POWER FEED INSTALLATION
Model M-3000 Table Feed
Yen-Fu, Jet Y

REFERENCE DRAWINGS ENCLOSED
- NA-5444 Bevel Gear Installation
- NB-4116 Power Feed Installation
- ND-6293 Type 150 Servo Drive
- ND-6292 Type 140 Servo Drive
- 0800-80001 Servo Power Feed Operation

PREPARATION

Step 1: Move the table to the extreme left-hand position.

Step 2: Remove the nut, handle, and dial assembly from the right-hand end of the table.

Step 3: Remove the four cap screws from the bearing housing. Save the screws for installation later.

Step 4: Using a soft hammer, tap the bearing housing off. Clean the end surface of the table.

POWER FEED INSTALLATION

Step 1: Slide the bearing race #3546 onto the lead screw.

Step 2: Slide the adaptor #0239-4 and feed onto the bearing race.

Step 3: Secure the assembly to the end of the table with the saved cap screws.

BEVEL GEAR INSTALLATION

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

DIAL AND HANDCRANK 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: Secure the dial using the dial nut. Slide the handwheel in place and tighten with the 1/2-20 lock nut.

LIMIT SWITCH INSTALLATION

Step 1: Remove the standard table stop pieces and install the table stop pieces furnished. Put the standard stops back in a position to prevent feed stops from being set beyond extreme table travel.

Step 2: Remove the two cap screws holding the T-shaped table stop bracket.
**Step 3:** Place the short spacers into the counterbored holes in the T-stop. Place the limit switch assembly on the spacers and install using the two 3/8-16 x 1" socket head cap screws.

**Step 4:** The T-stop is retained to act as a positive stop where required for manual operation.

☐ **NOTE**  *For proper operation, the electrical limit switch should be engaged .4 inch before the mechanical stop to allow for coasting of the table. The T-stops are often not symmetrical and may need to be ground to obtain proper operation.*

**Step 5:** Put the cable clamp on the cable and secure to the right-hand chip scraper screw.

**OPERATION**

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

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**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

KEY IS REMOVED DURING SHIMMING

TIGHTEN SLIGHTLY (HOLDS BEVEL PINION STATIONARY DURING SHIMMING)

STEP 2
SHIMMING BEVEL GEAR

ADD SHIMS PROVIDED
1/32 THICK ARE SOLID
1/64 THICK ARE LAMINATED .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

LOosen 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

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.

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BEVEL GEAR INSTALLATION

NA-5444 C
Operation before turning on servo power feed.
1. Review all installation instructions and power feed.

NOTE:
INSTALLATION LIMIT SWITCH

#0271 L/S SPACER
#0272 BRACKET L/S

#01252 SHIM WASHER D/L
#01251 SHIM WASHER D/L

#0112 3/4 BEVEL GEAR
#0247 STOP NOT
#4434 3/4 BEVEL GEAR

#00069 5/16-24 x 2 HEX HD CAP SC
#00069 5/16-24 x 2 HEX HD CAP SC
#2255 DIAL NUT

#1388 BEVEL GEAR SEAL
#0599-32 SOLID SHIMS
#0599-16L LAMINATED SHIMS

#3546 BEARING RACE

#0233-4 ADAPTOR