POWER FEED INSTALLATION
Model M-3900 Table Feed
Clausing Kondia FV-300, Kondia SM1 & 2, Hurco SM2

REFERENCE DRAWINGS ENCLOSED
NA-5444  Bevel Gear Installation
NB-5513  Power Feed Installation
ND-1481  Safety Handle Model 620
ND-6293  Type 150 Servo Drive
0800-80001  Servo Power Feed Installation

PREPARATION

Step 1: Remove the nut, handwheel, dial, dial hub, key and M6 screws from the bearing retainer.

Step 2: Screw the shaft extension to the lead screw and tighten.

Step 3: Using the hole provided as a pilot, drill 1/8 diameter hole through and pin the shaft extension in place using 1/8 x 5/8 long roll pin. File smooth.

POWER FEED INSTALLATION

Step 1: Attach the adaptor to the bearing retainer using four M6 x 30 mm screws.

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

Step 3: Mount the power feed to the adaptor using two 1/4-20 x 1” 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 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 to keep chips from entering the gear train. Four washers are provided for this, two solid and two laminated. Shim as required.

Step 2: Put on the dial locking nut.

SAFETY HANDLE INSTALLATION

Step 1: Follow drawing ND-1481 for the installation of the safety handle kit.

IF: If the Kondia mill SM1 is supplied without the M-620 safety handle, install a balanced crankhandle using the 6 mm x 7.5 mm woodruff key.
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:** Install the limit switch as shown on drawing ND-5513.

**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 using 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

**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.**

**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 HANDICRANK. 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 REFEENCE ONLY. SEE INSTALLATION DRAWING OF CORRESPONDING MODEL FOR EXACT PARTS CONFIGURATION.**

**SERVO PRODUCTS COMPANY**

**BEVEL GEAR INSTALLATION**

**NA-5444 C**
MODEL 620
INSTALLATION DRAWING
SAFETY HANDLE  "SH" KIT

NOTE: BRIDGEPORT MILL SHOWN.
TYPICAL FOR CUTTER END OR TABLE ROLLER ONLY WITH STEER POWER FEED.

SAFETY HANDLE INSTALLATION

NUT
01111 1/2-20 UNC

01119 WASHER 1/2 SAE

1498 ASSY-SAFETY HANDLE

01109 WASHER 1/2 SAE

1498 SPRING

1498 ASSY-SAFETY HANDLE KIT

BOLT CLEAR A POWER FEED UNITS

1498 ASSY-SAFETY HANDLE

1498 SPRING

01119 WASHER 1/2 SAE

01115 1/2-20 LOCK NUT

DESCRIPTION
REV
ECO
LINE
DRAWN
CHECKED
DATE
REVISION

c/1 3 4