

AXLES AND SUSPENSION

Purpose

This document outlines the procedure for installing the air chamber and slack adjuster on air brakes.

Safety

Read and understand all instructions before installing or operating this product. Adhere to all safety labels.

WARNING

The air brake chamber contains a loaded compression spring that could cause serious injury or death may occur if instructions are not properly followed.

CAUTION

Moving parts can pinch, crush or cut. Keep clear and use caution.

Resources Required

- Caging bolt (T-Bolt)
- Flashlight
- Snap ring pliers
- Needle nose pliers
- 3/4" Wrench or cage bolt socket
- 7/16" Wrench
- Various sockets

Replacement Kits

10K - 12K Axle

2020114828 - AP Kit - Air Brake 10K/12K - T2430 Air Chamber Auto Slack Adj

- 712015 - AXLEPTS 22430 2.5 STRK Air Chamber
- 712016 - AXLEPTS Air Brake Auto Slack Adj 5.00 in & 6.00 in 28 Spline

16K Axle

2020114829 - AP Kit - Air Brake 16K - T3030 Air Chamber Auto Slack Adj

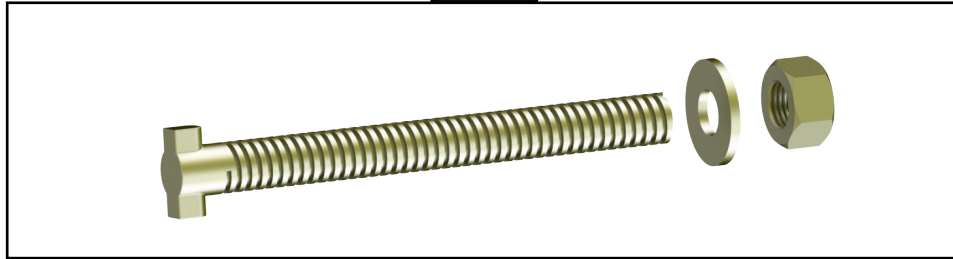
- 2020106486 - AXLEPTS T3030 2.5 STRK Air Chamber
- 712016 - AXLEPTS Air Brake Auto Slack Adj 5.00 in & 6.00 in 28 Spline

Procedure

Cage Parking Spring In Air Chamber

1. Remove the caging bolt with washer and nut (Fig. 1) from the storage tube on the Air Chamber. Remove and retain the flat washer and nut.

Fig. 1



2. Remove the dust plug from the front of the Air Chamber dome, or pressure cap (Fig. 2A).
3. Shine a light inside the dome to locate the spring's caging access hole, then insert the caging bolt into the hole and turn it slightly until the T-end hooks into the spring's corresponding notches.
4. Slip a flat washer over the caging bolt's threaded end, then thread on a nut until it rests against the washer (Fig. 3).

NOTE: Do not tighten the nut with an impact wrench unless it is not possible to use air pressure for the caging process. If air pressure is not available, crank down the nut with a wrench or a cage bolt socket, making sure not to exceed 35 lb-ft of torque once the spring is caged.

