

TECHNICAL PROCEDURE

HA/HAS/HAS 40LH

SUBJECT: U-bolt Locknut Tightening Torque

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REVISION: F

INTRODUCTION

The following procedure is required for all vehicles equipped with Hendrickson HA, HAS or HAS 40LH air suspensions.

WARNING

LOOSE OR OVER TORQUED FASTENERS CAN CAUSE COMPONENT DAMAGE, LOSS OF VEHICLE CONTROL, PROPERTY DAMAGE, OR SEVERE PERSONAL INJURY. MAINTAIN CORRECT TORQUE VALUES AT ALL TIMES. CHECK TORQUE VALUES ON A REGULAR BASIS AS SPECIFIED, USING A TORQUE WRENCH THAT IS REGULARLY CALIBRATED.

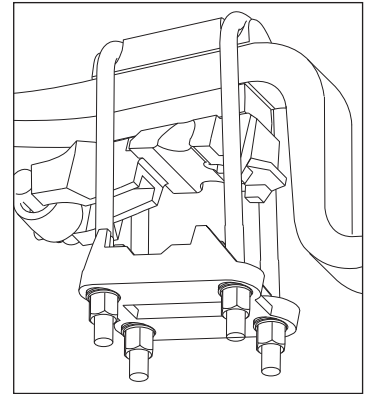
WARNING

U-BOLT CLAMP GROUP CONNECTION MUST BE PROPERLY ALIGNED AND HAVE THE PROPER TIGHTENING TORQUE VALUES MAINTAINED. METAL SURFACES CAN WORK AND WEAR AGAINST OTHER RELATED CLAMP GROUP COMPONENTS IF NOT PROPERLY ALIGNED OR PROPERLY TIGHTENED TO MAINTAIN THE PROPER CLAMP FORCE. FAILURE TO DO SO CAN CAUSE PREMATURE COMPONENT WEAR, POSSIBLE SEPARATION OF THE CLAMP GROUP, CAUSING LOSS OF VEHICLE CONTROL, PROPERTY DAMAGE, OR PERSONAL INJURY.

WARNING

IF SIGNS OF MOVEMENT OF THE CLAMP GROUP ARE PRESENT OR A MAIN SUPPORT MEMBER HAS FAILED, A DISASSEMBLY OF THE CLAMP GROUP IS NECESSARY WITH A DETAILED VISUAL INSPECTION OF THE CLAMP GROUP AND MATING COMPONENTS. ANY DAMAGED, WORN, OR FRETTED COMPONENTS MUST BE REPLACED. FAILURE TO DO SO CAN CAUSE PREMATURE COMPONENT WEAR, POSSIBLE SEPARATION OF THE CLAMP GROUP, CAUSING LOSS OF VEHICLE CONTROL, PROPERTY DAMAGE, OR PERSONAL INJURY.

FIGURE 1



PREVENTIVE MAINTENANCE

U-bolt locknuts must be tightened to the specified torque as stated in Figure 2.

DO NOT exceed specified torque value on U-bolt locknuts.

NOTE

Ensure that the clamp group components are properly aligned and the U-bolts are seated properly in the top pad with no visible gaps.

- U-bolt locknuts **MUST** be torqued to specification at preparation for delivery of each applicable vehicle.
- U-bolt locknuts **MUST** be re-torqued at 4,500 km following service, repair or rebuild of the suspension.



- Thereafter, the U-bolt locknuts **MUST** be inspected and re-torqued, as necessary, at every 30,000 km interval.

NOTE

Current Hendrickson Truck Suspension Systems U-bolts for the HA/HAS/HAS 40LH suspension are phosphate, oil coated and black in color. All threads should be lubricated with SAE 20 oil before assembly to obtain the correct relationship of torque and fastener tension.

- HA/HAS:** 7/8"-14 UNF 2B, Grade C. Tighten to 400-450 foot pounds torque. (580 Nm) See Figure 2.
- HAS 40LH:** 3/4"-14 UNF 2B, Grade C. Tighten to 260-320 foot pounds torque. (395 Nm) See Figure 2.

TIGHTENING PROCEDURE

- Tighten the U-bolt locknuts evenly in 70 Newton metre increments in the proper pattern to achieve uniform bolt tension and correct (level) position of main support member, spring seat, and axle bottom cap at final torque, See Figure 2. Use the torque pattern shown in Figure 3.
- Drive the vehicle for a minimum of 10 to 15 minutes to seat components.
- After driving the vehicle, re-torque U-bolt locknuts to specified torque.
- U-bolt locknuts **MUST** be re-torqued at 4,500 kilometres following service, repair or rebuild of the suspension.
- Thereafter, the U-bolt locknuts **MUST** be inspected and re-torqued, as necessary, at every 30,000 kilometre interval.

FIGURE 2

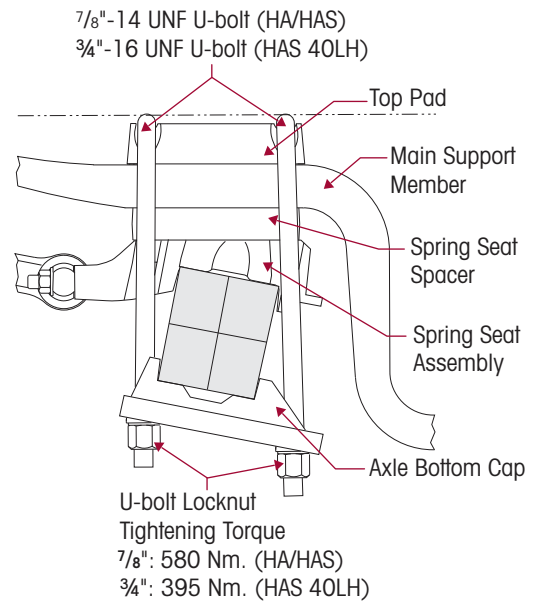
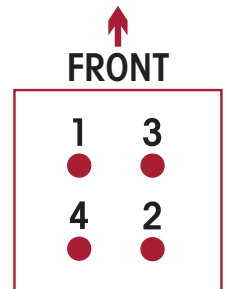


FIGURE 3



If any wear at all is identified on any of the mating surfaces within the clamp group, these items **MUST** be replaced. Failure to replace worn items can result in incorrect driveline angles resulting in driveline vibration and continual loosening of the U-Bolts after re-tension.

Need Help? Call **03 8792 3600** or Email customerservice@hendrickson.com.au



www.hendrickson.com.au

**HENDRICKSON COMMERCIAL
VEHICLE SYSTEMS AUSTRALIA**
ABN 21 004 992 769
32-44 Letcon Drive, P.O. Box 1063
Dandenong, Victoria, 3175
61.3.8792.3600 • Fax 61.3.8792.3699

**HENDRICKSON COMMERCIAL
VEHICLE SYSTEMS NEW ZEALAND**
Unit P, 24 Allright Place
Mt Wellington, Auckland, 1060
64.9.570.4721 • Fax 64.9.570.4816