POWER FEED INSTALLATION
Model M-9522 Cross Feed
Servo Mills SV50 & SV54

REFERENCE DRAWINGS ENCLOSED
NA-5444 Bevel Gear Installation
NB-1538 Limit Switch Installation
NB-58632 Power Feed Installation
ND-6293 Type 150 Servo Power Feed
ND-6292 Type 140 Servo Power Feed
0800-80001 Servo Power Feed Operation

PREPARATION

Step 1: Gather together the following items that you will need to complete this installation.
   a) 3/8" electric hand drill
   b) #7 drill, 1/8" drill, 9/32" drill
   c) 1/4-20 tap
   d) 9/32" diameter transfer punch
   e) flat file
   f) 3/4" socket wrench
   g) set of inch hex wrenches
   h) grease
   i) masking tape
   j) clean shop rag

Step 2: Clean the power feed mounting area completely.

Step 3: Remove the nut, handle, and dial assembly from the front end of the cross. Keep the dial for reuse later.

MOUNTING HARDWARE INSTALLATION

Step 1: Slip the bearing race #0334 onto the lead screw shaft.

Step 2: Slip the power feed unit over the bearing race and position against the front of the knee.

Step 3: Select two of the eight mounting holes on the unit such that it can be mounted vertically and rigidly. Using a 9/32" diameter transfer punch, transfer the mounting holes to the bearing retainer.

Step 4: Remove the unit and the bearing race. Mask the bearing in the bearing housing. Drill #7 through the bearing retainer and 1" into the bearing housing. Remove the bearing retainer to open its holes to .281" diameter clearance holes. Tap 1/4-20 UNC threads by 1/2" deep into the bearing housing.
**Step 5:** Lubricate the shaft with a light coat of grease. Slip the spacer #6811 followed by the bearing race onto the shaft.

**SHAFT EXTENSION AND POWER FEED INSTALLATION**

**Step 1:** Screw on the shaft extension #57226 onto the lead screw and tighten.

**Step 2:** Following the existing pilot hole, drill through the shaft extension using a 1/8” diameter drill.

**Step 3:** Support the other side of the hole and hammer in the #00594 roll pin. File smooth and clean thoroughly.

**Step 4:** Slide spacer #6852 and the Power Feed onto the bearing race and push against the front of the bearing housing. Secure with two 1/4-20 x 2” long socket head cap screws.

*IF:* If the bearing race is not flush with the needle bearing in the unit within ±.05”, then either shim behind the race or machine the spacer to correctly locate the race.

**BEVEL GEAR INSTALLATION**

**Step 1:** Follow the drawing NA-5444 for installation of the bevel gear. Adjust for proper gear backlash.

**DIAL AND HANDWHEEL INSTALLATION**

**Step 1:** After getting the proper gear 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. Three plastic (.030” thick) and five brass (.005” thick) washers are provided for this. Shim as required.

**Step 2:** In the following sequence, install the key, spacer #6811, dial and dial nut #2255. Slide the handwheel #58923 and washer #05570 in place and tighten with 1/2-20 locknut #01115.

**LIMIT SWITCH INSTALLATION**

Install the limit switch as shown on drawing NB-1538 enclosed.

**OPERATION**

See separate *Servo Power Feed Operation* sheet. Plug the unit into a source of 120 volt, 50 or 60 cycle power.

Please read **WARNINGS** on the following page.
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.
**STEP 1** PREPARATION

**STEP 2** SHIMMING BEVEL GEAR

ADD SHIMS PROVIDED
1/32 THICK ARE SOLID
1/64 THICK ARE LAMINATED
0.002/LAMINATION

INSTALL HANDCRANK.

MARK HOUSING AND BEVEL GEAR WITH PENCIL TO CHECK BACKLASH.

0.015/0.025 (THIS IS NOT THE READING ON THE DIAL)

ROTATE GEAR FROM SIDE TO SIDE. REMOVE OR ADD SHIMS AS REQUIRED TO OBTAIN 0.015/.025 BACKLASH.

PUSH BEVEL GEAR AGAINST SHIMS.

TIGHTEN NUT.

**CAUTION:** IF BACKLASH IS NOT PROPERLY SET BEFORE TURNING UNIT ON, BEVEL GEAR MAY BE DESTROYED.

**STEP 3** DOUBLE CHECK OF SHIMMING

LOSEN SETSCREW

WITH POWER FEED IN NEUTRAL POSITION, TURN HANDCRANK IF EXCESSIVE GEAR NOISE OR BINDING OCCURS, SHIMS NEED TO BE ADDED. WHEN ADDING SHIMS, REPEAT STEPS 1 AND 2.

**STEP 4** LUBRICATION

INSTALL KEY

SEAL

REMOVE GEAR, PACK WITH GREASE. DO NOT USE SILICONE TYPE GREASE. REPLACE GEAR. DO NOT LOSE ANY SHIMS.

PICTURES IN THIS DRAWING ARE FOR REFERENCE ONLY. SEE INSTALLATION DRAWING OF CORRESPONDING MODEL FOR EXACT PARTS CONFIGURATION.

SERVO PRODUCTS COMPANY

BEVEL GEAR INSTALLATION

NA-5444 C

FORM 0800-80002 7/25/95
NOTES:

1. Read all installation instructions and power off before attempting.

2. Section view, SA50

3. #1155 #10-24 x 1/2" B.W.G.

4. #1160 #10-24 x 1/2" B.W.G.

5. Rear section view, SA50

6. #1161 #10-24 x 1/2" B.W.G.

7. #1926 stop ring

8. #6550 bracket

9. #6570 6/16-18 x 3/4" S.H.C.S.

TABLE

DESIGNATION

REV 1

DATE 01/11/16

SCALE 1/2" = 1'0"