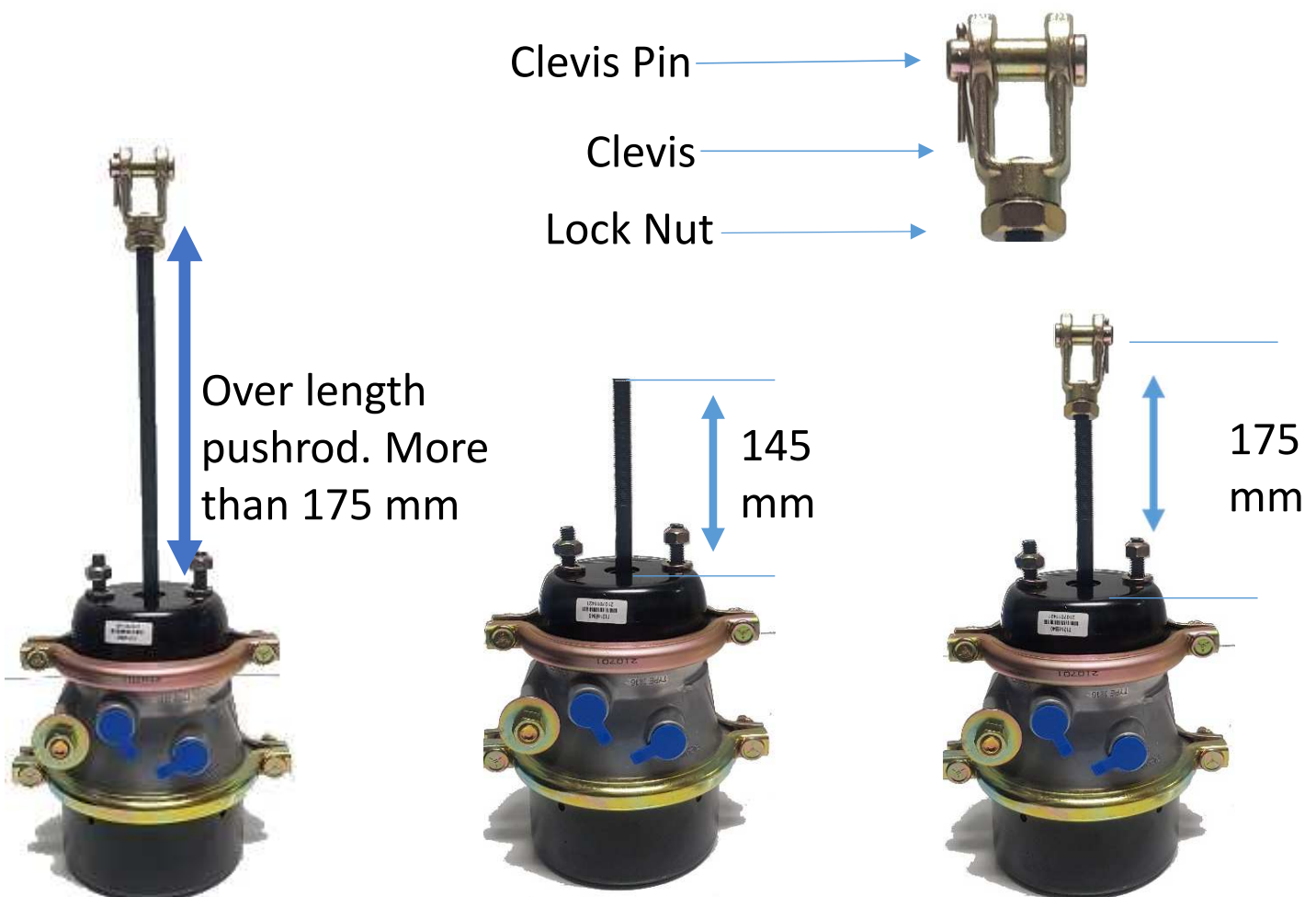


The Spring Brake size and connection position to the slack adjuster is specified by your certifying engineer. If the Spring Brake has been supplied with an over length pushrod you will need to shorten the pushrod to the correct length. The pushrod slack adjuster relationship in the applied position should be 90 Deg as per (fig 10.) An incorrect pushrod length will affect brake performance

