POWER FEED INSTALLATION
Model M-3550 Cross Feed
Clausing M-400EVS, 450EVS & 500EVS

REFERENCE DRAWINGS ENCLOSED
NA-5444 Bevel Gear Installation
NB-1538 Limit Switch Installation
NB-59373 Power Feed Installation
ND-6292 Type 140 Servo Power Feed
ND-6293 Type 150 Servo Power Feed
0800-80001 Servo Power Feed Operation

PREPARATION
Step 1: Clean the power feed mounting area completely

Step 2: Move saddle to front of mill.

Step 3: Remove the nut, handle and dial from the mill.

MOUNTING INSTALLATION:
Step 1: Slide 0470 bearing race into 59370 adaptor

Step 2: Slide bearing race and adaptor onto lead screw and position adaptor such that the power feed can be mounted vertically. **NOTE: THE BEARING RACE WILL ALLOW CORRECT CENTERING OF ADAPTOR.**

Step 3: Using a transfer punch spot 3 places in bearing housing. Remove adaptor and bearing race

Step 4: Drill and tap (#7 drill) 1/4-20 3 places min. 5/8” deep.

Step 5: Install adaptor using 01072 1/4-20 X 1-1/4 S.H.C.S. 3 places

Step 6: Slide 04743 spacers (2) onto lead screw, slide 0470 bearing race onto lead screw.

Step 7: Screw 59371-shaft extension to lead screw. Using pilot hole drill 1/8 dia. thru and secure using 00594-roll pin. File smooth and clean.

Step 8: Slide power feed onto bearing race and secure using 00586 1/4-20 X 1.00 S.H.C.S. 2 places.
NOTE:
If bearing race is not flush with the needle bearing within +/- 0.005”, then either shim behind the bearing race or machine spacer to locate bearing race.

Step 9: Modify 3 mm key approx. .50”

BEVEL GEAR INSTALLATION:
Step 1: Follow the drawing NA-5444 for installation and backlash of bevel gear.

DIAL AND HANDWHEEL INSTALLATION:
Step 1: Shim dial using 01251 and 01252 shim washers approximately .005” from face of power feed.

Step 2: Install 07177 key washer, 59327 3mm key, existing washer and tighten with 01115 1/2-20 locknut.

LIMIT SWITCH INSTALLATION:
Install limit switch as shown on drawing NB-1538

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.
STEP 1  PREPARATION

KEY IS REMOVED DURING SHIMMING

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.

.015/.025 (THIS IS NOT THE READING ON THE DIAL)

ROTATE GEAR FROM SIDE TO SIDE.
REMOVE OR ADD SHIMS AS REQUIRED TO OBTAIN .015/.025 BACKLASH.

PUSH BEVEL GEAR AGAINST SHIMS.

PRINT SOUND IN THE GEAR.

TIGHTEN NUT.

STEP 3  DOUBLE CHECK OF SHIMMING

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

LOosen SETSCREW

STEP 4  LUBRICATION

INSTALL KEY

REMOVE GEAR, PACK WITH GREASE.
.DO NOT USE SILICONE TYPE GREASE.
.REPLACE GEAR.
.DO NOT Loose 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
NOTES:
1. CROSS TRAVEL STOP ASSEMBLY MAY BE MOUNTED ON EITHER SIDE OF KNEE.
2. WHEN MILL HAS MEASURING ATTACHMENT, MOUNT LIMIT SWITCH, STOPS & TRACK ON OPPOSITE SIDE.
3. REFERENCE DRAWING ONLY. INSTALLATION SHOWN IS A BRIDGEPORT MILL.
4. TRIP RAIL IS DESIGNED FOR 16" CROSS TRAVEL. IT CAN BE MODIFIED FOR 12" CROSS TRAVEL (SEE DETAIL A).

DETAIL A
MODIFICATION FOR 12" CROSS TRAVEL

REMOVE