

# "QD Bushings"

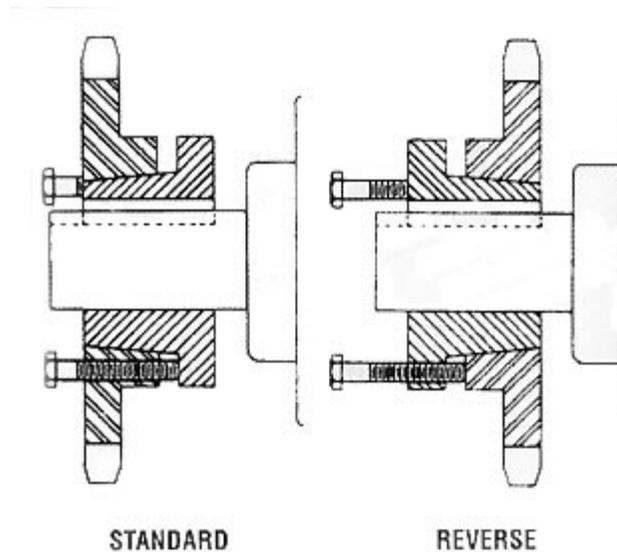
**Note:** The following information is based on instructions from a manufactures catalog. For further information refer to or ask for a manufactures catalog.

"Quick Detachable" bushings are easy to install and remove. They are split through flange and taper to provide a thru clamp on the shaft that is the equivalent of a shrink fit. All sizes except **JA** and **H** have a set screw over the key to help maintain the bushings position on the shaft until the cap screws are securely tightened.



## Installation

1. Be sure the tapered cone surfaces of the bushing and the inside of sprocket are clean.\*
2. Place bushing in sprocket, sheave, pulley or other QD parts. On **M** through **S** bushings, the mating part and bushing **MUST** be assembled so the two threaded holes in the mating part are located as far as possible from the saw-cut in the bushing.
3. Place cap screws and lock washers loosely in pull-up holes. Bushing remains fully expanded to assure sliding fit on shaft.
4. With key on shaft, slide sprocket to desired position on shaft. Be sure heads of cap screws are on outside.



- Align sprocket. Tighten screws alternately and progressively-until they are pulled up tight. To increase leverage, use wrench or length of pipe (see wrench torque chart below). Do not allow sprocket to be drawn in contact with flange of bushing; there should be a gap of 1/8 to 1/4 inch.

### Bushing Installation Torque

When a wrench or length of pipe is used to increase leverage in tightening bushing screws, it is imperative to adhere to the wrench torque values given in the chart below.

This adherence is important because, in mounting the bushing, the tightening force of the screw is multiplied many times by the wedging action of the tapered surface. This action compresses the bushing for a snug fit on the shaft. The bushing screws should always be tightened alternately and progressively.

### CAUTION

- Be sure cone surfaces are free of paint, grease and dirt.
- Tighten pull-up bolts alternately and evenly per bolt torque table.
- Never close gap between sheave or sprocket and flange of QD bushing.

### Wrench Torque Values For Tightening Bushings

QD Bushing Size	Size of Cap Screw	In. Lbs. to Apply With Torque Wrench	Proper Wrench Pull With Open End or Socket Wrench	
			Wrench Length	Wrench Pull in Lbs.
JA	10 – 24	60	4	15
SH, SDS, SD	1/4 – 20	108	4	27
SK	5/16 – 18	180	6	30
SF	3/8 – 16	360	6	60
E	1/2 – 13	720	12	60
F	9/16 – 12	900	12	75
J	5/8 – 11	1620	12	135
M	3/4 – 10	2700	15	180
N	7/8 – 9	3600	15	240
P	1 – 8	5400	18	300
W	1-1/8 – 7	7200	24	300

**\*Warning: Use of ANTI-SEIZE lubricant on tapered cone surfaces may result in damage to sheaves and sprockets and voids all warranties.**

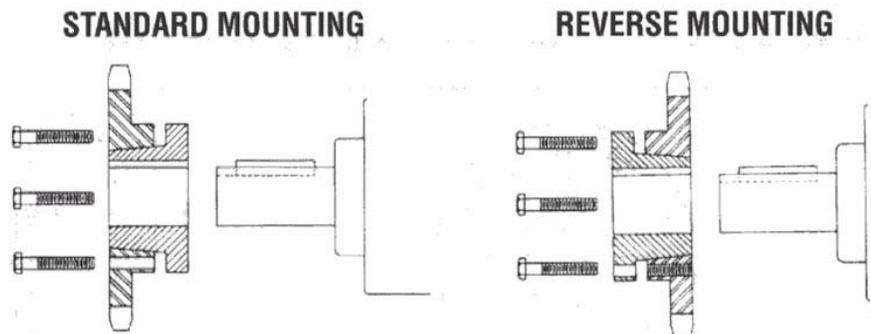
## Removal

1. Loosen and remove cap screws.
2. Insert cap screws in tapped removal holes.
3. Tighten inserted screws until sprocket is loose on shaft.
4. Remove sprocket, pulley, sheave from shaft.

**Caution:** When mounting screws, apply pressure by hand only. If extreme tightening forces are applied, bursting pressures will be created in the sprocket hub. There should be a gap of 1/8 to 1/4 inch between the face of the sprocket hub and the flange of the QD bushing. This **gap must not be closed**. If the gap is closed under normal tightening, the shaft is seriously undersized.

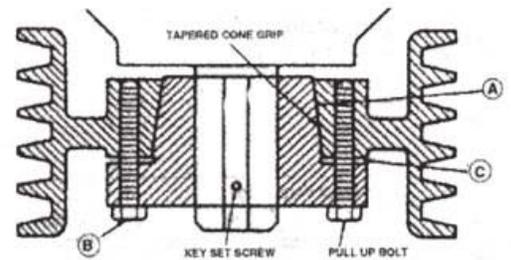
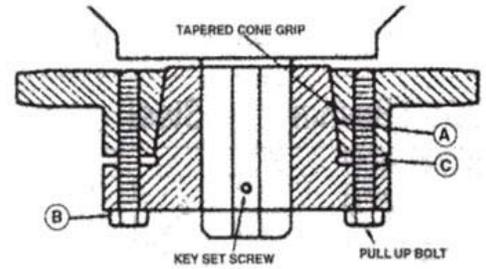
## **Reverse Mounting Assembly for QD Sheaves and Sprockets using JA, SH, SD, SDS, SK, SF, E, F, & J Bushings**

These bushings, as well as the sprockets and sheaves for them, are each drilled with six holes (three drilled and three tapped) to allow pull-up bolts to be inserted from either side. This enables variations of mounting characteristics to suit a particular installation.



## Mounting

1. Assemble sheave or sprocket with bolts inserted (but not tightened) through DRILLED holes in bushing flange into TAPPED holes in sheave or sprocket.
2. With key in shaft key seat, slide assembly into approximate position on shaft with flange end of bushing away from bearing.
3. Position QD bushing on shaft by tightening set screw over key "hand tight" with standard Allen wrench only. Do not use excessive force.
4. Tighten pull-up bolts alternately and evenly to tightness indicated in torque table above. Do not use extensions on wrench handles. There should be a gap between the face of the sheave or sprocket hub and the flange of the QD bushing to insure a satisfactory cone grip and press fit. **CAUTION: THIS GAP MUST NOT BE CLOSED!**



## Dismounting

1. Remove pull-up bolts and screw them into TAPPED holes in bushing flange and against hub of sheave or sprocket to break cone grip.
2. Loosen set screw in bushing flange and slide QD bushing from shaft.

