

Volume 2

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## THEY'RE PERMANENT

The Hendrickson AIRTEK® and SOFTEK™ front suspension system incorporates the STEERTEK axle. The STEERTEK axle uses a unique design to make servicing the steering knuckle assembly easier for the technician.

Ordinarily, replacing the kingpin bushings is a labor intensive procedure. The draw keys require removal and the kingpins need to be driven out of the axle beam with a large hammer in order to remove the steering knuckle. Once removed from the axle, the one-piece knuckle is heavy to handle and difficult to service, not to mention the price of a kingpin service kit.

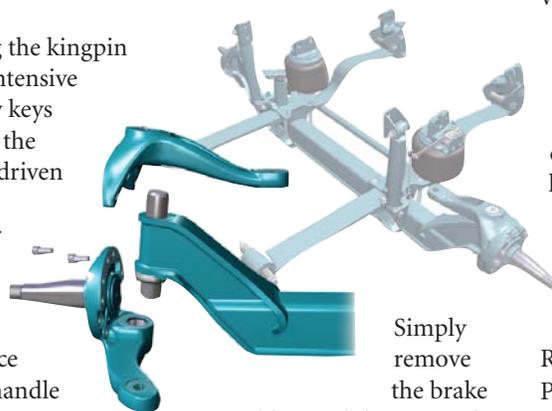
Hendrickson has changed the procedure with the STEERTEK axle; it features a two-piece

knuckle assembly and kingpins that are permanently installed. That's right, "They're permanent!" The kingpins are cryogenically frozen, pressed into place, and remain permanent parts of the axle beam.

With the steering knuckles removed, polish the kingpins using a light lubricant and emery cloth of 220 grit or higher. Minor scratching and stains from the bushing are normal and acceptable. After polishing, verify measurement of the kingpins. The minimum diameter is 1.802". If the kingpins fall below this dimension or are severely damaged from lack of proper lubrication, the axle beam will require replacement. Proper lubrication at regular intervals will help ensure good service life of the knuckle assemblies.

Refer to Hendrickson Technical Publication **17730-243 & 17730-247**.

**Remember:** No need to beat on the kingpins, because THEY'RE PERMANENT!



Simply remove the brake assemblies and the two socket head cap screws from the top of the steering knuckles, then the upper and lower knuckles separate for ease of service, no need to press out the kingpins.

## TORQUE IT

With today's low maintenance suspensions, technicians tend to forget that periodic inspections of the suspension are still required to prevent premature failure of components. At least once a year inspect the entire suspension for worn components and verify the proper torque on ALL fasteners for ALL suspensions. Refer to the Hendrickson Technical Publication for your suspension system for required scheduled torque checks and for proper torque values.

The correct torque is critical for proper performance.

Torque checks can include the following connections:

- axle
- saddle cap
- air spring
- shock absorber
- bushing retainer
- spring eye
- leveling valve
- torque rod

A little time invested at least once a year for inspection and torque checks, will save the fleet costly down time and repair costs down the road.



Refer to Hendrickson Technical Publications that pertain to your suspension system. See our website for more information.

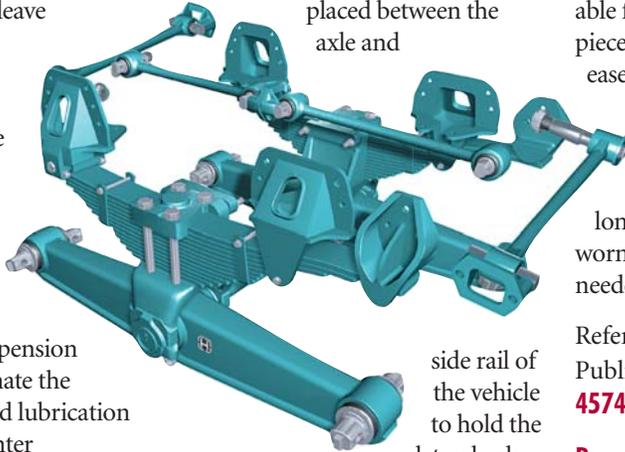
**Remember:** At least once a year you need to TORQUE IT!

## GOTTA HAVE 'EM

In today's competitive vocational market, time and expense are key factors for a profitable season. Increased payloads and rigorous schedules do not leave much time in the day for routine maintenance procedures on the vehicles.

Spec'ing rubber center bushings in your Hendrickson RT, RTE, RS, or R suspension system will eliminate the need for scheduled lubrication cycles. Rubber center bushings are a low cost, low maintenance alternative to the bronze center bushing. In order to provide the maximum performance and service life from the rubber center bushing,

Hendrickson requires TVTR's (transverse torque rods) in all applications whenever rubber centers are used. TVTR's are placed between the axle and



side rail of the vehicle to hold the lateral axle alignment and

reduce the cornering loads into the rubber center bushings, thus providing extended service life.

Keep in mind, if you replace a

bronze center bushing with a rubber bushing — you GOTTA HAVE TVTR's installed! TVTR's and associated brackets are available from Hendrickson in 1 and 2 piece configurations to facilitate ease of installation.

When you rebush the suspension, always inspect the TVTR's and longitudinal torque rods for worn bushings and replace as needed.

Refer to Hendrickson Technical Publications **59310-001**, **45745-149**, and **59310-004**.

**Remember:** Rubber center bushings always require TVTR's — GOTTA HAVE 'EM!

## THE RIGHT TOOL FOR THE RIGHT JOB

In 1999 Hendrickson introduced the fabricated walking beam as standard to the vocational market. The new beam offers advantages such as weight and performance for the R, RS, RT/RTE, as well as the HN and HAULMAAX customers. As part of the design, the beam end hub was widened to fully support the bar pin end bushing outer metal. While the added support is a good feature, servicing the bushing with current tooling becomes a difficult task.

Replacing the bar pin end bushings in the forged beam requires the use of a special OTC tool (part number **1747**) to facilitate installation. The tool is designed to center the bushing in the narrower end hub of the forged

walking beam, but will leave the end bushing offset in the new wider fabricated beam hub.

Hendrickson and OTC have worked together to design and manufacture a tool that will facilitate the proper position when replacing bar pin end bushings in the new fabricated walking beams. The new OTC tool part number is **1757** and anticipated availability will be in September of 2003. Contact OTC for more information at 800-533-6127. Don't throw away your current

1747 tool, it is still required for replacing end bushings in the forged beam.

Refer to Hendrickson Technical Publications

**17730-190**, **17730-244**, **17730-227**, **17730-198**, **17730-070**, and **17730-064**.

**Remember:** Use THE RIGHT TOOL FOR THE RIGHT JOB and center it!



OTC #1757



**HENDRICKSON**  
Genuine Parts

There's only one way to ensure the suspension's original performance — ask for Hendrickson genuine parts by name.

## Technical Publications

Technical publications are available by contacting Hendrickson Tech Service or visit our website at [www.hendrickson-intl.com](http://www.hendrickson-intl.com).

**HENDRICKSON**

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[www.hendrickson-intl.com](http://www.hendrickson-intl.com)