

DYNAMO FEED INSTALLATION

Model D1000-3780 Knee Feed

Alliant, Sharp First, and others



PREPARATION

- Step 1:* Remove the drive clutch from the elevating jack shaft. (Clutch is push-fit on shaft.)
- Step 2:* Remove the dial and nut.
- Step 3:* Remove the screws from the bearing retainer.
- Step 4:* Pull the jack shaft out of the knee (easy pull). **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 hole must be concentric to 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:* Place the shaft extension onto the jack shaft. Drill 1/8" diameter through the shaft and pin the extension with the 1/8 diameter x 5/8" long roll pin. File smooth.
- Step 9:* Reassemble the jack shaft.
- 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 ball bearing.
- Step 2:* Slide the power feed over the bearing race and against the bearing retainer.
- Step 3:* Spot the mounting holes in the bearing retainer. Drill and tap 1/4-20 thread in two places.
- Step 4:* Secure the feed with 1/4-20 x 1" long 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, place the key in the shaft extension, and slide the handwheel in place. Add the 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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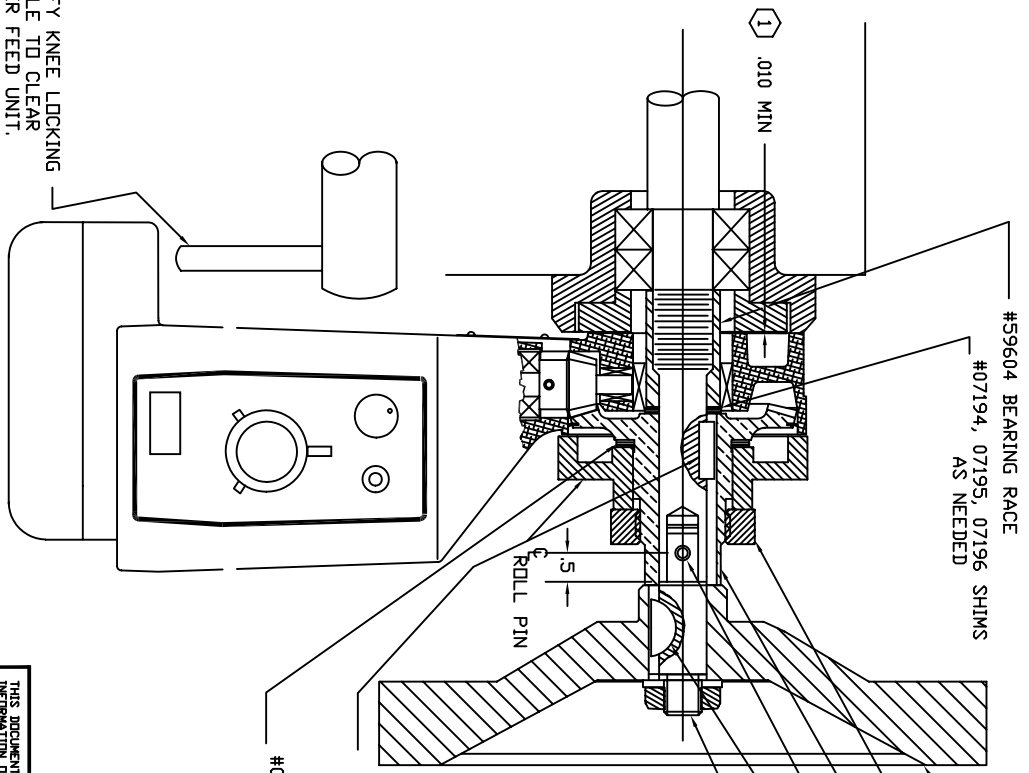
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REVISION		DATE	DRAWN	CHECKED
ECD	LTR			
DESCRIPTION				



MODIFY KNEE LOCKING HANDLE TO CLEAR POWER FEED UNIT.

- NOTES:
1. BEARING RETAINER MUST RECESS IN BOSS, MACHINE AS REQUIRED TO OBTAIN DIMENSION SHOWN.
 2. REVIEW ALL INSTALLATION INSTRUCTIONS AND POWER FEED OPERATION BEFORE TURNING ON POWER FEED.


UNLESS OTHERWISE SPECIFIED, FINISHES ARE TO BE WITHIN .01 FLATNESS TO BE WITHIN .01 CONCENTRICITY TO BE WITHIN .01 REMOVE SHARP EDGES AND CORNERS .005 MIN. DRAWING STANDARD PER ANSI Y14.3M-1992

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UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES & TOLERANCES ARE FRACTIONS. DECIMALS ARE IN 1/64 XX ± .005 ANGLES ± 1/2° MATERIAL NOTED FINISH NOTED

CONTRACT NO.	APPROVALS	DATE
	BIMA	7/08/09
	CHECKED	

APPLICATION	USED IN	DID NOT SCALE DRAWING
NEXT ASSY		


SERVOPRODUCTS COMPANY
 34940 LAKELAND BLVD, EASTLAKE, OH 44095
INSTALLATION DRAWING
 MODEL D1000-3780
 SIZE CODE IDENT NO. DRAWING NO. REV.
 B 0800-80986 NB-59617
 SCALE 5/8 SHEET DF