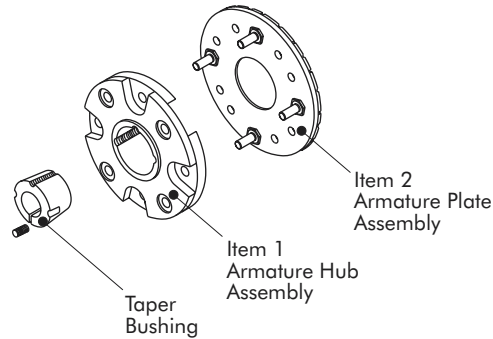


# Pin Drive Armature Hub & Plate Assembly

Used With

- Clutches/Brakes
- 305, 306 & 307

This procedure should be followed to assemble Items 1 and 2 in the diagram below. Note that there are two configurations (A) and (B) for the bushing (ITEM E).



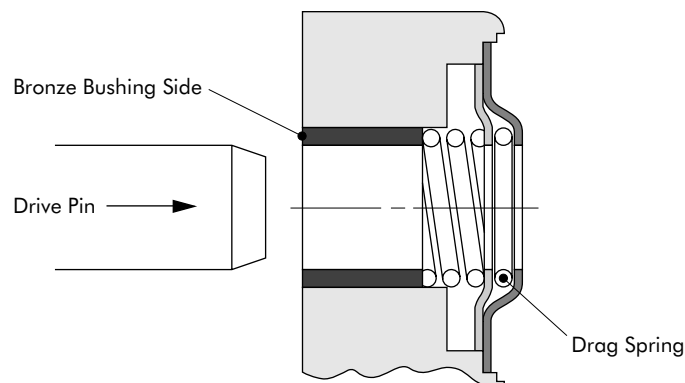
CONFIGURATION (A) - (MODEL 307 SHOWN - ARMATURE PLATES IN THE 306 & 305 ONLY HAVE 3 PINS)

Place the Armature Plate assembly (ITEM 2) on an Arbor Press with the Drive Pins facing up. You will use one of two sets of holes in the Armature Hub assembly (ITEM 1) depending on the Taper Bushing configuration (A) OR (B).

- (A) If the Taper Bushing is to be installed the same as in the top diagram, place the Armature Hub assembly (ITEM 1 - WITH THE TAPER SIDE FACING UP) on top of the Armature Plate assembly (ITEM 2), centering the pins through the Bushings.
- (B) If the Bushing configuration is on the other side, place the Armature Hub assembly (ITEM 1 - WITH THE TAPER SIDE FACING DOWN) on top of the Armature Plate assembly (ITEM 2), centering the Pins through the Bushings.

THE DRIVE PINS MUST ENTER THROUGH BRONZE BUSHINGS FIRST  
IN EITHER CONFIGURATION (A) OR (B).

As you are looking down on the Pins coming through the Plate, adjust the Drag Spring such that it is centered around the Pins.

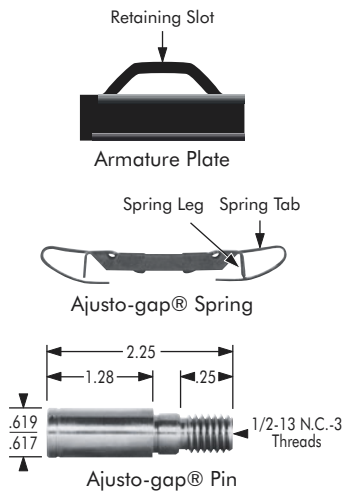


When the Drive Pins of the Armature Plate assembly (ITEM 2) are centered through the Drag Spring, press the Armature Hub assembly (ITEM 1) until it bottoms on the Armature Plate assembly.

Secure the Armature and Hub assembly onto the Shaft with the split Taper Bushing, leaving a 1/16" air gap between the Armature and Magnet.

