

BPW DISC BRAKE AXLE INSTALLATION

1. General - Clearance Requirements

During normal operation, when the brake pads and disc (rotor) wear, the floating caliper, brake cylinder assembly, including the stowed withdrawal bolt, together with air line connections, will move towards the centre of the axle (refer Figure 1). It therefore becomes important to ensure that clearances in the surrounding area (e.g. spring pads, "U" bolts, shock absorbers and other chassis components) allow unrestricted installation and movement. Note that when BPW Disc Brake Axles are supplied in conjunction with BPW Airbag Suspensions, with predetermined spring centres, clearances between the "sliding" components of the disc brake and the suspension as supplied have already been considered. Special note should be taken by the installer of maximum frame width restrictions when fitting an underslung Airbag Suspension in conjunction with disc brake axles.

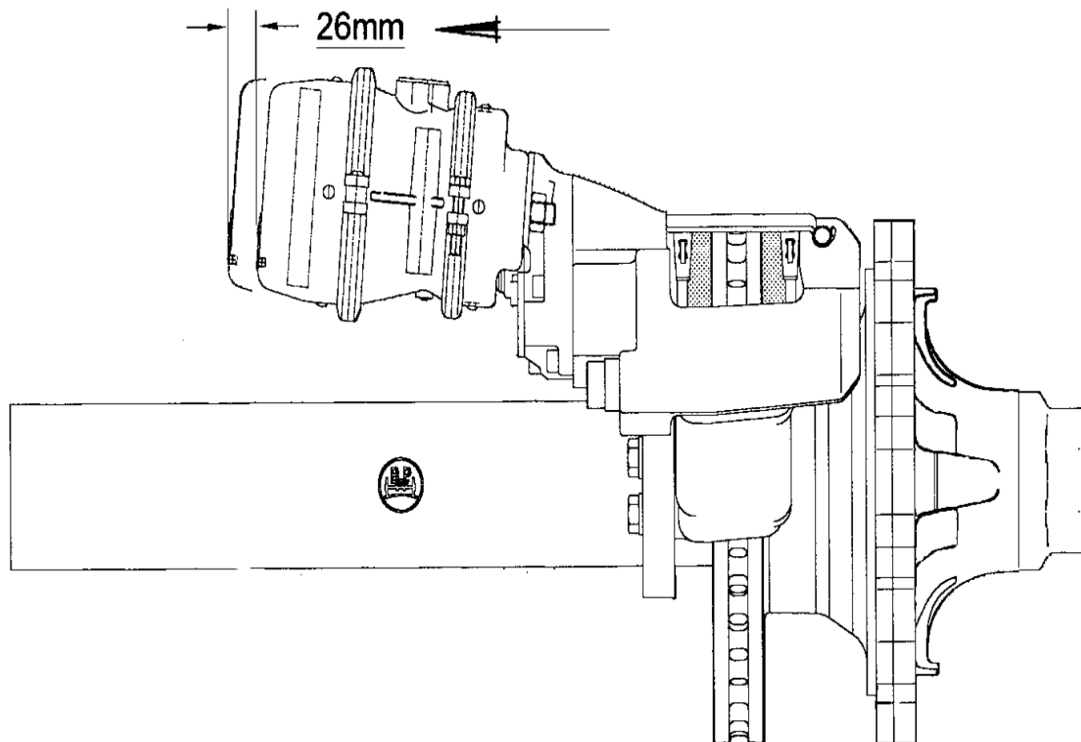


Figure 1 : The travel path of the caliper and brake cylinder is 26mm

BPW DISC BRAKE AXLE INSTALLATION

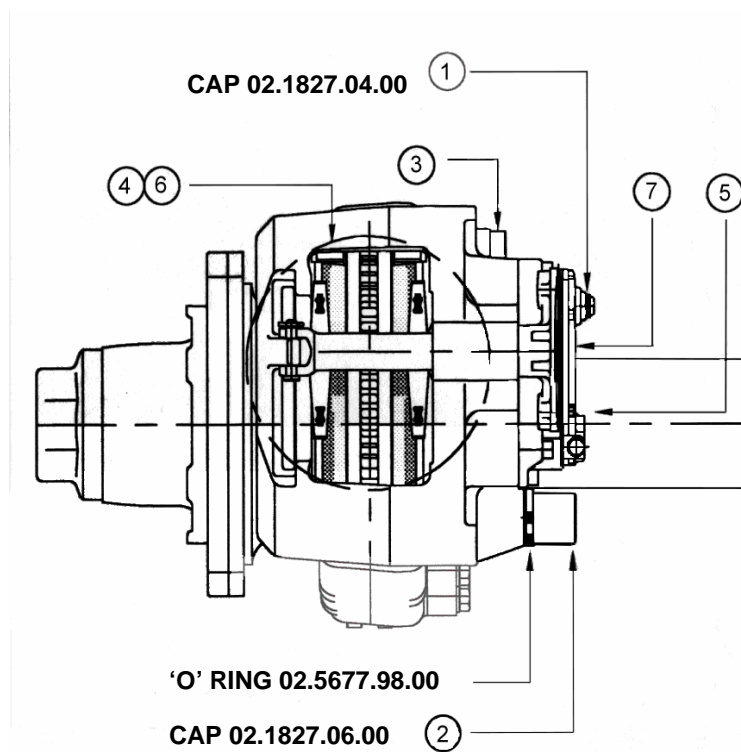


Figure 2 : Inspection and Painting

2. Inspection of Disc Brake Axles prior to Installation

It is particularly important to check that the adjustment cap **(1)** and the main guide pin cap **(2)** have not been damaged during handling and installation of the axle onto the trailer (refer Figure 2).

Under no circumstances should vehicles be allowed to enter service if either of these parts are damaged as the sealing of the caliper unit is compromised.

