

# POWER FEED INSTALLATION

## Model M-0200 Table Feed

### Bridgeport Mill & Others



#### REFERENCE DRAWINGS ENCLOSED

NA-5444	Bevel Gear Installation
NB-0296	Power Feed Installation
ND-6293	Type 150 Servo Power Feed
ND-6292	Type 140 Servo Power Feed
0800-80001	Servo Power Feed Operation
0800-80426	Parts List I.D. Sheet K-0200

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#### PREPARATION

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

- a) soft hammer
- b) 3/4" socket wrench
- c) set of inch hex wrenches
- d) grease
- e) clean shop rag

*Step 2:* Move the table to the extreme left.

*Step 3:* Remove the nut, handle, and dial assembly from the right-hand end of the table.

*Step 4:* Remove the four cap screws holding the bearing housing in place.

*Step 5:* Using a soft hammer, tap the bearing housing off. Clean the end surface of the table.

#### POWER FEED INSTALLATION

*Step 1:* With the table in the extreme left-hand position, install the adaptor with the four cap screws

➔ **NOTE** On some machines the drive pin holes do not line up with the adaptor. Remove and discard the pins in such cases. The four cap screws are all that is necessary.

*Step 2:* Slide the bearing race onto the lead screw.

*Step 3:* Slide the power feed onto the bearing race and push flush to the end of the adaptor. Secure with two 1/4-20 x 1" long socket head 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, replace the key (if removed), dial, and dial locking nut. Slide the handle in place and tighten with 1/2-20 locknut #01115.

## LIMIT SWITCH INSTALLATION

*Step 1:* Remove the standard table stop pieces and install the table stop pieces furnished. Put the standard stops back in a position to prevent feed stops from being set beyond extreme table travel.

*Step 2:* Remove the two cap screws holding the T-shaped table stop. Place the limit switch spacers into the T-stop and install limit switch using 3/8-16 x 1-1/4" long socket head cap screws.

*Step 3:* The T-stop is retained to act as a positive stop where required for manual operation.

➔ **NOTE** For proper operation, the electrical limit switch should be engaged 0.4 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:* Put the cable clamp on the cable and secure to the right-hand chip scraper screw.

## 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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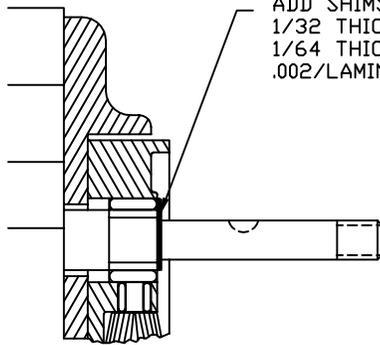


KEY IS REMOVED DURING SHIMMING



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.



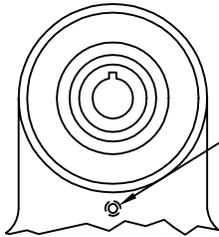
.015/.025  
(THIS IS NOT THE READING ON THE DIAL)

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

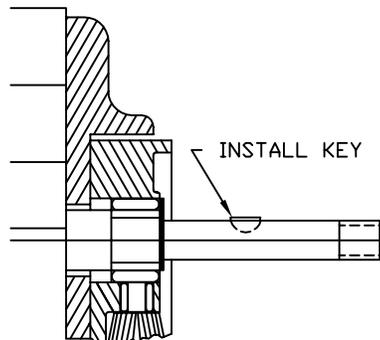


WITH POWER FEED IN NEUTRAL POSITION, TURN HANDCRANK. IF EXCESSIVE GEAR NOISE OR BINDING OCCURS, SHIMS NEED TO BE ADDED. WHEN ADDING SHIMS, REPEAT STEPS 1 AND 2.



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.

