



Harsco Track Technologies

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SERVICE BULLETIN MAINTENANCE OF WAY EQUIPMENT

DATE: 7-9-2002 **BULLETIN NO:** 02-019

TITLE: FRONT SPRING CELL RETAINING NUT SERVICE GROUP

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: All Vehicles Equipped With HR18 Series A Front HY-RAIL® Guide Wheel Equipment

SERIAL NO: All Front HR18 Models A

SUMMARY: The spring cells use a 5/8" standard hex nut loctited into position to retain its length. If the 5/8" hex nut is adjusted, the loctite seal is broken. The hex nut can then vibrate loose causing misalignment of the lock pin holes in the spring cells making it difficult to insert the lock pins in the Road position. The 5/8" standard hex nut is being replaced by a 5/8" hex elastic lock stop nut.

OPERATIONAL IMPACT: To improve performance of the spring cell.

ACTION: Order two 5/8" hex elastic stop nuts part # 190103 to replace the standard 5/8" hex nuts in both spring cells of the front guide wheel unit.

The installation of this Service Group requires:

- Removing the spring cells from the front unit.
- Removing the existing 5/8" standard hex nut from the spring cell rods.
- Installing the new 5/8" hex elastic stop nut on the spring cell rods.
- Checking the spring cells tension.
- Re-installing the spring cells in the front unit.

CONTACT: To order the Front Spring Cell Retaining Nut Service Group, please contact the HY-RAIL® Parts Department at the Fairmont, MN. facility, (507) 235-7143.

SAFETY INFORMATION

- **FOLLOW APPLICABLE RAILROAD LOCKOUT - TAGOUT PROCEDURE TO REMOVE ALL ENERGY SOURCES FROM VEHICLE AND RAIL GUIDE WHEEL EQUIPMENT. FAILURE TO COMPLY COULD RESULT IN SEVERE BODILY INJURY.**

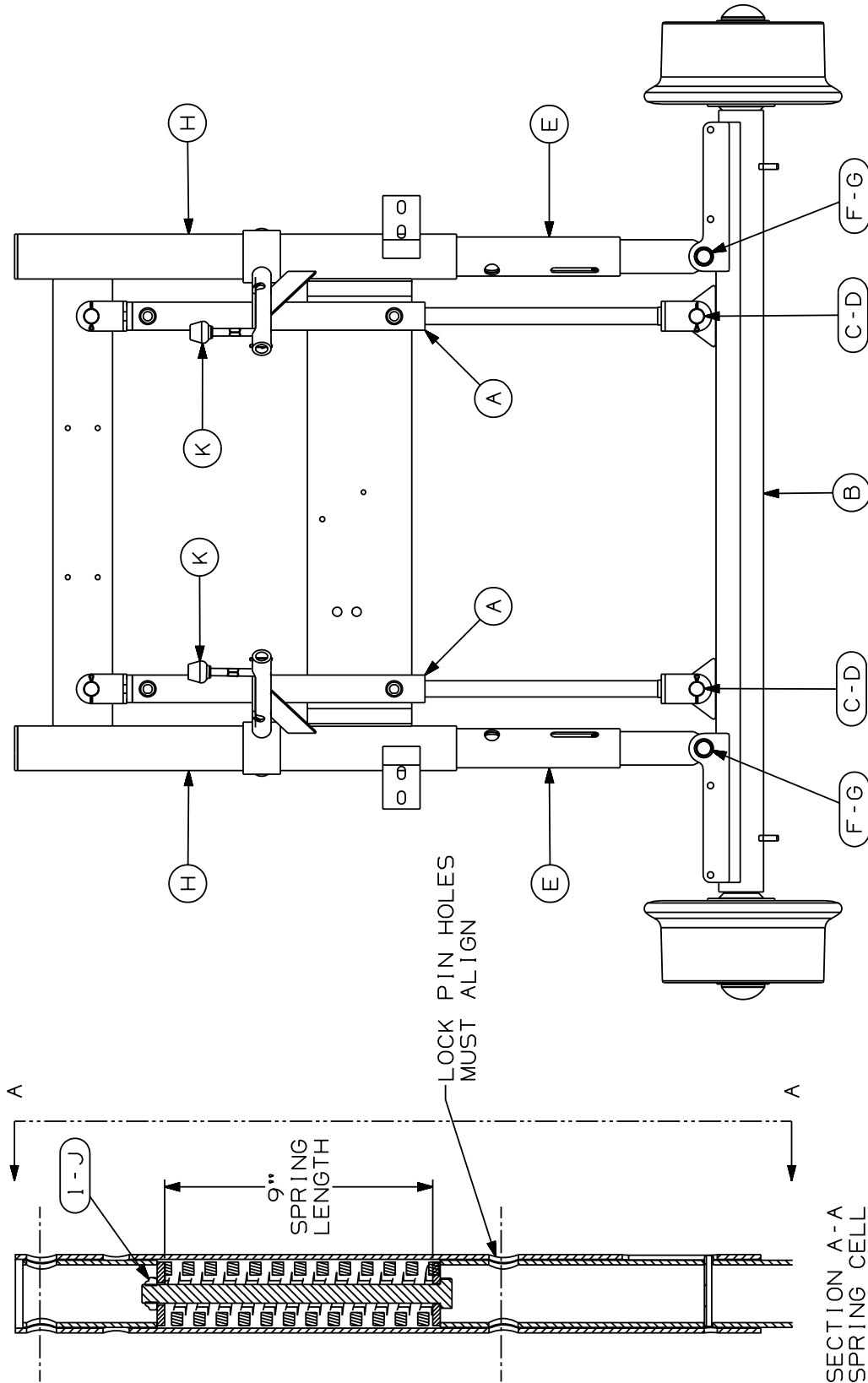
SERVICE GROUP INSTALLATION - See Figure 1

