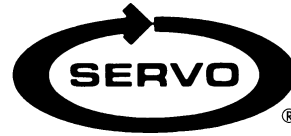


# POWER FEED INSTALLATION

## 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

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#### 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!

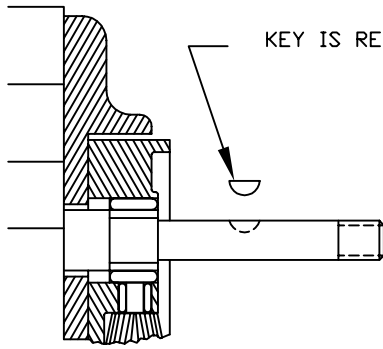
Prevent contact during fast traverses.

## SERVO PRODUCTS COMPANY

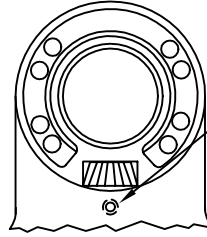
433 North Fair Oaks Avenue, Pasadena, CA 91103 USA  
Phone: 800.521.7359 or 626.796.2460 Fax: 626.796.3845

Web: [www.servoproductsco.com](http://www.servoproductsco.com)

Call for the location of our regional Service Centers.

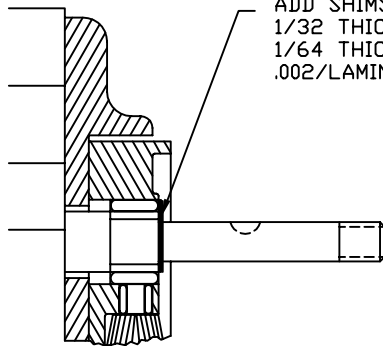


KEY IS REMOVED DURING SHIMMING

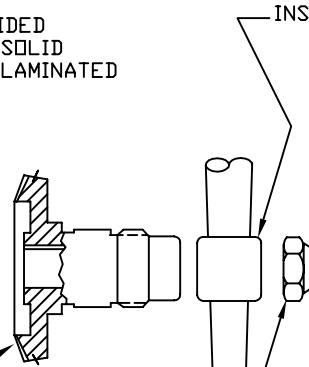


TIGHTEN SLIGHTLY (HOLDS BEVEL PINION STATIONARY DURING SHIMMING.)

STEP 1  
PREPARATION



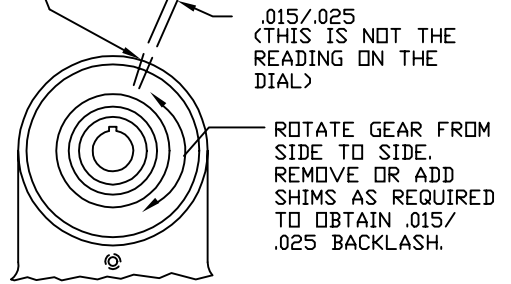
ADD SHIMS PROVIDED  
1/32 THICK ARE SOLID  
1/64 THICK ARE LAMINATED  
.002/LAMINATION



PUSH BEVEL GEAR AGAINST SHIMS.

INSTALL HANDCRANK.

MARK HOUSING AND BEVEL GEAR WITH PENCIL TO CHECK BACKLASH.



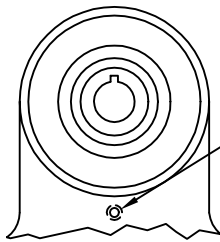
.015/.025  
(THIS IS NOT THE READING ON THE DIAL)

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

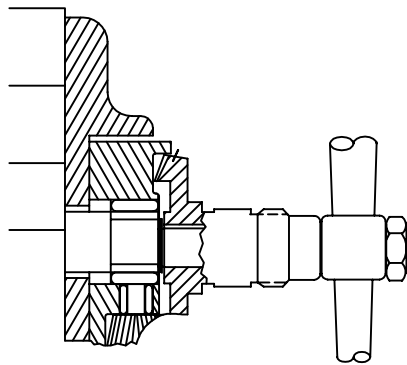
STEP 2  
SHIMMING BEVEL GEAR

TIGHTEN NUT.

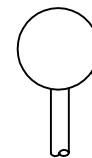
**CAUTION:** IF BACKLASH IS NOT PROPERLY SET BEFORE TURNING UNIT ON, BEVEL GEAR MAY BE DESTROYED.



LOOSEN SETSCREW

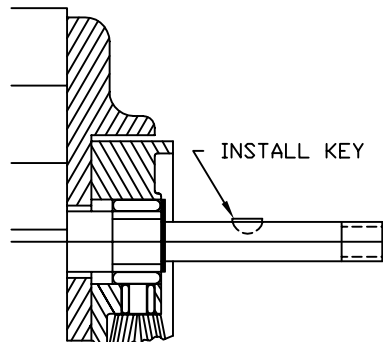


WITH POWER FEED IN NEUTRAL POSITION, TURN HANDCRANK. IF EXCESSIVE GEAR NOISE OR BINDING OCCURS, SHIMS NEED TO BE ADDED. WHEN ADDING SHIMS, REPEAT STEPS 1 AND 2.

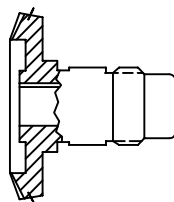


CONTROL HANDLE @ NEUTRAL POSITION

STEP 3  
DOUBLE CHECK OF SHIMMING



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.

