



H TECHNICAL PROCEDURE

SOFTEK® NXT Front Suspension System for Peterbilt Vehicles

SUBJECT: Axle Clamp Through Bolt Torque
Pre-delivery Inspection and Other
Preventive Maintenance Procedures

LIT NO: 17730-338

DATE: March 2020

REVISION: A

IMPORTANT

INTRODUCTION

This publication summarizes the proper pre-delivery inspection procedure for axle clamp through bolt torques and other preventive maintenance procedures for SOFTEK NXT suspension systems equipped on applicable Peterbilt vehicles. This information is intended as a supplement to Hendrickson Technical Procedure Literature No. 17730-289.

Following appropriate inspection and preventive maintenance procedures is important to help ensure the proper service and operation. Hendrickson recommends the axle clamp through bolts and other SOFTEK NXT system fasteners are inspected for proper torque at:

- Pre-delivery
- Within the first 1,000 miles of service; and
- Regular preventive maintenance intervals

Other inspections and proper lubrication should be conducted at Hendrickson's recommended preventive maintenance intervals summarized in this publication.

Refer to Hendrickson Literature No. 17730-289 (available at www.hendrickson-intl.com) for complete SOFTEK NXT suspension inspection procedures, important safety information, and preventive maintenance details.

AXLE CLAMP THROUGH BOLTS

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.

TORQUE INSPECTION

FIGURE 1

Leaf Spring with Rubber Bushing Shown

**M20 x 160 mm Bolt
Tightening Torque
420 ± 20 ft. lbs.**

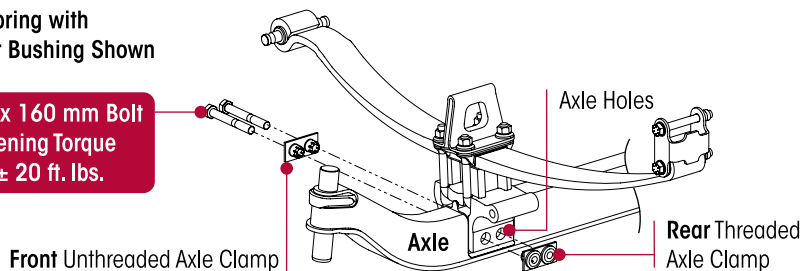
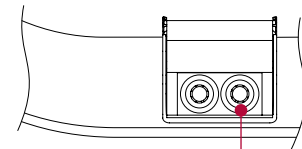


FIGURE 2



**M20 Axle Clamp
at the Bolt Head
Tightening Torque
420 ± 20 ft. lbs.**



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.

NOTE

A popping noise coming from the steer axle area may indicate loose fasteners. Proceed to the next service facility for a torque inspection to ensure fasteners are tightened to specification.

1. Chock the wheels.
2. Tighten the axle clamp fasteners at the bolt head evenly in 140 foot pounds increments to 420 ± 20 foot pounds torque, see Figures 1 and 2.
3. To identify the torque inspection is completed, apply a mark with torque seal to both the axle clamp and bolt heads.

LUBRICATION INTERVALS

For vehicles equipped with the SOFTEK NXT system, regular lubrication intervals should be followed to help prevent premature wear to the kingpin bushings and tie rod ends, see Lubrication Specifications below.

NOTE

The recommended service lubrication interval is a guideline, the vehicle may require increased lubrication interval depending on severity of operation.