BPW does not assume responsibility for brake calipers that become defective in service as a result of damaged sealing arrangements being overlooked.

3. Prior to Painting

The following areas of the disc brake must be masked or isolated prior to painting (refer Figure 2) :

- The projecting rubber bush and guide bolt of the floating bearing **(3)**.
- The brake disc rotor **(4)**.
- The interface of the exciter rings and ABS sensors **(5)**
- The brake pads and aperture **(6)**
- The mounting interface of the brake cylinders (if not fitted to the caliper) **(7)**

BPW DISC BRAKE AXLE INSTALLATION

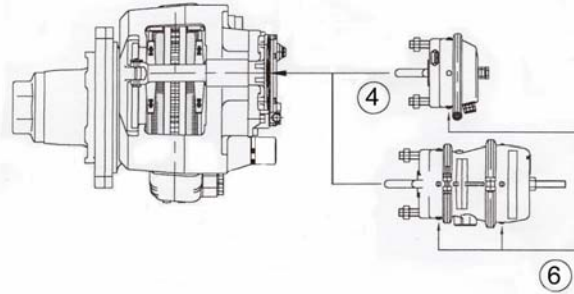


Figure 3 : Installing BPW Brake Boosters

4. Installing BPW Brake Boosters

Refer Figures 3, 4 and 5.

1. Ensure that the Brake Booster type and part number conforms to the brake calculation.
2. BPW disc brake Boosters are left and right handed to ensure uniformity of the pipework installation
3. Ensure the Caliper mounting interface is clean to accept the rubber seal of the Brake Booster.
4. Do not paint the Caliper to Brake Booster interface.
5. Fixing bolt tightening torque (M16 x 1.5) **200Nm ± 20Nm**.
6. Remove the lower plastic vent plug from the service and spring brake housing after installation.
7. Stow the withdrawal bolt after releasing the spring force and replace the plastic cover.

SPECIAL NOTE: The spring brake unit is sealed for life and no service parts are available. Under no circumstances should any attempt be made to open the spring brake unit due to risk of personal injury from the stored spring energy.

