

RAR-254 Narrow Bushing Suspensions:

- 2540001
- 2540002
- 2540003

NOTE:

Compensator/Trunnion Assembly (611040) Engineering Drawing required for installation.

RAR-254 (Narrow Bushing) Single Point Suspension – Trunnion Bushing Replacement Hardware

Part No.	Assembly Hardware	Torque Values	
1143773B105	Trunnion Shaft Bolt (HHCS) 1-1/8"-12NF (Grade 5)	500 ft-lb	678 N-m
1120049	Center Bushing		
1130048	Pivot Bolt - Shear-Type Use a 1" drive impact wrench to tighten pivot bolt until Torx® head is sheared off.		

CAUTION Failure to install and maintain fasteners at torque specifications could result in suspension failure and void the warranty. Refer to the engineering drawing for torque values.

Trunnion Center Bushing – Replacement Procedure

Park the vehicle on a level surface. Chock wheels to keep vehicle from moving. Raise vehicle to height that removes load from suspension and support with jack stands. Exhaust all the air from the air system before disassembling the suspension. **CAUTION** Failure to properly chock wheels and exhaust the air system could allow vehicle movement that could result in serious injury.

The front and rear axle beam assemblies must be removed before the compensator assembly can be removed from the trunnion hanger/shaft assembly (Fig. 1).

1. Disconnect and remove the air springs. Remove the shock absorber assemblies.
2. Disconnect and remove the height control valve. Loosen clamp on P-Connector and remove HCV and linkage. NOTE: Do not loosen or remove the axle band clamp.
3. Remove the pivot bolts and lower the axle beam assembly from the compensator/trunnion assembly. **CAUTION** Do not reuse shear-type pivot bolts.
4. Grind off the weld on the locking plate over the trunnion shaft bolt. Remove the locking plate, dowel pin, trunnion shaft bolt, end cap and thrust washer (Fig. 2). NOTE: Dowel pin required for reassembly.

5. Support compensator/trunnion assembly by wrapping chains around the assembly as close to the trunnion shaft as possible. Place a portable hydraulic power unit between the end of the trunnion hanger shaft and

the chains wrapped around the compensator assembly. NOTE: The portable power unit should not press against the internal threaded area of the trunnion shaft.

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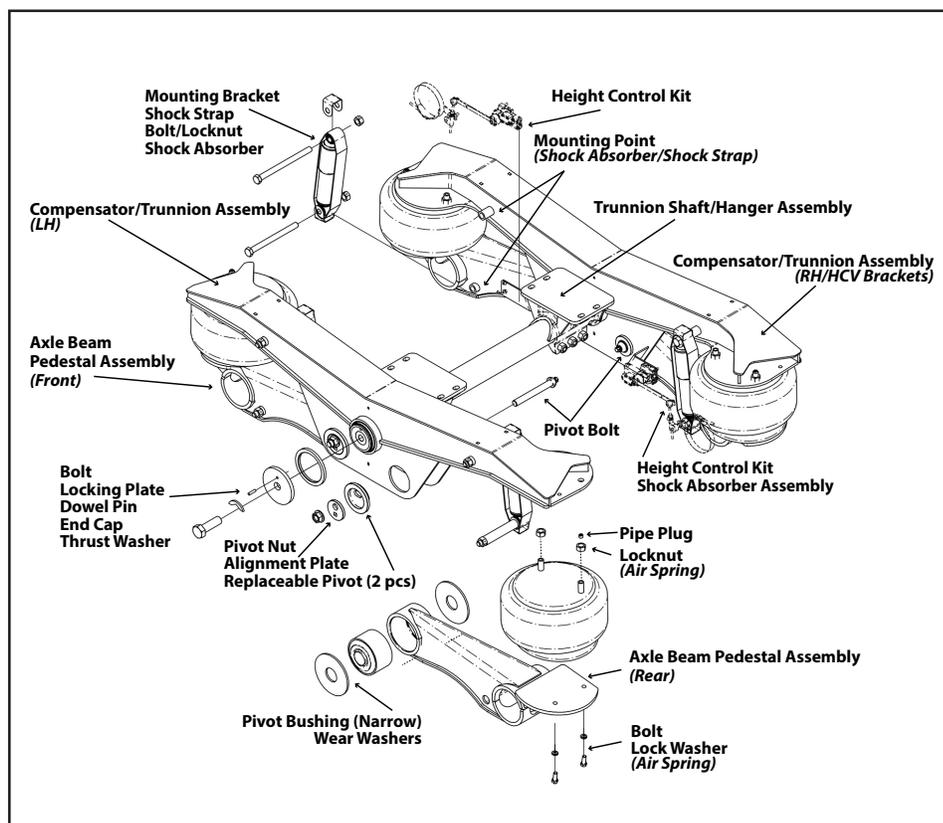


