

**S-T SAFETY CALIPER**  
**Instructions for assembly and adjustment**

**52.555 (I)**  
**Jan. 96 1/4**

Rev.: 0

The assembly of the elements which make up the caliper brake, that is the power supply, disc and caliper, must be carried out according to the following instructions:

### **POWER SUPPLY**

The installation of the power supply and supply line, with regard to its location, protection and connection etc. must be carried out as detailed in the corresponding technical sheet.

### **DISC**

#### **NORMALISED DISC**

After mounting the hub or the coupling to the incorporated disc, its axial displacement must be equal to or less than 0,2mm, as measured on the periphery (standard method for high-speed rotating discs).

#### **LATERAL DRUM DISC**

The friction width track must be equal to or more than 170mm for the S-0T and 140 mm for the S-1T.

The roughness factor must be 1.6 maximum.

The maximum allowable axial displacement on the periphery of the lateral disc is 0.5mm (applicable to low-speed rotating discs).

The friction track thickness must be between 30 and 40mm.

The friction surface must be completely clean and ,especially, 100% free from any traces of oil or grease.

### **CALIPER**

#### **1.- ASSEMBLY**

The calipers are supplied with zero clearance, that is with bolts (1) and spacers (3) are in the LOCKED POSITION.

If the brake shoes separation is less than the disc thickness, this should be increased by adjusting the central bolt (2). Remove the brake linings by loosening the bolts which hold the shoes.

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Place the caliper on the bench and distribute the play approximately between the disc and the shoes. The bench should be parallel to the axis and strong enough to support the forces generated by braking.

Next verify that the caliper base is perpendicular to the disc faces and also that the caliper axis are correctly aligned with the disc plane, in order that the linings surfaces are perfectly parallel to the disc surface.

Place the 6 M-30 fixing bolts (4) for the S-0T and the 4 M-30 bolts for the S-1T and tighten slightly.

Check the centering, the alignment, and the perpendicularity of the caliper again; then tighten the fixing bolts firmly.

Place the brake linings, ensuring that their position is correct, bolting them to the shoes in the S-0T.

## 2.- ADJUSTMENT AND SETTING

There are two points on the caliper which have to be adjusted.

### 2.1. Adjustment of the BRAKE SHOE SEPARATION

Approach the linings to the disc using the central bolt (2), until there is a minimum amount of play, which should be less than 1mm.

Remove the two bolts (1), modify the spacers position (3) and re-assemble them in the OPERATING POSITION.

### 2.2- Adjustment of the OPEN INDICATOR CONTACT

Electrically connect the caliper and the open control contact and adjust to the correct setting.

## 3.- MAINTENANCE

Since the caliper does not have automatic wear adjustment, the clearance should be checked with the frequency recommended by the service, and always after an emergency braking. To do this verify that measure 'X' is greater than 7mm in each one of the blocking screws when the caliper is braking (if the value of "X" is lower, the force will be lower and the opening time of the caliper will be longer).

The setting of the clearance must be carried out with the brake open by adjusting screw (2) as for the adjustment of the shoes.

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The maintenance required on the caliper consists of a periodic inspection during which the operation of the same is checked and the separation between the linings and the disc verified.

4.- LININGS REPLACEMENT

To exchange worn linings for new ones, proceed as follows:

- Place the spacer (3) in the LOCKED POSITION and tighten screws (1) until the clearance is zero (to enable this it is useful to power up the caliper so that it is held open electrically).
- Turn bolt (2) until the separation between the disc and the shoes is enough to allow the linings to be removed. With the S-0T the space must be sufficient to allow the fixing bolts on the shoe plate to be unscrewed.
- Mount the new brake linings, ensuring that they are correctly positioned, and fix them to the shoes using the fixing screws in the S-0T.
- Finish the adjustment of the caliper as described in the section "Adjustment and Setting".

NOTES: Bear in mind that the linings do not give maximum performance until they have been properly run-in.

The quality of the linings has much influence on the performance of the caliper.

ANTEC only uses asbestos-free linings.

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