Fig. 2

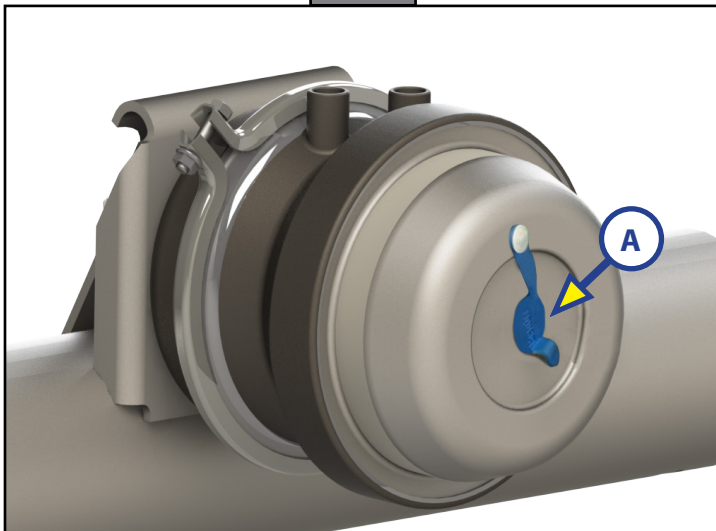
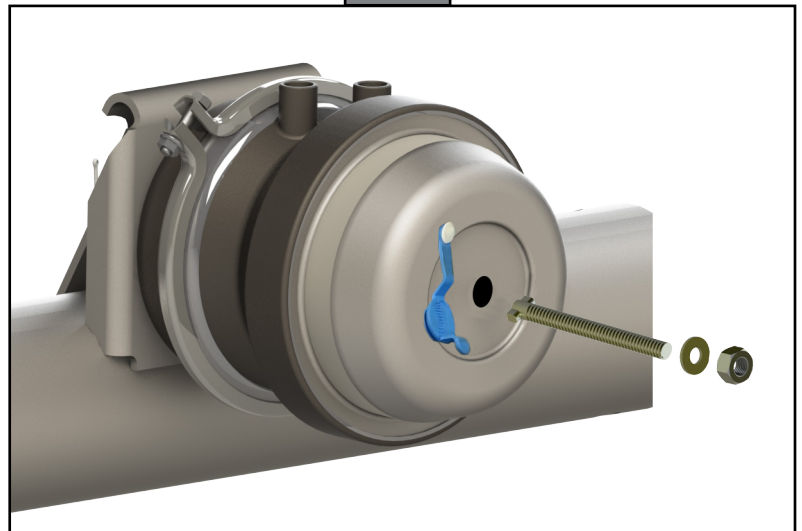


Fig. 3



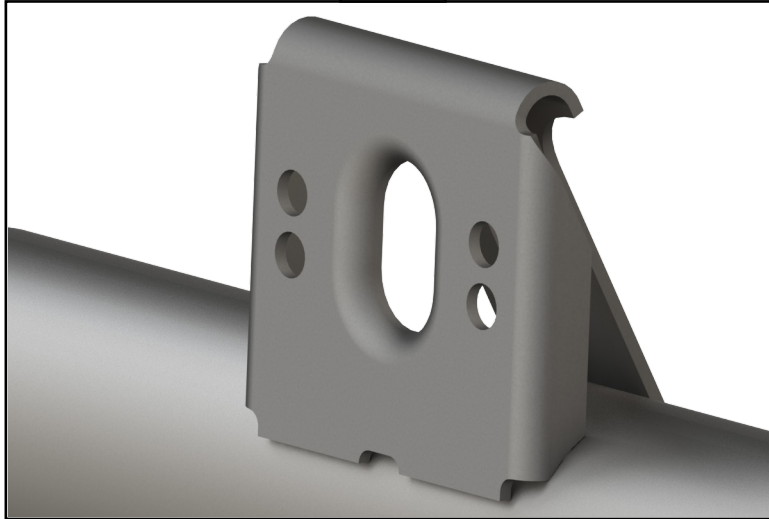
5. When the spring is fully caged, the caging bolt should protrude about 3 1/4" from the dome.

Installing Air Chamber

The air chamber comes equipped with a precut rod, double clevis pin (for the auto slack adjuster), mounting nuts and lock washers or a lock nut.

1. Inspect the air chamber bracket (Fig. 4) to make sure it is free of excessive paint (less than .010"), debris, burrs, cracks, and flat within .02".

Fig. 4



2. Remove the nuts and washers from the air chamber, then slide the air chamber into the correct air chamber bracket holes.
 - A. For 10K-12K axles, use the lower holes (5" holes) for both the air chamber bracket and slack adjuster (Fig. 5A)
 - B. For 16K axles, use the upper holes (6" holes) for both the air chamber and slack adjuster (Fig. 6A).

NOTE: Mount the Air Chamber directly to the air chamber bracket. DO NOT add or insert shims, spacers, washers, or reinforcing plates between the air chamber and air chamber bracket.