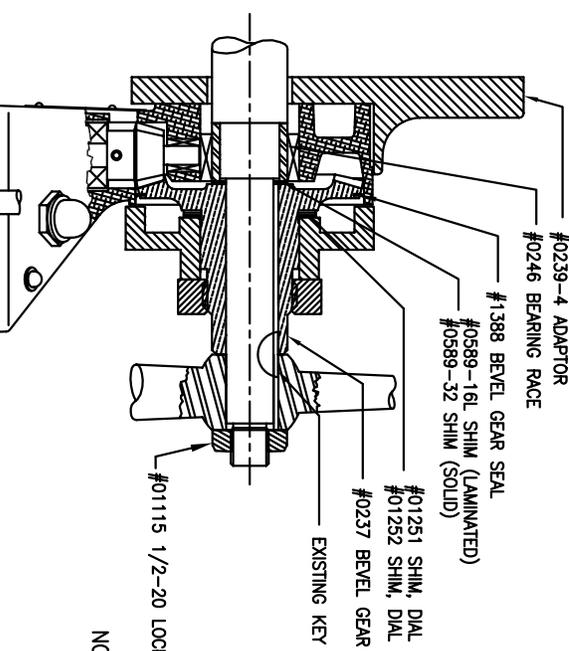
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BEVEL GEAR INSTALLATION

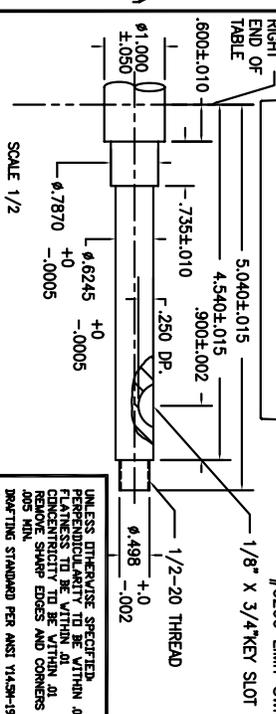
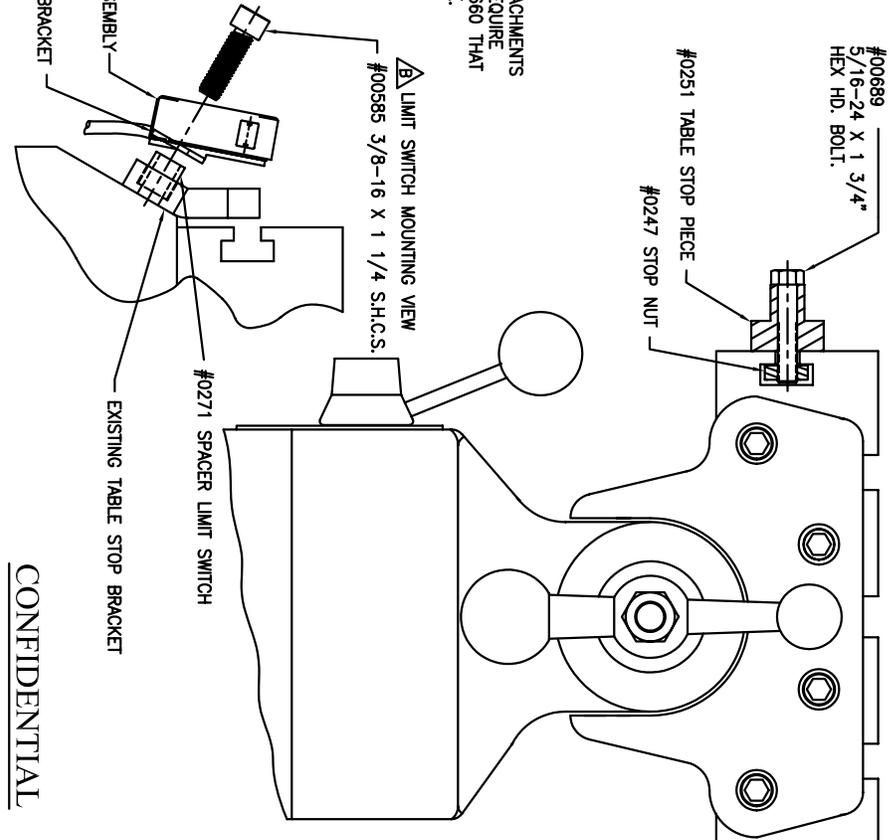
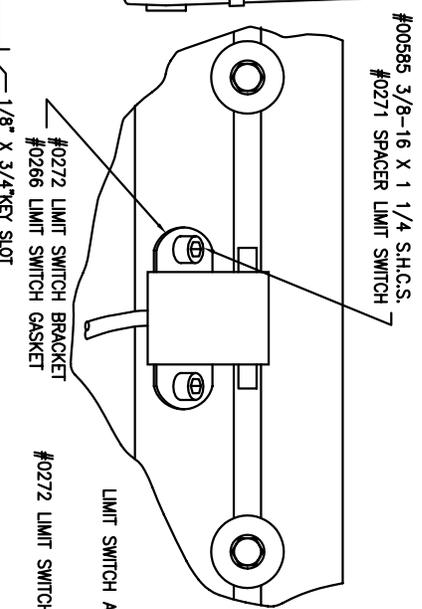
NA-5444 C

