

POWER FEED INSTALLATION

Model M-225 Table Feed

Bridgeport Mill



Replaces Bridgeport Gear Box Feed

REFERENCE DRAWINGS ENCLOSED

NA-5444	Bevel Gear Installation
NB-0480	Power Feed Installation
ND-6293	Type 150 Servo Drive
ND-6292	Type 140 Servo Drive
0800-80001	Servo Power Feed Operation

PREPARATION

- Step 1:* Move the table to the extreme left.
- Step 2:* Remove the nut, crank, dial, key, and power feed unit, including slotted bearing sleeve and cotter (shear) pin.
- Step 3:* Clean the lead screw with sandpaper to remove any burrs and facilitate installation of ball bearing and sleeves.

POWER FEED INSTALLATION

- Step 1:* Install on the lead screw in the following sequence: spacer #0477 (7/16" long) 77R10 bearing, sleeve #0478 (4.72" long). Add the adapter #0479 using the original screws. Tap in place over the bearing.
- Step 2:* Add shims against the sleeve #0478 to the dimension shown on drawing ND-0480.
- Step 3:* Add the bearing race.
- Step 4:* Install power feed using the 1/4-20 x 1.0" long socket head cap screws.

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:* In the following sequence: replace key (if removed), dial, and dial locking nut, slide handle in place and tighten with 1/2-20 lock nut.

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 .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

Web: www.servoproductsco.com

CALIFORNIA BRANCH

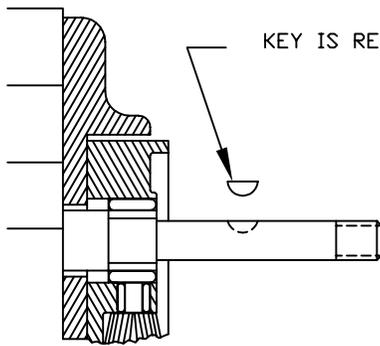
14254 Valley Blvd., Unit A
City of Industry, CA 91746
Ph. 626.961.7800 Fax 626.961.2444

HEADQUARTERS

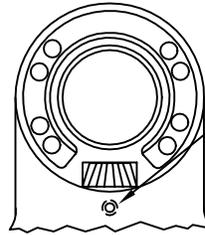
34940 Lakeland Blvd.
Eastlake, OH 44095
Ph. 440.942.9999 Fax 440.942-9100

FLORIDA BRANCH

8950 131st Ave. N.
Largo, FL 33773
Ph. 727.585.8555 Fax 727.585.6555

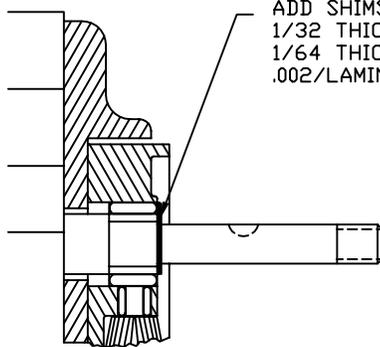


KEY IS REMOVED DURING SHIMMING

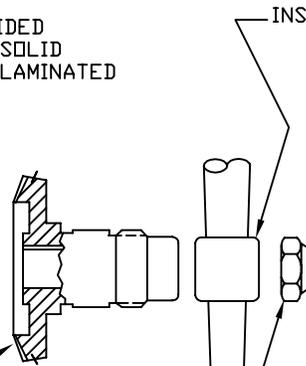


TIGHTEN SLIGHTLY (HOLDS BEVEL PINION STATIONARY DURING SHIMMING.)

STEP 1
PREPARATION



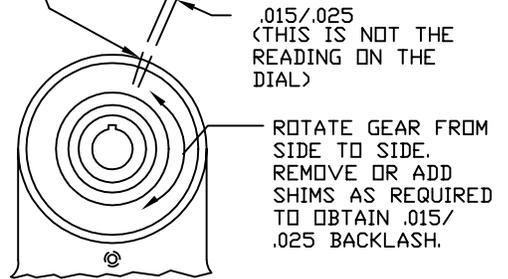
ADD SHIMS PROVIDED
1/32 THICK ARE SOLID
1/64 THICK ARE LAMINATED
.002/LAMINATION



PUSH BEVEL GEAR AGAINST SHIMS.

INSTALL HANDCRANK.

MARK HOUSING AND BEVEL GEAR WITH PENCIL TO CHECK BACKLASH.



