

POWER FEED INSTALLATION

Model M-9130 Table Feed

Clousing Kalamazoo



REFERENCE DRAWINGS ENCLOSED

NA-5444	Bevel Gear Installation
NB-58330	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, handle, dial assembly, and key from the lead screw. Save the key for installation later.
- Step 3:* Slide shaft spacer #6728 and bearing race #0774 onto the lead screw.
- Step 4:* Slide the power feed over the bearing race. Select and transfer three mounting holes onto existing bearing retainer or use supplied bearing retainer #6544.
- Step 5:* If using existing bearing retainer, remove to drill and tap 1/4-20 through and then reinstall otherwise use supplied #6544 bearing retainer.
- Step 6:* Screw the shaft extension onto the lead screw.
- Step 7:* Slide the bevel gear onto the lead screw to ensure proper fit. Then remove the bevel gear.
- Step 8:* Drill a 1/8" diameter hole through the shaft using the hole provided in the shaft extension as a pilot. Pin the shaft extension to the lead screw using the 1/8 diameter x 5/8" long roll pin. File smooth.

POWER FEED INSTALLATION

- Step 1:* Slide the power feed onto the bearing race and secure to the bearing retainer using the provided 1/4-20 x 1" long socket head cap screws. ***Be sure the power feed is installed square with the shaft.***

BEVEL GEAR INSTALLATION

- Step 1:* Use the 3 mm parallel key you saved before for the bevel gear installation.
- Step 2:* 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: Put on the dial locking nut.

Step 3: Install the 3 mm key provided in the shaft extension.

Step 4: Slide the handcrank onto the end of the shaft extension and tighten with the 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 bracket. Place the short spacers into the counterbored holes in the T-stop. Place the limit switch assembly on the spacers and locate using the two 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 using the right-hand chip scraper screw.

OPERATION

See separate *Servo Power Feed Operation* sheet. Unit will operate on either 50 or 60 cycles.

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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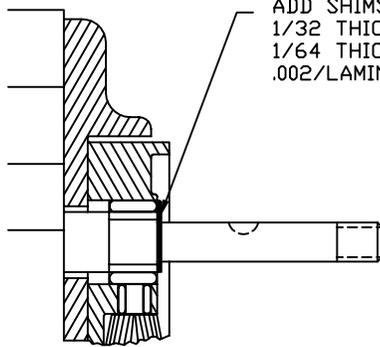


KEY IS REMOVED DURING SHIMMING



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

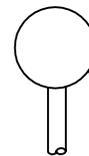
CAUTION: IF BACKLASH IS NOT PROPERLY SET BEFORE TURNING UNIT ON, BEVEL GEAR MAY BE DESTROYED.



LOOSEN SETSCREW

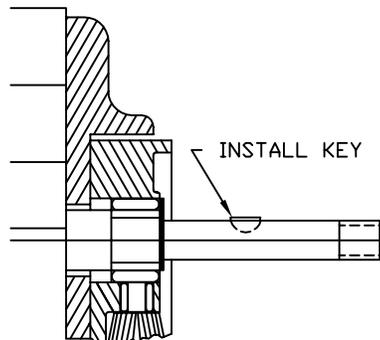


WITH POWER FEED IN NEUTRAL POSITION, TURN HANDCRANK. IF EXCESSIVE GEAR NOISE OR BINDING OCCURS, SHIMS NEED TO BE ADDED. WHEN ADDING SHIMS, REPEAT STEPS 1 AND 2.



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)