SOFTEK NXT – *Greasing and Lubrication Specifications

| Application | Component | Greasing Intervals | Grease | Outside Temperature |
|---|---|--|-------------------------------------|---|
| GENERAL Does not include linehaul or medium-duty applications | Kingpin Bushings | Maximum of 25,000 miles (40,225 km) or 90 days, whichever comes first | Multipurpose Grease NLGI Grade 2 | Refer to the lubricant manufacturer's specifications for the temperature service limits applicable to your area |
| | Tie Rod Ends | | | |
| | **Leaf Spring Threaded Bushing (if equipped) | Maximum of 30,000 miles (24,140 km) or 30 days, whichever comes first | EP Chassis Grease NLGI Grade 2 | |
| | Drag Link | See Vehicle Manufacturer | | |
| Application Specific Recommendations | | | | |
| ON-HIGHWAY Linehaul Only, High Mileage Accumulation 95% Highway Surface No off-roadway operation Greater than 50,000 miles per year (80,500 kilometers per year) | Kingpin Bushings | Maximum of 100,000 miles (161,000 km) or 1 year, whichever comes first | Multipurpose Grease NLGI Grade 2 | Refer to the lubricant manufacturer's specifications for the temperature service limits applicable to your area |
| | Tie Rod Ends | | | |
| | **Leaf Spring Threaded Bushing (if equipped) | Maximum of 30,000 miles (24,140 km) or 30 days, whichever comes first | EP Chassis Grease NLGI Grade 2 | |
| | Drag Link | See Vehicle Manufacturer | | |




NOTE: * Lubrication greases acceptable for use on the SOFTEK NXT axle will carry a designation of NLGI #2 EP and rated GC-LB or equivalent.

** Leaf springs equipped with threaded bushings are supplied by the vehicle manufacturer. Consult vehicle manufacturer for greasing intervals and additional information.

*** Leaf springs equipped with rubber bushings require no grease interval.



COMPONENT INSPECTION

- **Axle wrap** — Check torque. Inspect axle seats for cracks or damage. Inspect axle seat liners, check for any missing liner material. If liner material is missing disassemble clamp group and replace liners, see Component Replacement Section of Hendrickson Literature No. 17730-289.
- **Clamp group** — Check torque on clamp group mounting hardware, refer to the  Torque Specifications Section of Hendrickson Literature No. 17730-289.
- **Fasteners** — Look for any loose or damaged fasteners on the entire suspension. Make sure all fasteners are tightened to the specified torque. Refer to the  Torque Specifications Section of Hendrickson Literature No. 17730-289, if fasteners are supplied by Hendrickson, non-Hendrickson fasteners, refer to the vehicle manufacturer. Use a calibrated torque wrench to check torque in a tightening direction. As soon as the fastener starts to move, record the torque. Correct the torque if necessary. Replace any worn or damaged fasteners.
- **Operation** — All steering components must move freely through the full range of motion from axle stop to axle stop.
- **Rear shackle bracket** — Check for proper alignment with spring taper and check for proper torque on rear spring mount fasteners. Refer to the  Torque Specifications Section of Hendrickson Literature No. 17730-289.
- **Shock absorbers** — Look for any signs of dents or leakage, misting is not considered a leak. See Shock Absorber Inspection in Hendrickson Literature No. 17730-289.
- **Steel leaf spring** — Look for cracks. Replace if cracked or broken. Check the front bushing for any wear or deterioration. Replace if necessary, see the Component Replacement Section of Hendrickson Literature No. 17730-289 for replacement procedure.
- **Steering pivot points** — Check for looseness at all pivot points. Inspect and lubricate all pivot points. Refer to the Troubleshooting Guide Section of Hendrickson Literature No. 17730-289.
- **Tire wear** — Inspect tires for wear patterns that may indicate suspension damage or misalignment. See Tire Inspection in Hendrickson Literature No. 17730-289.
- **Wear and damage** — Inspect all parts of suspension for wear and damage. Look for bent or cracked parts. Replace all worn or damaged parts.

Also see vehicle manufacturer's applicable publications for other preventive maintenance requirements.

Refer any questions on this publication, contact Hendrickson Tech Services:



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Additional Hendrickson
Product Information
www.hendrickson-intl.com

Actual product performance may vary depending upon vehicle configuration, operation, service and other factors.
All applications must comply with applicable Hendrickson specifications and must be approved by the respective vehicle manufacturer with the vehicle in its original, as-built configuration.
Contact Hendrickson for additional details regarding specifications, applications, capacities, and operation, service and maintenance instructions.

*Call Hendrickson at **1.866.755.5968** (toll-free) or **1.630.910.2800** for additional information.*



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17730-338 Rev A 03-20

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Printed in United States of America