# **Authorized Field Change**

AFC G-05912 Revised

Date: November, 2005

Subject File: SPRINGS

**Subject:** Certain 5000i and 7000 HPV Models Built Between April 19, 2005 and May 16, 2005 with HMX Rear Suspension Codes 14ULX, 14ULY, May Need the Suspension Equalizing Beams Replaced

Model: 5500i, 5600i, 5900i, 7400, 7500, 7600, 7700 Start Date: 04/19/2005 End Date: 05/16/2005

Unit Code: 14ULX
Unit Code: 14ULY

## DESCRIPTION

#### **REVISION DESCRIPTION**

Due to an error in computing labor operation repair times, they have been modified as follows:

- A40-05912-01 UNCHANGED
- A40-05912-02 From 3.8 hr to 3.4 hr
- A40-05912-03 From 5.7 hr to 6.1 hr

Hendrickson, the supplier of the HMX suspension, has notified International Truck and Engine Corporation that some of the HMX suspensions may have equalizing beams that contain nonconforming material resulting in unacceptable fatigue life.

IMPORTANT – Only the VIN's listed in Table 2 are affected by this Authorized Field Change letter. Some of the VIN's listed in Table 2 may already have equalizing beams made with the correct material and they can be identified by a raised plastic label installed by the vendor. These should not be replaced, only beams without the raised plastic label need replacement. NOTE: The plastic label may be painted over but because the label is raised it is still visible.

Please note that replacement equalizing beams received from the PDC will not have the raised plastic label but is certified material.

Please refer to the pdf for this AFC for the Hendrickson procedure.

## PARTS INFORMATION

#### Table 1

Part Number	Description	Quantity
8000875R91	HMX Service Kit	1 (See Note)

**NOTE -** If replacing both equalizing beams two (2) kits are required.

# **SERVICE PROCEDURE**

WARNING – To avoid property damage, personal injury, or death, park the vehicle on a flat level surface, set the parking brake, turn the engine off, and chock the wheels.

The information supplied herein has been furnished by Hendrickson for use with its product. International Truck and Engine Corporation reprints this information based on representations made to the Company. While users are urged to carefully follow the instructions accompanying the product, International cannot accept any responsibility for user errors, or mishaps resulting from such errors, or from any misuse of the product.

Customers of suspect vehicles have been notified. Not all Vehicle Identification Numbers (VIN) in the suspect date range are affected. Refer to the VIN list below to confirm the vehicle is affected by this AFC letter.

Table 2 VINs of Affected Vehicles

VIN	VIN	VIN	VIN	VIN	VIN
6J149595	6J177193	6J220413	6J226006	6J230538	6J234411
6J153694	6J177194	6J220446	6J226007	6J230542	6J234442
6J161453	6J179340	6J220908	6J226008	6J230647	6J235527
6J161454	6J179342	6J221395	6J226086	6J230669	6J236226
6J161455	6J191100	6J222045	6J227304	6J230670	6J230695
6J161456	6J197330	6J224500	6J228329	6J230679	6J230696
6J161457	6J199694	6J224795	6J228333	6J230680	6J231716
6J161458	6J199695	6J225251	6J229649	6J230694	6J232199
6J161459	6J199696	6J225998	6J229686	6J232204	6J232201
6J161460	6J209593	6J225999	6J230387	6J232205	6J232202
6J161461	6J209694	6J226000	6J230388	6J232207	6J236343
6J161462	6J209695	6J226001	6J230389	6J232811	6J236828
6J177189	6J209696	6J226002	6J230390	6J232820	6J237077
6J177190	6J209697	6J226003	6J230391	6J232936	6J237642
6J177191	6J213513	6J226004	6J230392	6J233204	6J237643
6J177192	6J216036	6J226005	6J230393	6J233703	6J237644





