POWER FEED INSTALLATION
Model M-4350 Cross Feed
Sharp HMV

REFERENCE DRAWINGS ENCLOSED
NA-5444        Bevel Gear Installation
NB-5617        Power Feed Installation
ND-6293        Type 150 Servo Drive
ND-6292        Type 140 Servo Drive
0800-80001     Servo Power Feed Operation

PREPARATION

Step 1: Remove the nut, handcrank, dial, dial hub, and key from the lead screw.

Step 2: Slide the bearing race onto the shaft.

Step 3: Slide the adaptor onto the lead screw and over the bearing race.

Step 4: Transfer the mounting holes from the adaptor to the bearing housing. Drill and tap 1/4-20 by 3/4" deep. (Avoid contaminating the bearing.)

Step 5: Remove and clean all parts thoroughly and lubricate with grease.

Step 6: Slide the bearing race onto the lead screw. Then slide the adaptor over the race and secure to the bearing housing with the 1/4-20 by 1.0" long socket head cap screws.

Step 7: Remove the bearing race.

POWER FEED INSTALLATION

Step 1: Screw the shaft extension onto the lead screw and tighten.

Step 2: Using the hole provided as a pilot, drill 1/8" diameter through the lead screw and pin the shaft extension in place using the 1/8 diameter x 5/8" long roll pin. File smooth.

Step 3: Slide the spacer and bearing race onto the lead screw.

Step 4: Secure the power feed to the adaptor using the 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. Two plastic (.030" thick) and five brass (.005" thick) washers are provided for this. Shim as required.

Step 2: In the following sequence, put on the dial locking nut and insert the woodruff key. Slide the Sharp handcrank in place. Secure with the 1/2-20 lock nut.

LIMIT SWITCH INSTALLATION

Step 1: See the limit switch installation on drawing ND-5617.

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.
KEY IS REMOVED DURING SHIMMING

TIGHTEN SLIGHTLY (HOLDS BEVEL PINION STATIONARY DURING SHIMMING)

STEP 1
PREPARATION

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
(THESE ARE NOT THE READINGS ON THE DIAL)

ROTATE GEAR FROM SIDE TO SIDE. REMOVE OR ADD SHIMS AS REQUIRED TO OBTAIN 0.015/0.025 BACKLASH.

STEP 2
SHIMMING BEVEL GEAR

PUSH BEVEL GEAR AGAINST SHIMS.

TIGHTEN NUT.

CAUTION: IF BACKLASH IS NOT PROPERLY SET BEFORE TURNING 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

CONTROL HANDLE @ NEUTRAL POSITION

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 FOR CORRESPONDING MODEL FOR EXACT PARTS CONFIGURATION.

STEP 4
LUBRICATION

INSTALL KEY

SEAL

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BEVEL GEAR INSTALLATION

NA-5444 C
OPERATIONS BEFORE TURNING ON SERVO POWER FIELD.

NOTES: 1. REVIEW ALL INSTALLATION INSTRUCTIONS AND POWER FEED.