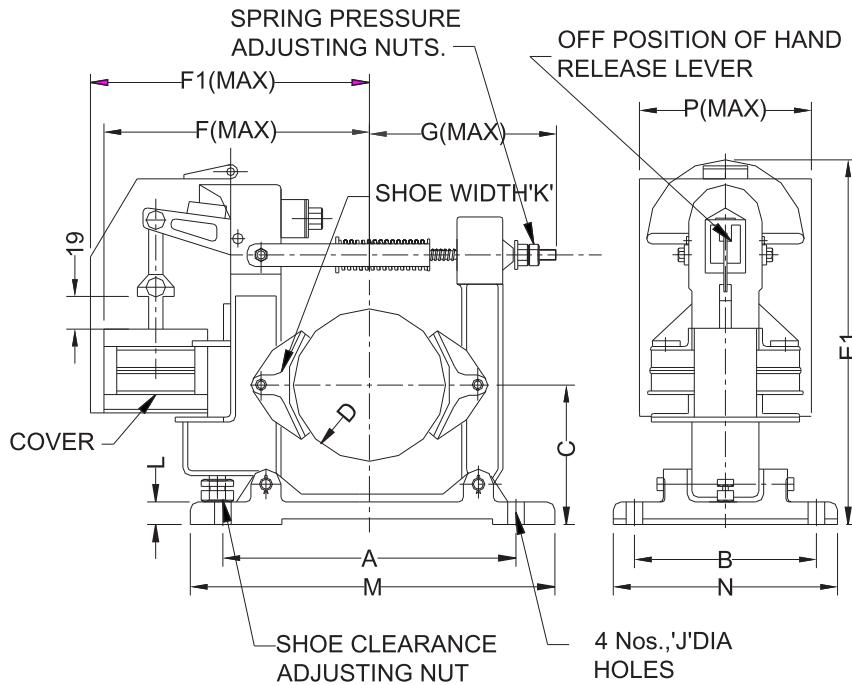




## MOUNTING ADJUSTMENT INSTALLATION MANUAL

For essential component of EMS Drum Brake Please see Fig. 1 and find the following explanations:-

### Component of EMS Drum Brake



#### BASE :-

The Brake is mounted on a base construction.

#### BRAKE ARM :-

Hinged with the brake shoe, they surround the brake drum and in connection with tension rod and dash pot they apply the braking force is generated by the spring.

#### TENSION SPRING :-

Consists of rod, torque spring. The adjustable braking force is generated by the torque spring.

#### MAGNET COIL :-

Is coil use to open the brake and is acting against the clamping force. The energy, required for release, is generated by Electro-Magnet.

#### TENSION ROD :-

Its function is to transit the braking force to the two brake arm, and therefore it is the most stressed component of the brake. In all brakes the tension rod is made of alloy steel with rolled threads.

#### BRACKET :-

The bracket is the hinge between tension rod and the brake arm bracket should be a pin junction as well

#### LEVER :-

Bracket, Tension Spring, Dash Pot are mounted to the lever. Here, the transformation from large stroke and small force into small stroke and high force is realised.



A.C drum brakes are suitable for single phase A.C supply up to 440V and are available for drum diameters of 100mm to 375mm and braking torque up to 69kg-m.

These brake have a more rigid construction and better designed, and more efficient Solenoid, with damping provided to cushion lamination impact and thereby extend solenoid life and provide a smoother braking action

These brakes have a better duty cycle than the single phase brakes.

### **Construction :-**

Base & Brake Arm are cast iron high grade (FG-220) shoe are self-aligning, easy removable with fabric lining fixed with aluminum rivet, magnet solenoid type with laminated magnetic circuit having pole face to ensure quiet operation.

### **Operation :-**

Compression spring provide the necessary working pressure to apply the brake, release being effected by a three phase electromagnet hand release lever is tilted to the lock brake in the off position when required. Requires regular maintenance and periodical replacement of worn part and coils.

### **Note:-**

- 1) Brake type EMS 4 denotes A.C single phase 4 inch Dia. (Inch series)
- 2) Brake type EMS 100 denotes A.C. single phase 100 mm Dia. (metric series)
- 3) Brake are made to suit either inch or metric drum size.
- 4) Coils are rated for operation 415/440 single phase A.C. 50 cycles.
- 5) Coils can be supplied with class 'B' insulation for operation at higher ambient temperature upto 60°
- 6) Tolerance  $\pm 2$  mm.