3. Install the air chamber washers and nuts. Torque nuts to 140-150 ft-lbs.

Fig. 5

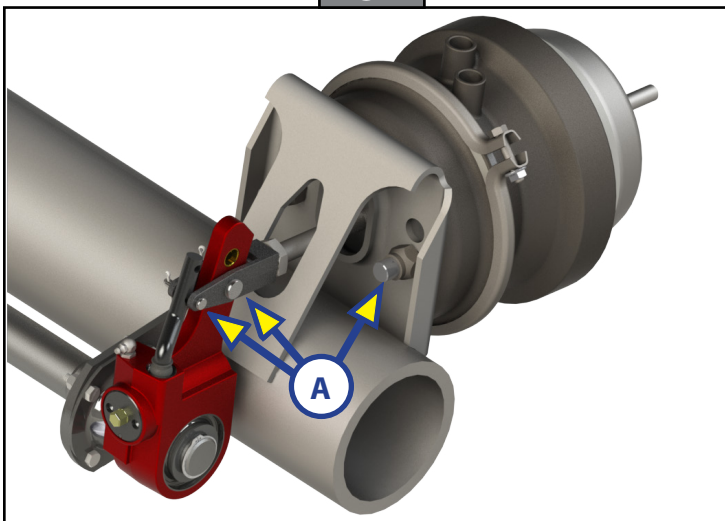
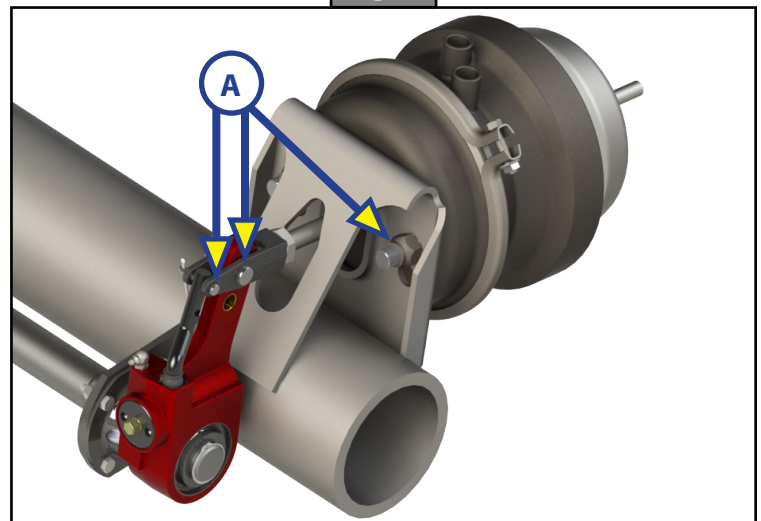


Fig. 6



Slack Adjuster Preparation and Installation

1. Using snap ring pliers, remove and retain the snap ring (Fig. 7A) and washer (Fig. 7B) from the end of the S-Cam.
2. Using needle nose pliers, remove and retain both pins from the air chamber clevis (Fig. 7C).
3. Position the slack adjuster so no interference will occur between it and the air chamber clevis when sliding it onto the S-Cam.
4. Slide the slack adjuster onto the splines of the S-Cam.
5. Reassemble using the washer and snap ring removed in Step 1.

NOTE: Make sure the air chamber is caged before adjusting the slack adjuster.

6. Rotate slack adjuster into the clevis by turning the adjusting hex nut clockwise with a 7/16" wrench (Fig. 8A). Continue to rotate the slack adjuster until the pin holes on the air chamber clevis and slack adjuster are aligned. Make sure the slack adjuster is aligned with the correct holes based on the axle size, as outlined in step 2 of Installing Air Chamber.

