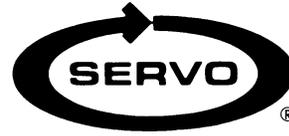


POWER FEED INSTALLATION

Model M-2750 Cross Feed

Hartford, Newport, and others



REFERENCE DRAWINGS ENCLOSED

| | |
|------------|----------------------------|
| NA-5444 | Bevel Gear Installation |
| NB-3735 | Power Feed Installation |
| ND-1538 | Limit Switch Installation |
| ND-6293 | Type 150 Servo Drive |
| ND-6292 | Type 140 Servo Drive |
| 0800-80001 | Servo Power Feed Operation |

PREPARATION

- Step 1:* Remove the nut, crank, dial assembly, and key from the lead screw.
- Step 2:* Slide the bearing race onto the lead screw. Slide the power feed over the bearing race.
- Step 3:* Line up the feed so that it sits square to the bearing housing. Using the power feed as a template, spot two holes in the bearing retainer plate.
- Step 4:* Remove the power feed and bearing race.
- Step 5:* Remove the four screws holding the bearing housing and then remove the bearing housing. (The lead screw can be used to jack the housing off the pins. The lead screw does not have to be removed from the mill.)
- Step 6:* Drill and tap two holes 1/4-20 x 7/8" deep.
- Step 7:* Put the bearing housing back onto the knee.

POWER FEED INSTALLATION

- Step 1:* Screw the shaft extension to the lead screw and tighten.
- Step 2:* Using the hole provided as a pilot, drill 1/8" diameter through. Pin the extension in place using the 1/8 diameter x 5/8" long roll pin. File smooth.
- Step 3:* Replace the bearing race onto the lead screw.
- Step 4:* Slide the power feed over the bearing race and secure using 1/4-20 x 1-1/2" long socket head cap screws provided.

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, put on the dial locking nut, place the #7 woodruff key in the shaft extension, and slide the handcrank onto the shaft extension. Secure using the 1/2-20 lock nut provided.

□ **NOTE** *A smaller diameter handcrank is supplied in order to have clearance between the cross feed crank and the knee crank.*

LIMIT SWITCH INSTALLATION

Step 1: See the limit switch installation drawing NB-1538 enclosed.

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!

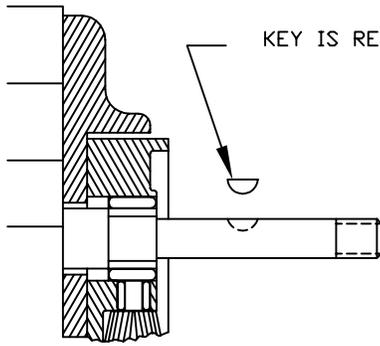
Prevent contact during fast traverses.

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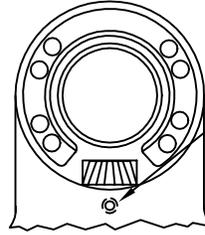
433 North Fair Oaks Avenue, Pasadena, CA 91103 USA
Phone: 800.521.7359 or 626.796.2460 Fax: 626.796.3845

Web: www.servoproductsco.com

Call for the location of our regional Service Centers.

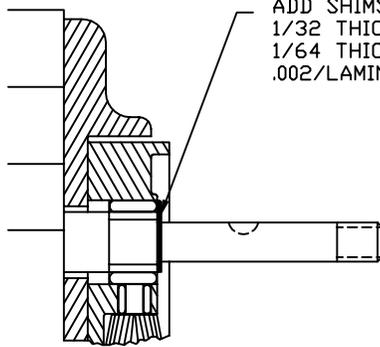


KEY IS REMOVED DURING SHIMMING

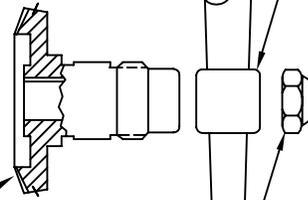


TIGHTEN SLIGHTLY (HOLDS BEVEL PINION STATIONARY DURING SHIMMING.)

STEP 1
PREPARATION



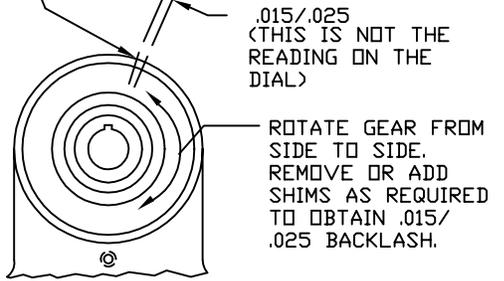
ADD SHIMS PROVIDED
1/32 THICK ARE SOLID
1/64 THICK ARE LAMINATED
.002/LAMINATION



PUSH BEVEL GEAR
AGAINST SHIMS.