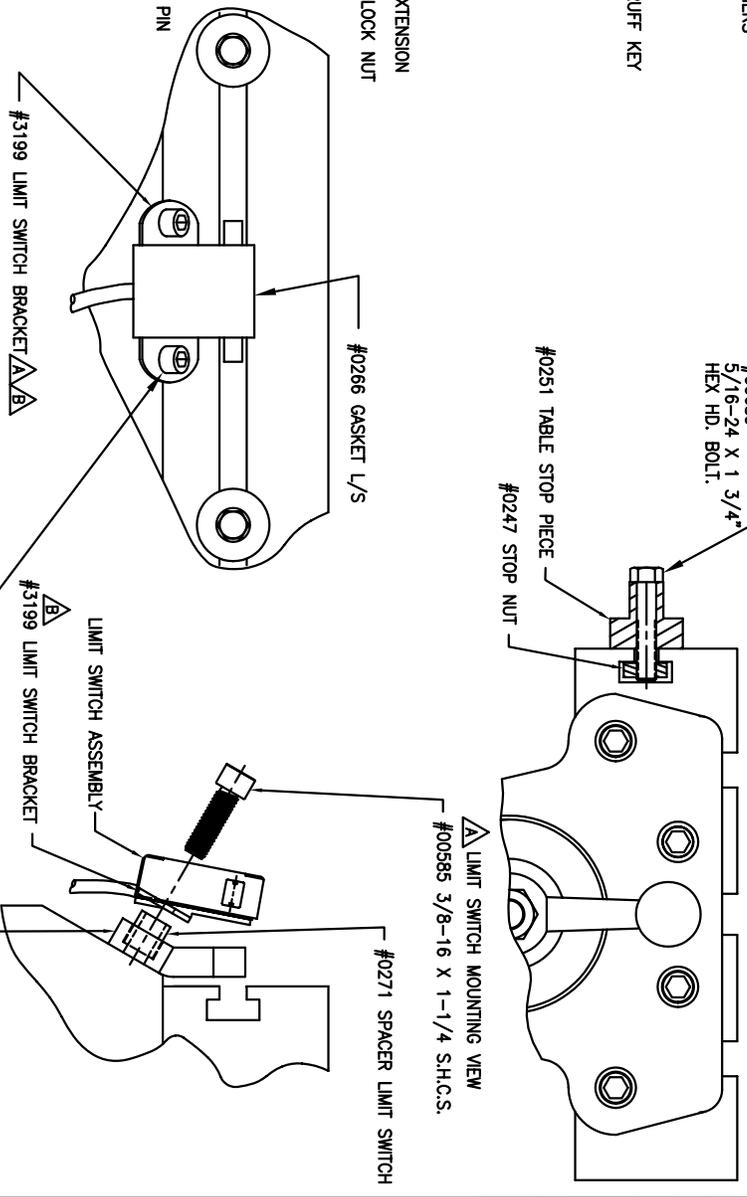
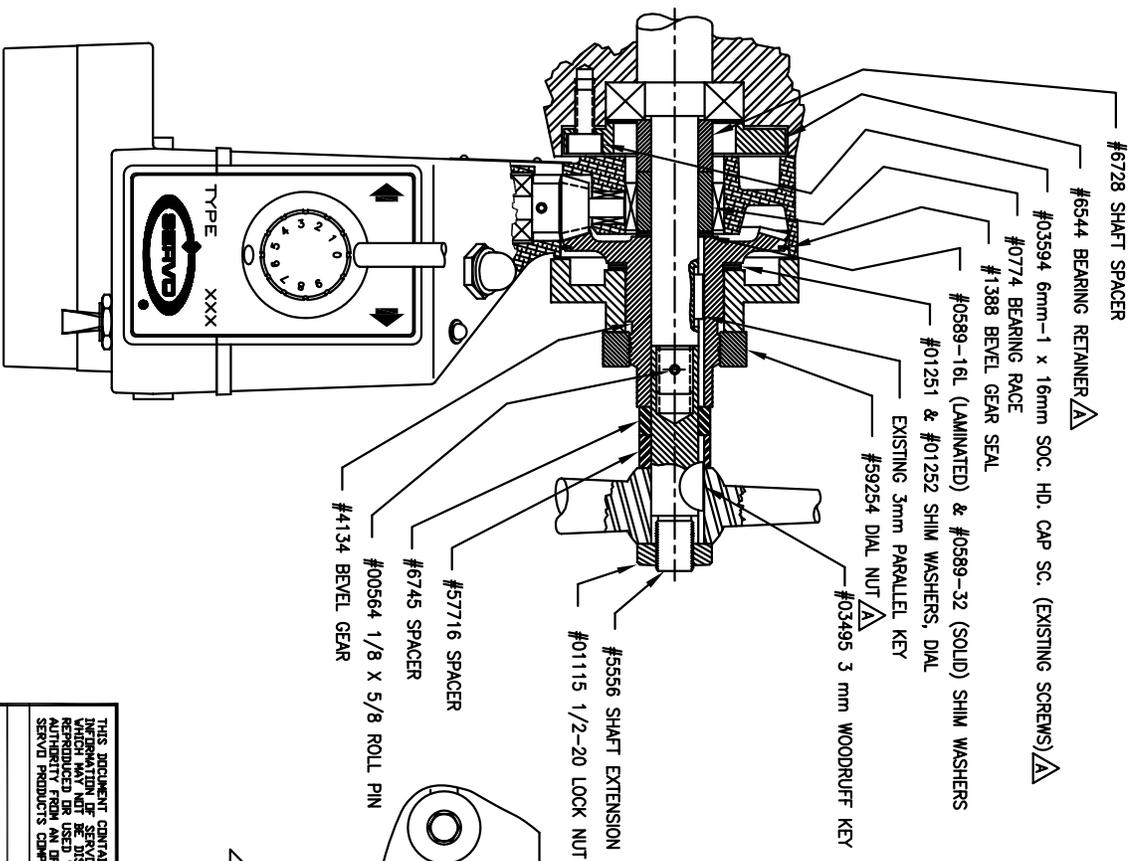
PICTURES IN THIS DRAWING ARE FOR REFERENCE ONLY. SEE INSTALLATION DRAWING OF CORRESPONDING MODEL FOR EXACT PARTS CONFIGURATION.