Fig. 7

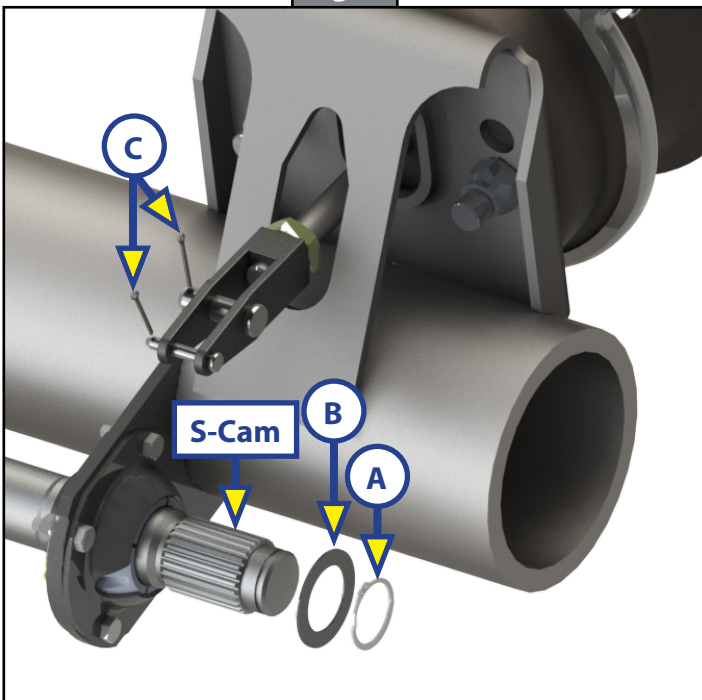
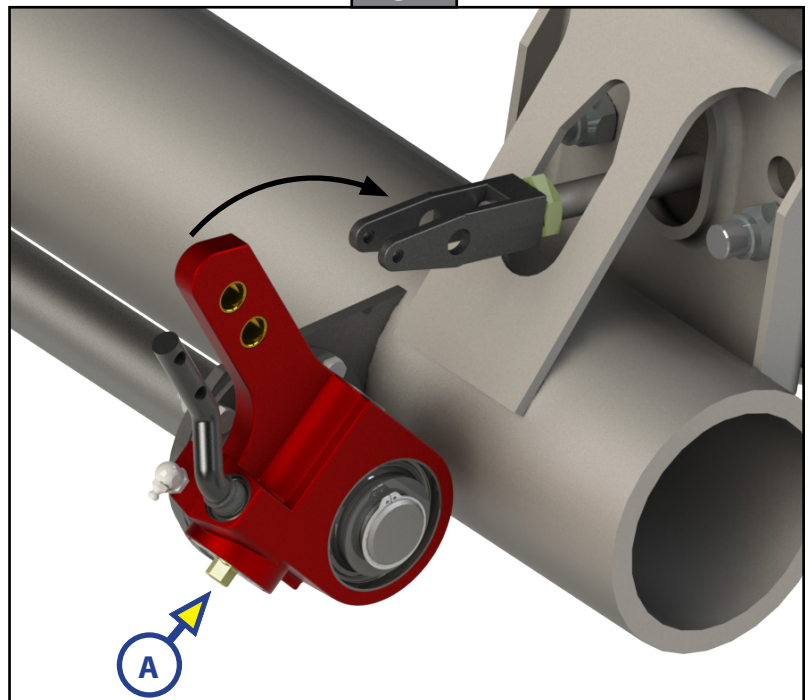


Fig. 8



7. Reassemble the air chamber clevis using the pins removed in step 2. Bend the cotter pins with pliers.
8. On the air chamber there is a clevis and jam nut on the end of the threaded rod. After the slack adjuster is installed, torque the jam nut to the clevis to 45-50 ft-lbs.

Uncaging Air Chamber

NOTE: Lippert recommends using a commercial-grade thread-sealing compound on the air line adapters before installation into the air ports.

1. Connect the service and emergency air lines to the proper air ports then torque the service and emergency air lines to 26-33 ft-lbs.
2. Uncage the brake by adding air pressure to the parking side and turning the release bolt nut counterclockwise with fingers or a hand wrench. Do not use an impact wrench.
3. Turn the release caging bolt counterclockwise 1/2 turn and pull it out.

Checking for Air Leaks

1. Apply vehicle or shop air pressure, 120 psi (8.3 bar) or 90 psi (6.2 bar) minimum, to the emergency side of the brake three times.
2. Maintain vehicle or shop air pressure. Check for leaks.

Caging Bolt Storage

1. Install the caging bolt in the pocket on the side of the air chamber then tighten the washer and nut to 5-11 ft-lbs.
2. Install the dust plug into the caging access hole in the center of the spring housing.



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