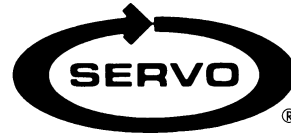


# POWER FEED INSTALLATION

## Model M-9517 Cross Feed

### Chevalier Mill



#### REFERENCE DRAWINGS ENCLOSED

NA-5444	Bevel Gear Installation
NB-57511	Power Feed Installation
NB-1538	Limit Switch Installation
ND-6293	Type 150 Servo Power Feed
ND-6292	Type 140 Servo Power Feed
0800-80001	Servo Power Feed Operation

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#### POWER FEED INSTALLATION

- Step 1:* Remove the nut, handcrank, dial, dial hub, and key from the lead screw. Save the key for installation later.
- Step 2:* Slide the bearing race #0682 onto the lead screw shaft.
- Step 3:* Slide the adaptor #57237 over the bearing race in order to center it with the shaft.
- Step 4:* Transfer three mounting holes on the adaptor onto the bearing housing. Drill and tap 1/4-20 through. Secure the adaptor with 1/4-20 x 1-1/2" long socket head cap screws provided.
- Step 5:* Remove the bearing race. Slide the spacer #2253 onto the shaft. Replace the bearing race.
- Step 6:* Install the power feed to the adaptor using two 1/4-20 x 1" long socket head cap screws.
- Step 7:* Screw the shaft extension #57226 onto the lead screw and tighten.
- Step 8:* Using the hole provided as a pilot, drill a 1/8" diameter hole through the shaft. Pin the shaft extension to the lead screw with the 1/8 diameter x 5/8" long roll pin. File smooth.

#### 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:* Put on the dial locking nut, insert the key, and slide the handcrank in place. Secure with the 1/2-20 lock nut provided.

## LIMIT SWITCH INSTALLATION

*Step 1:* Install the limit switch as shown on installation 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!

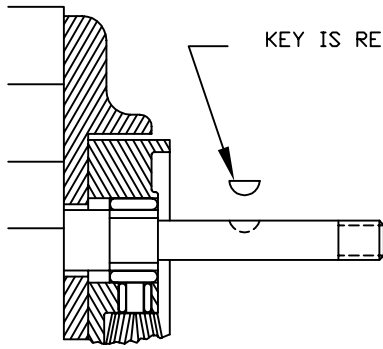
Prevent contact during fast traverses.

### **SERVO PRODUCTS COMPANY**

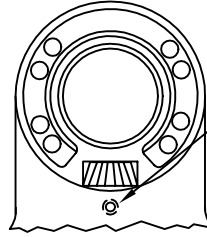
433 North Fair Oaks Avenue, Pasadena, CA 91103 USA  
Phone: 800.521.7359 or 626.796.2460 Fax: 626.796.3845

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

Call for the location of our regional Service Centers.

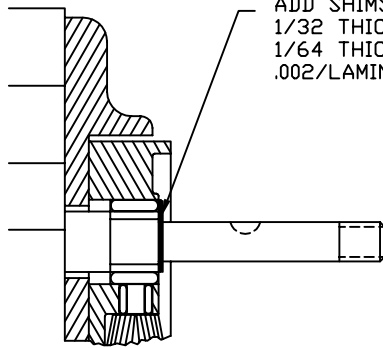


KEY IS REMOVED DURING SHIMMING

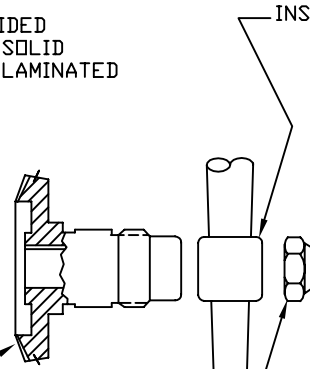


TIGHTEN SLIGHTLY (HOLDS BEVEL PINION STATIONARY DURING SHIMMING.)

STEP 1  
PREPARATION



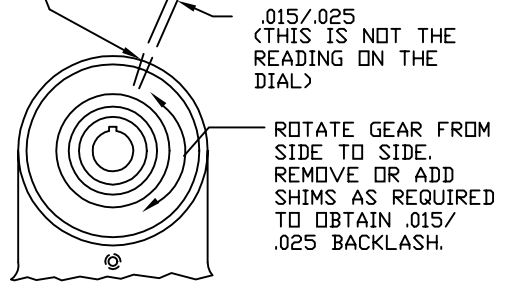
ADD SHIMS PROVIDED  
1/32 THICK ARE SOLID  
1/64 THICK ARE LAMINATED  
.002/LAMINATION



PUSH BEVEL GEAR AGAINST SHIMS.

