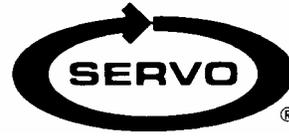


# DYNAMO FEED INSTALLATION

## Model D1000-2380 Knee Feed

Exacto, Maxmill, Do All and  
Supermax



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### PREPARATION

- Step 1:* Remove the drive clutch from the elevating jack shaft. (The clutch is push-fit on the shaft.)
- Step 2:* Remove the dial and nut.
- Step 3:* Remove the screws from the bearing retainer.
- Step 4:* Carefully pull the jack shaft out of the knee. **Hold inboard end up** while removing to avoid damage to the pinion gear.
- Step 5:* Hold the dial hub in soft jaws and unscrew.
- Step 6:* Remove the bearing retainer and press the bearing housing and bearing off the shaft.
- Step 7:* Drill and ream the end of the jack shaft .4375 diameter by 13/16" deep. The .4375 diameter must be concentric to the shaft o.d. within .002 TIR. Chamfer 1/32 x 1/2 diameter. **For best results, machining should be done in a lathe.**
- Step 8:* Drill 1/8 diameter through the shaft extension and pin the shaft extension with the 1/8 x 5/8 long roll pin. File smooth.
- Step 9:* Reassemble the jack shaft as before.
- Step 10:* Replace the jack shaft in the machine.

### POWER FEED INSTALLATION

- Step 1:* Slide the bearing race onto the jack shaft with the counterbored end against the bearing.
- Step 2:* Slide the feed unit over the bearing race and against the mill. Spot the mill feed mounting holes in the bearing retainer. Drill and tap 1/4-20 thread in two places.
- Step 3:* Secure the feed with 1/4-20 x 1" socket head cap screws provided.

## BEVEL GEAR INSTALLATION

*Step 1:* Install two of the thickest shim washers, then the bevel gear. Measure the gap between the back face of the gear and the front face of the power feed, as shown in Fig. A. of the INSTALLATION & OPERATION MANUAL. Add, remove or replace shims to obtain the .080/.085 in. (2.0 / 2.16 mm) dimension. Install the spacer, handcrank, and nut. Check that the dimension is still ok after the nut is tightened.

*Step 2:* With feed in neutral, turn hand crank. If it turns freely in one direction but catches in the other, the backlash is too large. Reduce the thickness of the shims. If rough engagement is heard or felt in BOTH directions you need additional shims.

## DIAL AND HANDWHEEL INSTALLATION

*Step 1:* After getting the proper backlash, the dial should be adjusted to obtain .005" spacing from the face of the power feed. This is important in order to keep chips from entering the gear train. Two plastic (.030" thick) and five brass (.005" thick) washers are provided for this. Shim as required.

*Step 2:* In the following sequence, put on the dial locking nut, replace key in the shaft (if removed), slide on the .140 thick spacer if required, install handwheel key, then slide handwheel in place. Add washer and locknut.

## LIMIT SWITCH INSTALLATION

Refer to the D-1000Z INSTALLATION & OPERATION MANUAL

**NOTE: MILLS HAVING COLUMNS WIDER THAN THE KNEE MAY NEED LONGER STANDOFFS AND SCREWS, OR DIFFERENT MOUNTING. DEPENDING ON WHICH SIDE OF THE KNEE THE SWITCH IS MOUNTED, THE SWITCH MAY HAVE TO BE TURNED OVER TO WORK CORRECTLY. TEST THE SWITCH STOPPING DIRECTION MANUALLY BEFORE MOUNTING.**

## OPERATION

See the INSTALLATION & OPERATION MANUAL WARNINGS

### **Check hand crank clearances before operation.**

Clearances between the surfaces of the hand crank and the non-moving parts of the equipment on which the hand crank is installed must be at least one-fourth inch (1/4") to prevent injury. Modification of existing hand crank or replacement may be required.

***Do not operate*** without proper clearance!

Prevent contact during fast traverses.

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