

POWER FEED INSTALLATION

Model M-2700 Table Feed

Hartford, Marena 942, Newport,
Webb, and others



REFERENCE DRAWINGS ENCLOSED

NA-5444	Bevel Gear Installation
NB-2778	Power Feed Installation
ND-6292	Type 140 Servo Drive
ND-6293	Type 150 Servo Drive
0800-80001	Servo Power Feed Operation

PREPARATION

- Step 1:* Move the table to the extreme left-hand position.
- Step 2:* Remove the nut, handle, dial assembly, and key from the lead screw. Save the key for installation later.
- Step 3:* Remove the four cap screws from the bearing housing. Save the screws for installation later.
- Step 4:* Using a soft hammer, tap the bearing housing off. Clean the end surface of the table.

POWER FEED INSTALLATION

- Step 1:* Slide the shaft spacer #5426, the bearing race #0246, and the second shaft spacer #5426 onto the lead screw.
- Step 2:* Slide the adaptor #0239-4 with the feed onto the bearing race.
- Step 3:* Secure the assembly to the end of the table with the saved cap screws.

BEVEL GEAR INSTALLATION

- Step 1:* Follow drawing NA-5444 for installation of the bevel gear. Adjust for proper gear backlash.
 - IF:* If necessary turn the second shaft spacer #5426 to the proper length. If the key does not engage the bevel gear, use provided spring pin #00596 as shown on drawing NB-2778, detail A.

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:* Secure the dial using the dial nut. Slide the handcrank onto the end of the shaft and tighten with the 1/2-20 lock nut.

LIMIT SWITCH INSTRUCTIONS

Step 1: Remove the standard table stop pieces and install the table stop pieces furnished. Put the standard stop back in 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 bracket.

Step 3: Place the short spacers into the counterbored holes in the T-stop. Place the limit switch assembly on the spacers and install using the two 3/8-16 x 1" socket head cap screws.

Step 4: 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 5: Put the cable clamp on the cable and secure using 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.

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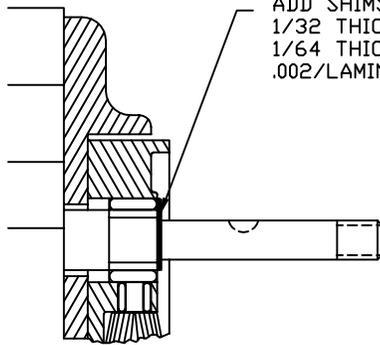


KEY IS REMOVED DURING SHIMMING



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

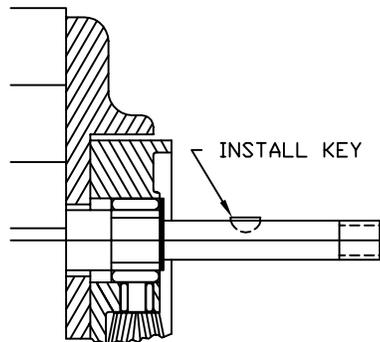


WITH POWER FEED IN NEUTRAL POSITION, TURN HANDCRANK. IF EXCESSIVE GEAR NOISE OR BINDING OCCURS, SHIMS NEED TO BE ADDED. WHEN ADDING SHIMS, REPEAT STEPS 1 AND 2.

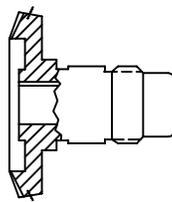


CONTROL HANDLE @ NEUTRAL POSITION

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.