1. Unlock and lower the front guide wheel unit so the rail guide wheels are resting on the ground.
2. If the front guide wheel unit is equipped with air brakes, disconnect the air line from the fitting where it tees out to both brake canisters.
3. Disconnect the hydraulic cylinders (A) from the axle (B) by removing the spring pins (C) and cylinder pins (D).
4. Disconnect the axle (B) from the spring cells (E) by removing the snap rings (F) and pins (G).
5. Roll the axle (B) out away from the front guide wheel unit.
6. Raise the front of the vehicle high enough to remove the spring cells (E) from the guide wheel unit upright tubes (H).
7. Using a 15/16" hex socket wrench through the opening on the top of the spring cell (E), remove the existing 5/8" standard hex nut (J) from the spring cell rod.
8. Install a new 5/8" hex elastic stop nut (1) on the spring cell rod. Tighten the stop nut (1) until the lock pin holes in the inner and outer spring cell tubes are aligned.
9. Check the tension of the spring by attempting to move the inner spring cell tube in / out.
 - 9.1 If the inner spring cell tube can not be moved in / out, the spring cell can be re-installed.
 - 9.2 If the inner spring cell tube can be moved in / out, the spring cell must be disassembled to inspect the spring. The free length of the spring must be 9" (228.6 mm). If not, replace the spring.
10. Repeat Steps 7 - 9 to install a new hex elastic stop nut on the other spring cell rod and to check the tension of the spring.
11. Re-install the spring cells (E) in the guide wheel unit upright tubes (H). Make sure the grease fitting in the lower portion of the spring cell is facing out towards the rail wheel.

SERVICE GROUP INSTALLATION

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FIGURE 1
SERVICE GROUP INSTALLATION



SERVICE GROUP INSTALLATION - See Figure 1

- 12. Lower the front of the vehicle.
- 13. Roll the axle (B) under the front guide wheel unit.
- 14. Reconnect the spring cells (E) to the axle (B) re-using the snap rings (F) and pins (G).
- 15. Reconnect the hydraulic cylinders (A) to the axle (B) re-using the spring pins (C) and cylinder pins (D).
- 16. If the front guide wheel unit is equipped with air brakes, reconnect the air line to the fitting where it tees out to both brake canisters.
- 17. Cycle the front guide wheel unit several times between the HIGHWAY and RAIL positions to ensure proper operation. Be sure both lock pins (K) can be inserted when the unit is in the Road position.

SERVICE GROUP PARTS LIST - See Figure 1

ITEM	PART NO	DESCRIPTION	QTY
1	190103	Hex Elastic Stop Nut, 5/8"-11	2

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