# Pin Drive Ajusto-Gap® Kit Assembly

## Nomenclature



Used With

● 308, 310, 312 & 315

Fig. 2



1. Insert one end of the Ajusto-gap® spring tab through a retaining slot in the armature plate until the spring tab just passes through the retaining slot and the two spring legs on the installed side are adjacent to the retaining slot as per Fig 1.
  2. Using a needle nose pliers, grasp the lower portion of the spring tab that is not yet through the retaining slot and insert the spring tab through the other retaining slot.
- NOTE: The spring legs must straddle the retaining slots in the armature plate.
3. Repeat steps 1 and 2 for the remaining springs. There are 3 or 4 pins depending on the model number.

4. Place the armature plate on the hub and align the counter bored mounting holes of the hub with the pin holes of the armature plate. Center the Ajusto-gap® springs over the pin holes of the armature plate. Slide the Ajusto-gap® mounting tool under the spring between the retaining tabs of the armature plate as per Fig. 2.

Since the thickness of the Ajusto-gap® spring mounting tool sets the travel of the armature plate for engagement, make sure the Ajusto-gap® mounting tool passes completely beneath the Ajusto-gap® spring and both side of the spring are supported. This will prevent deformation of the spring.

Apply Loctite® to the threads of the pin and insert the pin into the spring and pin hole of the armature plate.

5. Tap the pin lightly to start through the Ajusto-gap® spring as shown in Fig. 3. With a 5/16 inch hex head, screw the pin until the threads start, then start the other pins using the same mounting tool. Finish tightening all the pins using the mounting tool, until the pins shoulder is flush against the mounting hub.

NOTE: Inspect each Ajusto-gap® spring to assure it is mounted square with the pin and that the legs are centered in the retaining tabs. This will ensure proper operation and maintain an even air gap.

6. Place retaining rings on the pins and install safety wire through the holes to prevent pin rotation as per Fig. 4.

Fig. 1



Fig. 3

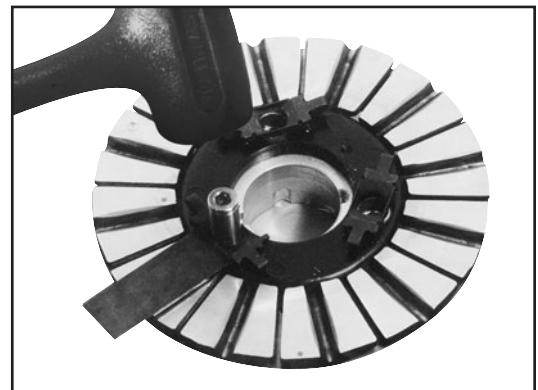


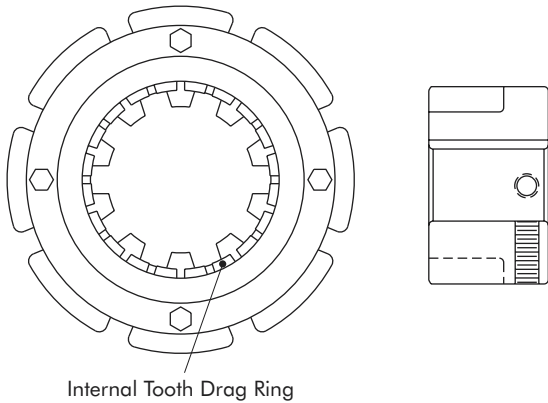
Fig. 4



# Ajusto-Gap® Armature/Hub Assembly

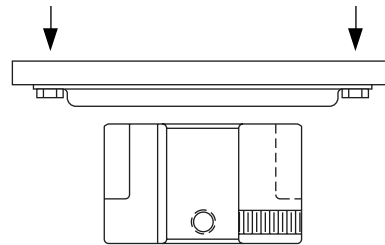
Used With

- Spline Drive
- 303 and 304 - 10 Tooth



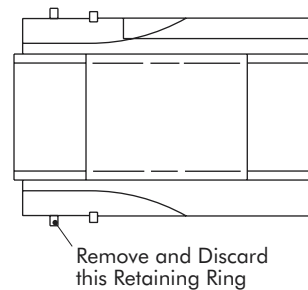
## Step 1 Coupling Hub

Press armature plate onto hub, internal tooth drag ring is an interference fit to hub OD. This operation may require an arbor press. Use caution – armature plate is ground flat and should not be bent or distorted. Armature plate should be as far back on the hub spline as possible.



