

POWER FEED INSTALLATION

Model M-9122 Table Feed

Servo Mills SV50 & SV54



REFERENCE DRAWINGS ENCLOSED

NA-5444	Bevel Gear Installation
NB-58631	Power Feed Installation
ND-6293	Type 150 Servo Power Feed
ND-6292	Type 140 Servo Power Feed
0800-80001	Servo Power Feed Operation

PREPARATION

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

- a) 3/8" electric hand drill
- b) #7 drill, 1/8" drill
- c) 1/4-20 tap
- d) 9/32" diameter transfer punch
- e) flat file
- f) 3/4" socket wrench
- g) set of inch hex wrenches
- h) grease
- i) masking tape
- j) clean shop rag

Step 2: Clean the power feed mounting area completely.

Step 3: Remove the nut, handle, and dial assembly from the right hand end of the table. Keep the dial for reuse later.

MOUNTING HARDWARE INSTALLATION

Step 1: Slip the bearing race #0714 onto the lead screw shaft.

Step 2: Slip the adaptor #57237 over the bearing race and slide both together to locate the adaptor against the table bracket.

Step 3: Line up the mounting holes on the adaptor such that the power feed can be mounted vertically. Using a 9/32" diameter transfer punch, transfer the three mounting holes to the bracket.

Step 4: Remove the adaptor and the bearing race. Mask the bearing in the bracket.

Step 5: Drill and tap 1/4-20 UNC threads to 1/2" deep. Clean thoroughly. Do **not** use air.

Step 6: Lubricate the shaft with a light coat of grease. Slip the bearing race back onto the shaft. Then slip the adaptor over the race to center it with the shaft. Slide both pieces to locate the adaptor against the table bracket, keeping the portion of the race sticking out beyond the counterbored end of the adaptor so that it can be removed later. Secure the adaptor with three 1/4-20 x 1-1/2" long socket head cap screws provided. Remove the bearing race.

Step 7: Slip spacer #6836 onto the shaft followed by the bearing race as shown on drawing NB-58631.

SHAFT EXTENSION AND POWER FEED INSTALLATION

Step 1: Screw on the shaft extension #0333 onto the lead screw and tighten.

Step 2: Following the existing pilot hole, drill through the shaft extension using a 1/8" diameter drill.

Step 3: Support the other side of the hole with a heavy piece of metal and hammer in the #00564 roll pin. File smooth and clean thoroughly.

Step 4: Slide the Power Feed onto the bearing race and push against the adaptor. Secure with two 1/4-20 x 1-1/8" long socket head cap screws.

IF: If the bearing race is not flush with the needle bearing in the unit within $\pm.05$ ", then either shim behind the race or machine the spacer to correctly locate the race.

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, install the key, dial and dial nut #2255. Slide the handwheel #58923 in place and tighten with 1/2-20 locknut #01115.

Step 3: To avoid injury, replace the handle on the left side of the table with the extra handwheel #58923 provided.

LIMIT SWITCH INSTALLATION

Step 1: Remove the standard table stop pieces. 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. 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!

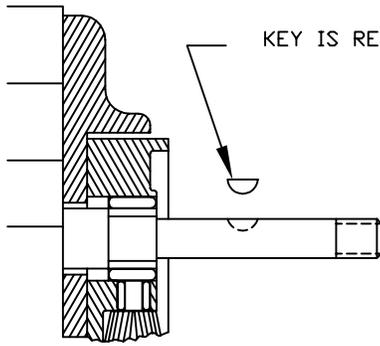
Prevent contact during fast traverses.

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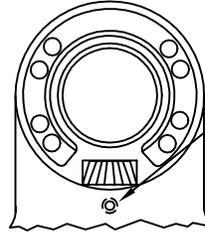
433 North Fair Oaks Avenue, Pasadena, CA 91103 USA
Phone: 800.521.7359 or 626.796.2460 Fax: 626.796.3845

Web: www.servo.cc Email: info@servo.cc

Call for the location of our regional Service Centers.

