



INSTALLATION INSTRUCTIONS

FOR SOUND FIGHTER FAN™ PROPELLERS
EQUIPPED WITH SPLIT TAPER BUSHINGS

SECTION I:

GENERAL INFORMATION

1. AIRFOIL PROPELLER AND BUSHINGS

Sound Fighter Fans™ cast aluminum airfoil propellers are furnished with split taper lock bushings for mounting the propeller to the shaft. When properly positioned, the bushing grips the hub with a positive clamping action. The flange is bolted to the fan hub to secure the fan, and when the bolts are tightened, the tapered surface of the split bushing is compressed around the shaft.

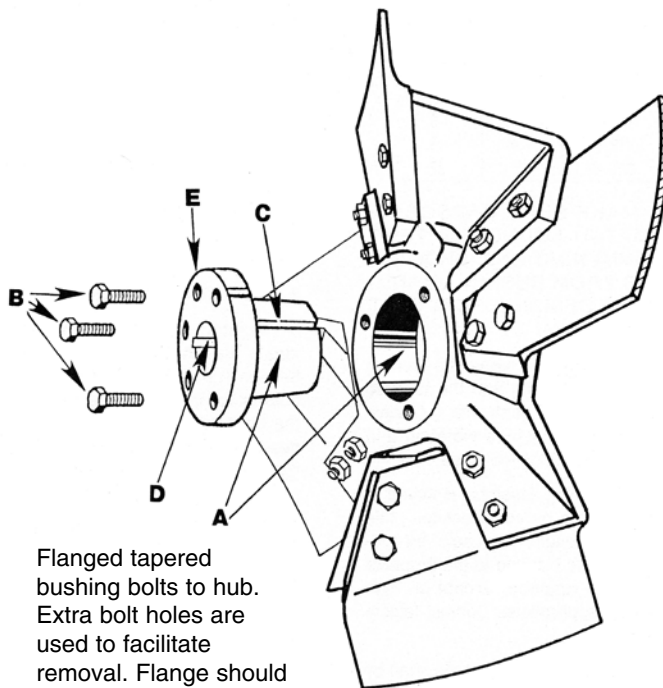
2. INSTALLING ASSEMBLY OF SHAFT

The first step in installing a tapered bushing is to thoroughly clean the shaft, the bore and exterior of the bushing, and the tapered bore of the component. Nicks, burrs, dirt, and chips should be removed, since they can cause a loss of concentricity and even gripping strength. The housing should be inserted into the hub with it's holes matched with the hub's holes. The cap-screws should be inserted in the holes that are threaded on the hub side. The propeller should then be mounted on the shaft, with the bushing in place, and the capscrews tightened to the torque values shown below.

3. NOTES ON CORRECT ASSEMBLY

- A. Bushing barrel and bore of propeller are tapered -this assures concentric mounting and a true running propeller.
- B. Capscrews, when tightened, lock bushing in propeller. Use capscrews threaded full length.

BUSHING NO.	DIAMETER	LENGTH	TORQUE (FT.LBS.)
H	1/4-20	1"	6
P	5/16-18	1-1/4"	13
Q	3/8-16	2"	2
SD	1/4-20	1"	6
SK	5/16-18	1-1/4"	13



Flanged tapered bushing bolts to hub. Extra bolt holes are used to facilitate removal. Flange should not be hammered.

CAUTION: MAKE SURE CAPSCREW LENGTHS MATCH TRIANGLE ENGINEERING'S RECOMMENDATIONS. SHORTER CAPSCREWS FROM BUSHING MANUFACTURER ARE DESIGNED FOR CAST IRON, NOT ALUMINUM.

- C. Bushing is split so that when the locking capscrews force the bushing into the tapered bore, the bushing grips the shaft with a positive clamping fit - this will withstand vibration and punishing loads without being loosened.
- D. Propeller and bushing assembly is keyed to shaft and held in place by compression - this gives added driving strength. The use of an optional key for securing the bushing to the propeller hub is generally not required, except on high speed, high torque applications. Contact factory for recommendations.
- E. Propeller is easily removed from the shaft by inserting and tightening two of the capscrews into the tapped holes in the bushing flange - this forces the bushing loose from the propeller and releases the compression so that the entire assembly will slide from the shaft.

