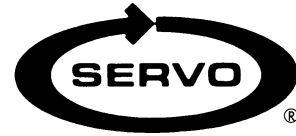


# POWER FEED INSTALLATION

## Model M-4850 Cross Feed

### RB1 Mill



#### REFERENCE DRAWINGS ENCLOSED

NA-5444	Bevel Gear Installation
NB-6234	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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#### PREPARATION

*Step 1:* Gather together the following items that you will need to complete this installation.

- a) 3/8" electric hand drill
- b) 1/8" drill, #7 drill
- c) 1/4-20 tap
- d) 9/32" transfer punch
- e) flat file
- f) 3/4" socket wrench
- g) set of inch hex wrenches
- h) grease
- i) clean shop rag

*Step 2:* Remove the nut, handcrank, dial assembly and key from the lead screw.

*Step 3:* Remove bearing retainer from end bracket.

#### POWER FEED INSTALLATION

*Step 1:* Slide the bearing race into the adaptor.

*Step 2:* Slide the adaptor and bearing race onto the lead screw. Using the adaptor as a template, spot (3) three holes so the feed sits 45° clockwise from the vertical as shown on drawing #NB-6234.

*Step 3:* Remove the adaptor and bearing race. Drill and tap 1/4-20 x 3/8" deep (3) three places.

*Step 4:* Secure the adaptor to the end bracket using (3) three 1/4-20 x 1-1/2" long cap screws.

*Step 5:* Screw the shaft extension onto the lead screw and tighten.

*Step 6:* Using the hole provided as a pilot, drill 1/8" diameter through and pin in place using the 1/8" x 5/8" long roll pin. File smooth.

*Step 7:* Slide the spacer and bearing race onto the lead screw.

**Step 8:** Secure the Power Feed adaptor using 1/4-20 x 1-1/4" long cap screws.

### **BEVEL GEAR INSTALLATION**

**Step 1:** Follow the drawing NA-5444 for installation of the bevel gear. Adjust for proper gear backlash.

### **DIAL AND HANDWHEEL INSTALLATION**

**Step 1:** After getting the proper gear 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. Three plastic (.030" thick) and five brass (.005" thick) washers are provided for this. Shim as required.

**Step 2:** Install the Woodruff key and handcrank.

### **LIMIT SWITCH INSTALLATION**

Install the limit switch as shown on the installation drawings.

### **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.**

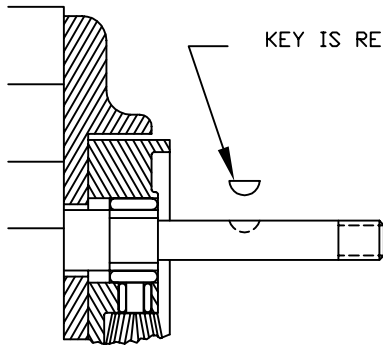
Clearances between the surfaces of the hand crank and the non-moving parts of the equipment on which the hand crank is installed must be at least one-fourth inch (1/4") to prevent injury. Modification of existing hand crank or replacement may be required.

***Do not operate*** without proper clearance!

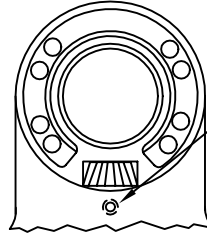
Prevent contact during fast traverses.

### **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.

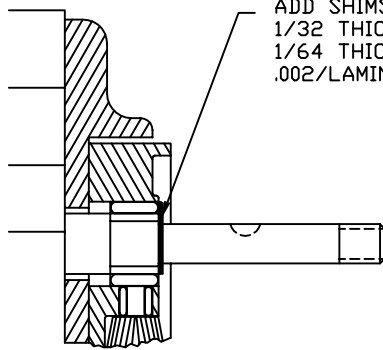


KEY IS REMOVED DURING SHIMMING

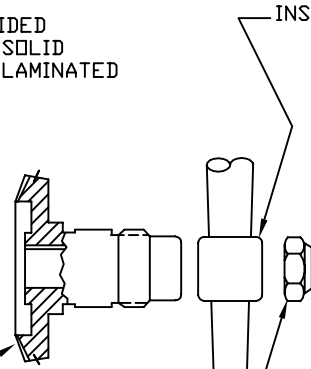


TIGHTEN SLIGHTLY (HOLDS BEVEL PINION STATIONARY DURING SHIMMING.)

STEP 1  
PREPARATION



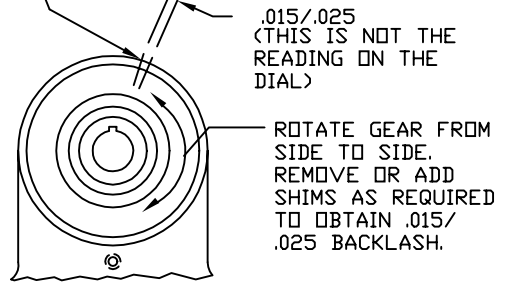
ADD SHIMS PROVIDED  
1/32 THICK ARE SOLID  
1/64 THICK ARE LAMINATED  
.002/LAMINATION



PUSH BEVEL GEAR AGAINST SHIMS.

