# DYNAMO FEED INSTALLATION Model M-5080 Knee Feed



# Acra 10x54, Victor 16VSK or VK

#### **PREPARATION**

- Step 1: Remove the drive clutch from the elevating jack shaft.
- Step 2: Remove the dial nut and dial carrier. Turn the dial carrier counter clockwise to remove.
- **Step 3**: Slide the bearing race onto the jack shaft.
- Step 4: Slide the bearing retainer #57904 over the bearing race and rotate it such that the power feed unit can be mounted vertically.
- Step 5: Transfer three mounting holes onto the bearing retainer.
- Step 6: Remove the adaptor, bearing race and bearing retainer. Then tap 1/4-20 threads through the retainer.
- Step 7: Pull the jack shaft out of the knee. *Hold inboard end up* while removing to avoid damage to the pinion gear.
- Step 8: Press the bearing off the jack shaft.
- Step 9: 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 10: Place the shaft extension into the end of the jack shaft. Drill 3/16 diameter through the shaft and pin the extension with the 3/16 x 5/8 roll pin. File smooth.
- Step 11: Reassemble the jack shaft.
- Step 12: Replace the jack shaft in the machine.
- Step 13: Replace the bearing retainer.

#### POWER FEED INSTALLATION

- Step 1: Slide the spacer #6740 onto the jack shaft followed by the bearing race #1178.
- Step 2: Add the adaptor #3214 and secure using the three cap screws supplied. Remove the bearing race.
- Step 3: Add the spacer #6811 followed by the bearing race.
- Step 4: With the spacer and bearing race in place, slide the power feed and secure 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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