Step 1. Cutting the pushrod to length

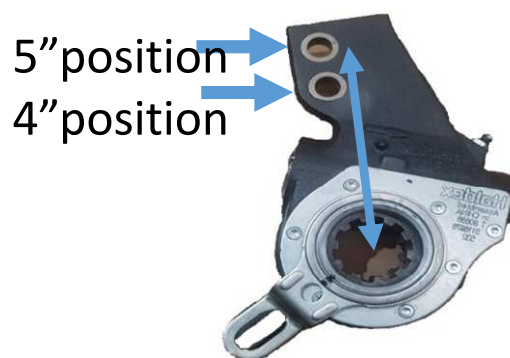
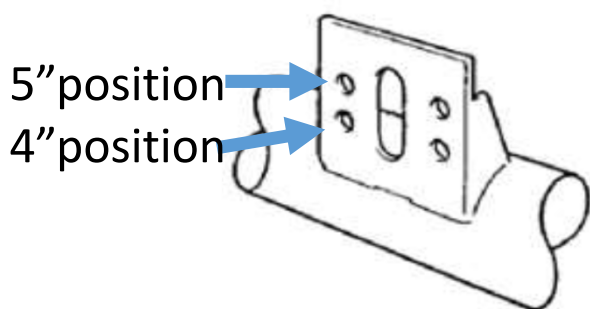
The Spring Brake as supplied will not have the parking spring retracted.

Remove the clevis and lock nut from the pushrod. Measure from the mounting face of the Spring Brake 145 mm along the pushrod and cut the rod. Re-attach lock nut and clevis. The thread of the pushrod should not exceed through the clevis more than 1-2 mm, tighten lock nut.

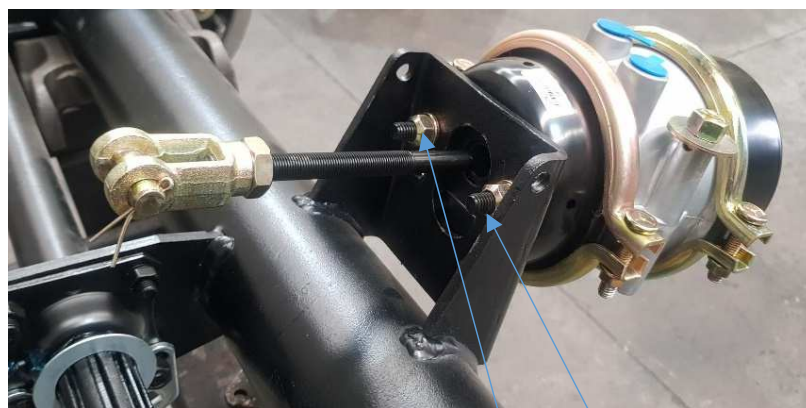
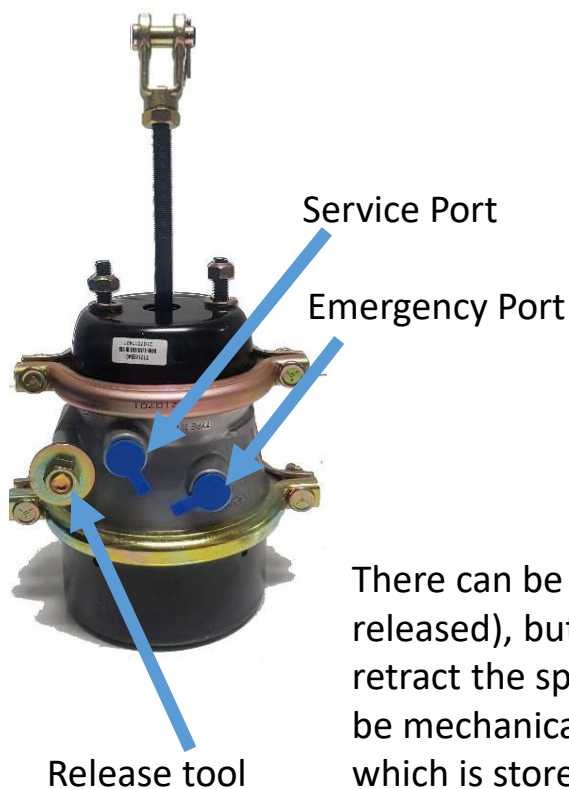


Step 2. Fitting the Spring Brake to Axle

1. Once the Spring Brake pushrod has been sized correctly you need to mount the Spring Brake in the correct set of holes on the axle brake bracket opposite the slack adjuster as prescribed by your certifying engineer.



2. With the pushrod at the correct length and mounted to the axle, tighten nuts to $200 \pm 20\text{Nm}$. Apply 600 KPA of air to the emergency port of the Spring Brake. This will retract the pushrod back into the Spring Brake. (i.e. brakes fully released), ready for fitting of the slack adjuster and brake adjustment.



Tighten to $200 \pm 20\text{Nm}$

There can be situations, where the brake is not required (brake released), but no air is available to pressurize the Spring Brake to retract the spring. When this situation arises, the spring needs to be mechanically retracted with the “spring brake release adapter”, which is stored on the side of the spring brake chamber. Warning: Automatic Spring Brake will be disabled!! Remove the adaptor and insert it in the back and twist it a $\frac{1}{4}$ turn and tighten the nut.

Step 3. Fitting the Auto Slack to the Axle

1. Axles from TEA will have the Auto Slacks fitted, and unadjusted (Fig.1). The Auto Slack, lock pin and nut needs to be removed off the cam spline. To aid in fitting the Spring Brake. If not already, install the Auto Slack bracket as shown in (Fig 2). Clean the s-cam spline and apply lubrication before installing the auto slack.

