

# POWER FEED INSTALLATION

## Model M-800 Table Feed

### Ex-Cell-O 602

(no coolant trough)



#### REFERENCE DRAWINGS ENCLOSED

NA-5444	Bevel Gear Installation
NB-0514	Power Feed Installation
ND-6293	Type 150 Servo Drive
ND-6292	Type 140 Servo Drive
0800-80001	Servo Power Feed Installation

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#### PREPARATION

- Step 1:* Relax the tension on the lead screw thrust using the procedure below. The lead screw thrust is taken up in the ball bearing found in the right-hand bearing bracket. The thrust adjustment is taken up with the jam nuts on the left-hand end of the screw. It is necessary to loosen the jam nuts and move the screw to the left about 1/16" to properly install the Model 800 table feed.
- Step 2:* Remove the right-hand bearing bracket from the mill, saving the 5/16 diameter screws for use later.

#### POWER FEED INSTALLATION

- Step 1:* Slide the power feed over the lead screw and secure with the screws saved from the bearing bracket.
- Step 2:* Re-adjust the lead screw thrust. Note that the snap ring on the bearing now bears against the table feed. The lead screw should have no end play relative to the table. (Backlash in the table nut is a separate, unrelated adjustment.)
- Step 3:* Slide spacer #519 onto the lead screw and against the ball bearing.
- Step 4:* Rework the dial per drawing ND-0514 detail A. Then cut the brass shoe to length to suit the thumbscrew.

#### BEVEL GEAR INSTALLATION

- Step 1:* Follow drawing NA-5444 for installation of the bevel gear. Adjust for proper gear backlash.
- Step 2:* Screw the handwheel on the shaft and tighten against the gear to locate the pilot hole. Using the pilot hole in the bevel gear, drill 3/16 through the shaft and install the 3/16 x 1-1/4" long roll pin.
- Step 3:* Remove the handwheel.

## 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 to keep chips from entering the gear train. Four washers are provided for this, two solid and two laminated. Shim as required.

*Step 2:* Add the brass shoe, thumbscrew, handwheel, and nut. The lead screw should now turn freely and have no end play relative to the table.

## LIMIT SWITCH INSTALLATION

*Step 1:* Remove the existing T-shaped table stop bracket. Save the screws.

*Step 2:* Remove the limit switch assembly from the bracket #0545. Install the limit switch bracket in the original stop location using the screws saved above or in the optional location shown on drawing ND-0514 figure A.

*Step 3:* Replace the limit switch and the gasket #266 on the bracket.

**NOTE** *For proper operation, the electrical limit switch should be engaged .4 inch before the mechanical stop to allow for coasting of the table. The T-stops are often not symmetrical and may need to be ground to obtain proper operation.*

*Step 4:* Locate a suitable place for the limit switch cord cable clamp and tap 8-32 thread by 3/8" deep. Fasten the clamp with the screw provided.

## 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.

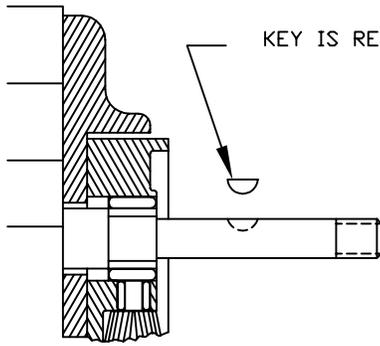
## SERVO PRODUCTS COMPANY

433 North Fair Oaks Avenue, Pasadena, CA 91103 USA

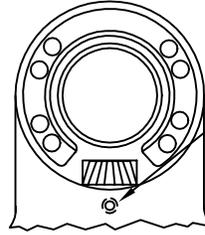
Phone: 800.521.7359 or 626.796.2460 Fax: 626.796.3845

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

Call for the location of our regional Service Centers.

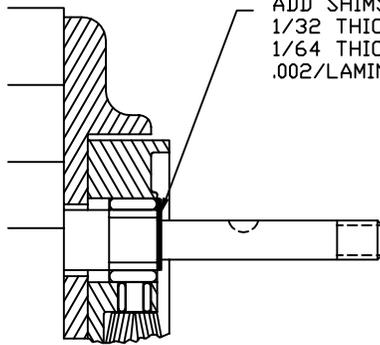


KEY IS REMOVED DURING SHIMMING

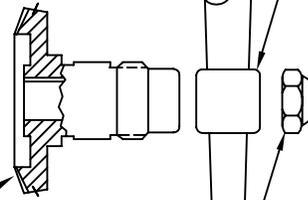


TIGHTEN SLIGHTLY (HOLDS BEVEL PINION STATIONARY DURING SHIMMING.)

STEP 1  
PREPARATION



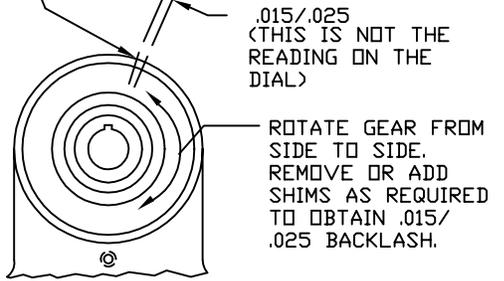
ADD SHIMS PROVIDED  
1/32 THICK ARE SOLID  
1/64 THICK ARE LAMINATED  
.002/LAMINATION



PUSH BEVEL GEAR  
AGAINST SHIMS.

INSTALL HANDCRANK.

MARK HOUSING AND BEVEL GEAR  
WITH PENCIL TO CHECK BACKLASH.



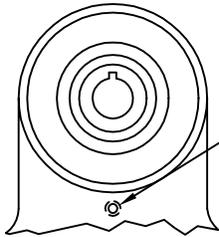
.015/.025  
(THIS IS NOT THE  
READING ON THE  
DIAL)

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

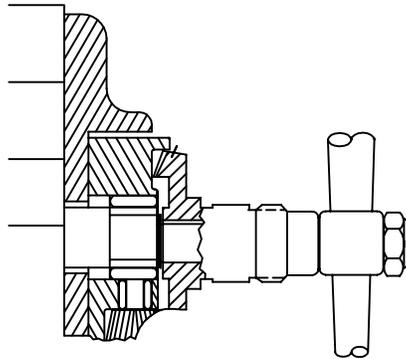
TIGHTEN NUT.

STEP 2  
SHIMMING BEVEL  
GEAR

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



LOOSEN SETSCREW

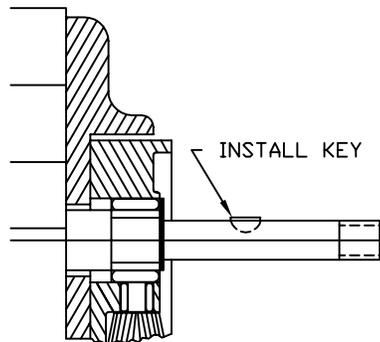


WITH POWER FEED IN  
NEUTRAL POSITION, TURN  
HANDCRANK. IF EXCESSIVE  
GEAR NOISE OR BINDING  
OCCURS, SHIMS NEED TO BE  
ADDED. WHEN ADDING SHIMS,  
REPEAT STEPS 1 AND 2.

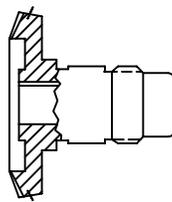


CONTROL HANDLE @  
NEUTRAL POSITION

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.

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BEVEL GEAR INSTALLATION

NA-5444 C

STEP 4  
LUBRICATION