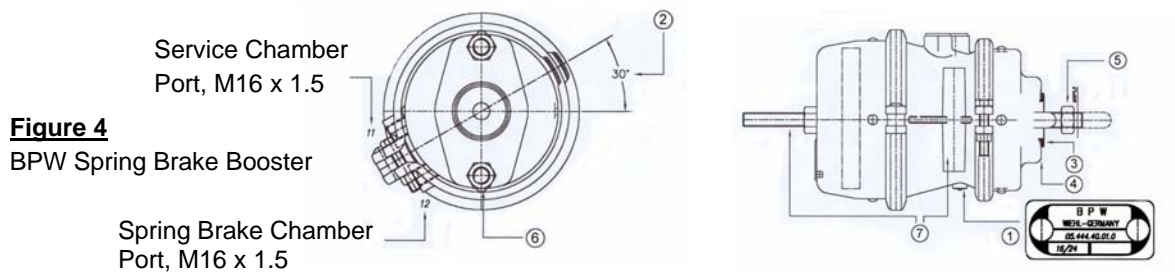


Figure 4
BPW Spring Brake Booster

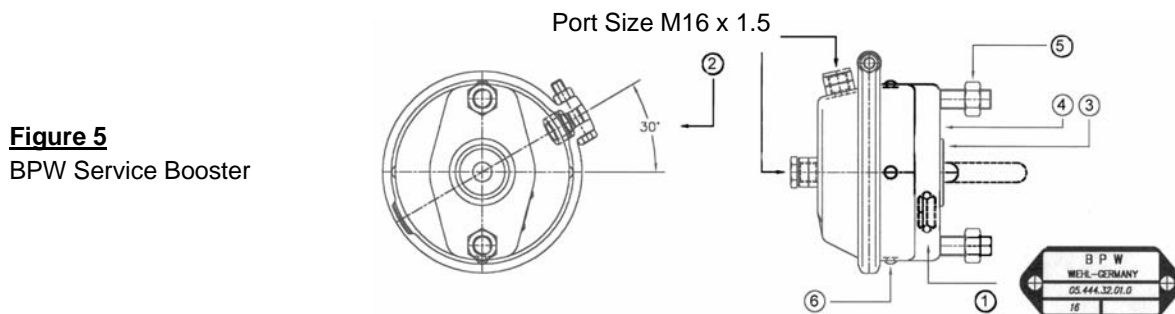


Figure 5
BPW Service Booster

BPW DISC BRAKE AXLE INSTALLATION

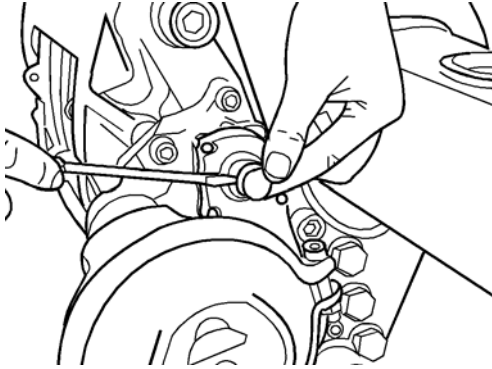


Figure 6 : Location of Cap for Brake Adjuster

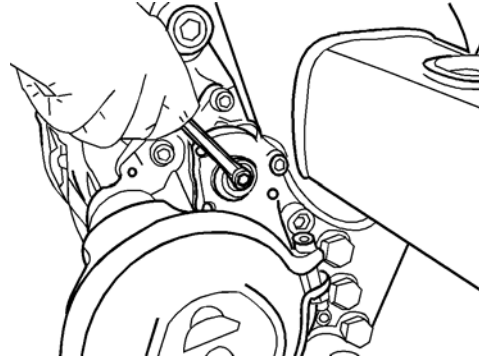


Figure 7 : Brake Adjustment

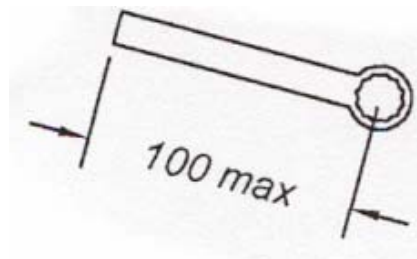


Figure 8 : Recommended Brake Adjustment Ring Spanner, 8mm.

5. Brake Adjustment

After installing the brake boosters, remove the adjuster cap (refer Figure 6), and make the initial brake adjustment by rotating the 8mm adjustment bolt clockwise until the brake pads come into contact with the brake disc. Then back the adjuster off by two audible clicks to give the correct initial running clearance of 0.7mm -1.00mm (refer Figure 7).

Refit the adjuster cap part number 02.1827.04.00 (refer Figure 6).

Note: Always use a ring spanner or socket with a lever length of no more than 100mm for the purpose of adjustment. Do not use an open ended spanner (refer Figure 8). Do not apply excessive force.