INTRODUCTION

This publication is intended to assist maintenance personnel with the installation of the Aftermarket Shock Absorber Kits for vehicles equipped with RT™ or RTE™ rear suspension and the bar pin style end connection. These Aftermarket Shock Absorber Kits are made available for vehicles not originally equipped with shock absorbers from the vehicle manufacturer.

The RT/RTE suspension does not require shock absorbers, although ride and traction may be improved in some applications with shock absorbers. Ride performance can be subjective and may be dependent on many factors beyond the suspension design such as cab suspension, road conditions, body / auxiliary equipment, frame specifications, etc.

Refer to Hendrickson Technical Procedure 17730-070 for complete safety and service instructions for the RT/RTE Series suspension available online at www.hendrickson-intl.com.

There are several options for the RT/RTE Aftermarket Shock Absorber Kit installation depending on: vehicle configuration, loaded ride height range, and equalizing beam length, see Table 1 below. There are two separate installation configurations dependent on the shock absorber kit to be installed (two or four shock absorbers), see Figures 1 and 2.

- The Shock Absorber Kits with two shock absorbers are for installation on the rear drive axles only.
- The Shock Absorber Kits with four shock absorbers are for the tandem installation.

### TABLE 1

<table>
<thead>
<tr>
<th>Loaded Ride Height Range</th>
<th>Beam Length</th>
<th>Four (4) Shocks</th>
<th>Two (2) Shocks</th>
</tr>
</thead>
<tbody>
<tr>
<td>17.41” – 19.27”</td>
<td>52” and 54” (Standard)</td>
<td>57803-001</td>
<td>57803-005</td>
</tr>
<tr>
<td>15.25” – 17.37”</td>
<td>52” and 54”</td>
<td>57803-002</td>
<td>57803-006</td>
</tr>
<tr>
<td>20.42” – 21.96”</td>
<td>52” and 54”</td>
<td>57803-003</td>
<td>57803-007</td>
</tr>
<tr>
<td>15.25” – 17.37”</td>
<td>60”</td>
<td>57803-001</td>
<td>57803-005</td>
</tr>
<tr>
<td>17.41” – 21.96”</td>
<td>60”</td>
<td>57803-004</td>
<td>57803-008</td>
</tr>
</tbody>
</table>

### AFTERMARKET SHOCK ABSORBER KIT ASSEMBLY

**WARNING**

A TECHNICIAN USING A SERVICE PROCEDURE OR TOOL WHICH HAS NOT BEEN RECOMMENDED BY HENDRICKSON MUST FIRST SATISFY HIMSELF THAT NEITHER HIS SAFETY NOR THE VEHICLE’S SAFETY WILL BE JEOPARDIZED BY THE METHOD OR TOOL SELECTED. INDIVIDUALS DEVIATING IN ANY MANNER FROM THE INSTRUCTIONS PROVIDED WILL ASSUME ALL RISKS OF CONSEQUENTIAL PERSONAL INJURY OR DAMAGE TO EQUIPMENT INVOLVED.
WARNING

DO NOT MODIFY OR REWORK PARTS WITHOUT AUTHORIZATION FROM HENDRICKSON. DO NOT USE SUBSTITUTE OR REPLACEMENT COMPONENTS NOT AUTHORIZED BY HENDRICKSON. USE OF MODIFIED, REWORKED, SUBSTITUTE OR REPLACEMENT PARTS NOT AUTHORIZED BY HENDRICKSON MAY NOT MEET HENDRICKSON’S SPECIFICATIONS, AND CAN RESULT IN FAILURE OF THE PART, LOSS OF VEHICLE CONTROL, AND POSSIBLE PERSONAL INJURY OR PROPERTY DAMAGE. USE ONLY HENDRICKSON AUTHORIZED REPLACEMENT PARTS.

INSTALLATION

1. Chock the front wheels of the vehicle.
2. Using the appropriate Figure 1 or 2, layout the new upper shock absorber bracket hole pattern on the frame. The upper shock absorber bracket supplied can also be used as a template.

FIGURE 1

Two (2) Shock Kit

Vertical Centerline of Equalizing Beam

Loaded Ride Height
Bottom of Frame to Centerline of Beam

B Equalizing Beam Length

FIGURE 2

Four (4) Shock Kit

Vertical Centerline of Equalizing Beam

Loaded Ride Height
Bottom of Frame to Centerline of Beam

B Equalizing Beam Length
3. Drill two (2) 2\(\frac{1}{8}\)" diameter holes on both sides of the frame for each upper shock absorber bracket.

4. Assemble the upper shock absorber brackets to the frame with the \(\frac{5}{8}''\)-11 UNC fasteners supplied in the kit. Tighten to \(\mathbf{150-205}\) foot pounds torque.

5. Remove the inside bar pin connection fasteners and discard.

6. Position the NEW 1" bolt into the lower shock absorber bracket.

7. Assemble the shock absorber to the lower shock absorber bracket using new ½" fasteners, **DO NOT** tighten at this time.

8. Connect the lower shock absorber assembly with the 1" lower bar pin fastener to the axle bracket. **DO NOT** tighten at this time.

9. Assemble the shock absorbers on the upper brackets using the new ½" fasteners, **DO NOT** tighten at this time.

10. The bar pin end connection bolts are installed from the center of the equalizing beam toward the end making removal and final torque assembly easy. Tighten the 1" locknuts to \(\mathbf{450-600}\) foot pounds torque, see Figure 3.

11. Tighten the **UPPER** and **LOWER** shock absorber fasteners to \(\mathbf{50-70}\) foot pounds torque, see Figure 3.

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