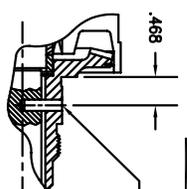
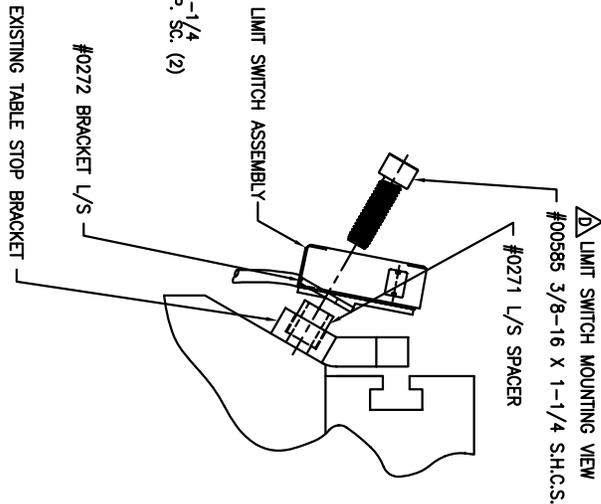
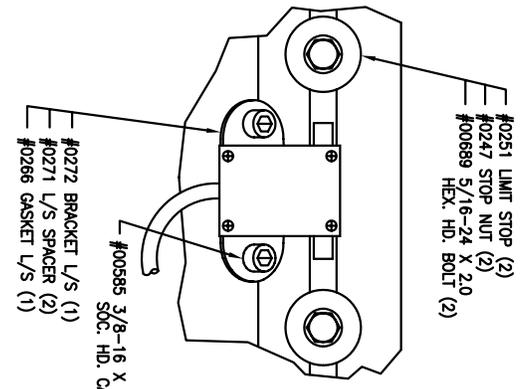
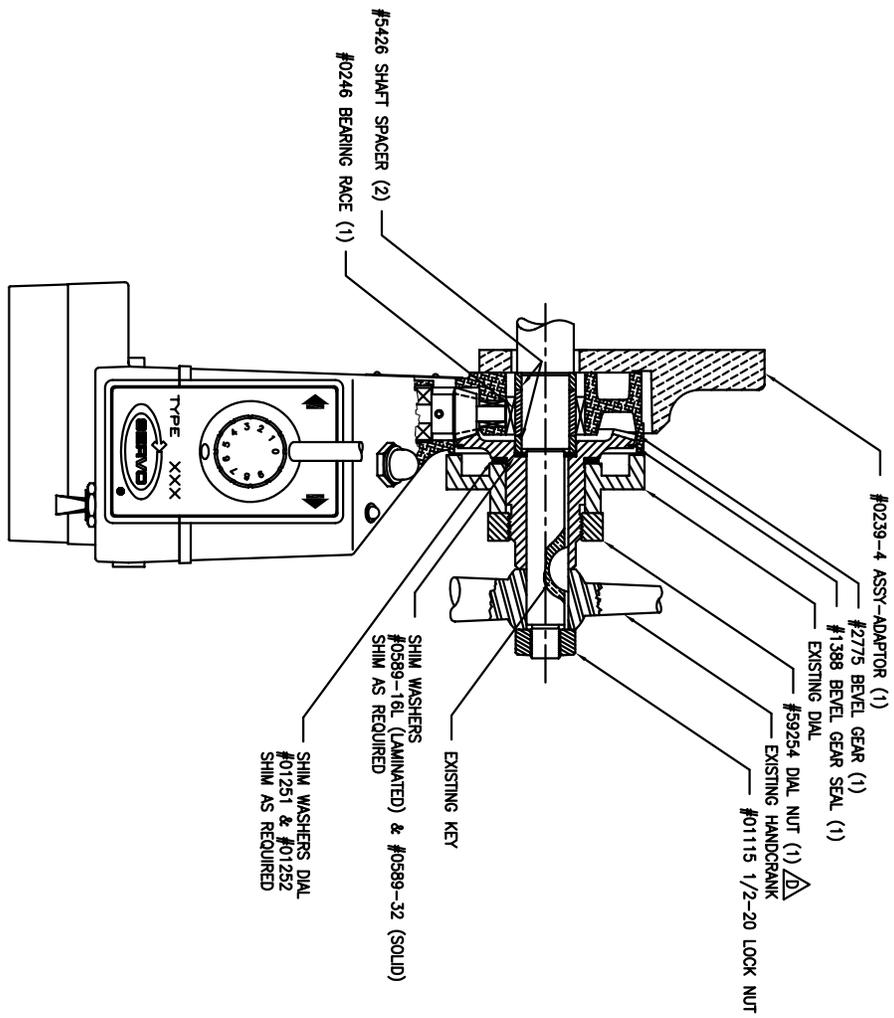
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BEVEL GEAR INSTALLATION

NA-5444 C

STEP 4
LUBRICATION

REVISION		DATE	DRAWN	CHECKED
ECD	LTR	DESCRIPTION		
N/A	D	ADDED LIMIT SWITCH MOUNTING VIEW: 59254 WAS 2255	6/15/06	B.G.W. R.R.A.



#00596 ROLL PIN
 DRILL ϕ .188 X .75 DP. AFTER THE
 PROPER SHIMMING HAS BEEN
 DETERMINED.
 PIN WILL BE INSTALLED ONLY IF
 KEY DOES NOT ENGAGE BEVEL GEAR.

CONFIDENTIAL

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

UNLESS OTHERWISE SPECIFIED,
 DIMENSIONS ARE IN INCHES &
 TOLERANCES ARE AS FOLLOWS:
 FRACTIONS DECIMALS ANGLES
 ± 1/64 ± .005 ± .005 ± 1/2°
 UNLESS OTHERWISE SPECIFIED,
 FINISH SHALL BE VITUM AT
 CONCENTRICITY TO BE WITHIN .01
 REMOVE SHARP EDGES AND CORNERS
 .005 MIN.
 DRAWING STANDARD PER ANSI Y43M-1982

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CONTRACT NO.	APPROVALS	DATE
	G. BADEA	7/12/94
DRAWN	CHECKED	
FINISH	NOTED	
DID NOT SCALE DRAWING		

SERVO PRODUCTS COMPANY
 34940 LAKELAND BLVD., EASTLAKE, OHIO 44095

INSTALLATION DRAWING
 MODEL 2700

SIZE CODE IDENT. NO. DRAWING NO. REV.
 B 0800-80054 NB-2778 D

SCALE 1/2 SHEET 1 OF 1

UNLESS OTHERWISE SPECIFIED,
 DIMENSIONS ARE IN INCHES &
 TOLERANCES ARE AS FOLLOWS:
 FRACTIONS DECIMALS ANGLES
 ± 1/64 ± .005 ± .005 ± 1/2°
 UNLESS OTHERWISE SPECIFIED,
 FINISH SHALL BE VITUM AT
 CONCENTRICITY TO BE WITHIN .01
 REMOVE SHARP EDGES AND CORNERS
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SCALE 1/2 SHEET 1 OF 1



M-2700 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
- 2775 Bevel Gear Qty = 1

- 0589-32 .032 Shim Qty = 8
- 0589-16L .016 Shim Qty = 2
- 0246 Bearing Race Qty = 1
- 5426 Spacer Qty = 1
- 00586 Soc Hd Cap Screw Qty = 2
- 01059 Roll Pin Qty = 2
- 00596 Roll Pin Qty = 2
- 0239-4 Adaptor Qty = 1

