

# Autogap Installation for Sizes 825-1525 Basic Brakes & Clutches

P-1612  
819-0521

## Installation Instructions

**⚠ WARNING** Failure to follow these instructions may result in product damage, equipment damage, and serious or fatal injury to personnel.

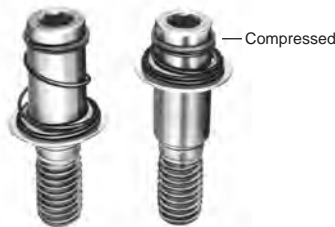
### Assembly Instructions

**Step 1.** Place straight springs (white) over armature boss on back side of armature. (See Figure 1)



(Figure 1)

**Step 2.** Compress heavy spring (red) against retainer ring by sliding detent spring towards head of pin. (See Figure 2)



(Figure 2)

**Step 3.** Insert assembled drive pins through segmented side of armature, through straight (white) springs and into threaded holes in armature hub. (See Figure 3)



(Figure 3)

**⚠ CAUTION** Be sure that straight white springs do not get caught under shoulder of drive pins.

**Step 4.** Draw drive pins up tightly until shoulder of pin is against face of hub (since threads are class No. 3, pins may seem to bind).

**Step 5.** Check to see that the armature is completely compressed against the face of the hub. To set the autogap, slide the detent spring retainers against the armature face. (See Figure 4)

**Note:** This position must not be disturbed during completion of assembly.



Figure 4

**Step 6.** Slide the armature and the hub with taperlock bushing over the shaft until the face of the armature contacts the face of the magnet or rotor. Move armature assembly to provide a clearance of 1/16 inch between the armature face and magnet or rotor face.

The assembly should be checked by pressing the armature into contact with the friction face and then releasing the armature. The armature should spring back approximately 3/64-inch. This gap will be automatically maintained throughout the life of the unit.

**Note:** During the assembly of the clutch or brake components, the units must be checked for concentricity and squareness to the shaft. This is accomplished by using a dial indicator. The following table gives the check points and tolerances. (See Figure 5)

Unit	Primary Brake PB		Rotor	SF - Stationary Field Clutch	Armature
	Magnet	Armature		Field	
Part Check					
Concentricity	.010 T.I.R. Outside Diameter	.010 T.I.R. Drive Pins	.006 T.I.R. Pilot Dia. I.D.	.006 T.I.R. Outside Diameter	.006 T.I.R. Drive Pins
Squareness	.006 T. I. R. Outer Pole of Face	.006 T. I. R. Face		.006 T. I. R. Outer Pole of Face	.006 T.I.R. Face

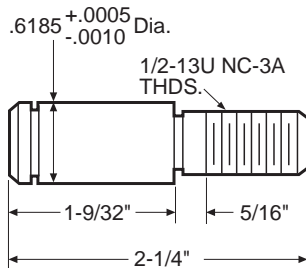
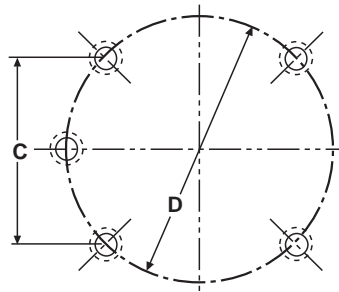
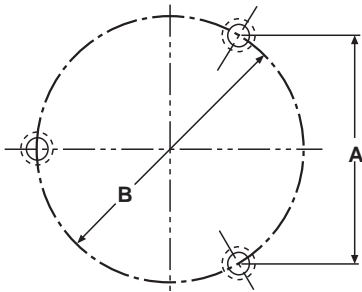
Figure 5 - Tolerance Table

## Drive Pins Should be Retained with Sealant

Before installing the drive pins, apply a good grade of thread sealant such as Loctite®, or equivalent, to the threaded portion only. Caution must be taken to prevent the sealant from getting on the bearing surface of the pin.

Tighten all pins securely by inserting an Allen wrench in the socket provided.

## Machining Instructions for Gear, Sprocket, or Pulley



For Sizes 825 through 1525

Unit Size	A	B	C	D
825	3.085 ± .001	3.563 ± .001		
1000	4.548 ± .002	5.252 ± .002		
1225			4.155 ± .002	5.877 ± .002
1525			6.010 ± .002	8.500 ± .002

1. Chordal dimensions "A" or "C" must be held for all chords between pin holes.
2. Drill 27/64 inch diameter holes to a sufficient depth and tap for 1/2-13 NC-3A one inch minimum full threads. Pin holes must be square with plane of mounting surface and magnet mounting.
3. Ream .500/.501 to a 3/8 inch depth and to be concentric with tapped holes.

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