

Figure 1

Bushing Replacement Procedure – RAR-200 Suspension

Raise and safely block up trailer and axle. Disconnect the linkage from the height control valve(s), if equipped. Exhaust all air from the air system. **CAUTION** Failure to safely support the vehicle and exhaust the air system could allow vehicle/suspension movement that could result in serious injury.

1. Remove wheels and tires. Remove shock absorbers from suspension.
2. Remove pivot nuts and bolts. Rotate trailing arm beams down and out of hangers.
3. Inspect pivot holes and hanger surfaces for unusual wear or damage. Repair or replace components as required.
4. Remove Huckbolt® fasteners from bushing clamp by cutting off the collar with a torch (Figure 2). NOTE: Bushing replacement kit includes conventional bolts, washers, and nuts to replace the Huckbolt® fasteners.
5. Remove bushing assemblies.
6. Insert new bushing assemblies into the beam eyes. Install bolts, washers, and nuts (Figure 1). Torque the nuts to 190 ft-lbs. minimum while making sure that the bushing remains centered in the beam eye. Ensure bushing clamp surfaces are closed “metal-to-metal.” Final torque nuts to 280 ft-lbs.
7. Re-assemble beams to hangers with new wear washers placed on the inboard sides of the beams.
8. Align bushing sleeves to hanger holes and install new pivot bolts, washers, and nuts. **DO NOT REUSE SHEAR-TYPE PIVOT BOLTS.**
9. Align axle and torque pivot bolts per the Axle Alignment Procedure (next page).”
10. Install shock absorbers.

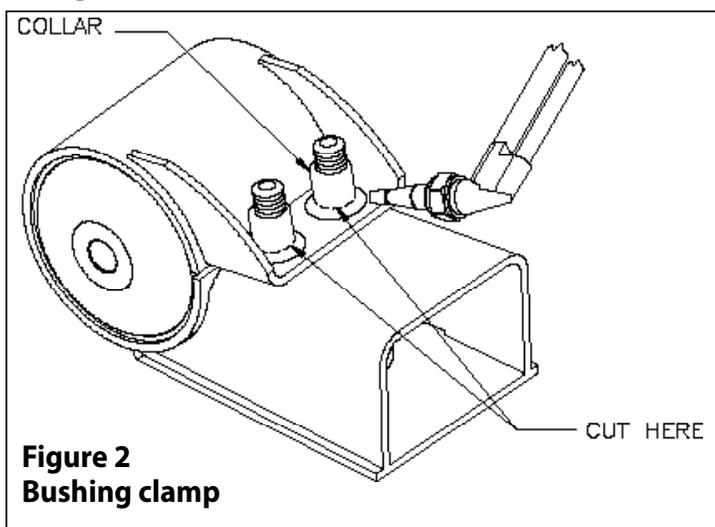


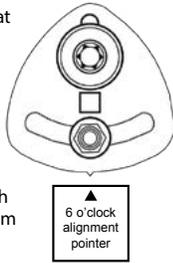
Figure 2
Bushing clamp

11. Install wheels and tires.
12. If necessary, re-connect HCV linkage and adjust ride height per the Extreme Air™ HCV Installation Guide.
13. **CAUTION** Failure to torque pivot hardware to specifications can result in suspension failure and void the warranty.

SPEED SET™ ALIGNMENT FEATURE

NOTE: Alignment plate must be at 6 o'clock position prior to alignment. After alignment, torque adjustment plate nut to 55-60 ft-lb.

Adjustment plates must be moved equally on both sides of hanger. Tighten shear-type pivot bolt with a 1" drive impact wrench until the Torx® head shears off from the bolt.



▲
6 o'clock
alignment
pointer

RIDEWELL CORPORATION SPRINGFIELD, MO USA
#1990006-RevA

Figure 3

Axle Alignment

The RAR-200 suspension is equipped with the Speed-Set™ alignment feature for simple, manual alignment of the axles. There is 1.0" of available adjustment at each hanger.

1. Prior to alignment, ensure all the alignment pointers are at 6 o'clock position (Figure 3).
2. Align the forward axle to the center of the kingpin within $\pm 1/8$ " (Figure 4).

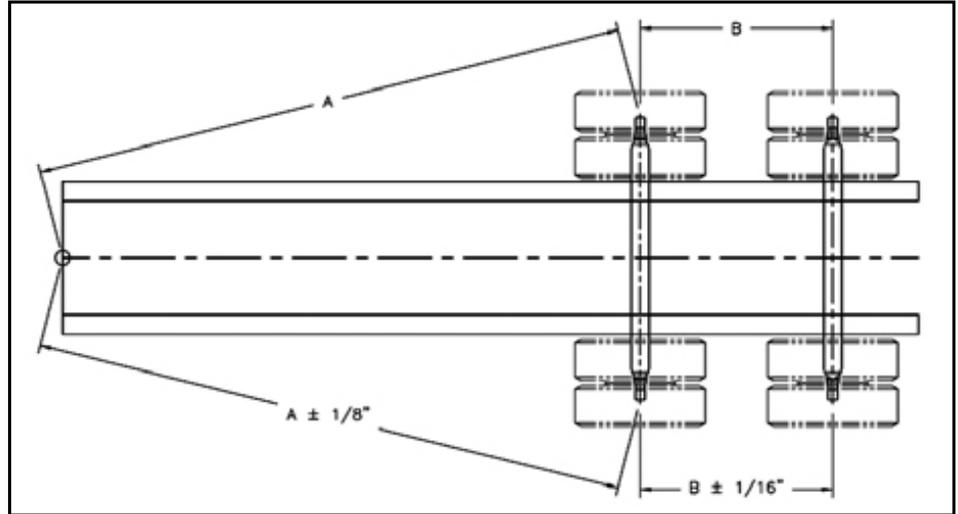


Figure 4

3. Axle Alignment Procedure:

3.1 Loosen the pivot nut and adjuster plate nuts.

3.2 To move the axle, insert a $1/2$ " square shank breaker bar into the square hole on the adjuster plate and push or pull (Figure 5). The adjustment should be made in equal amounts on both sides of the hanger to ensure the bushing is seated squarely between the hanger sidewalls.

3.3 Snug the adjuster plate nuts and re-check alignment measurements. Adjust if necessary.

3.4 Torque the pivot bolt using a 1" drive impact wrench and #6100054 E-20 Torx socket (or equivalent) until the Torx head shears off from the bolt.
NOTE: Torque the pivot bolts with the suspension at ride height to prevent pre-stressing the rubber pivot bushing.

3.5 Torque the adjuster plate nuts to 55 - 60 ft-lbs.

4. Align the aft axle(s) to the forward axle to within $\pm 1/16$ " using the same procedure (Figure 4).

5. In general, small alignment changes can be made on one side (left hanger or right hanger). It is preferable that large alignment changes be made by splitting the difference from one side to the other (i.e. one-half the difference forward at one hanger, one-half the difference aft at the other hanger).

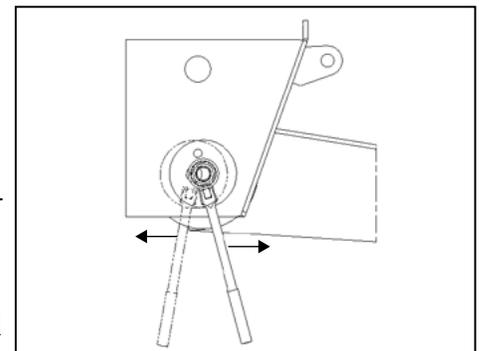


Figure 5

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.

CAUTION Failure to torque pivot hardware to specifications can result in failure of the suspension and void the warranty.