

ASSEMBLY INSTRUCTIONS

HAS™ 40K • 46K Rear Air Suspensions

SUBJECT: Inboard Shock Absorber Kits

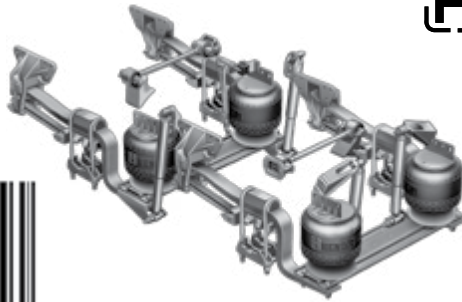
LIT NO: 59310-005

DATE: April 2018

REVISION: B



059310-005



INTRODUCTION

Hendrickson's HAS™ 40K • 46K suspension inboard shock absorber option is ideal for operators requiring greater rear suspension clearance in applications (e.g., dump trucks used in paving operations – or other vocational applications) that may require a minimal amount of rear frame length or suspension overhang. This publication is intended to assist maintenance personnel with the installation, on an as-needed basis, of Inboard Shock Absorber Kit Numbers 57784-001 through -004 on HAS 40K and 46K rear suspensions.

INBOARD SHOCK ABSORBER KIT CONTENTS

DESCRIPTION	QTY.
Cross Channel Assembly	1
Upper Shock Bracket Assembly	2
Shock Absorbers	2
Fastener Kit	1

CAUTION

THESE HENDRICKSON AFTERMARKET INBOARD SHOCK ABSORBER KITS ARE INTENDED FOR USE ONLY IN THE REAR DRIVE AXLE POSITION ON HAS 40K AND 46K SUSPENSIONS. HOWEVER, THESE KITS ARE NOT DESIGNED FOR USE ON HAS 40K LH SUSPENSIONS, AND SUCH IMPROPER USE CAN CAUSE COMPONENT DAMAGE. CONTACT HENDRICKSON FOR ANY ASSISTANCE IN IDENTIFYING THE HAS SUSPENSION MODEL EQUIPPED ON YOUR VEHICLE.

Inboard Shock Absorber Selection Guide

Kit No.	Main Support Member Mounting Center	
57784-001	40"	1016.0 mm
57784-002	40¼"	1022.4 mm
57784-003	40½"	1028.7 mm
57784-004	40⅝"	1031.9 mm

Refer to the current version of Hendrickson HAS Technical Publication No. 17730-212 for preventive maintenance, tightening torque interval guidelines, and complete service and safety instructions, available online at www.hendrickson-intl.com.

HAS INBOARD SHOCK ABSORBER OPTION

CAUTION

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.

**DISASSEMBLY**

1. Chock the wheels.
2. Support the frame of the vehicle at ride height.

WARNING

THE VEHICLE MUST BE FIRMLY SUPPORTED WITH JACK STANDS PRIOR TO SERVICING. FAILURE TO DO SO CAN RESULT IN PERSONAL INJURY OR PROPERTY DAMAGE.

3. Disconnect the height control linkage assembly from the height control valve arm by sliding the rubber grommet from the stud.

WARNING

PRIOR TO AND DURING DEFLATION AND INFLATION OF THE AIR SUSPENSION SYSTEM, ENSURE ALL PERSONNEL AND EQUIPMENT ARE CLEAR FROM UNDER THE VEHICLE AND AROUND THE SERVICE AREA, FAILURE TO DO SO CAN CAUSE SERIOUS PERSONAL INJURY, DEATH OR PROPERTY DAMAGE.

4. See additional Air Spring Cautions and Warnings in the Important Safety Notice Section in the current version of Hendrickson HAS Technical Publication No. 17730-212.
5. Lower the leveling valve arm to exhaust the air in the air springs and deflate the rear suspension.

CAUTION

IF THE AIR SPRING IS BEING REMOVED, IT IS MANDATORY TO LUBRICATE THE LOWER AIR SPRING FASTENERS WITH PENETRATING OIL AND REMOVE WITH HAND TOOLS TO PREVENT DAMAGE TO THE LOWER AIR SPRING MOUNTING STUD. FAILURE TO DO SO CAN CAUSE COMPONENT DAMAGE AND VOID APPLICABLE WARRANTIES.

6. Remove the lower mounting nuts on the air spring.
7. Remove the upper air spring frame hanger fasteners. Remove air spring from the frame.

