POWER FEED INSTALLATION
Model M-5300 Table Feed
Topwell Mill

REFERENCE DRAWINGS ENCLOSED
- NA-5444 Bevel Gear Installation
- NB-6348 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.

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

Step 3: Remove the four cap screws holding the bearing housing in place.

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

POWER FEED INSTALLATION

Step 1: With the table in the extreme left-hand position, install the adapter with the four cap screws.

NOTE On some machines the drive pin holes do not line up with the adapter. Remove and discard the pins in such cases. The four cap screws are all that is necessary.

Step 2: Slide the bearing spacer, then the bearing race onto the lead screw.

Step 3: Slide the power feed onto the bearing race and push flush to the end of the adaptor.

NOTE Depending on the lead screw, the bearing race spacer might require to be shortened approximately 5/32 in order to get proper shimming of the bevel gear.

Step 4: Secure the feed with two 1/4-20 x 1" long socket head 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. Four washers are provided for this, two solid and two laminated. Shim as required.

Step 2: In the following sequence, replace the dial and dial locking nut, slide the handle in place, and tighten with the locking 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. Using the same screws install, the limit switch as shown on drawing ND-6348.

Step 3: 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 4: 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.

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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**STEP 1**
PREPARATION

**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 0.015/0.025 BACKLASH.

PUSH BEVEL GEAR AGAINST SHIMS.

TIGHTEN NUT.

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

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 3**
DOUBLE CHECK OF SHIMMING

**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.

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BEVEL GEAR INSTALLATION

NA-5444 C
NOTE

INSTALLATION LIMIT SWITCH

1. Review all installation instructions and power feed operation.

NOTE:

INSTALLATION LIMIT SWITCH

6 AS TRAVEL STOP.
Plunger will be on same
place, screw holes may
have to be filed. Slotted
screws.

Remove exact slot.

#3199 BRACKET-LIMIT SWITCH

SOH. HD. CAP SC.

#0634 5/16-24 X 1-1/2

#0115 1/2-20 NUT

#0247 TABLE STOP NUT

#0684 LIMIT STOP