INSTALL HANDCRANK.

MARK HOUSING AND BEVEL GEAR
WITH PENCIL TO CHECK BACKLASH.



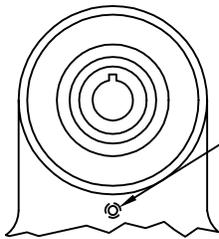
.015/.025
(THIS IS NOT THE
READING ON THE
DIAL)

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

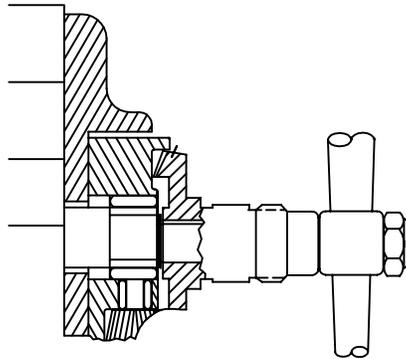
TIGHTEN NUT.

STEP 2
SHIMMING BEVEL
GEAR

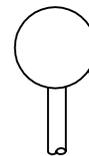
CAUTION: IF BACKLASH
IS NOT PROPERLY SET
BEFORE TURNING UNIT ON,
BEVEL GEAR MAY BE
DESTROYED.



LOOSEN SETSCREW

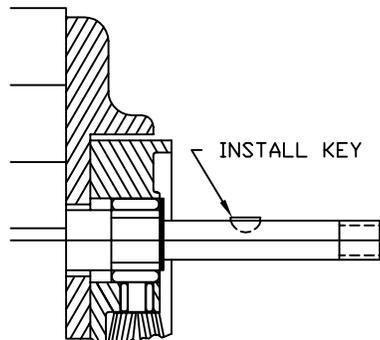


WITH POWER FEED IN
NEUTRAL POSITION, TURN
HANDCRANK. IF EXCESSIVE
GEAR NOISE OR BINDING
OCCURS, SHIMS NEED TO BE
ADDED. WHEN ADDING SHIMS,
REPEAT STEPS 1 AND 2.

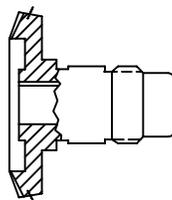


CONTROL HANDLE @
NEUTRAL POSITION

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.