SERVO PRODUCTS COMPANY

BEVEL GEAR INSTALLATION

NA-5444 C

STEP 4
LUBRICATION



CONFIDENTIAL

REVISION		DATE	DRAWN	CHECKED
ECD	LTR			
N/A	A	ADDED LIMIT SWITCH MOUNTING VIEW: 59254 WAS 2255	6/21/06	B.G.W.
N/A	A	0272 WAS 00576; 6544 WAS 08544; 0272 WAS 00576		R.R.A.
N/A	B	ADDED "EXISTING SCREWS"	7/23/08	B.G.W.
				R.R.A.

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

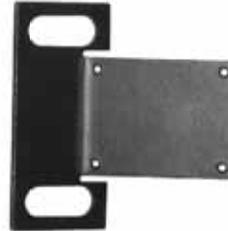
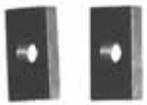
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CONTRACT NO.	DATE	APPROVALS
		T. KU 04/08/96
APPLICATION	USED IN	
NEXT ASSY		

SERVO PRODUCTS COMPANY 34940 LINDA BLVD, EASTLAKE, OHIO 44095	
INSTALLATION DRAWING, MODEL 9130 KALAMAZOO 2YS, 3VS, 4YSQ	
SIZE	CODE IDENT NO.
B	0800-80591
SCALE	DRAWING NO.
5/8	NB-58330
SHEET	REV.
1	B



M-9130 TABLE FEED PARTS IDENTIFICATION LIST

	01050 Clamp Qty = 1		0266 Limit Switch Gasket Qty = 1		3199 Limit Switch Bracket Qty = 1		06928 Phil Pan Head Screw Qty = 4		0271 Limit Switch Spacer Qty = 2		00585 Soc Hd Cap Screw Qty = 2		05038 Soc Hd Cap Screw Qty = 2		00689 Hex Hd Bolt Qty = 2		0247 Stop Nut Qty = 2		0251 Limit Stop Qty = 2
	03495 Key Qty = 1		00564 Roll Pin Qty = 1		01115 Lock Nut Qty = 1		5556 Shaft Extension Qty = 1		57716 Spacer Qty = 1		6745 Spacer Qty = 1		59254 Dial Nut Qty = 1		01251 Brass Shim Qty = 2		01252 Plastic Shim Qty = 2		4134 Bevel Gear Qty = 1
	0589-32 .032 Shim Qty = 4		0589-16L .016 Shim Qty = 1		0774 Bearing Race Qty = 1		6728 Spacer Qty = 1		00586 Soc Hd Cap Screw Qty = 2		03594 Soc Hd Cap Screw Qty = 3		6544 Bearing Retainer Qty = 1						