INSTALL HANDCRANK.

MARK HOUSING AND BEVEL GEAR WITH PENCIL TO CHECK BACKLASH.



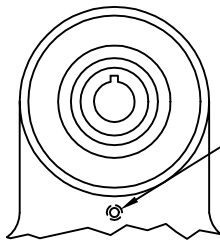
.015/.025  
(THIS IS NOT THE READING ON THE DIAL)

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

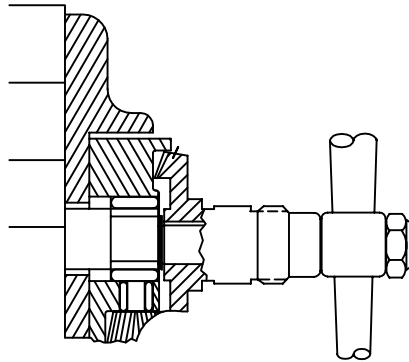
STEP 2  
SHIMMING BEVEL GEAR

TIGHTEN NUT.

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



LOOSEN SETSCREW

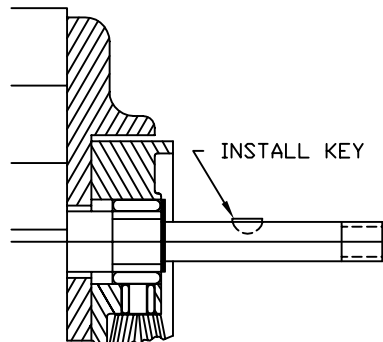


WITH POWER FEED IN NEUTRAL POSITION, TURN HANDCRANK. IF EXCESSIVE GEAR NOISE OR BINDING OCCURS, SHIMS NEED TO BE ADDED. WHEN ADDING SHIMS, REPEAT STEPS 1 AND 2.

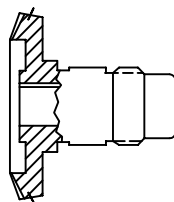


CONTROL HANDLE @ NEUTRAL POSITION

STEP 3  
DOUBLE CHECK OF SHIMMING



INSTALL KEY



SEAL

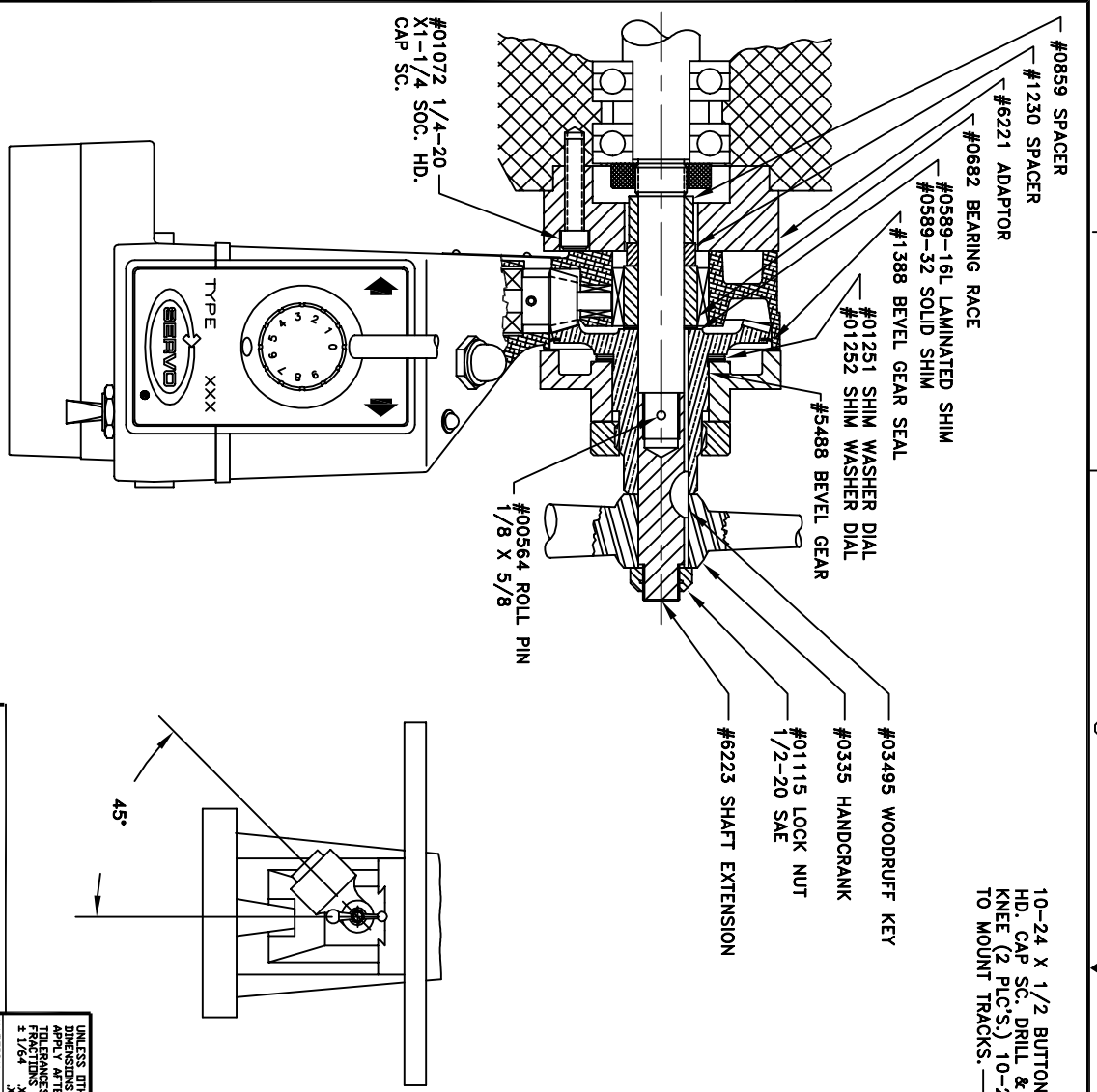
REMOVE GEAR, PACK WITH GREASE. (DO NOT USE SILICONE TYPE GREASE) REPLACE GEAR. (DO NOT LOSE ANY SHIMS)