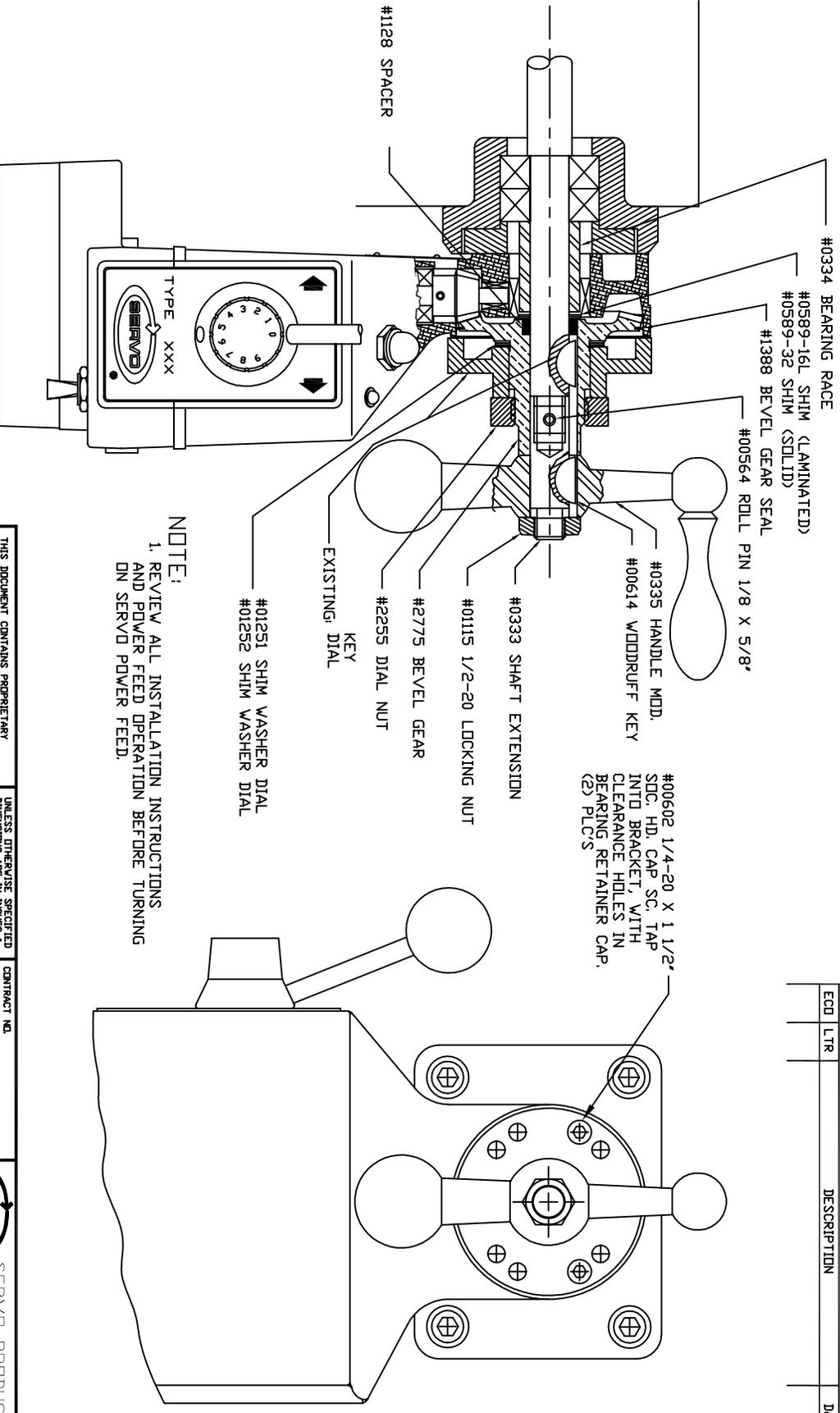
SERVO PRODUCTS COMPANY

BEVEL GEAR INSTALLATION

NA-5444 C

STEP 4
LUBRICATION

| REVISION | | DATE | DRAWN | CHECKED |
|-------------|-----|------|-------|---------|
| ECD | LTR | | | |
| DESCRIPTION | | | | |



UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES & TOLERANCES ARE AS FOLLOWS: FRACTIONS: DECIMALS: ANGLES: ± 1/64" .XX ± .005 ± 1/2° MATERIAL: XXX ± .005 CHECKED: DRAWN G. BUINN 6/27/95

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| | | |
|--------------|-----------|---------|
| CONTRACT NO. | APPROVALS | DATE |
| | G. BUINN | 6/27/95 |
| CHECKED | | |