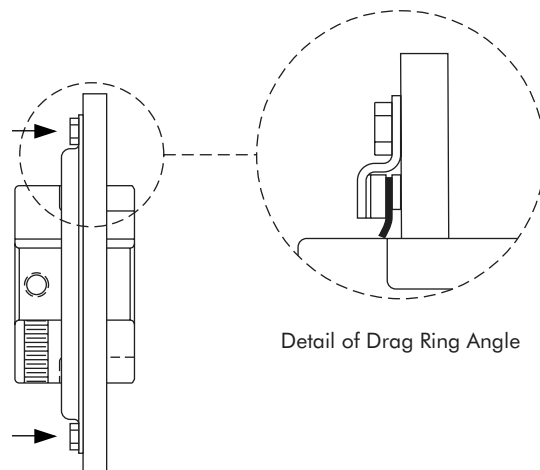
## Extended Hub

Remove and discard the retaining ring that is on the OD of the spline. Follow instructions for the coupling hub except do not allow the bronze bearings to be pressed flush with ends of hub. They must extend 1/16 inch from the ends.



## Step 2

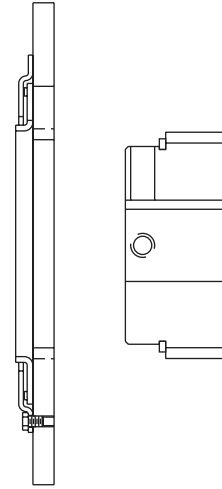
Press armature plate by hand in the opposite direction to detent the drag ring to the proper angle (See detail.) Make sure the armature plate moves forward only the amount needed to detent the drag ring. The armature plate should be as far back on the hub as possible to allow for travel when it self adjusts to compensate for wear. The drag ring angle is critical to the operation of the self-adjusting mechanism; it also gives a positive release when the clutch or brake is "off".



# Ajusto-Gap® Armature/Hub Assembly

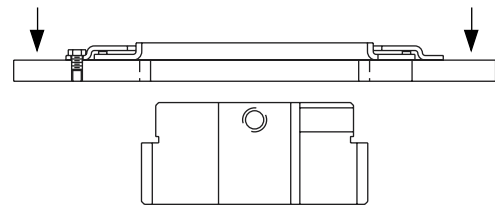
Used With

- Spline Drive
- 304 - 20 Tooth
- 305 - 24 Tooth



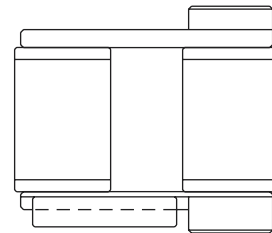
## Step 1 Coupling Hub

Remove retaining ring. Press armature plate onto hub, drag ring is interference fit to hub OD. This operation may require an arbor press. Use caution – armature is ground flat and should not be bent or distorted. Armature should be as far back on the hub spline as possible.



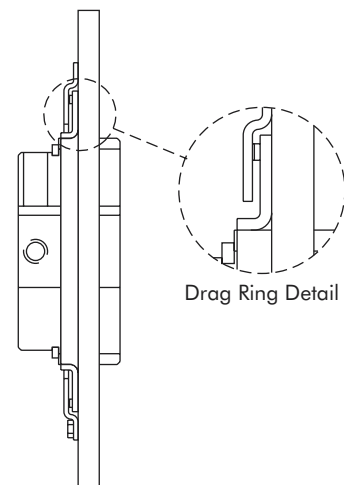
## Extended Hub

This hub does not have a retaining ring, follow instructions for the coupling hub except do not allow the bronze bearings to be pressed flush with ends of hub. They must extend 1/16 inch from the ends.



