

TECHNICAL PROCEDURE

TRLAXLE™ CAM TUBE

SUBJECT: Clamp-Mount Cam Tube Kit Installation

LIT NO: T71002

DATE: August 2011

CAM TUBE KIT INSTALLATION ON TRLAXLE™ AXLES

This procedure is for cam tube service kits with clamp-mount (back-to-back) bracket on TRLAXLE™ axle models as shown in Figure 1 and Figure 3. The back-to-back clamps are bolted to the Cam L Leg Bracket.

Refer to Hendrickson publication *L974 Drum Brake Maintenance Procedures* (available at www.hendrickson-intl.com) for complete slack adjuster and S-cam tube removal and safety instructions.

PREPARATION

Depending on length of S-cam, removal of wheel-end components and S-cam is required to replace S-cam underhead washer (item 2, Figure 3).

1. Remove the slack adjuster from the camshaft.
2. Remove the existing cam tube and hardware.
3. Clean exposed surfaces as needed.

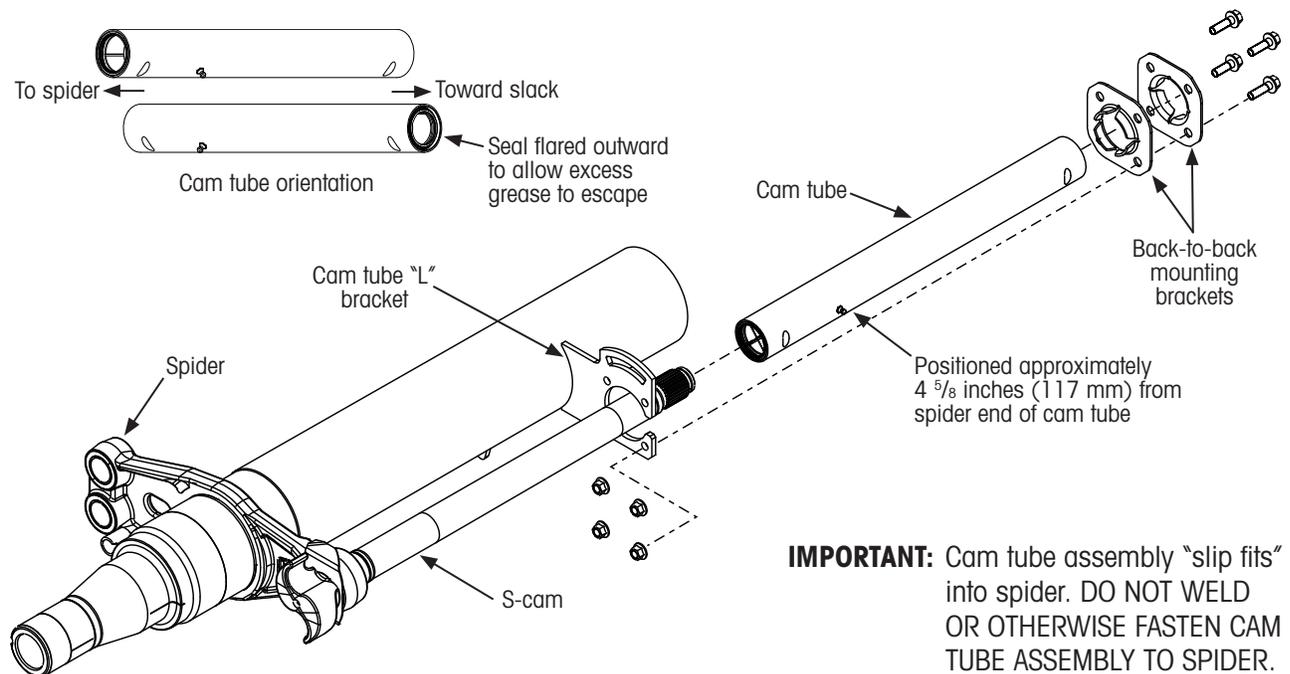


Figure 1: Cam tube assembly installation overview

INSTALLING CAM TUBE COMPONENTS

The kit should include all components necessary for this installation.

IMPORTANT: If included, replace original parts with new parts included in the kit.

- Using #2EP NLGI chassis lube, lightly lubricate the internal seals and bushings on both ends of the new cam tube assembly.
- Orient the end of the cam tube as shown in [Figure 1](#). The cam tube seals face the same direction. Ensure end with flat side of seal showing is inserted into the spider bore.
- From the inboard side of the Cam tube "L" bracket, slide the new cam tube assembly onto the S-cam, through the mounting hole and into the spider bore ([Figure 1](#) and [Figure 4](#)).