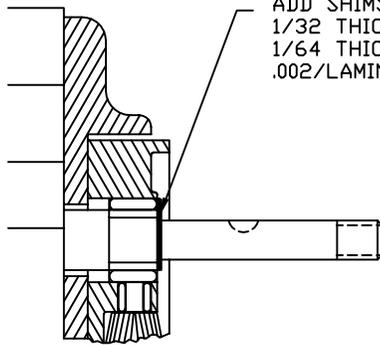


KEY IS REMOVED DURING SHIMMING

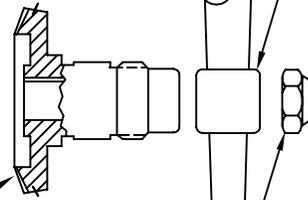


TIGHTEN SLIGHTLY (HOLDS BEVEL PINION STATIONARY DURING SHIMMING.)

STEP 1
PREPARATION



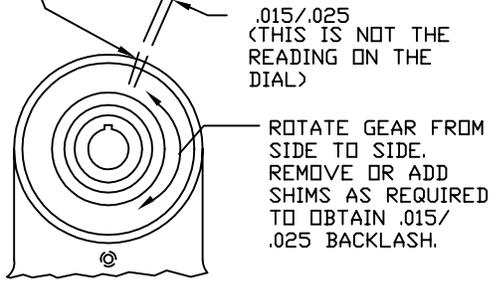
ADD SHIMS PROVIDED
1/32 THICK ARE SOLID
1/64 THICK ARE LAMINATED
.002/LAMINATION



PUSH BEVEL GEAR AGAINST SHIMS.

INSTALL HANDCRANK.

MARK HOUSING AND BEVEL GEAR WITH PENCIL TO CHECK BACKLASH.



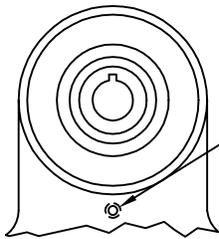
.015/.025
(THIS IS NOT THE READING ON THE DIAL)

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

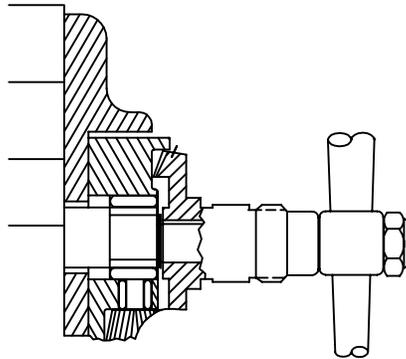
TIGHTEN NUT.

STEP 2
SHIMMING BEVEL GEAR

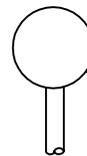
CAUTION: IF BACKLASH IS NOT PROPERLY SET BEFORE TURNING UNIT ON, BEVEL GEAR MAY BE DESTROYED.



LOOSEN SETSCREW

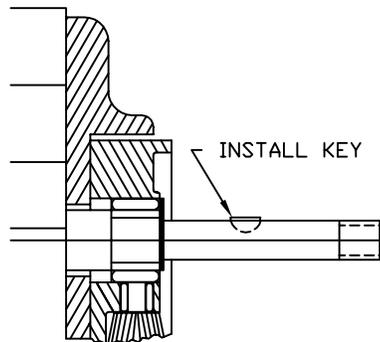


WITH POWER FEED IN NEUTRAL POSITION, TURN HANDCRANK. IF EXCESSIVE GEAR NOISE OR BINDING OCCURS, SHIMS NEED TO BE ADDED. WHEN ADDING SHIMS, REPEAT STEPS 1 AND 2.

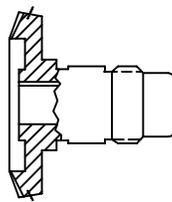


CONTROL HANDLE @ NEUTRAL POSITION

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.

