on the gauge is the desired pressure, 55.2 - 58.6 bar (800 - 850 PSI), for the accumulator being checked, go to Step 13. If not, the accumulator will need to be charged or the charge reduced.
10. When charging the accumulator, use only nitrogen that is free of any contaminants. Connect charging hose end (6) to the nitrogen bottle (7).
11. Crack open nitrogen bottle valve (8) and slowly add nitrogen to the accumulator. Close the valve when gauge indicates desired charge. Let the charge set for 10 to 15 minutes. This will allow the gas temperature to stabilize.
12. If the desired charge is exceeded, close nitrogen bottle valve, then slowly open bleed valve (3). Do not reduce charge by depressing valve core with a foreign object. High pressure may rupture rubber valve seat.

Checking And Charging Accumulators - See Figure 1

13. When finished checking or charging the accumulator, turn "T" Handle (1) all the way out and then open bleed valve (3).
14. Remove charging hose from nitrogen bottle. Remove charging assembly (2) from the accumulator.
15. Check for charge leak at the valve core using a common leak reactant.
16. Replace gas valve cap and tighten to 1.13 - 1.69 N-m (10-15 lb-in). Gas valve cap serves as a secondary seal. Replace accumulator gas valve guard cap.

FIGURE 1
CHECKING AND CHARGING ACCUMULATORS



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