# **HAULMAAX®**

SUBJECT: 54" Equalizing Beam Assembly

LIT NO: SEU-0221

DATE: October 2005 REVISION: D

**IMPORTANT NOTICE** 

## INTRODUCTION

Hendrickson Truck Suspension Systems has identified a steel material issue affecting a limited number of 54" equalizing beam assemblies for the HAULMAAX® suspension. These equalizing beams were constructed with steel that does not comply with Hendrickson specifications. This non-conforming steel may contain small surface cracks that can result in visible, slow developing fatigue fractures and an unacceptable part life. Any such fatigue fractures are likely to appear only after long-term vehicle operation. Certain HAULMAAX suspensions with 54" equalizing beams shipped by Hendrickson from 4/11/05 and 4/28/05 are subject to this issue. Based upon redundant design features incorporated into the HAULMAAX suspension, Hendrickson does not consider this condition to have any adverse effect on vehicle control. Nonetheless, to ensure improved performance, Hendrickson intends to work with the applicable vehicle manufacturers to locate, contain and replace all of the subject beams.

Hendrickson recommends that all subject beams, whether in OEM inventory or installed on vehicles, be replaced and returned to Hendrickson per the Hendrickson ASN Release Form included on the back page of this publication. This bulletin is intended for use by Hendrickson and applicable vehicle manufacturers in order to contain and replace all of the subject beams.

### **EQUALIZING BEAM INSPECTION**

- 1. Based upon applicable OEM build records, verify whether the equalizing beams were manufactured in the above referenced time period.
- 2. As of 04/29/05, Hendrickson started installing a plastic Hendrickson decal (see Figure 1) on equalizing beams in our inventory that were determined not to contain any of the non-conforming steel. For those equalizing beams that were shipped between the dates specified above and are equipped with a plastic Hendrickson decal on the equalizing beam (see Figure 1), no further action is necessary.



3. For those equalizing beams shipped between the dates specified above and are not equipped with a plastic Hendrickson decal, component replacement is required. See Equalizing Beam Replacement in this publication.

A service kit is available from Hendrickson to replace the equalizing beam (HAULMAAX Service Kit number 64179-032). All equalizing beams in the service kits come equipped with shock absorber brackets attached.







## HAULMAAX SERVICE KIT NO. 64179-032 CONTENTS

#### QTY. DESCRIPTION

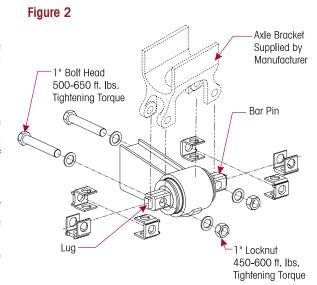
- 8 1" Washer
- 1" 8 UNC 6.0" Hexbolt
- 4 1" 8 UNC Locknut
- 8 ½" 13 UNC Flange Nut
- 1 HMX 54" Beam Ass'y. with Shock Bracket
- 2 ½" 13 UNC 2.25" Bolt
- 2 1/2" 13 UNC Flange Nut
- 4 1/2" I.D. Contact Plate Spacer

## **EQUALIZING BEAM REPLACEMENT**

It is important to read and understand the entire Technical Bulletin publication prior to performing any service, repair, or rebuild of the HAULMAAX product.

## **DISASSEMBLY**

- Chock the front wheels of the vehicle to help prevent movement during the removal and installation procedures.
- 2. Prior to disassembly of the equalizing beam bar pin fasteners, note the orientation of the bar pin alignment shims. See Figure 2. It is required that the bar pin alignment shims are installed in the same orientation and location as removed to preserve the existing alignment.





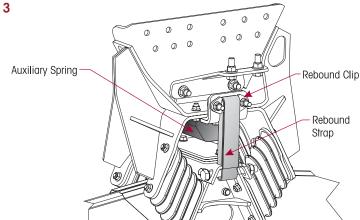
FAILURE TO INSTALL THE ALIGNMENT SHIMS IN THE SAME ORIENTATION AND LOCATION MAY REQUIRE A VEHICLE ALIGNMENT, AND WILL NOT BE COVERED UNDER WARRANTY. IMPROPER VEHICLE ALIGNMENT CAN INCREASE TIRE WEAR.