2. With Auto Slack removed as per (Fig.2), and the Spring Brake fitted to the Axle (Fig.3). The Auto Slack can be fitted to the camshaft.

Fig.1

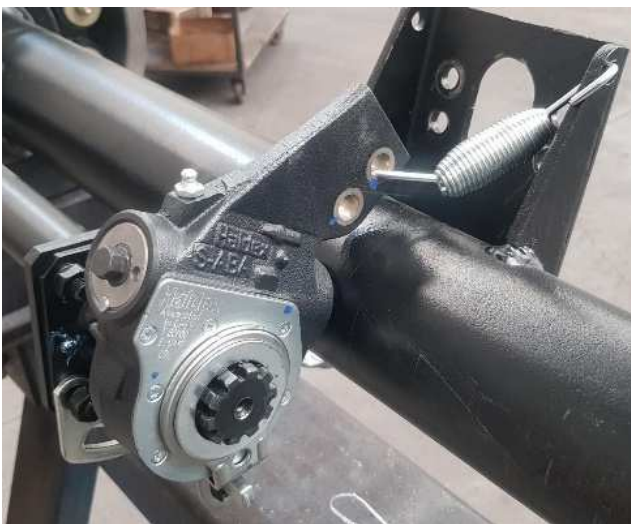


Fig.2



Fig.3



Fitting the Auto Slack to the Axle

Components shown in the image will come as a kit or fitted to the Axle.

Control Arm

3. Assemble the Auto Slack on the camshaft (Fig. 4). Install circlip + washer, Auto Slack, washer + circlip onto the S-cam, allowing .5mm to 2mm lateral movement on the spline. Fit the Auto Slack on the spline away from the pushrod, to allow the Auto Slack to be adjusted (wound) up to the push rod. Take note, the arrow (circled) should be the same direction with the movement of the pushrod of the booster.



4. With the Spring Brake released, make sure the pushrod is retracted all the way into the booster. Use a socket wrench to rotate the manual adjuster nut (12mm) clockwise (Fig.4) until the clevis hole lines up with the slack adjuster hole. Then put the clevis pin in and secure with the split pin (Fig.5)

Fig.4



It is normal for the control arm to move upwards when winding the Auto slack to fit the clevis pin.

5. Once attached to the Spring Brake push the control arm in the direction of the arrow (Fig. 5) until it cannot move any further (see note below). Fit the fixing bolt through the control arm. Now you can tighten the nut on the fixing bolt. (40Nm)

Fig.5



Note: The control arm should be vertical with the fixing bolt (Fig.6)

For the S-ABA, the control arm position can be set anywhere within the slotted area of the bracket and the adjuster will function properly. Haldex recommends a "common position" for all installations—all the way towards the axle, until the control arm comes to the end of the slotted bracket



Fig.6

Fitting the Auto Slack to the Axle

6. For the adjustment of the manual adjuster nut, turn it clockwise (Fig.7), until the brake shoes come into contact with the drum.

Now back off the manual adjuster nut (3/4 turn) in an anticlockwise direction, it will make a loud ratchet (ka-ka) noise. **DO NOT USE ELECTRIC OR PNEUMATIC TOOLS FOR THIS OPERATION.**

7. Apply the brake pedal 3-4 times, (or supply approx. 400 kpa to the service side of the booster.) which will allow the auto slack to adjust itself. The adjustment can be seen when the hex head of the worm shafts rotates clockwise. (Fig.8 and 9)

8. When completed make sure the angle between the Auto Slack and pushrod is at 90 deg when the brakes are applied. (Fig10)

Fig.10

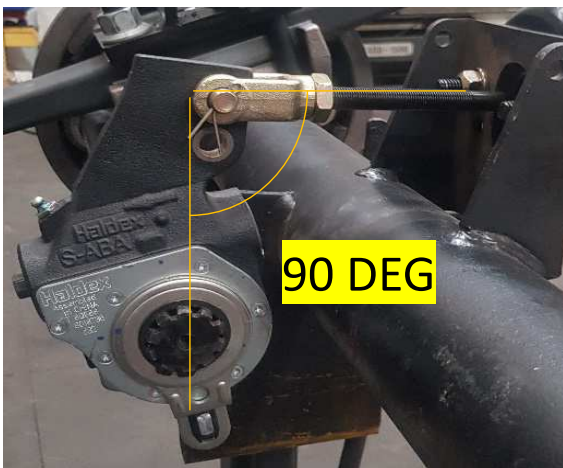


Fig.7



Fig. 8



Fig.9



9. Once completed fitting the Auto Slack and Spring Brake, it is recommended a return spring be fitted.

If you are uncertain on following these instructions correctly, please contact Transport Equipment Australia.