



# **H** TECHNICAL PROCEDURE

## **AIRTEK® with STEERTEK™ NXT STEERTEK™ Axle for International IC Bus Vehicles**

**SUBJECT:** Pre-delivery Inspection and  
Preventive Maintenance

**LIT NO:** 17730-335

**DATE:** May 2020      **REVISION:** A

### **IMPORTANT**

#### **INTRODUCTION**

This publication summarizes proper pre-delivery inspection and preventive maintenance procedures for AIRTEK® suspension systems equipped with STEERTEK™ NXT •STEERTEK front steer axles as installed on applicable International IC Bus vehicles.

Following appropriate inspection and preventive maintenance procedures is important to help ensure the proper service and operation of suspension and axle components. Hendrickson recommends AIRTEK suspension systems equipped with STEERTEK NXT •STEERTEK front steer axles and components be inspected at pre-delivery, the first 1,000 miles of service, and at the regular preventive maintenance intervals.

Refer to Hendrickson Literature No. 17730-268 (available online [www.hendrickson-intl.com](http://www.hendrickson-intl.com)) for complete details on inspection procedures, important safety notices, preventive maintenance and component replacement details.

#### **SAFETY REMINDER**

All applicable warnings and cautions should be read carefully to help prevent personal injury and to assure that proper methods are used. Improper maintenance, service or repair may damage the vehicle, cause personal injury, render the vehicle unsafe in operation, or void manufacturer's warranty.

Failure to follow the applicable safety precautions can result in personal injury and/or property damage. Carefully read and understand all safety related information with the applicable Hendrickson publications, on all decals and those materials provided by the manufacturer before operating the vehicle, or conducting any maintenance, service or repair.

#### **HENDRICKSON RECOMMENDED PREVENTIVE MAINTENANCE INTERVALS**

##### **PRE-DELIVERY INSPECTION – Within the first 100 miles/150 kilometers or prior to vehicle in-service**

1. Visually inspect the suspension for proper assembly.
2. Visually inspect the overall condition of the rear shackle brackets, shackle plates, and front/rear spring eye connections, front axle, leaf springs, and top pads for any damage.
3. Check all fasteners for proper torque with special attention to the following suspension connections. Use a calibrated torque wrench and a wrench to hold the fastener, check torque in a tightening direction.
  - Rear shackle bracket connections
  - Front/rear spring eye connections
  - Clamp group mounting hardware

**FIRST IN-SERVICE INSPECTION – First 1,000 miles/1,600 kilometers of pre-delivery or suspension service**

1. Visually inspect suspension components. Check for:
  - Proper suspension function
  - Signs of unusual movement or loose or missing components
  - Signs of abrasive or adverse contact between components
  - Damaged, bent or cracked parts
2. Check all fasteners for proper torque with special attention to the following suspension connections. Use a calibrated torque wrench and a wrench to hold the fastener, check torque in a tightening direction.
  - Rear shackle bracket connections
  - Front/rear spring eye connections
  - Clamp group mounting hardware

**PREVENTIVE MAINTENANCE**

**Visual inspection:** every 25,000 miles (40,233 km) or six (6) months, whichever comes first.

**Physical Inspection:** every 50,000 miles (80,467 km) or twelve (12) months, whichever comes first.

1. Visual inspection – check suspension components for:
  - Proper suspension function
  - Signs of unusual movement, or loose or missing components
  - Signs of abrasive or adverse contact between components
  - Damaged, bent cracked parts
2. Physical Inspection – Check all fasteners for proper torque with special attention to the following suspension connections. Use a calibrated torque wrench and a wrench to hold the fastener, check torque in a tightening direction.
  - Rear shackle bracket connections
  - Front/rear spring eye connections
  - Clamp group mounting hardware

**COMPONENT INSPECTION**

- **Air Spring** — Look for chaffing or any signs of spring or component damage.
- **Clamp group** — Check torque on clamp group mounting hardware, refer to Torque Specifications Section in the appropriate AIRTEK technical publication.
- **Fasteners** — Look for any loose or damaged fasteners on the entire suspension. Make sure all fasteners are tightened to the specified torque. Refer to Torque Specifications Section in the appropriate AIRTEK technical publication for recommended torque requirements. 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 hangers** — Check for cracks or loose mounting hardware. Replace if necessary, see Component Replacement Section in the appropriate AIRTEK technical publication for replacement procedure.
- **Steering operation** — All steering components on the axle assembly must move freely through the full range of motion from axle stop to axle stop.
- **Shock absorber** — Look for any signs of dents or leakage, misting is not considered a leak. See Shock Absorber Inspection in the appropriate AIRTEK technical publication.



- **Steel leaf springs and wrap leaf assembly** — Look for cracks. Replace if cracked or broken. Check the front and rear bushings for any wear or deterioration. Replace spring assembly if any of the previous conditions are observed. See Component Replacement Section in the appropriate AIRTEK technical publication for replacement procedure.
- **Steering pivot points** — Check for looseness at all pivot points on the axle assembly. Inspect and lubricate all pivot points, maximum service interval is 25,000 miles. Refer to the Lubrication Intervals in the appropriate AIRTEK technical publication.
- **STEERTEK NXT • STEERTEK axles** — The axle should be free of any nicks or gouges. Inspect for any cracks or dents on axle.
- **Rear hanger** — Look for any signs of excessive wear to the rear hanger and shackle bracket.
- **Tire wear** — Inspect tires for wear patterns that may indicate suspension damage or misalignment. See Tire Inspection in the appropriate AIRTEK technical publication.
- **Top and bottom axle wrap liners** — Look for any cracking or broken pieces on liner in load bearing areas. See Axle Wrap Liner Inspection in the appropriate AIRTEK technical publication.
- **Top pad** — Look for cracks. Replace if necessary, see the Component Replacement Section in the appropriate AIRTEK technical publication for replacement procedure.
- **Wear and damage** — Inspect all parts of suspension for wear and damage. Look for bent or cracked parts. Replace all worn or damaged parts.

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

### LUBRICATION INTERVALS

For vehicles equipped with the STEERTEK NXT •STEERTEK axle, regular lubrication intervals should be followed to help prevent premature wear to the kingpin bushings and tie rod ends, see Lubrication Specifications in Table 1.

**NOTE**

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

**TABLE 1**

STEERTEK NXT • STEERTEK Axle — Greasing and Lubrication Specifications				
Component	Greasing Interval	Grease	NLGI Grade	Outside Temperature
Kingpin Bushings	Maximum of 25,000 miles (40,000 kilometers) or 90 days, whichever comes first	Multipurpose Grease	2	Refer to the lubricant manufacturer's specifications for the temperature service limits to your area
Tie Rod Ends				
Drag Link	See Vehicle Manufacturer			

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

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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