INSTALL HANDCRANK.

MARK HOUSING AND BEVEL GEAR WITH PENCIL TO CHECK BACKLASH.



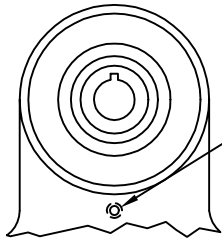
.015/.025  
(THIS IS NOT THE READING ON THE DIAL)

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

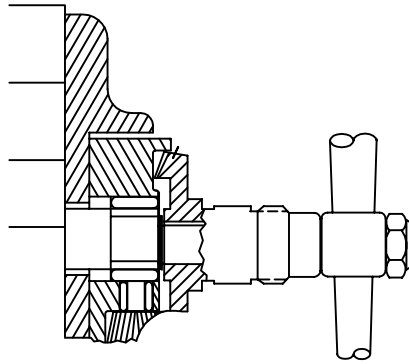
STEP 2  
SHIMMING BEVEL GEAR

TIGHTEN NUT.

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



LOOSEN SETSCREW

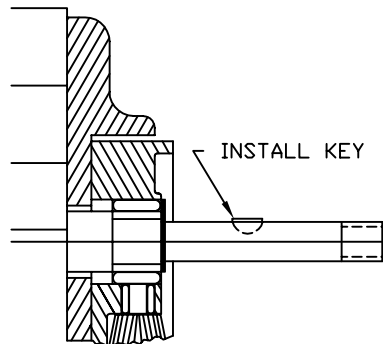


WITH POWER FEED IN NEUTRAL POSITION, TURN HANDCRANK. IF EXCESSIVE GEAR NOISE OR BINDING OCCURS, SHIMS NEED TO BE ADDED. WHEN ADDING SHIMS, REPEAT STEPS 1 AND 2.

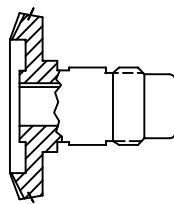


CONTROL HANDLE @ NEUTRAL POSITION

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)

