

# POWER FEED INSTALLATION

## Model M-0901 Table Feed

### Index Mill 45, 645, 745



#### REFERENCE DRAWINGS ENCLOSED

NA-5444	Bevel Gear Installation
NB-0664	Power Feed 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, 5/64" drill, 3/16" drill or reamer
  - c) flat file
  - d) 3/4" socket wrench
  - e) set of inch hex wrenches
  - f) soft hammer
  - g) grease
  - h) clean shop rag
- Step 2:* Remove the nut, handle, and dial assembly from the right hand end of the table.
- Step 3:* Remove the four cap screws from the bearing housing. Using a soft hammer, tap the bearing housing off.

#### POWER FEED INSTALLATION

- Step 1:* Move the table to the extreme left-hand position.
- Step 2:* Screw the shaft extension to the lead screw and tighten.
- Step 3:* Using the hole provided as a pilot, drill 1/8" diameter through. Pin in place using the 1/8" x 5/8" long roll pin. File smooth.
- Step 4:* Slide the bearing race onto the lead screw.
- Step 5:* Slide the adaptor and Power Feed onto the bearing race.
- Step 6:* Secure adaptor to end of table with existing 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:** In the following sequence, put on the dial locking nut, place the key in the shaft extension, slide the handwheel (supplied) in place and secure with locking nut.

## LIMIT SWITCH INSTALLATION

- Step 1:** Slide the table stop assembly into the T-slot to the left of the right-hand mounting pad. Slide the other table stop into the right of the mounting pad.
- Step 2:** Using the 3/8" x 1/2" cap screw supplied, bolt the bracket in place on the right-hand mounting pad.
- Step 3:** Drill 5/64" (.078 diameter) and size with a drill or reamer to 3/16". Install roll pin.

## 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

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Call for the location of our regional Service Centers.

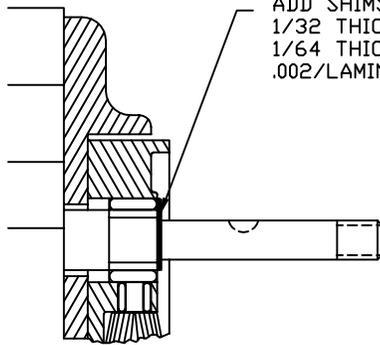


KEY IS REMOVED DURING SHIMMING



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.



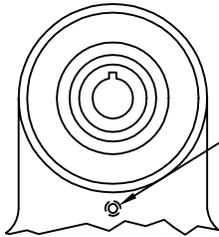
.015/.025  
(THIS IS NOT THE  
READING ON THE  
DIAL)

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

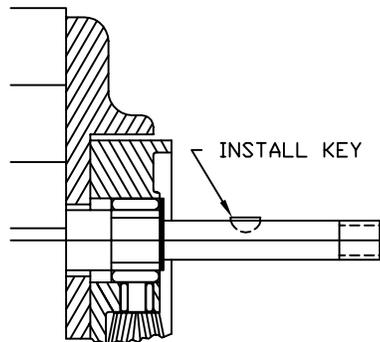


WITH POWER FEED IN  
NEUTRAL POSITION, TURN  
HANDCRANK. IF EXCESSIVE  
GEAR NOISE OR BINDING  
OCCURS, SHIMS NEED TO BE  
ADDED. WHEN ADDING SHIMS,  
REPEAT STEPS 1 AND 2.

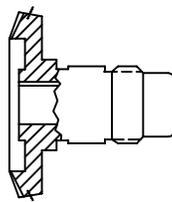


CONTROL HANDLE @  
NEUTRAL POSITION

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)

