

# HASSEMBLY INSTRUCTIONS

## **HAULMAAX®**

**SUBJECT:** Shock Absorber Kit Nos. 64178-003, 64178-004 and 64178-009

**LIT NO**: 59310-012

**DATE**: June 2011 **REVISION**: C

#### INTRODUCTION

This publication is intended to assist maintenance personnel with the installation of the HAULMAAX® Aftermarket Shock Absorber Kits option for vehicles not originally equipped with shock absorbers from the vehicle manufacturer.

Shock absorbers are required in tractor and logging applications. Ride and traction may be improved in other 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.

NOTE

Due to component interference these HAULMAAX shock absorber aftermarket kits are not compatible with vehicles using dual 315 mm wide tires.

# Aftermarket Shock Absorber Kit Nos. 64178-003, -004 and -009

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*Shock Absorber Kit Fasteners	As required	

\*NOTE: 5%" Shock bracket to mounting frame fasteners are not included in kit.

### Kit Number Saddle Height

64178-003 16.5"

64178-004 17.5"/18.5"

64178-009 16.5" (Mack Vehicles Only)

See Hendrickson publication 17730-244 for complete safety and service instructions for the HAULMAAX suspension available online at www.hendrickson-intl.com.



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.



DO NOT USE THESE KITS IN CONJUNCTION WITH DUAL 315 MM WIDE TIRES. INSTALLING THESE KITS ON VEHICLES USING DUAL 315 MM TIRES WILL CAUSE CONTACT BETWEEN THE TIRE AND THE LOWER SHOCK MOUNTING BRACKET RESULTING IN TIRE DAMAGE AND POSSIBLE LOSS OF VEHICLE CONTROL, PERSONAL INJURY OR PROPERTY DAMAGE.

#### SHOCK ABSORBER KIT ASSEMBLY

#### **INSTALLATION**

- 1. Chock the front wheels of vehicle to prevent movement during installation.
- 2. Support axles and frame on stands and remove rear tires.





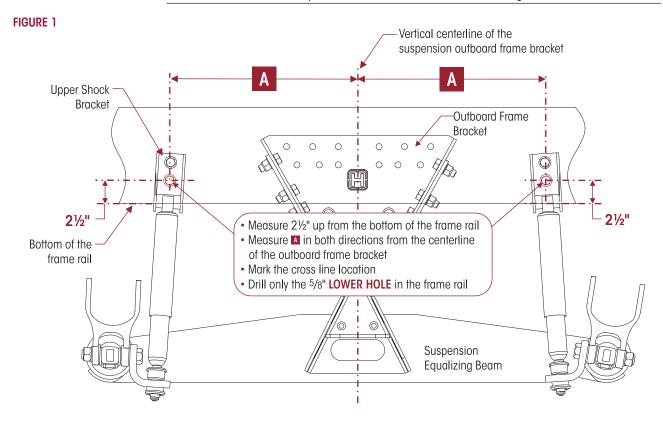
- Starting at the vertical centerline of the suspension outboard frame bracket, measure A in both directions along both vehicle frame rails and draw a vertical line, see Figure 1. See Table 1 to determine the correct vertical hole location measurement for the vehicle's rear axle spacing.
- 4. Measure up from the bottom of the frame rail 2½" and draw a horizontal cross line for the lower hole position of the shock frame bracket, see Figure 1.
- 5. Drill only for the **LOWER HOLES** of the shock brackets to accommodate the 5%" bolts, see Figure 1.

	Vertical Hole Location
Rear Axle Spacing	Measure A in both directions from the centerline of the outboard frame bracket
52"	18½"
54"	19½"
60"	22½"
72"	28¾"

TABLE 1

NOTE

If an existing hole is already in the frame rail close to this location, move the location fore or aft by  $(\pm 3\%)$  to use the existing hole. **DO NOT** change the elevation (maintain the 2% distance from the bottom of the frame rail) of the hole to accommodate an existing hole.



6. Install the upper shock brackets to frame. Install only the LOWER HOLE shock bracket frame fasteners, see Figure 1. Snug the fasteners, DO NOT tighten at this time. Note the upper hole of the shock mounting bracket will be installed in Step 18.

**NOTE** 

The Aftermarket Shock Kit contains longer replacement bar pin bolts needed to accommodate the lower shock bracket.

Remove the existing bar pin fasteners from the outboard side of the equalizing beam and discard.

**NOTE** 

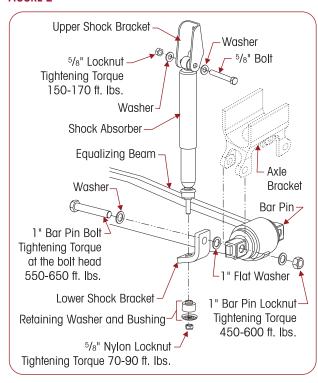
The front and rear lower shock brackets are different for Aftermarket Shock Kits 64178-003 and 64178-004. Only Kit No. 64178-009 (Mack Vehicles) uses the same lower shock bracket for both front and rear. Ensure the proper part is used prior to installation of the lower shock bracket, part numbers are stamped on the bracket.

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- 8. Install the **FRONT** lower shock bracket (Part No. 64148-001) and new fasteners. A 1" flat washer must be located between the lower shock bracket and the axle bracket, as shown in Figure 2.
- 9. Snug the bar pin fastener, **DO NOT** tighten at this time.
- 10. Repeat Steps 8 and 9 for the **REAR** lower shock bracket (Part No. 64148-002).
- 11. Install the shock absorber into the lower shock bracket first and then the upper shock absorber bracket.

#### FIGURE 2



- 12. Attach the **lower** shock absorber fasteners.
- 13. Attach the **upper** shock absorber fasteners.
- 14. Tighten the **lower** shock absorber fasteners first to **1** 70-90 foot pounds torque, see Figure 2.
- 15. Then tighten the **upper** shock absorbers fasteners to **1**50-170 foot pounds torque.
- 16. Rotate the upper shock mounting bracket to align with the angle of the shock absorbers.
- 17. Use the upper shock bracket as a guide to drill the **top mounting hole** in the frame rail.
- 18. Install the top mounting hole fasteners.
- 19. Tighten the shock bracket to frame fasteners per the vehicle manufacturer's specifications.
- 20. Tighten the 1" bar pin fasteners:
  - At the bolt head **3** 550-650 foot pounds torque
  - At the locknut **3** 450-600 foot pounds torque
- 21. Repeat Steps 3 to 20 for the other side of the vehicle.
- 22. Paint as required to prevent corrosion to components.
- 23. Install rear tires.
- 24. Remove wheel chocks.

Refer any questions regarding this publication to Hendrickson Tech Services, toll-free at 866.755.5968 or e-mail: techservices@hendrickson-intl.com. For more information on Hendrickson products go to www.hendrickson-intl.com.

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