NOTE

All equalizing beams are manufactured with the bar pin flats perpendicular to the beam's axis. It is not necessary to adjust the bar pins to the same pinion angle as prior to disassembly. The rubber in the bushings will gradually allow the bar pins to adapt to the pinion angles of the drive axles. This is a normal function of the bar pin bushings.

3. From the inboard side of the equalizing beam, remove the two ½" flange head bolts and flange head locknuts from the upper rebound clip and the saddle assembly, see Figure 3.

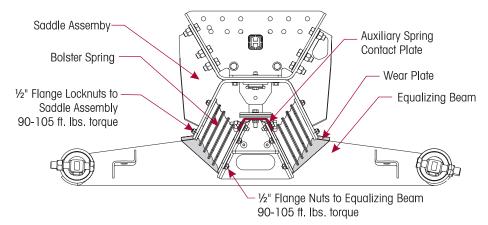




- 4. Remove the eight ½" flange head locknuts connecting the bolster springs to the equalizing beam assembly. See Figure 4.
- 5. Loosen the eight ½" flange head locknuts connecting the bolster springs to the saddle assembly. See Figure 4.

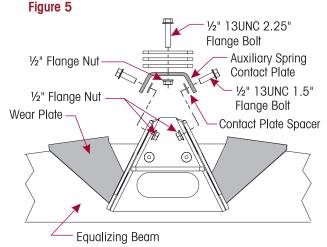
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Figure 4



6. Remove the four ½" flange head bolts, flange head locknuts and contact plate spacers from the auxiliary spring contact plate and the equalizing beam, see Figure 5. Remove the auxiliary spring contact plate, see Figure 5.

- 7. If equipped, remove the 5/8" nylon locknuts, retainer washers and rubber bushings from the lower shock absorber studs. Push the shock absorbers up and clear of equalizing beam mounting bracket.
- 8. Raise the rear of the vehicle until the bolster springs studs clear the equalizing beam assembly. Support the vehicle in this position with jack stands.





THE WEIGHT OF THE EQUALIZING BEAM ASSEMBLY IS APPROXIMATELY 155 POUNDS. CARE SHOULD BE TAKEN AT REMOVAL AND INSTALLATION TO PREVENT PERSONAL INJURY OR DAMAGE TO COMPONENTS.

- 9. Support the end of the beam as it may drop when the bar pin bolts are removed. Remove and discard the 1" bolts, washers and locknuts that connect the end bushing bar pin to the axle bracket.
- 10. Remove the equalizing beam from the axle brackets.
- 11. Visibly mark the subject equalizing beams with code (RMA # 497).
- 12. If both equalizing beams need replacement repeat steps 2 through 11 for removal of the opposing equalizing beam.
- 13. Complete the Hendrickson ASN Release Form and fax or e-mail to Ryder TMC (FAX# 1-817-490-8069) and also include the form with the returned equalizing beams to the appropriate return location (USA or CANADA). See back page for detailed shipping instructions.

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#### **ASSEMBLY**

#### **SERVICE HINT**

Installing the front bar pins first will ease in the assembly of the equalizing beam.



THE WEIGHT OF THE EQUALIZING BEAM ASSEMBLY IS APPROXIMATELY 155 POUNDS. CARE SHOULD BE TAKEN AT REMOVAL AND INSTALLATION TO PREVENT PERSONAL INJURY OR DAMAGE TO COMPONENTS.

- 1. With the shock brackets on the equalizing beam facing outboard, mount the equalizing beam into the front drive axle brackets (do not install the alignment shims at this time), on each side of the vehicle.
- 2. Slide a 3/4" bolt through all front axle brackets and the bar pin holes to temporarily support the beams.
- 3. Lift the rear of the beam until the flat side of the bar pin is parallel to the axle bracket legs.



