Ridewell Self-Steering Auxiliary Axle Suspensions:

- RSS 233 - Truck–8K; 10K; 13K Capacity
- RSS 233 - Roll-Off Truck–13K Capacity
- RSS 233T - Trailer–10K; 13K Capacity

Notes and Cautions

This instruction provides two types of service notes definitions:

“NOTE” Provides additional instructions or procedures to complete tasks and make sure component functions properly.

⚠️ CAUTION Indicates a hazardous situation or unsafe practice that could result in equipment damage and serious injury if not avoided.

Vehicle Preparation

Park the vehicle on a level surface. Chock wheels to keep vehicle from moving. Exhaust all the air from the air system. Disassemble suspension to reach pivot connections if necessary.

⚠️ CAUTION Failure to chock vehicle wheels and exhaust the air system could allow vehicle movement that could result in serious injury.

Bushing Replacement Procedure

Replace bushing in eight pivot connections at the same time (Fig 1).

1. Remove the pivot hardware by cutting/grinding away the Huck® Collar. Discard pivot hardware.
2. Remove bushing assembly from the rod eye. Clean the rod eye of foreign debris/corrosion.
3. Apply Energy Suspensions® Formula 5 Prelube to the bore (inside) of each bushing half. NOTE: Do not substitute - urethane bushing lubricant is included with replacement kit.
4. Press bushing halves into the torque rod eye until halves are snug against the eye. NOTE: Rubber mallet may be needed to install bushing half.
5. Press bushing inner sleeve into the center opening of the installed bushing. Check that sleeve is flush with both sides of the bushing. NOTE: Mallet or bushing press will be needed to insert sleeve.
6. Install pivot hardware and torque to specifications.
7. Reassemble suspension. Torque to specifications (Chart).

Check that wheel toe-in setting is between 1/32” and 3/32” and adjust if necessary.

⚠️ CAUTION Failure to torque hardware can result in suspension failure and void the warranty.

<table>
<thead>
<tr>
<th>REPL Kit</th>
<th>Item Description</th>
<th>Size</th>
<th>Torque Values</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Pivot Bolt/Nut (HHCS/Locknut)</td>
<td>3/4”-16NF</td>
<td>310 ft-lb</td>
</tr>
<tr>
<td>6040215</td>
<td>Pivot Bolt/Nut (Huck® Hardware)</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>6040133</td>
<td>No Pivot Hardware</td>
<td>310 ft-lb</td>
<td>420 N-m</td>
</tr>
<tr>
<td>Fasteners</td>
<td>Flanged Lock Screw (Air Spring)</td>
<td>3/8”-16NC</td>
<td>25 ft-lb</td>
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<tr>
<td></td>
<td>Locknut (Air Spring)</td>
<td>3/4”-16NF</td>
<td>50 ft-lb</td>
</tr>
<tr>
<td></td>
<td>Locknut (Steering Damper)</td>
<td>3/4”-10NC</td>
<td>160 ft-lb</td>
</tr>
</tbody>
</table>

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

Figure 1.

Ridewell Self-Steering Auxiliary Axle Suspensions:

- RSS 233 - Truck–8K; 10K; 13K Capacity
- RSS 233 - Roll-Off Truck–13K Capacity
- RSS 233T - Trailer–10K; 13K Capacity
Vehicle Preparation
Park the vehicle on a level surface. Chock wheels. Exhaust all the air from the air system.

Failure to properly chock the vehicle wheels and exhaust the air system could allow vehicle/suspension movement that could result in serious injury.

Replacement Procedure
1. Count the number of wear washers on each side of the bushing on the Axle-End Torque Rod Assembly. The wear washer number varies according to the pre-set frame width (Figure 2).
2. Remove pivot hardware and discard. Inspect wear washers for extreme wear/damage. Replace if necessary.
   NOTE: Pivot hardware/wear washers included with kit.
3. Remove bushing from torque rod and discard. Clean rod eye of foreign debris/corrosion.
4. Apply Energy Suspensions® Formula 5 Prelube to the bore (inside) of new bushings.
   NOTE: Do not substitute - special urethane bushing lubricant included with all bushing kits.
5. Install new bushing into the eye of the torque rod.
   NOTE: Mallet /press needed to install bushing.
6. Torque Rod Hanger-End (Bushing Sleeve - 4.1”) Press inner sleeve into the installed bushing. Center sleeve so that both ends extend slightly past the sides of the bushing. Assemble pivot connection with one wear washer on each side of the bushing.
   Inner sleeve must be flush with or extend slightly past the outside of the wear washers on both ends.

Figure 2.
Refer to the suspension model engineering drawing for the number of wear washers on the axle-end of the left-hand and right-hand torque rod. Number of washers will vary according to the pre-set frame width.

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Bushing Replacement Procedure – 233-13K Roll-Off truck

7. Torque Rod Axle-End (Bushing Sleeve - 4.8”)
Press inner sleeve into the installed bushing. Position inner sleeve so that one end extends further past the bushing on appropriate side as determined by the frame width.
Assemble pivot connection with appropriate number of wear washers on either end of the inner sleeve on the axle-end of the torque rod (Figure 3).
NOTE: Inner sleeve must be flush with or slightly past the outside of installed wear washers on both sides of torque rods. Adjust sleeve if necessary.

8. Torque pivot nut to specifications (500 ft-lb - 678 N-m).

9. Reassemble suspension, if necessary. Torque components to specifications.

10. Check wheel toe-in setting (between 1/32” and 3/32”) and adjust, if necessary.

Figure 3.
The number of wear washers on the axle-end of the left-hand and right-hand torque rod varies by the frame width.
NOTE: Bushing Replacement Kit includes traditional pivot hardware, not Huck Fasteners.