SECTION II:

INSTALLATION OF BUSHING AND PROPELLER

1. INSERTING BUSHING

Insert bushing loosely into propeller. Do not press or drive. Start capscrews by hand, turning them just enough to engage threads in tapped holes on propeller. Do not use a wrench at this time. The bushing should be loose enough in the propeller to move slightly.

NOTE: DO NOT USE OIL, GREASE, OR ANTISEIZE COMPOUNDS ON BUSHING SURFACES OR HUB BORE.

2. PLACING ASSEMBLY ONTO SHAFT

Be sure shaft and keyway are clean and smooth. Check key size with both shaft and bushing keyway. Slide propeller and bushing assembly onto shaft, making allowance for end play of shaft to prevent rubbing. Do not force propeller and bushing onto shaft. If it does not go on easily, check shaft, bushing, and key sizes.

3. TORQUING CAPSCREWS

Tighten capscrews progressively with a torque wrench. Set torque value using guide in Section I;

Part 3 - B. Tighten capscrews using quarter to half turns at a time, moving around the bushing flange in the same direction until desired torque is reached. Torque should not exceed the values recommended by factory.

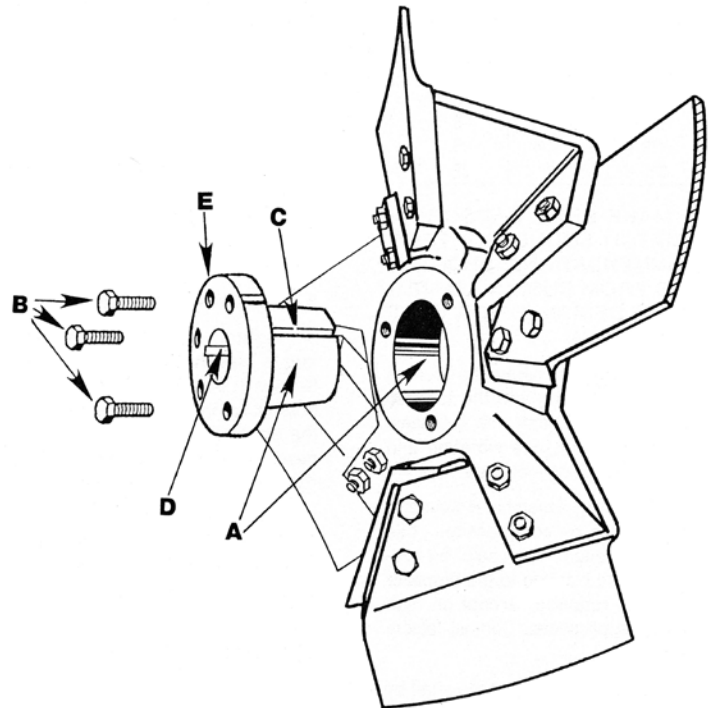
WARNING: DO NOT ATTEMPT TO PULL BUSHING FLANGE FLUSH WITH HUB END; THERE SHOULD BE A CLEARANCE GAP WHEN TIGHTENED TO SPECIFIED TORQUE.

SECTION III:

REMOVING PROPELLER ASSEMBLY FROM SHAFT

1. Remove all three capscrews from propeller and hub assembly.
2. Start two capscrews into threaded holes in the bushing flange.
3. Tighten each bolt part of a turn, in succession, to force the propeller off the bushing.
4. Remove the bushing from the shaft. If the assembly has been in place for some time it may be necessary to use a wheel puller to remove the bushing.

WARNING: NEVER USE A WHEEL PULLER TO REMOVE THE PROPELLER.



SOUND FIGHTER FANS™

TRIANGLE ENGINEERING OF ARKANSAS, INC.

1101 N. Redmond Rd., Jacksonville Arkansas 72076

www.trianglefans.com • 1-800-255-9014 • Fax (501) 982-5691