THE SHIM MUST BE INSTALLED AT EACH BOLT LOCATION. THE SAME PART NUMBER SHIM IN THE SAME ORIENTATION MUST BE USED AT BOTH BOLT LOCATIONS ON ANY ONE BUSHING ASSEMBLY. DO NOT INSTALL OR STACK MORE THAN ONE SHIM AT EACH BOLT LOCATION. USE ONLY GENUINE HENDRICKSON SHIMS, DO NOT USE STANDARD WASHERS. FAILURE TO FOLLOW THESE WARNINGS CAN RESULT IN THE FRACTURE OF EITHER THE BRACKET OR BAR PIN, WHICH COULD RESULT IN THE LOSS OF VEHICLE CONTROL AND POSSIBLE PERSONAL INJURY OR PROPERTY DAMAGE.

- 4. Partially install the inboard alignment shims and verify that the shims are in the same orientation as prior to disassembly.
- 5. To complete installation of the alignment shims, remove the temporary 3/4" bolts from the inboard bar pin holes and complete installation of the inboard alignment shims. See Figure 4.
- 6. Install the NEW 1" inboard bar pin fasteners. Do not tighten at this time.
- 7. Repeat steps 3 through 6 for the front outboard side of the equalizing beam.
- 8. Support the current position of the rear axle pinion.
- Disconnect the longitudinal torque rod from the axle bracket. Note the quantity and orientation of any longitudinal torque rod shims removed.
- 10. Release the rear parking brakes, this will allow the rear axle to rotate without rotating the tires.
- 11. Lower the rear drive pinion until the axle bracket legs are parallel to the flat side of the bar pin.

## **SERVICE HINT**

For minor adjustments, there are lugs on the ends of the bar pin bushing. With an openend wrench or Owatonna Tool Company's tooling, the inner metal of the bushing can be rotated slightly to ease assembly.

- 12. Mount the equalizing beam into the rear drive axle brackets (do not install the alignment shims at this time), on each side of the vehicle.
- 13. Slide a 3/4" bolt through all rear axle brackets and the bar pin holes to temporarily support the beams.

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# **WARNING**

THE SHIM MUST BE INSTALLED AT EACH BOLT LOCATION. THE SAME PART NUMBER SHIM IN THE SAME ORIENTATION MUST BE USED AT BOTH BOLT LOCATIONS ON ANY ONE BUSHING ASSEMBLY. DO NOT INSTALL OR STACK MORE THAN ONE SHIM AT EACH BOLT LOCATION. USE ONLY GENUINE HENDRICKSON SHIMS, DO NOT USE STANDARD WASHERS. FAILURE TO FOLLOW THESE WARNINGS CAN RESULT IN THE FRACTURE OF EITHER THE BRACKET OR BAR PIN, WHICH COULD RESULT IN THE LOSS OF VEHICLE CONTROL AND POSSIBLE PERSONAL INJURY OR PROPERTY DAMAGE.

- 14. Partially install the inboard alignment shims and verify that the shims are in the same orientation as prior to disassembly. See Figure 2.
- 15. To complete installation of the alignment shims, remove the temporary 34" bolts from the inboard bar pin holes and complete installation of the inboard alignment shims.

**NOTE** 

Prior to assembly of the rear fasteners, the maintenance personnel must reconfirm that all the shims are installed in the same orientation as prior to disassembly.