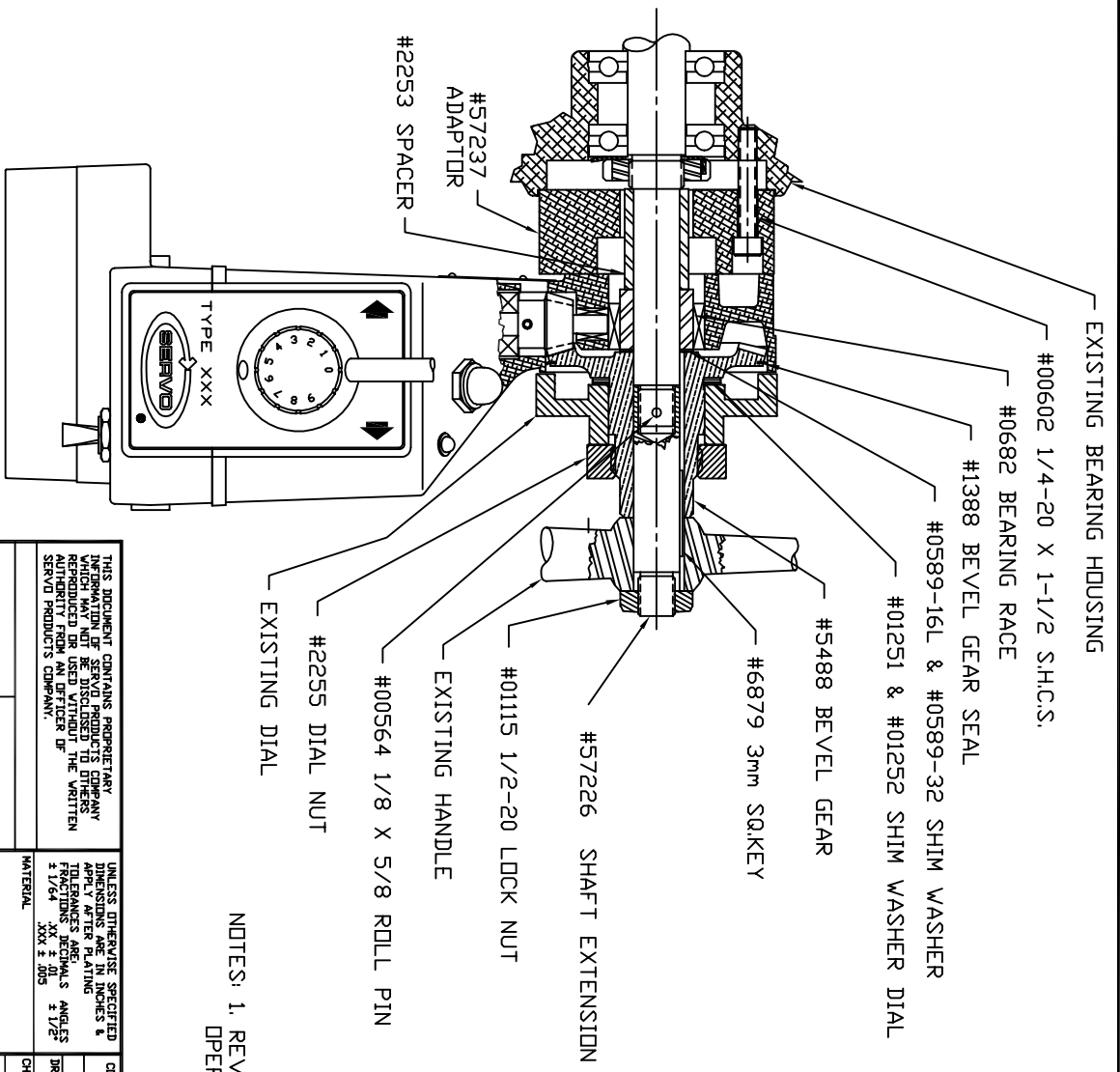
PICTURES IN THIS DRAWING ARE FOR REFERENCE ONLY. SEE INSTALLATION DRAWING OF CORRESPONDING MODEL FOR EXACT PARTS CONFIGURATION.

SERVO PRODUCTS COMPANY

BEVEL GEAR INSTALLATION

NA-5444 C

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 IN INCHES & TOLERANCES ARE AS FOLLOWS: FRACTIONS: DECIMALS: ANGLES: ± 1/64" ± .005" ± .015" ± 1/2°

UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE WITHIN 0.1 FLATNESS TO BE WITHIN 0.1 CONCENTRICITY TO BE WITHIN 0.1 REMOVE SHARP EDGES AND CORNERS .005 MIN. DRAWING STANDARD PER ANSI Y14.5M-1992

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UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES & TOLERANCES ARE AS FOLLOWS: FRACTIONS: DECIMALS: ANGLES: ± 1/64" ± .005" ± .015" ± 1/2°	CONTRACT NO.	APPROVALS	DATE
FINISH	DRAWN T. KU		12/15/92
MATERIAL	CHECKED		