NOTE

If the height control valve is located at the rear axle or it is a single axle it is necessary to disconnect the bottom of the leveling valve rod.

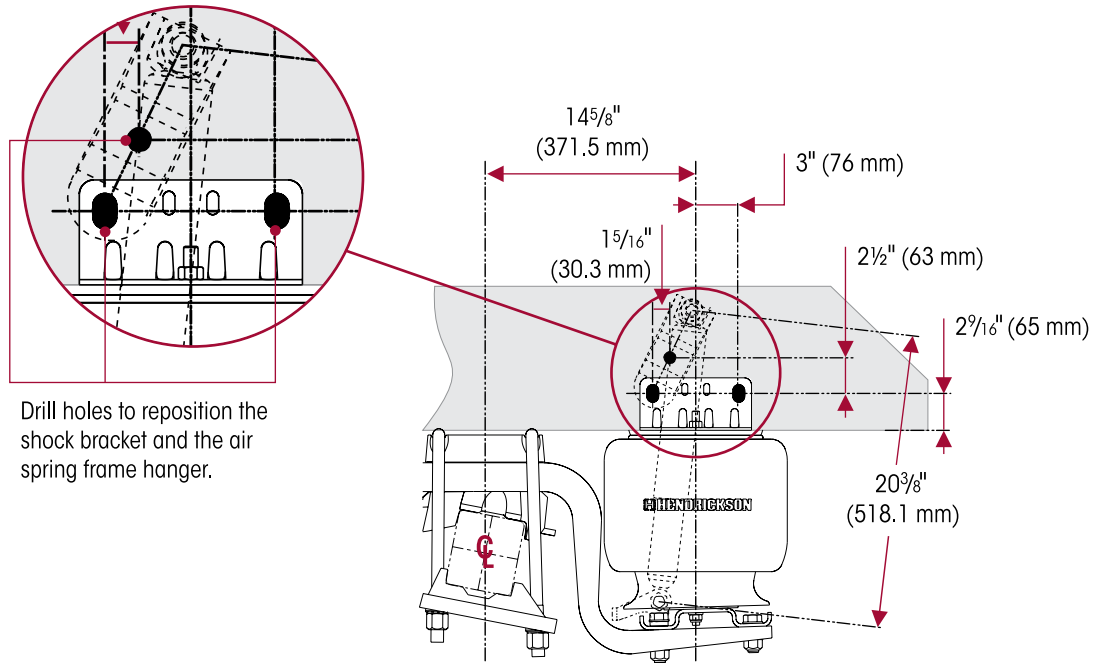
8. Remove upper and lower shock absorber fasteners.
9. Remove the rear shocks absorbers.
10. Remove the cross channel fasteners and slide out the lower shock absorber brackets and remove cross channel.
11. Remove the upper shock absorber bracket fasteners from the frame and remove upper shock bracket.

ASSEMBLY

1. Drill two $1\frac{3}{16}$ " (19.8 mm) diameter holes to relocate air spring assembly $\frac{5}{8}$ " (15.8 mm) forward of current location on both sides of frame. Reference $14\frac{5}{8}$ " (371.5 mm) dimension on Figure 1.
2. Drill a $1\frac{3}{16}$ " (19.8 mm) diameter hole in the frame for the inboard upper shock absorber bracket on both sides of the vehicle. This hole must be $2\frac{1}{2}$ " (63 mm) above and $1\frac{5}{16}$ " (30.3 mm) behind the forward air spring mounting hole, see Figure 1.
3. Install the new cross channel/inboard lower shock absorber bracket assembly and shock absorbers. Refer to the selection guide table on page 1 in this publication.
4. Install the four (4) cross channel fasteners and torque to 285 ± 35 foot pounds. Reconnect the lower air spring studs, 25 ± 5 foot pounds.
5. Install the inboard upper shock absorber bracket on the frame, per the vehicle manufacturer's specifications.



FIGURE 1



6. Install shock absorbers. Note, washers must be installed at both sides of each shock absorber bushing, that is four (4) washers per shock absorber.
7. Install upper and lower shock absorber fasteners. Tighten to 60 ± 10 foot pounds torque.
8. If the height control valve is located at the rear axle reconnect the bottom end of the leveling valve rod to the new mount bracket on cross channel.
9. Remove the frame supports.
10. Inflate the air suspension by raising the leveling valve arm.
11. Verify ride height, refer to the Alignment and Adjustment Section in the current version of Hendrickson HAS Technical Publication No. 17730-212.
12. Remove the wheel chocks.

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