SERVOD PRODUCTS COMPANY
 433 N. FAIR OAKS AVE., PASADENA, CALIFORNIA 91103

INSTALLATION DRAWING
MODEL 2750 CROSS

SIZE: B CODE IDENT. NO.: 0800-80034 DRAWING NO.: NB-3735 SHEET: A OF: A

SCALE: 5/8

COMPUTER NO.: NB3735A.DWG

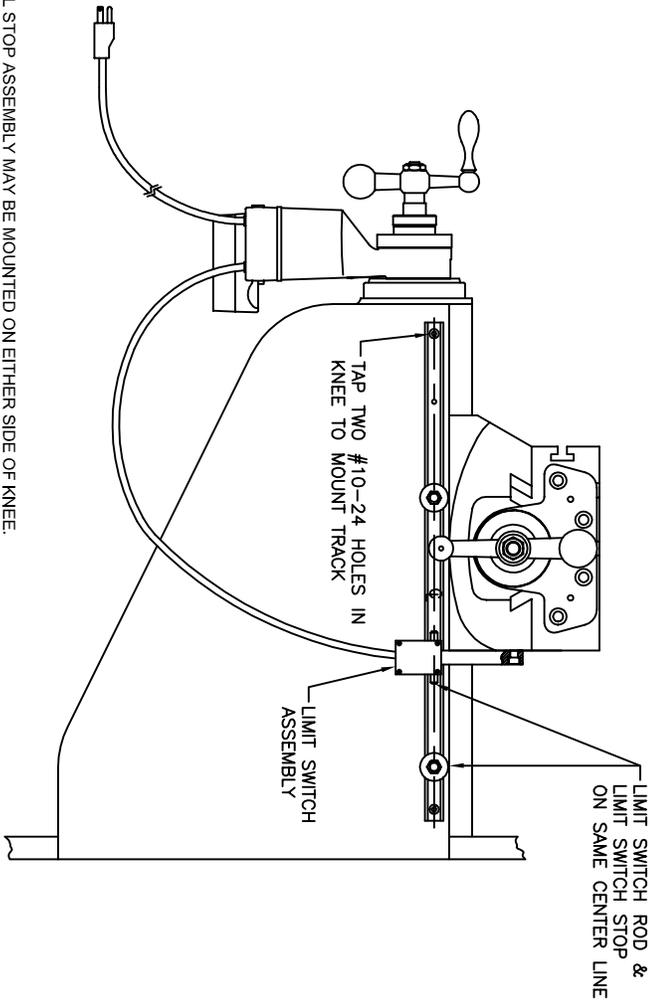
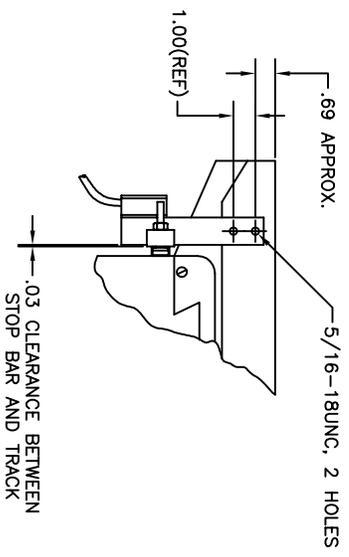
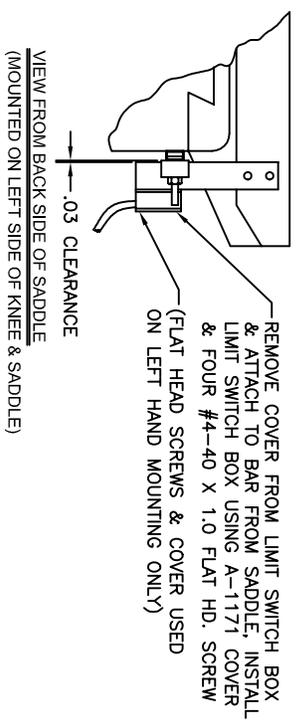
APPLICATION: USED IN: NEXT ASSY:

UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE WITHIN .01 FLATNESS TO BE WITHIN .01 CONCENTRICITY TO BE WITHIN .01 REMOVE SHARP EDGES AND CORNERS .005 MIN. DRAWING STANDARD PER ANSI Y14.5M-1982

4 3 2 1

A B C D

| REVISION | | DATE | DRAWN | CHECKED |
|-------------|-----|------|-------|---------|
| ECC | LTR | | | |
| DESCRIPTION | | | | |



- NOTES:
1. CROSS TRAVEL STOP ASSEMBLY MAY BE MOUNTED ON EITHER SIDE OF KNEE
 2. WHEN MILL HAS MEASURING ATTACHMENT, MOUNT LIMIT SWITCH, STOPS & TRACK ON OPP. SIDE.
 3. REFERENCE DRAWING ONLY. INSTALLATION SHOWN IS A BRIDGEPORT MILL.

VIEW FROM BACK SIDE OF SADDLE
(MOUNTED ON RIGHT SIDE OF KNEE & SADDLE)

UNLESS OTHERWISE SPECIFIED
PERPENDICULARITY, PARALLELISM,
STRAIGHTNESS, FLATNESS, ROUND-
CONCENTRICITY, CYLINDRICITY TO BE
WITHIN .01 TOTAL OR .040/IN.
SURFACE ROUGHNESS WITHIN 125
REMOVE SHARP CORNERS AND
EDGES .005 MIN. DRAFTING
STANDARD PER ANSI Y14.5M-1982

| | | | | |
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| | MATERIAL | DRAWN T. KU | | 02/01/01 |
| | FINISH | CHECKED | | |
| | DO NOT SCALE DRAWING | | | |
| | APPLICATION | USED ON | | |
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|---|----------------|--|------|
| | | SERVO PRODUCTS COMPANY 433 NO. FAIR OAKS AVE., PASADENA CALIFORNIA 91103 | |
| INSTALLATION DRAWING LIMIT SWITCH, CROSS FEEDS | | | |
| SIZE | CODE IDENT NO. | DRAWING NO. | REV. |
| B | 0800-8002-1 | NB-1538 | A |
| SCALE | NONE | SHEET | OF |

