

The components of the caliper brake, i.e. power source, disc and caliper, should be fitted and installed to the following instructions:

## **POWER SUPPLY**

### **1.-AC-6 and AP-6 FOR CALIPER 66E**

When deciding the placement of the power supply, bear in mind the following points:

- Type of protection: - for AC-6 (IP-55)  
- for AP-6 (IP-00) - must be in a cabinet.
- The distance between the power source and the caliper should be as short as possible, and in no case should the connecting line exceed a resistance of 0,5  $\Omega$  (35 m for a cross-section of 2,5 mm<sup>2</sup>).
- Insofar as is possible, fit the power supply upright.

For electrical connections, attention should be paid to the following:

- Mains voltage: 220 or 380 V. a/c. Connect to the terminal for 0-220 V. or 0-380 V.
- The running factor of the caliper: Intermittent or Continuous Service. This should be fitted to the bridge on terminals 0-40 V. or 0-25 V.
- Fuses: These should be sized according to the power of the caliper and the mains voltage.

### **2.-BEC-3 and BEP-3 FOR CALIPER 65E**

For the mounting of this caliper see the notice 03.632.

## **DISC**

Once the disc, with its hub or coupling, is mounted on the shaft, check that it turns evenly, with and axial movement of less than 0,2 mm measured on the rim.

The friction surface should be completely clean, and free of any trace of oil or grease.

## **CALIPER**

### **1.-MOUNTING**

The calipers are supplied with a zero airgap, that is with screw (1) fully tightened.

If the distance between the shoes is less than the disc thickness, it should be increased by means of a manual wear compensation system (2) carried out in the following way:

- Loosen the nut and the counter nut of the wear compensation screw (2), until correct separation between linings is obtained. If the caliper has automatic wear adjustment see Data Sheet 52.153.

Place the caliper on its bed and centre it with regards to the disc so that the disc is approximately equidistant from the two anchoring screws. The bed should be parallel to the shaft and capable of supporting braking stresses.

Check that the base is perpendicular to the disc faces.

Fit the four anchoring screws (6).

Re-check that the caliper is centred on and perpendicular to the disc and tighten the anchoring screws firmly.

### **2.-ADJUSTMENT AND REGULATION**

There are four point in the brake that need to be adjusted.

#### **2.1 SHOE CLEARANCE adjustment.**

- Tighten the manual unlocking screw (1) and leave the airgap with a zero value.
- Adjust the shoe clearance by moving the wear compensation screw (2) until the separation between the shoes and disc is approximately 0,5 mm. (If the caliper has automatic wear adjustment see Data Sheet 52.153). Set the counter nut of the wear compensation screw (2).
- Open the caliper by loosening the manual unlocking screw (1), and put it in the hole which is in the base.

## 2.2 BRAKING TORQUE adjustment.

The caliper supplied are normally adjusted to the maximum torque.

The braking torque is regulated by changing the height of the screws (3) according to the diagrams. Once the torque is adjusted check that the lock-nut is firmly tightened.

## 2.3 OPEN SWITCH INDICATOR adjustment.

Carry out the electrical connection of the caliper and adjust the open switch indicator; perform several handling trials to ensure that it operates perfectly: caliper opening and overtravel of 1 mm from the contact.

## 3.-MAINTENANCE

To maintain the caliper in perfect order check periodically on lining wear: when the separation between shoes and disc reaches 2 mm, wear should be compensated by adjusting the screw and nut (2) until previously mentioned initial separation is obtained.

When the lowest value of the lining thickness is 2 mm. it should be replaced following the process described.

The clearance between arms should also be periodically checked.

## 4.-LINING REPLACEMENT.

To replace worn lining (3) proceed in the following way:

- Tighten the manual unlocking screw (1) until the caliper is open and unscrew the manual wear compensation screw (2).
- Remove the elastic ring and extract the shoe pins (7).
- Fit the shoe with a new lining and refit the shoe pin and the elastic ring.
- Finish by adjusting the caliper according to the indications described in the "Adjustment" section.

**CALIPERS 65E & 66E**  
**Fitting and Adjustment Instructions.**

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**5.-TORQUE ADJUSTMENT TABLES.**

Torques obtained in N.

Fp: Stress on pads.

Fr: Stress on spring.

**CALIPER - 65E**

**DISC**

Ø175 Ø 220 Ø 260 Ø 315 Ø355 Ø 400 Ø 450 Ø 500 Ø 560 Ø 630 Fp Fr

155	180	210	280	320	370	430	480	545	630	3005	2186
145	165	195	255	295	340	390	440	500	575	2744	1996
130	150	175	230	265	305	355	400	450	520	2485	1806
115	132	155	205	235	275	315	355	405	465	2220	1616
105	116	140	180	210	240	280	315	355	410	1960	1425
90	100	120	160	180	210	240	275	310	355	1700	1235
75	85	100	135	155	180	205	230	260	300	1435	1045
62	70	85	110	125	145	165	190	215	245	1175	855
48	55	65	85	98	112	130	147	165	190	915	665
34	40	46	60	70	80	95	105	120	135	655	475
20	23	28	36	42	48	56	63	70	82	390	285
7	8	9	12	14	16	19	21	24	27	130	95

Lenght "d" of torque adjustment screw

**CALIPER - 66E**

**DISC**

Ø175 Ø 220 Ø 260 Ø 315 Ø355 Ø 400 Ø 450 Ø 500 Ø 560 Ø 630 Fp Fr

82	95	110	145	165	195	225	255	285	330	1575	1145
75	85	100	130	150	175	200	225	255	295	1410	1025
65	75	85	115	135	155	175	200	225	260	1244	905
55	65	75	100	115	130	155	175	195	225	1080	785
48	55	65	85	95	112	130	145	165	190	910	665
40	45	50	70	80	90	105	120	135	155	745	545
30	35	40	55	60	70	80	95	105	120	580	420
22	25	30	38	45	50	60	65	75	85	415	302
13	15	17	23	27	30	35	40	45	52	250	181
4	5	6	8	9	10	12	13	15	17	83	60

Lenght "d" of torque adjustment screw



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