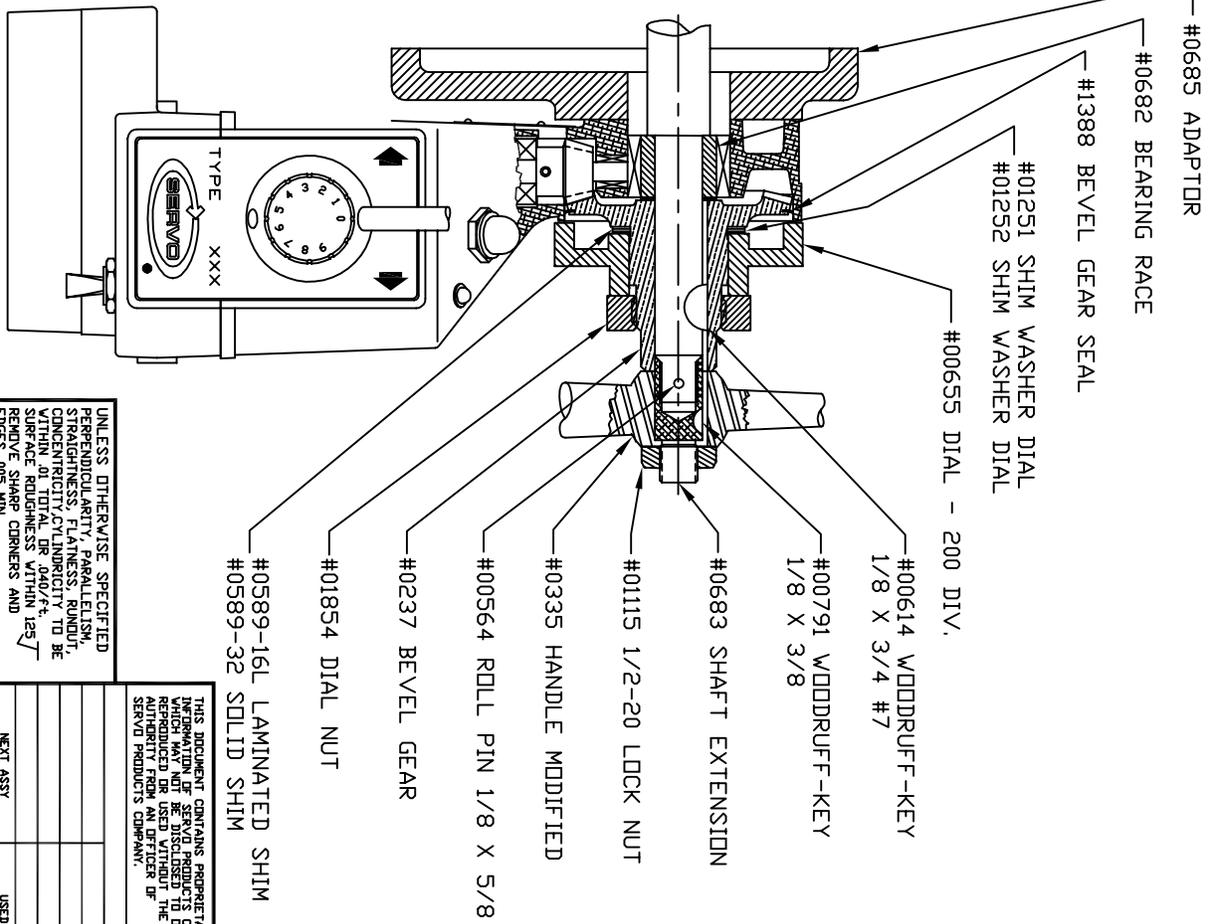
PICTURES IN THIS DRAWING ARE FOR  
REFERENCE ONLY. SEE INSTALLATION  
DRAWING OF CORRESPONDING MODEL  
FOR EXACT PARTS CONFIGURATION.

SERVO PRODUCTS COMPANY

BEVEL GEAR INSTALLATION

NA-5444 C

STEP 4  
LUBRICATION



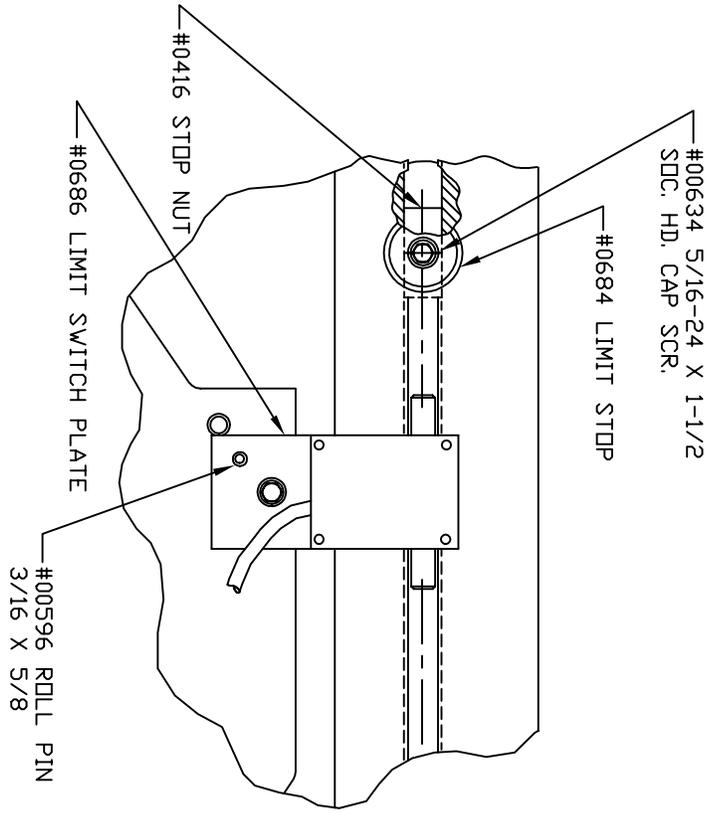
UNLESS OTHERWISE SPECIFIED PERPENDICULARITY, PARALLELISM, STRAIGHTNESS, FLATNESS, ROUNDNESS, CONCENTRICITY, CYLINDRICITY TO BE WITHIN 0.01 TOTAL OR 0.040/ft. SURFACE ROUGHNESS WITHIN 125 REMOVE SHARP CORNERS AND EDGES .005 MIN. DRAWING STANDARD PER ANSI Y14.5M-1982

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

APPROVALS	DATE	9/26/96
DRAWN J. TUCKER	CHECKED	
CONTRACT NO.	COMPUTER NO.	
FINISH	DID NOT SCALE DRAWING	
MATERIAL	NOTED	
APPLICATION	USED ON	
NEXT ASSY		

## INSTALLATION LIMIT SWITCH



NOTE:  
1. REVIEW ALL INSTALLATION INSTRUCTIONS AND POWER FEED OPERATION BEFORE TURNING ON SERVOPOWER FEED.

SERVOPRODUCTS COMPANY  
433 N. FAIR OAKS AVE., PASADENA, CALIFORNIA 91103

INDEX 45, 645, 745  
INSTALLATION DRAWING  
MODEL 901

SIZE B  
CODE 0800-80064  
DRAWING NO. NB-0664  
SHEET 1 OF 1