APPLICATION	USED IN	DID NOT SCALE DRAWING	COMPUTER NO.
NEXT ASSY			

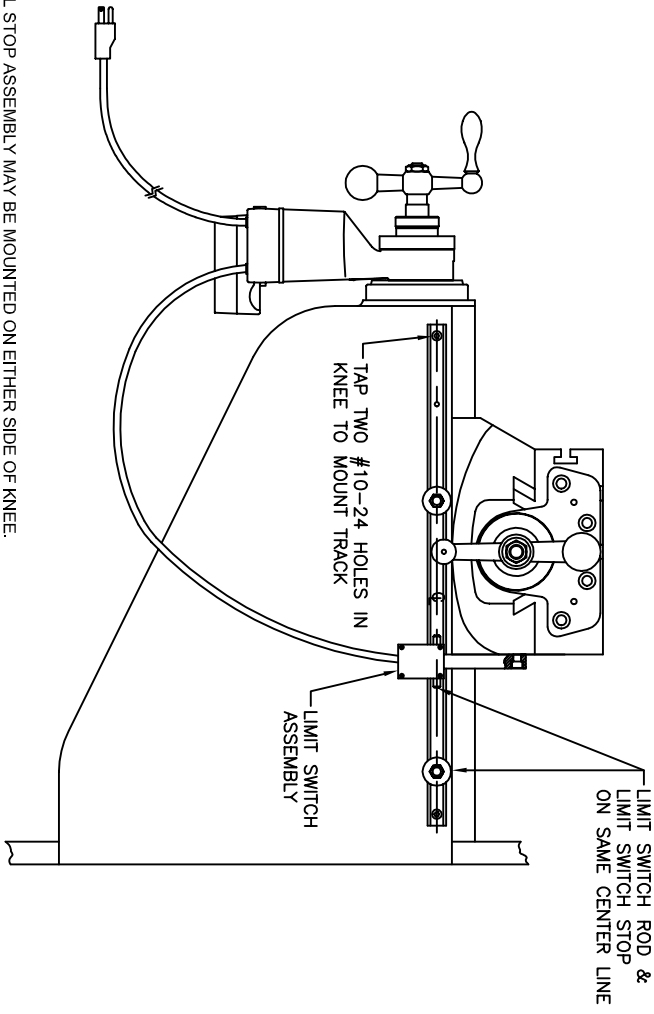
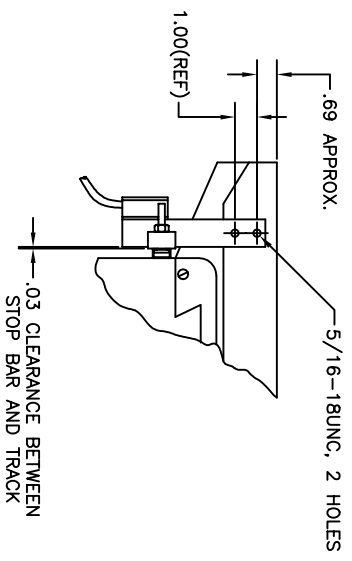
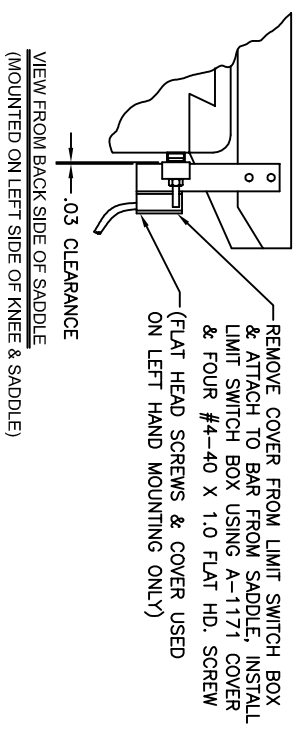
**SERVO PRODUCTS COMPANY**  
433 N. FAIR OAKS AVE., PASADENA, CALIFORNIA 91109

**INSTALLATION DRAWING**  
MODEL 9517

SIZE: B CODE IDENT NO.: 0800-80515 DRAWING NO.: NB-57511 REV. A

SCALE: 5/8 SHEET 1 OF 1

REVISION		DATE	DRAWN	CHECKED
ECC	LTR			
DESCRIPTION				



- 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 OPP. SIDE.
  3. REFERENCE DRAWING ONLY. INSTALLATION SHOWN IS A BRIDGEPORT MILL.

UNLESS OTHERWISE SPECIFIED PERPENDICULARITY, PARALLELISM, STRAIGHTNESS, FLATNESS, ROUNDNESS, CONCENTRICITY, CYLINDRICITY TO BE WITHIN .01 TOTAL OR .040/IN. SURFACE ROUGHNESS WITHIN 125 REMOVE SHARP CORNERS AND EDGES .005 MIN. DRAFTING STANDARD PER ANSI Y14.5M-1982

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

CONTRACT NO.	APPROVALS	DATE	CHECKED
	T. KU	02/01/01	
FINISH	DO NOT SCALE DRAWING	COMPUTER NO.	
APPLICATION	USED ON		
NEXT ASSY			

**SERVO** 433 NO. FAIR OAKS AVE., PASADENA CALIFORNIA 91103

INSTALLATION DRAWING  
LIMIT SWITCH, CROSS FEEDS

SIZE B CODE IDENT NO. 0800-8002-1 DRAWING NO. NB-1538 REV. A

SCALE NONE SHEET OF