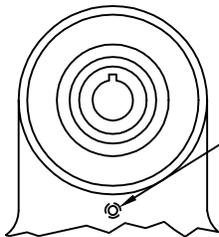
.015/.025
(THIS IS NOT THE READING ON THE DIAL)

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

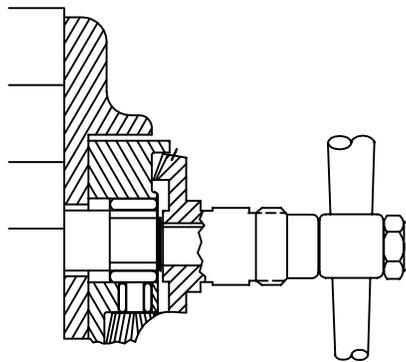
STEP 2
SHIMMING BEVEL GEAR

TIGHTEN NUT.

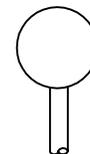
CAUTION: IF BACKLASH IS NOT PROPERLY SET BEFORE TURNING UNIT ON, BEVEL GEAR MAY BE DESTROYED.



LOOSEN SETSCREW

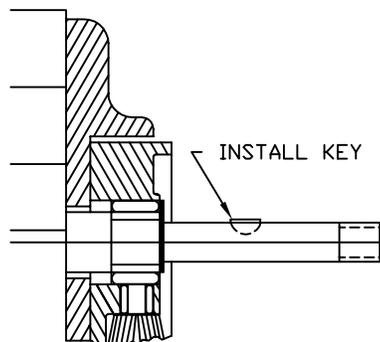


WITH POWER FEED IN NEUTRAL POSITION, TURN HANDCRANK. IF EXCESSIVE GEAR NOISE OR BINDING OCCURS, SHIMS NEED TO BE ADDED. WHEN ADDING SHIMS, REPEAT STEPS 1 AND 2.

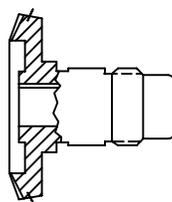


CONTROL HANDLE @ NEUTRAL POSITION

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)

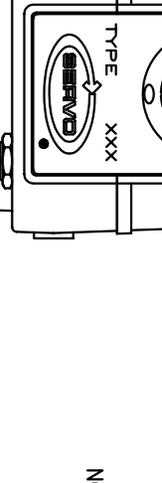
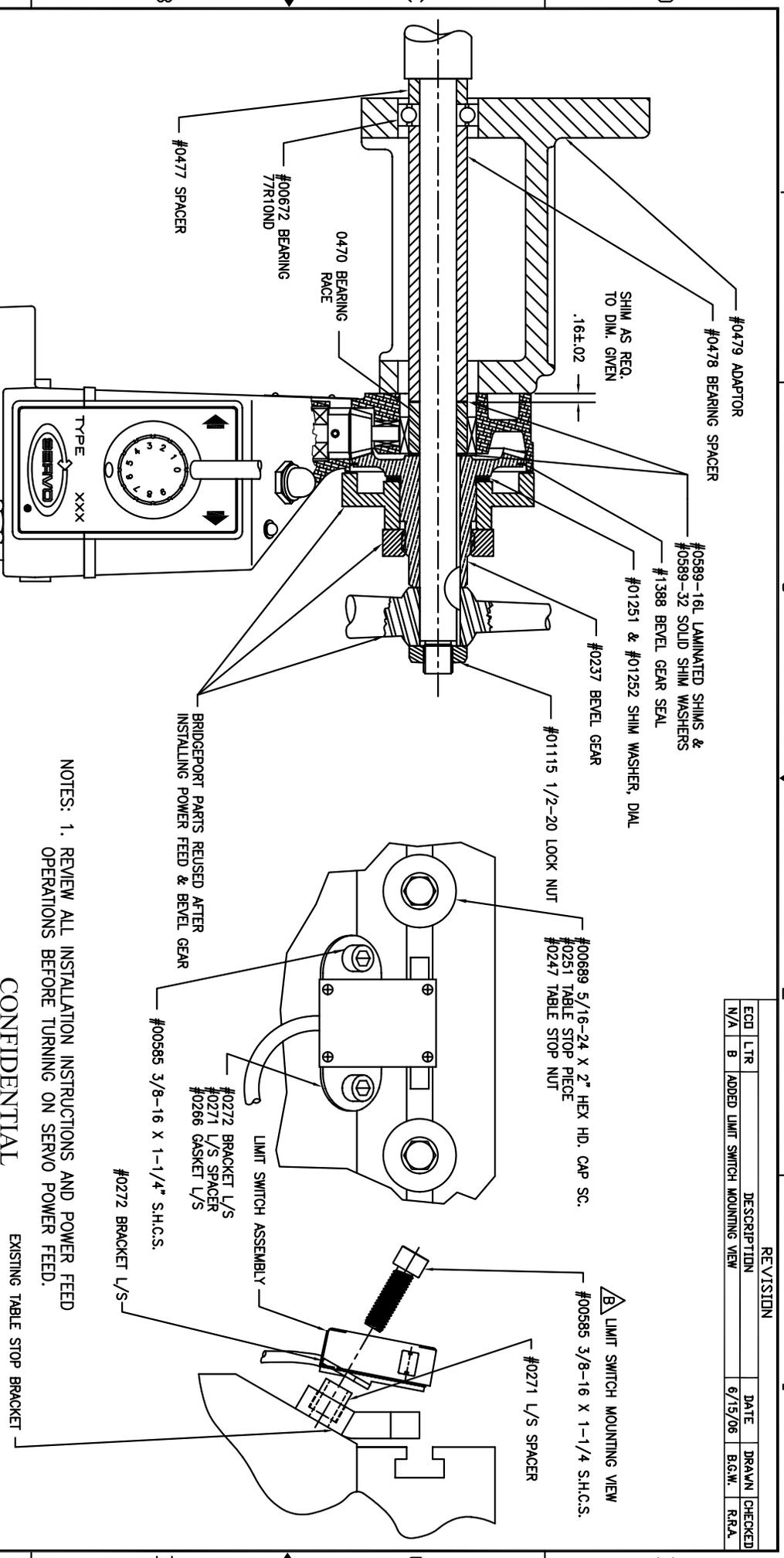
PICTURES IN THIS DRAWING ARE FOR REFERENCE ONLY. SEE INSTALLATION DRAWING OF CORRESPONDING MODEL FOR EXACT PARTS CONFIGURATION.