STEP 4  
LUBRICATION

REVISION		DATE	DRAWN	CHECKED
ECD	LTR	DESCRIPTION	DATE	DRAWN
N/A	B	ADDED LIMIT SWITCH MOUNTING VIEW	6/15/06	R.R.A.



NOTE:  
 BRIDGEPORTS HAVING MEASURING ATTACHMENTS THAT COVER THE FRONT TEE SLOT REQUIRE THE LIMIT SWITCH ASSEMBLY MODEL 660 THAT MOUNTS ON THE REAR OF THE TABLE.



UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES & TOLERANCES ARE AS FOLLOWS: DECIMALS ± 1/2" ANGLES ± 1/2" MATERIAL NOTED  
 THIS DOCUMENT CONTAINS PROPRIETARY INFORMATION OF SERVOPRODUCTS COMPANY WHICH MAY NOT BE DISCLOSED TO OTHERS WITHOUT THE WRITTEN AUTHORITY FROM AN OFFICER OF SERVOPRODUCTS COMPANY.

CONTRACT NO.	DATE	APPROVALS	DATE
DRAWN	3/13/95	G. BUINN	
CHECKED			

SERVOPRODUCTS COMPANY  
 34940 LAKELAND BLVD., EASTLAKE, OHIO 44095  
**INSTALLATION DRAWING**  
**MODEL 200**  
 SIZE CODE IDENT. NO. DRAWING NO. REV.  
 B 0800-80004 NB-0296 B  
 SCALE 5/8 SHEET 1 OF 1

UNLESS OTHERWISE SPECIFIED, FLATNESS TO BE WITHIN .01 CONCENTRICITY TO BE WITHIN .01 REMOVE SHARP EDGES AND CORNERS .005 MIN. DRAWING STANDARD PER ANSI Y14.5M-1992

APPLICATION	USED IN	DID NOT SCALE DRAWING
NEXT ASSY		

COMPUTER NO.	SCALE
NB0296_B.dwg	5/8

REV.	DATE	BY	CHKD.
B			

CONFIDENTIAL



# M-0200 TABLE FEED PARTS IDENTIFICATION LIST

- 00579 Clamp Qty = 1
- 01050 Clamp Qty = 1
- 00688 Phil Pan Hd Screw Qty = 1
- 0266 Limit Switch Gasket Qty = 1
- 0272 Limit Switch Bracket Qty = 1
- 06928 Phil Pan Hd Screw Qty = 4
- 0271 Limit Switch Spacer Qty = 2
- 00585 Soc Hd Cap Screw Qty = 2

- 00689 Hex Hd Bolt Qty = 2
- 0247 Stop Nut Qty = 2
- 0251 Limit Stop Qty = 2
- 01115 Lock Nut Qty = 1
- 59254 Dial Nut Qty = 1
- 01251 Brass Shim Qty = 5
- 01252 Plastic Shim Qty = 2
- 0237 Bevel Gear Qty = 1

- 0589-32 .032 Shim Qty = 2
- 0589-16L .016 Shim Qty = 2
- 0246 Bearing Race Qty = 1
- 00586 Soc Hd Cap Screw Qty = 2
- 00595 Roll Pin Qty = 2
- 00596 Roll Pin Qty = 2
- 0239-4 Adaptor Qty = 1