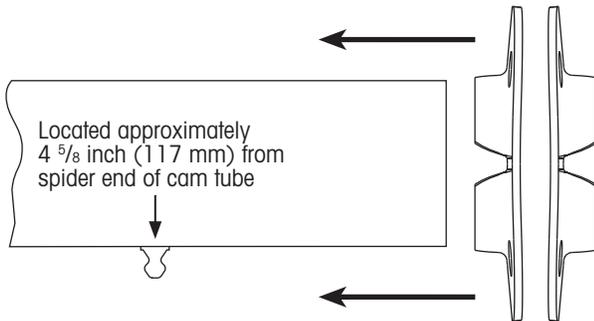


Figure 2: Install brackets back-to-back on cam tube

- Arrange Cam brackets back-to-back (item 9) onto cam tube as shown in [Figure 2](#) and [Figure 3](#). Slide brackets onto cam tube until they contact the Cam tube "L" bracket and align with holes.
- Loosely install the four nuts and bolts ([Figure 3](#)).
- Rotate the cam tube so the grease fitting is pointing rearward and accessible when the drums are installed.

NOTICE: Pointing the grease fitting downward exposes it to road debris that can damage the fitting.

- Ensure cam tube is firmly seated in spider bore as shown in [Figure 3](#) section view, then torque bolts to 35-45 ft. lbs. (48-61 N•m).
- Slide one spacer (item 4, [Figure 3](#)) onto the camshaft and seat it against the cam tube assembly.

NOTE: Always use new spacers and retaining rings that come with the kit.

- Using snap ring pliers, hold open the Snap ring (item 10, [Figure 3](#)) and slide it on the end of the camshaft. Lock the Snap ring into Snap ring groove on the camshaft.

INSTALLING SLACK ADJUSTER

- Slide second Spacer (item 4, [Figure 3](#)) onto the camshaft and seat against the Snap ring (item 10, [Figure 3](#)).

NOTE: Depending on the type of slack adjuster used, not all washers may be required for steps 2 and 4.

- Install enough shims (item 6) to align Slack adjuster with Brake Chamber push rod and clevis (item 5). Refer to [Figure 3](#) and [Figure 4](#).
- Apply anti-seize lubricant to spline of S-cam.
- Slide Slack adjuster (item 11) over the splined end of cam shaft. Adjust number of shims as needed from step 2.
- Install enough Shims (item 6) and Inner washer (item 12) to leave room for the Snap ring (item 13) to fit in the snap-ring groove. Refer to [Figure 3](#).
- Complete the installation by placing the Snap ring (item 13) in the groove provided at the end of the S-cam.

LUBRICATION

Fill cam tube with #2EP NLGI chassis lube through grease fitting ([Figure 4](#)). Add grease until fresh grease can be seen purging from the slack adjuster end of the cam tube as shown in [Figure 4](#). Wipe away excess grease. If the trailer is equipped with a chassis auto lube system, it will help prevent contaminants from being attracted to the lube points. The equipment should be calibrated to provide the correct amount of lubricant to be applied. Hendrickson recommends a manual hand grease gun to be used, and not a pneumatic shop tool.

NOTE: Initial fill on a new installation may require many pumps of lube to completely fill the cam tube and ensure best service life.



