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

**LIT NO:** 17730-338

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This publication summarizes the proper pre-delivery inspection procedure for axle clamp through bolt torques and other preventive maintenance procedures for SORTEK 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 procedures are important to help ensure the proper maintenance and operation of the SORTEK NXT suspension system and component parts.

Hendrickson recommends to visually inspect for proper assembly and function, overall condition and any signs of damage. Check for all of the following as per the inspection intervals shown and replace components as necessary:

- Signs of unusual movement, loose or missing components, abrasive or adverse contact with other components, damaged or cracked parts and improper suspension function or alignment.

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	PRE-DELIVERY/ VISUAL INSPECTION	FIRST IN-SERVICE	PREVENTIVE MAINTENANCE ON-HIGHWAY	
	within the first 100 miles (160 km)	1,000 miles (1,600 km), 100 hours or whichever comes first	50,000 miles (80,500 km), every 6 months or whichever comes first	100,000 miles (161,000 km), every 12 months or whichever comes first
Axle Assembly and Tie Rods	■	■	■	
Axle Collar Through Bolts	■	■	■	
Axle Wrap Liners	■	■	■	
Clamp Group and Leaf Spring Assemblies	■	■	■	
Fasteners	■	■		■
Front and Rear Spring Eye Connections	■	■	■	
Front Wheel Alignment	■	■	■	
Rear Shackle Brackets	■	■	■	
Ride Height	■	■		■
Steering Operation	■		■	
Tire Wear			■	
Wear and Damage			■	

See the vehicle manufacturer's applicable publications for other preventive maintenance requirements.

## COMPONENT INSPECTION

### NOTE

For comprehensive details on all of the following component inspections or replacements, refer to Alignment & Adjustments, Component Replacement and Torque Specification sections of Hendrickson Literature No. 17730-289.

- **Axle assembly and tie rods** — Inspect for cracks or damage. Replace if necessary.
- **Axle collar through bolts** — Visually inspect at preparation of delivery and check torque within the first 1,000 miles and regular preventive maintenance intervals.
- **Axle wrap liners** — Inspect axle wrap liner for cracks or damage. Check for any missing liner material. If liner material is missing disassemble clamp group and replace liners.
- **Clamp group and leaf spring assemblies** — Inspect for any cracks. Replace if cracked or broken. Check leaf spring bushings for any wear or deterioration. Replace if leaf spring assembly as necessary, Check torque on clamp group mounting hardware.
- **Fasteners** — Look for any loose or damaged fasteners on the entire suspension. Make sure all fasteners are tightened to the specified torque. 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.
- **Front and rear spring eye connections** — Check the front and rear bushings for any wear or deterioration. Replace if necessary.
- **Front wheel alignment** — Refer to Alignment & Adjustments section of Hendrickson Literature No. 17730-289.
- **Rear shackle brackets** — Check for proper alignment with leaf spring and check for proper torque on rear spring mount fasteners. .
- **Ride height** — Verify the ride height.
- **Steering operation** — All steering components must move freely through the full range of motion. Check for looseness at all pivot points. Inspect and lubricate all pivot points. Refer to Lubrication Chart.
- **Tire wear** — Inspect tires for wear patterns that may indicate suspension damage or misalignment.
- **Wear and damage** — Inspect all parts of suspension for wear and damage. Look for bent or cracked parts. Replace all worn or damaged parts.

## 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.

### 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  $\mathbb{N} 420 \pm 20$  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.



## TORQUE INSPECTION

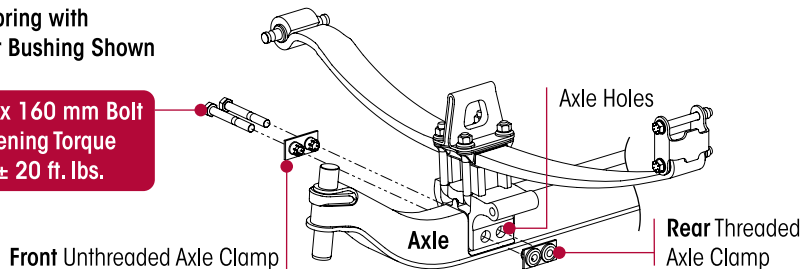
Hendrickson recommends the axle clamp through bolts must be visually inspected at preparation for delivery and tightened to specified torque at:

- within the first 1,000 miles of service, and
- regular preventive maintenance intervals

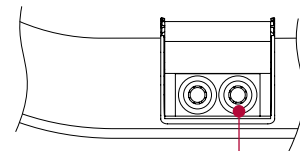
**FIGURE 1**

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.

## 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 (48,280 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 (48,280 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.



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



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**Additional Hendrickson  
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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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