QD® Bushing Installation and Removal

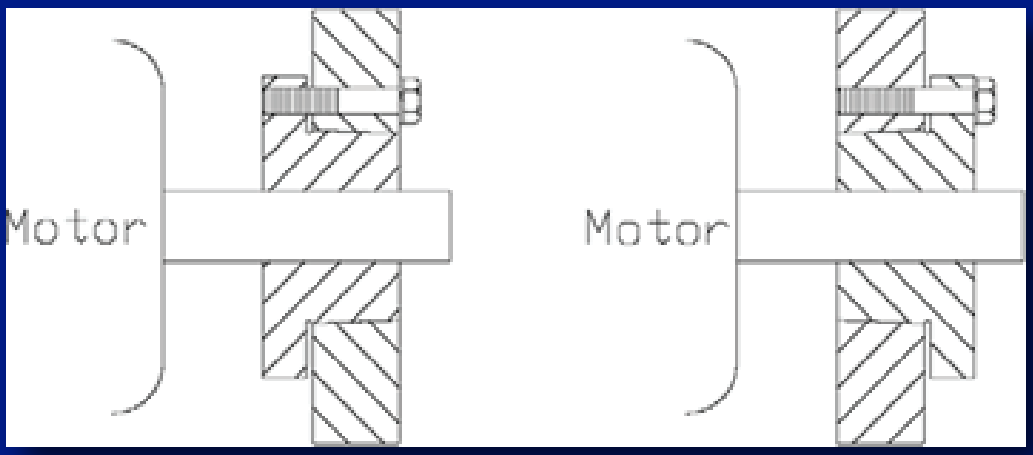

Figure 2 – Conventional and Reverse Mounting

Conventional mounting is accomplished by placing the bolts through the sprocket/sheave first and then threading into the bushing. The assembly is then placed onto the shaft with the bushing flange facing inward and the bolt heads facing outward. See Figure 2.

Reverse mounting is accomplished by placing the bolts through the bushing first and then threading into the sprocket/sheave. The assembly is then placed onto the shaft with the sprocket/sheave facing inward and the bolt heads facing outward. See Figure 2. Conventional mounting is generally the preferred method.

To Install QD Type Bushings

1. **Clean the shaft, bushing bore, outside of bushing and the sprocket/sheave hub bore of all oil, paint and dirt. File away any burrs.**

***Note:* Do not lubricate the bushing taper, hub taper, bushing bore or the shaft. Doing so may result in sprocket/sheave hub fracture. DO NOT USE LUBRICANTS.**

2. **For a conventional mount, assemble the sprocket/sheave and bushing combination by sliding the sprocket/sheave taper bore into position over the mating tapered bushing surface. Align the unthreaded holes in the sprocket/sheave hub with the threaded holes in the flange of the bushing. Hand-tighten the cap screws with lock washers installed. The sprocket/sheave and bushing assembly will mount onto the shaft, with the bushing flange facing inward.**

Some sprocket/sheave assemblies will allow a reverse mount procedure. This results in the bushing flange facing outward, but still allows the cap screw installation from the outside of the assembly. The cap screws fit through the unthreaded holes of the bushing flange and into the threaded holes of the sprocket/sheave hub.

3. **With the key resting in the shaft keyway, position the assembly onto the shaft allowing for small axial movement of the sprocket/sheave, which will occur during the tightening process.**

When installing large or heavy parts in a conventional mount, it may be easier to mount the key and bushing on the shaft first, then place the sprocket/sheave on the bushing and align the holes.

***Note:* When mounting sprockets/sheaves on a vertical shaft, pre-cautions must be taken to prevent the sprocket/sheave and/or bushing from falling during installation.**

4. Alternately tighten the cap screws until the sprocket/sheave and bushing tapers are completely seated together (use approx. half of the recommended bolt torque; see Table 2).

5. Check the alignment and axial sprocket/sheave run out (wobble), and correct as necessary.

6. Continue alternate tightening of the cap screws to the recommended torque values specified in Table 2 below. Do not tighten cap screws further once the recommended torque is reached.

Note: Excessive bolt torque can cause sprocket/sheave and/or bushing breakage. When properly mounted, a gap between the bushing flange and sprocket/sheave should exist.

QD® Bushings

Bushing Style	Bolts (in)		Torque Wrench	
	Qty.	Size	lb-ft	lb-in
H	2	1/4 x 3/4	7.9	95
JA	3	10-24 x 1	4.5	54
SH & SDS	3	1/4-20 x 1 3/8	9.0	108
SD	3	1/4-20 x 1 7/8	9.0	108
SK	3	5/16-18 x 2	15.0	180
SF	3	3/8-16 x 2	30.0	360
E	3	1/2-13 x 2 3/4	60.0	720
F	3	9/16-12 x 3 5/8	75.0	900
J	3	5/8-11 x 4 1/2	135.0	1620
M	4	3/4-10 x 6 3/4	225.0	2700
N	4	7/8-9 x 8	300.0	3600
P	4	1-8 x 9 1/2	450.0	5400
W	4	1 1/8-7 x 11 1/2	600.0	7200
S	5	1 1/4-7 x 15 1/2	750.0	9000

Caution: Excessive bolt torque can cause sprocket/sheave and/or bushing breakage.
Note: To insure proper drive performance, full bushing contact on the shaft is recommended.

Table 2 – QD Bushing Bolt Torque Values

7. Tighten the set screw, when available, to hold the key securely during operation.

To Remove QD Type Bushings

1. Loosen and remove all mounting bolts.

2. Insert cap screws into all threaded jack screw holes.

3. Loosen the bushing by first tightening the screw furthest from the bushing saw slot, then, alternately tighten remaining screws. Keep tightening the screws in small but equal increments until the tapered sprocket/sheave and bushing disengage.

Note: Excessive or unequal pressure on the bolts can break the bushing flange, making removal impossible without destroying the sprocket/sheave.