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

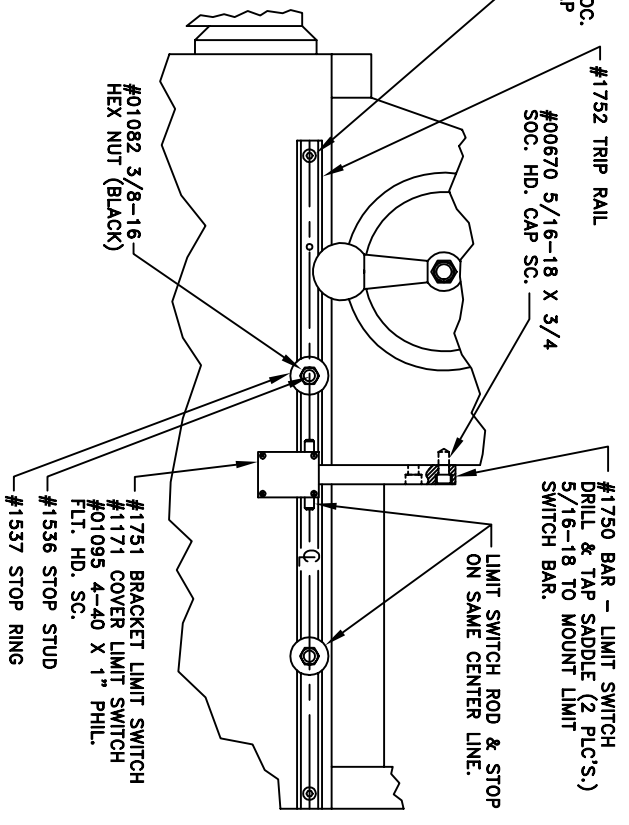
SERVO PRODUCTS COMPANY

BEVEL GEAR INSTALLATION

NA-5444 C



10-24 X 1/2 BUTTON SOC.  
HD. CAP SC. DRILL & TAP  
KNEE (2 PLC'S.) 10-24  
TO MOUNT TRACKS.



LIMIT STOP MAY BE MOUNTED  
ON LEFT SIDE OF KNEE.

- NOTE:
1. REVIEW ALL INSTALLATION INSTRUCTIONS AND POWER FEED OPERATIONS BEFORE TURNING ON SERVO POWER FEED.
  2. MOUNT FEED 45° AS SHOWN FOR TRAY CLEARANCE.
  3. BUTT & LINE UP TWO RAILS SO THAT IT IS PARALLEL WITH CROSS SLIDE.

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

APPROVALS	DATE
BRAYN J. TUCKER	1/24/97
CHECKED	
FINISH	
USED IN	
APPLICATION	
NEXT ASSY	

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES & TOLERANCES ARE AS SHOWN FRACTIONS DECIMALS ANGLES	CONTRACT NO.	APPROVALS	DATE
± 1/64 ± .005 ± .01 ± 1/2°		BRAYN J. TUCKER	1/24/97
MATERIAL	CHECKED		
NOTED			
DID NOT SCALE DRAWING	COMPUTER NO.		

**SERVO PRODUCTS COMPANY**  
 433 N. FAIR OAKS AVE., PASADENA CALIFORNIA 91103

**MODEL 4850**  
**INSTALLATION DRAWING**  
**RB1 MILL**

SIZE	CODE IDENT NO.	DRAWING NO.	REV.
B	0800-80160	NB-6234	B
SCALE		SHEET	OF