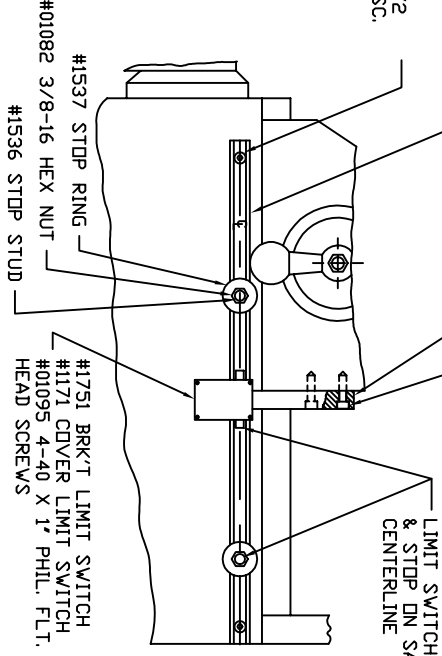
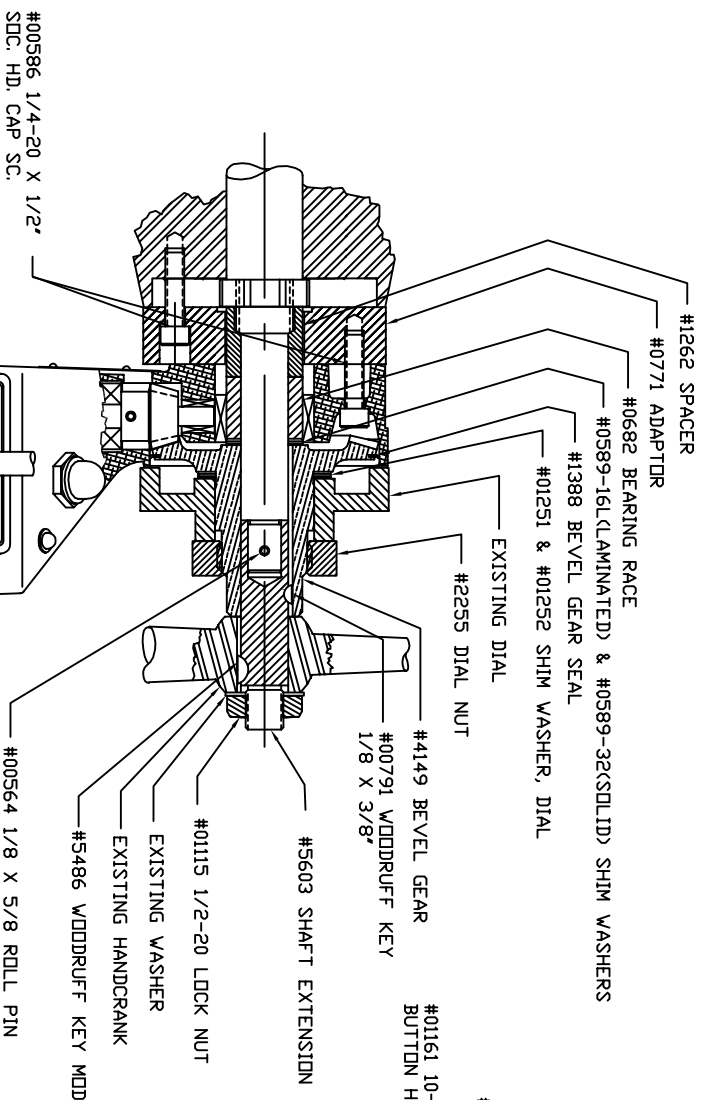
SERVO PRODUCTS COMPANY

BEVEL GEAR INSTALLATION

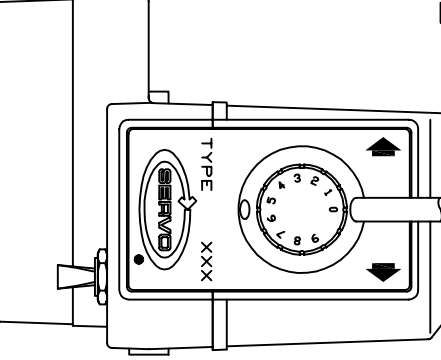
NA-5444 C

STEP 4  
LUBRICATION

REVISION		DATE	DRAWN	CHECKED
ECD	LTR	DESCRIPTION		



NOTES: 1. REVIEW ALL INSTALLATION INSTRUCTIONS AND POWER FEED OPERATIONS BEFORE TURNING ON SERVO POWER FEED.



UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE TO BE WITHIN OF FLATNESS TO BE WITHIN OF CONCENTRICITY TO BE WITHIN OF RECEIVE SHARP EDGES AND CORNERS JOBS MIN. DRIFTING STANDARD PER ANSI Y14.3M-1982

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UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES & TOLERANCES ARE IN INCHES FRACTIONS DECIMALS ANGLES ± 1/64 ± .005 ± .005 ± 1/2°

CONTRACT NO.	APPROVALS	DATE
	DRAWN G. BUINN	7/18/95
	CHECKED	

COMPUTER NO.	SCALE
NB5617C.DWG	SCALE 5/8

SERVO PRODUCTS COMPANY  
 433 N. FAIR DAMS AVE., PASADENA CALIFORNIA 9103  
**INSTALLATION DRAWING**  
 SHARP HMV  
 MODEL 4350  
 SIZE CODE IDENT. NO. DRAWING NO.  
 B 0800-80115 NB-5617  
 SCALE 5/8 SHEET 1 OF 1