## Step 2

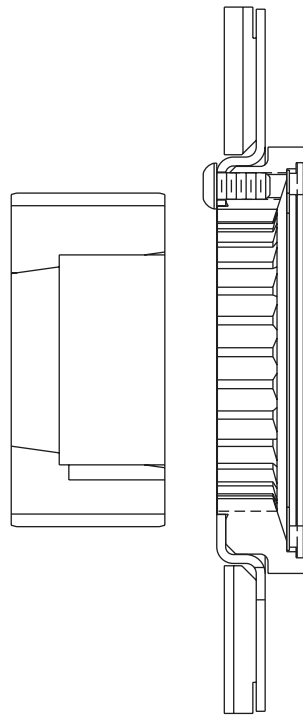
Replace retaining ring. Drag ring must be on OD of spline (See detail.) The armature should be as far back on the hub as possible to allow for travel when it self adjusts to compensate for wear. The drag ring position is critical to the operation of the self-adjusting mechanism; it also gives a positive release when the clutch or brake is "off".



# Ajusto-Gap® Armature/Hub Assembly

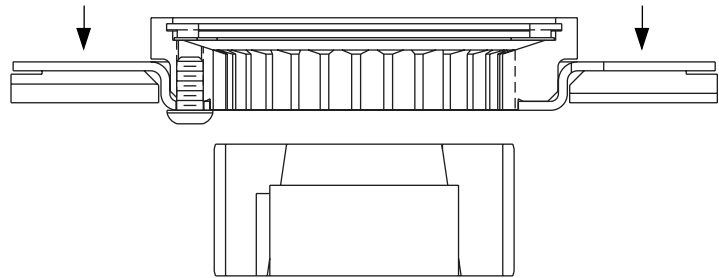
Used With

- Spline Drive
- 308 - 310

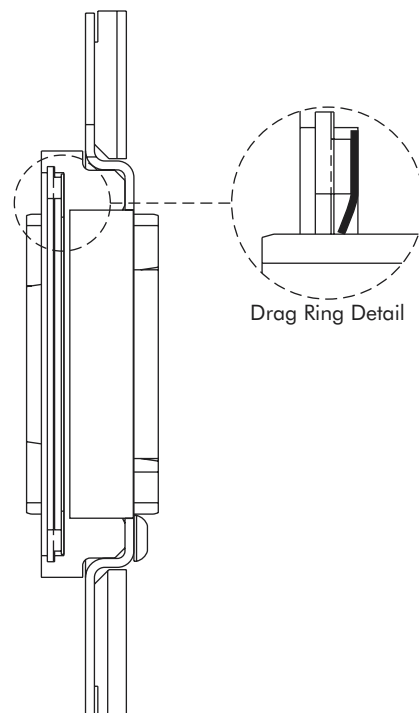


## Step 1

Position hub to enable access to taper bushing when installing on shaft. Press armature plate onto hub, tooth drag ring is an interference fit to hub OD. This operation may require an arbor press. Use caution – armature plate is ground flat and should not be bent or distorted. Armature plate should be as far back on the hub spline as possible.



Note that the drag ring angle and position are correct (See detail.) The armature plate should be as far back on the hub as possible to allow for travel when it self adjusts to compensate for wear. The drag ring must be on the spline OD and the angle is critical to the operation of the self-adjusting mechanism; it also gives a positive release when the clutch or brake is "off".



# Clutch Anti-Rotate Arm Instructions

Used With

- All Bearing Mounted Assemblies
- All Sheave Clutches

Bearing mounted rotor/field assemblies and sheave clutches are offered in different styles depending on their size and torque characteristics. The anti-rotate arm on all versions must be constrained from motion by a clearance pin or shoulder bolt through the hole or slot in the arm. Do not rigidly attach the arm to any surface; it must float or damage can occur to clutch's internal bearings.