SERVO PRODUCTS COMPANY

BEVEL GEAR INSTALLATION

NA-5444 C

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



NOTES: 1. REVIEW ALL INSTALLATION INSTRUCTIONS AND POWER FEED OPERATIONS BEFORE TURNING ON SERVO POWER FEED.

CONFIDENTIAL

EXISTING TABLE STOP BRACKET

UNLESS OTHERWISE SPECIFIED PERPENDICULARITY, PARALLELISM, STRAIGHTNESS, FLATNESS, ROUNDT, CONCENTRICITY/CYLINDRICITY TO BE WITHIN .01 TOTAL OR .040/PL SURFACE ROUGHNESS WITHIN 125 REMOVE SHARP CORNERS AND EDGES .005 MIN. DRAWING STANDARD PER ANSI Y46.9-1982

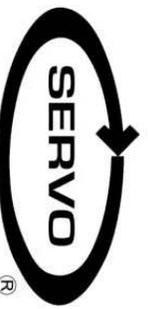
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UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES & TOLERANCES ARE AS FOLLOWS: DECIMALS ± 1/64 ANGLES ± 1/2° MATERIAL XX ± .005 FINISH NOTED

CONTRACT NO.	APPROVALS	DATE
	G. BUNN	9/9/96
DID NOT SCALE DRAWING	CHECKED	
APPLICATION	USED IN	
NEXT ASSY		

COMPUTER NO.	SCALE
NB0480_B.dwg	5/8

SERVO PRODUCTS COMPANY
 34940 LAKELAND BLVD., EASTLAKE, OHIO 44095
BRIDGEPORT
INSTALLATION DRAWING
MODEL-225
 SIZE CODE IDENT. NO. DRAWING NO. REV.
 B 0800-80089 NB-0480 B
 SCALE 5/8 SHEET 1 OF 1



M-0225 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
- 01251 Brass Shim Qty = 5
- 01252 Plastic Shim Qty = 2
- 0237 Bevel Gear Qty = 1



0478
Bearing Spacer
Qty = 1



- 0589-32 .032 Shim Qty = 4
- 0589-16L .016 Shim Qty = 2
- 0470 Bearing Race Qty = 1
- 00586 Soc Hd Cap Screw Qty = 2
- 00672 Bearing Qty = 1
- 0477 Spacer Qty = 1
- 0479-2 Adaptor Qty = 1