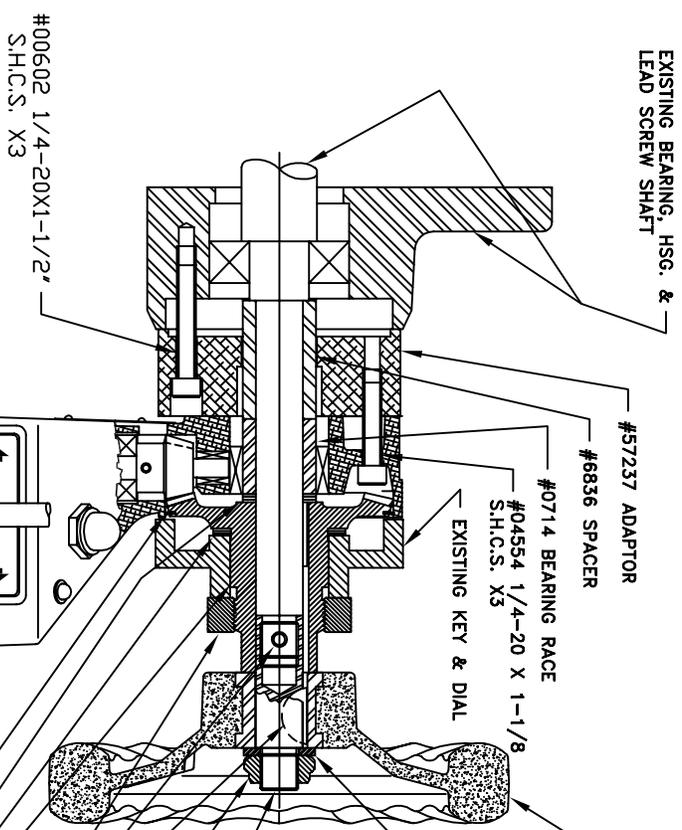
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BEVEL GEAR INSTALLATION

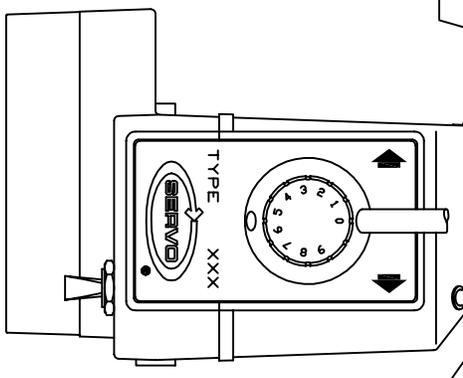
NA-5444 C

STEP 4
LUBRICATION

REVISION		DATE	DRAWN	CHECKED
ECD	LTR			
DESCRIPTION				

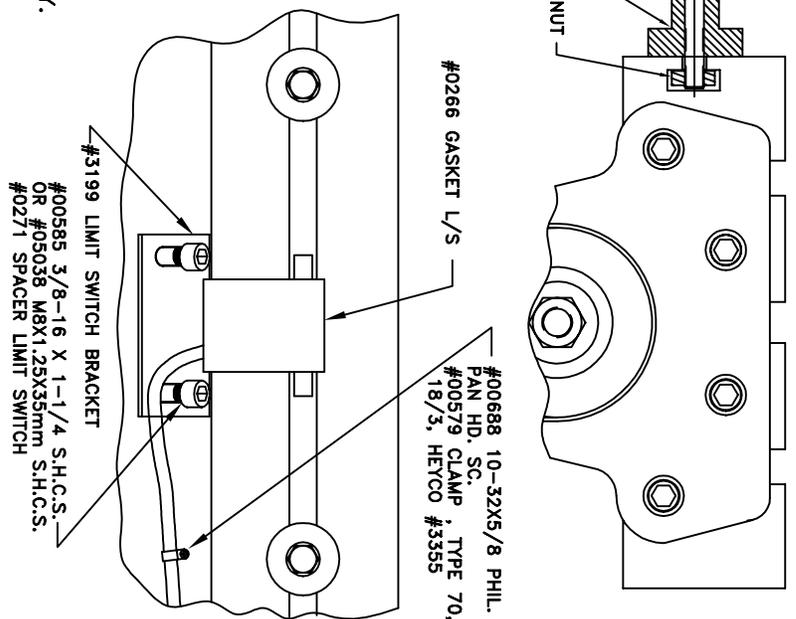


- NOTE:
1. REVIEW ALL INSTALLATION INSTRUCTIONS AND POWER FEED OPERATIONS BEFORE TURNING ON SERVO POWER FEED.
 2. REPLACE TABLE LEFT SIDE HANDLE WITH EXTRA HANDWHEEL #58923 PROVIDED TO AVOID INJURY.



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± 1/64 .XX ± .005 ± 1/2°	APPROVALS
MATERIAL	DATE
FINISH	10/21/98
DID NOT SCALE DRAWING	DRAWN G. BUNN
USED IN	CHECKED
APPLICATION	COMPUTER NO.
NEXT ASSY	



INSTALLATION DRAWING MODEL 9122

SERVO PRODUCTS COMPANY
433 N. FAIR DAMS AVE., PASADENA, CALIFORNIA 91109

SIZE CODE IDENT. NO. DRAWING NO. REV.
B 0800-80750 NB-58631 A

SCALE 5/8 SHEET OF