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Harsco Track Technologies

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SERVICE BULLETIN

MAINTENANCE OF WAY EQUIPMENT

DATE: 4 - 2003 **BULLETIN NO:** 03-010

TITLE: Brake Air System Pressure Adjustment

RATING:

- ☐ **ALERT** (Potential Problem)
- ☒ **INFORMATION** (Action Is Optional)
- ☐ **DIRECTIVE** (Action Is Required)
- ☐ **PRODUCT IMPROVEMENT** (Enhance Product)

PRODUCT SERIES / MODEL: All HY-RAIL® Guide Wheel Equipped Vehicles with hydraulic brakes that are equipped with Harsco Track Technologies Electric / Air Brake System.

SERIAL NO: Not Applicable

SUMMARY: This Service Bulletin provides air pressure adjustment information for all Harsco Track Technologies Electric / Air Brake Systems. Electric / Air Brake Systems are applied as an option on vehicles that are factory equipped with hydraulic brakes.

OPERATIONAL IMPACT: Proper adjustment of the air pressure will favorably effect guide wheel brake operation.

ACTION: Use this information when adjusting the air system pressure on the Electric / Air Brake System.

CONTACT: If you have any questions or if we can be of any service, please contact the HY-RAIL® Guide Wheel Equipment Department at the Fairmont, MN facility (507) 235-7112.

Safety Information

■ **FOLLOW APPLICABLE RAILROAD LOCKOUT - TAGOUT PROCEDURE 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.**

BRAKE AIR SYSTEM PRESSURE ADJUSTMENT - See Figure 1

Vehicles that are equipped with a hydraulic brake system from the vehicle manufacturer must be equipped with a Harsco Track Technologies auxiliary Electric / Air Brake System to operate the guide wheel brakes. Any air supply system that is used must have an air regulator valve installed in the air system to regulate the air pressure to the rail guide wheel brakes.

1. Place the vehicle on track. See the Guide Wheel Unit Operator's Service and Parts Manual - Operation Section - Placing Vehicle On Track.

2. Apply the vehicle's parking brake. Place the vehicle's automatic transmission in PARK or manual transmission in NEUTRAL. Leave the vehicle's engine running. Activate the rail guide wheel air brake system by moving the toggle switch to the ON position.

3. The vehicle must be at normal operating weight when the brake system air pressure is set. A heavier loaded vehicle will require a higher air pressure setting while a lighter loaded vehicle will require a lower air pressure setting. If the system air pressure is set too high for the load on the vehicle, the guide wheels will lock up and slide on the rail causing flat spots to develop on the guide wheels. Likewise, If the system air pressure is set too low for the load on the vehicle, braking force will be reduced resulting in longer stopping distances.

4. Initially adjust the air pressure to 25 PSI (172 kPa) for light duty vehicles and to 45 PSI (310 kPa) for heavy duty vehicles.

5. To adjust the air pressure regulator valve (1), loosen jam nut (2). Turn the adjusting handle (3) clockwise to increase pressure or counter-clockwise to decrease pressure until the desired pressure is indicated on the air pressure gauge (4). After this initial adjustment, tighten the jam nut securely.

6. Be sure the test track is clear of all rail traffic before testing the brakes. Follow all railroad rules and regulations. Release the vehicle's parking brakes. Propel the vehicle forward and then apply the vehicle's brakes. The vehicle should stop in the desired stopping distance without the rail guide wheels locking up and sliding on the rail.

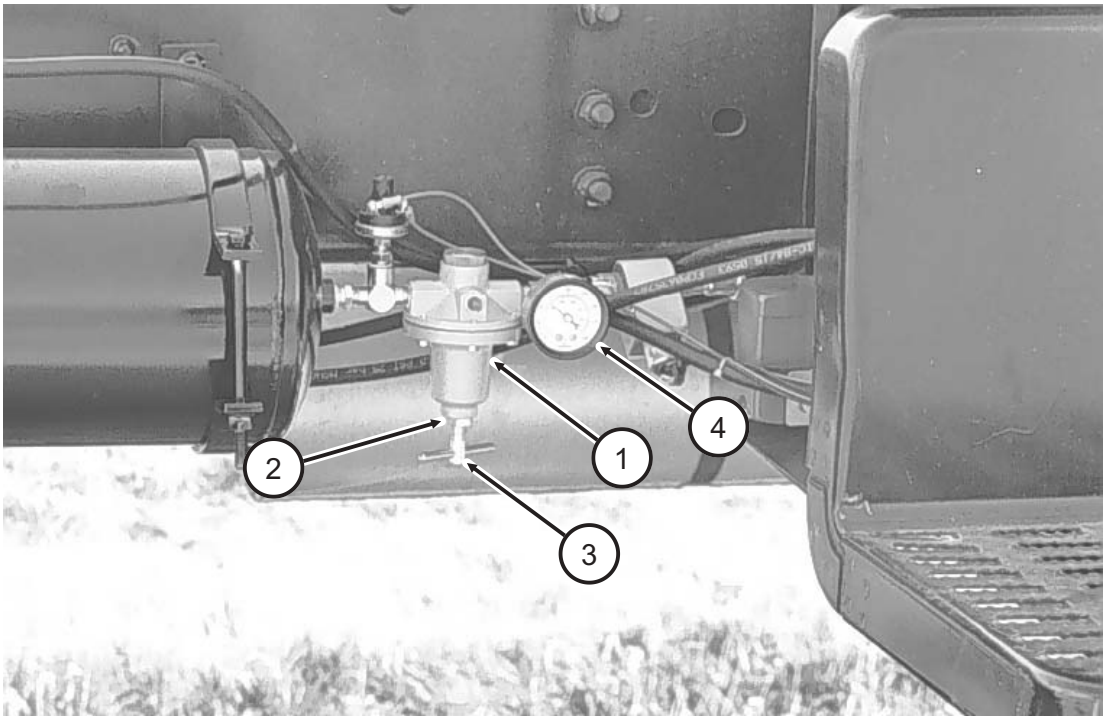
    a. If the rail guide wheels lock up and slide on the rail when the brakes are applied, adjust the regulator valve to a lower air pressure setting. Repeat Step 6.

    b. If the rail guide wheels are not sliding on the rail and to help reduce stopping distance, adjust the regulator valve to a higher air pressure setting. Repeat Step 6.

    Note: Many factors will determine the stopping distance for a vehicle on track; such as weather conditions, rail conditions, vehicle weight, rear tire tread wear, vehicle speed, single or tandem rear axles, if both the front and rear guide wheel units are equipped with guide wheel brakes, etc.

BRAKE AIR SYSTEM PRESSURE ADJUSTMENT

FIGURE 1
BRAKE SYSTEM AIR PRESSURE REGULATOR AND GAUGE



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