Figure 1.
RAR-254 (Narrow Bushing) Single Point Suspension Components

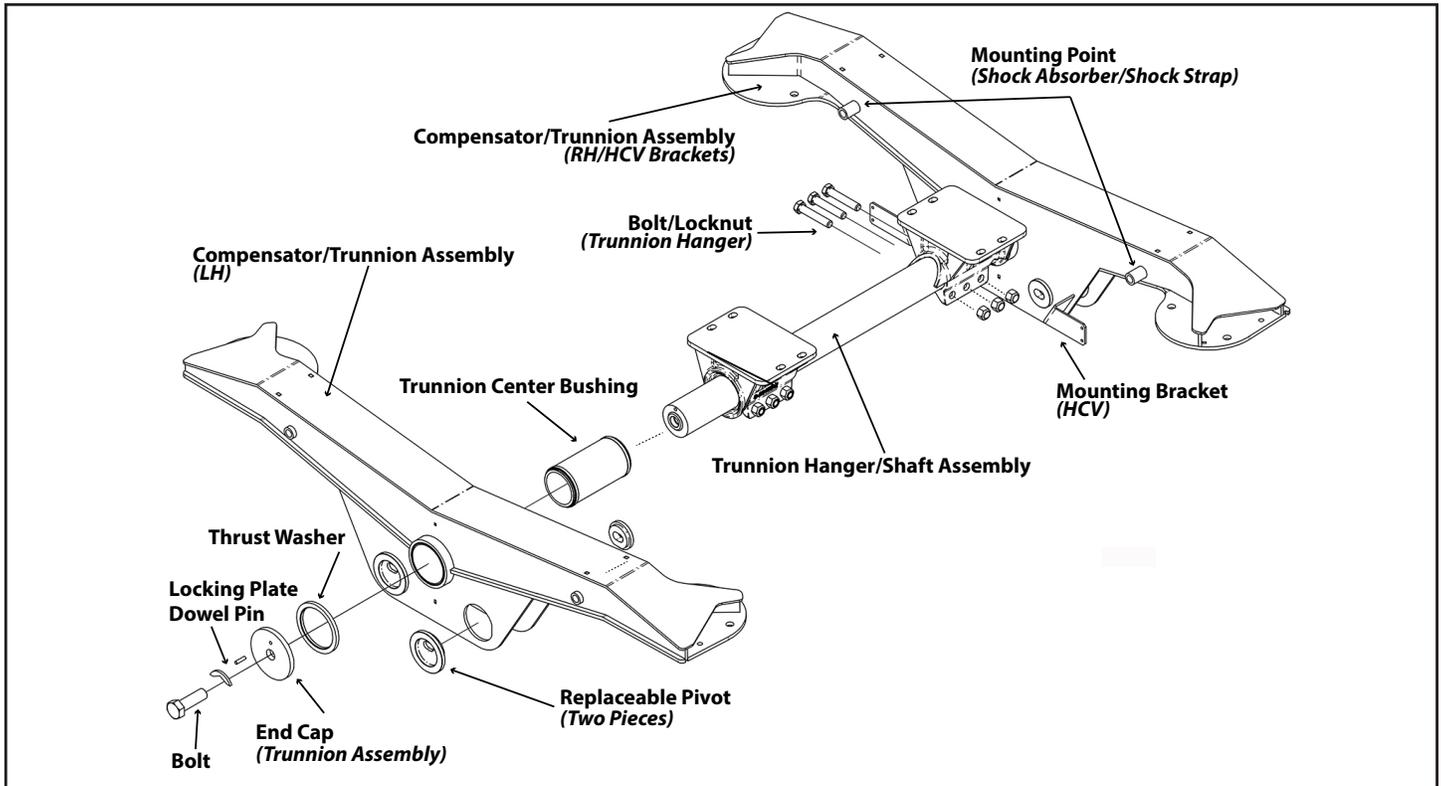


Figure 2. RAR-254 (Narrow Bushing) Compensator/Trunnion Assembly Components

Replacement Procedure

(continued from previous page)

- 6. Remove compensator/trunnion assembly from the trunnion hanger/shaft assembly.
- 7. Press the center bushing out of the trunnion assembly (Center opening ID - 4.522”).

- 8. Lubricate the trunnion assembly opening with silicon spray. **CAUTION** Do not use solvent-based lubricants. Place new bushing so that end number (RW60000) faces the center of trailer. Press bushing into place, making sure it is centered in trunnion opening.
- 9. Manually dress the outside of the shaft of the trunnion hanger/shaft assembly with emery cloth. Lubricate the outside of the shaft and inside the center bushing with silicon spray.
- 10. Place thrust washer on trunnion hanger/shaft assembly. Install the trunnion assembly.
- 11. Install the thrust washer, end cap, dowel pin and trunnion shaft bolt on the installed trunnion assembly. Torque the shaft bolt to 500 ft-lb (see chart).
- 12. Place locking plate on the shaft bolt head and weld per engineering drawing (6110040).

Reassemble suspension.

- 13. Install axle beam assemblies with one wear washer on each side of pivot bushing. Torque pivot bolt to specifications (see chart).
- 14. Install and reconnect the height control valve and linkage.
- 15. Install air springs. Install shock absorber assemblies. NOTE: Check the air system tubing and fittings after installation for leaks.

Replace wheels and tires. Remove jack stands and lower suspension to ground. Check installed ride height; adjust if necessary.

Notes and Cautions
 This instruction uses two types of service notes:
 “NOTE”: Provides additional instructions or procedures to complete tasks and make sure that the suspension functions properly.
CAUTION Indicates a hazardous situation or unsafe practice that, if not avoided, could result in equipment damage and serious injury.