

Bearing Fluting Tools and Materials

Checking for Magnetization:

One simple magnetometer is the Mac (-20,0,+20) device, from Magnetic Analysis Corp, Mt. Vernon, NY. 914-699-9450. You can purchase these from www.lessemf.com – under their catalog number W142-20, cost is about \$40. You can also use a paper clip, which will hang from a magnetized structure with as little as 10 gauss.

Ceramic "Hybrid" Bearing (Balls made of Ceramic) for the motor non-drive end:

SFK "Hybrid" MRC bearings

313S-HYB#1 for 447/449 motors – replaces standard 6313/C3 bearing

316S-HYB#1 for 5000/5800 motors – replaces standard 6316/C3 bearing

Note: These part numbers (313S-HYB#1) are setup in the Baltimore Parts system even though they do not conform to the XXX-XXXXX-XXX part number format.

Shaft Grounding Brushes:

SGR-63.0-1 for 447/449 motors

SGR-78.9;1 for 5000/5800 motors

Exxon Polyrex EM

Note: These part numbers (SGR-63.0-1) are setup in the Baltimore Parts system even though they do not conform to the XXX-XXXXX-XXX part number format.

Standard all-steel Bearings for the motor drive end:

6313/C3 bearing for 447/449 motors

6316/C3 bearing for 5000/5800 motors

Note: These part numbers (6313/C3) are setup in the Baltimore Parts system even though they do not conform to the XXX-XXXXX-XXX part number format.

Tools Needed to Replace Motor Bearings (for 405 through 5800 series frames – up to 2000 HP)

All part numbers are Grainger catalog numbers:

1AC05 Puller, 20 Ton, 3 Jaw Cost \$246.

4TDK2 Bessey Cone Heater Cost \$429.

5T360 Thermal Mittens, 800 degree Cost \$38.

You will also need to have some Threaded Rods, 12" in length, as follows:

400 series motors use 9/16-12UNC threads to remove/mount the end brackets

440 and 5000 series motors use 5/8-11UNC threads to remove/mount the end brackets

5800 series motors use 3/4-10UNC threads to remove/mount the end brackets

400-449 series motor inner bearing caps use a 5/16-18UNC thread

5000/5800 series inner bearing caps use a 3/8-16UNC thread