- 16. Install NEW 1" inboard bar pin fasteners. Do not tighten at this time.
- 17. Repeat steps 14 through 16 for the rear outboard side of the equalizing beam.
- 18. Tighten the bar pin 1" locknuts to 450-600 foot pounds torque, or if tightening on the bolt head, tighten to 500-650 foot pounds torque.
- 19. Install the longitudinal torque rod and any longitudinal torque rod shims in the same orientation as prior to disassembly. Tighten fasteners to the vehicle manufacturer's specifications.
- 20. Install the wear plates onto the eight lower bolster spring studs.
- 21. Lower the vehicle and guide the lower bolster spring studs into the equalizing beam mounting slots until the wear plates and the bolster springs are seated against the lower end of the equalizing beam mounting bracket.
- 22. Re-apply rear parking brake.
- 23. Install the eight lower  $\frac{1}{2}$ " flange head locknuts and tighten all sixteen bolster fasteners to  $\boxed{3}$  90-105 foot pounds torque. See Figure 2.
- 24. Mount the auxiliary spring contact plate to the equalizing beam by installing the four ½" flange head bolts though the auxiliary spring contact plate, contact plate spacers and equalizing beam assembly, see Figure 5. Install flange head locknuts and tighten to 3 90-105 foot pounds torque. See Figure 4.
- 25. Locate the shock absorber studs (if equipped) in the equalizing beam shock mounting bracket and install the rubber bushings, retainer washers and 5/8" nylon locknuts. Tighten to 3 70-90 foot pounds torque.
- 26. From the inside of the saddle, mount the rebound clip by installing the two ½" flange head bolts and flange head locknuts and tighten to 3 90-105 foot pounds torque.

Follow the Hendrickson Preventative Maintenance and tightening torque interval guidelines as detailed in the HAULMAAX Technical Procedure publication, literature number 17730-244. This publication is available online at www.hendrickson-intl.com.

Refer any questions to this publication to Hendrickson Tech Services (630.910.2800 or e-mail techservices@hendrickson-intl.com). For more information on Hendrickson products go to www.hendrickson-intl.com.

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## Hendrickson ASN Release Form

Order Confirmation - Pick-up Request form



E-mail or Fax to: Ryder TMC—Hendrickson International Phone# 1-800-961-0989 Fax # **1-248-324-5547** 

E-mail: hendrickson@ryder.com

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				CONTA	ACT NAME:	Quality Ass		
CONTACT NAME				PHON	E #:	260-349-6	6500	
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PHONE #						Kendallville, Indiana 46755		
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CITY						Hendrickso		
CITY				CONTACT NAME: Darcy Brown C/O Quality Assurance				
STATE ZIP CODE				PHONE #: 905-789-1030				
OINIL		ZII OODL		ADDRESS: 250 Chrysler Drive, Unit #3				
SHIPPING HOURS				Brampton, Ontario L6S 6B6  RECEIVING HOURS: 8:00 A.M. – 4:00 P.M.				
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Truck Suspension Systems 800 South Frontage Road Woodridge, IL 60517-4904 USA 630.910.2800 Fax 630.910.2899 Operation number must appear on all claims.

**Table 3 Labor Information** 

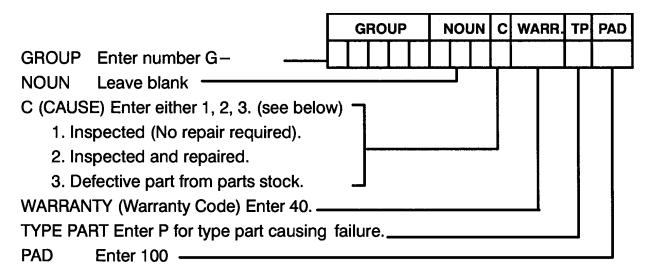
Operation No.	Description	Time
A40-05912-1	Inspect Equalizing Beams (Both Sides) No Defect Found	0.5 Hr.
A40-05912-2	Inspect Both Sides, Remove and Replace Equalizing Beam (One Side)	3.4 Hrs.
A40-05912-3	Inspect Both Sides, Remove and Replace Equalizing Beam (Both Sides)	6.1 Hrs.

## **ADMINISTRATIVE PROCEDURE**

Expense is to be charged to Warranty. Claims are to be submitted in the normal manner, making reference to Authorized Field Change Number G-05912.

It is important that the coding be completed properly to assist in processing the warranty claim. Complete instructions will be found in the Warranty Manual, Section 7–1. Special attention should be given to Items 39 through 44.

To assure this important improvement is made in a timely manner, all claims for G-05912 activity must be submitted by November 30, 2006 or within the normal warranty period for the vehicle, if after November 30, 2006.



Distribution: All except J-81 Reproduction: Not required.