CLAMP-MOUNT CAM TUBE KIT INSTALLATION

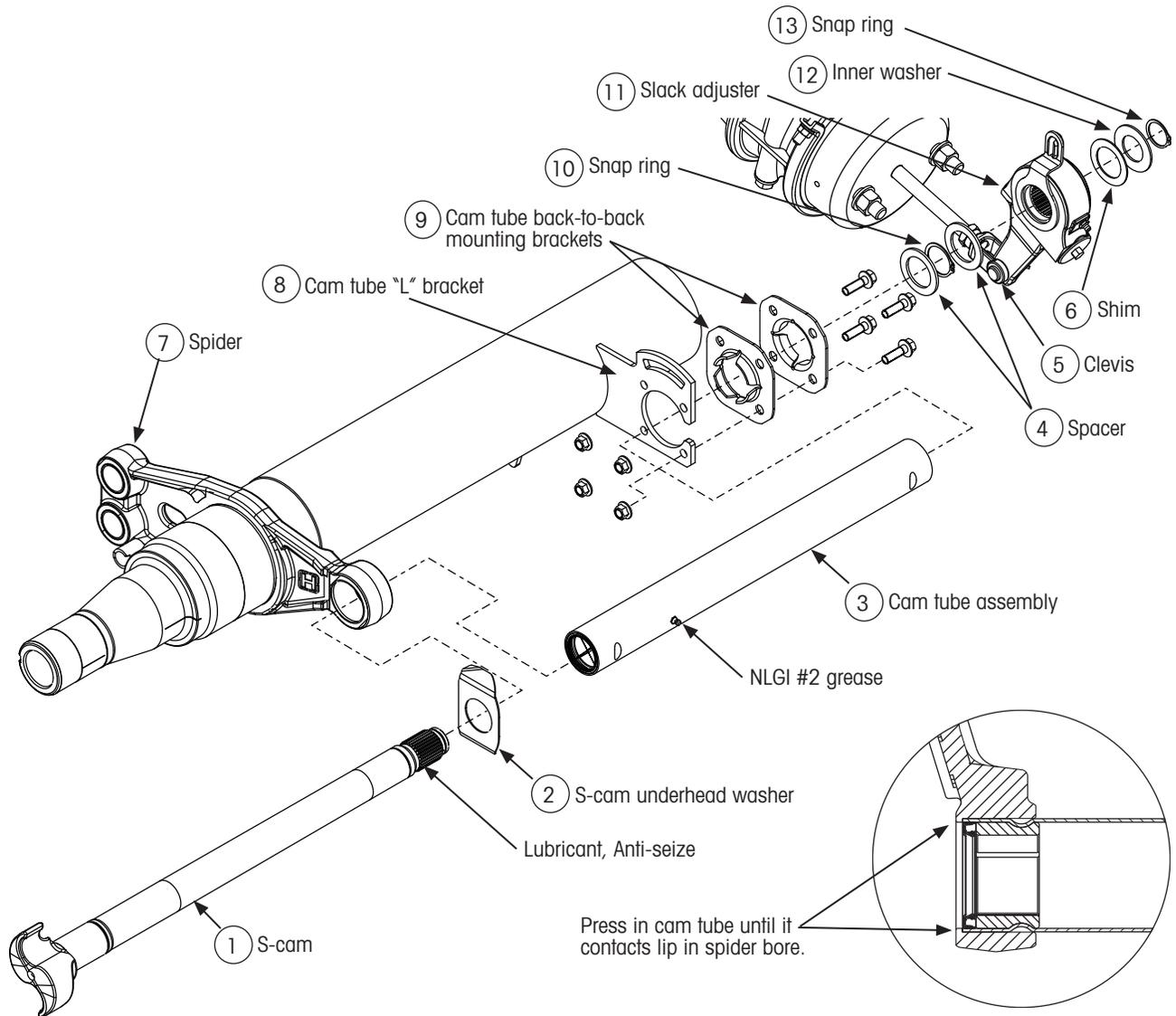
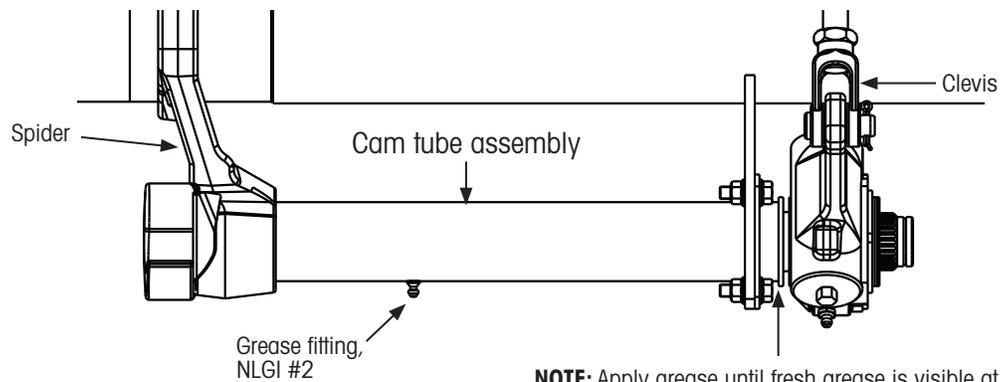


Figure 3: Cam tube system part identification and weld information



NOTE: Apply grease until fresh grease is visible at end of cam tube. Wipe away excess grease. Excess grease should purge from this location. If purge is at spider end, the cam tube may be installed incorrectly.

Figure 4: Cam tube weld mount assembly (top view)

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