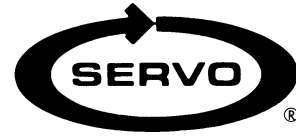


POWER FEED INSTALLATION

Model M-5980 Knee Feed

Victor 380VSK or VK



REFERENCE DRAWINGS ENCLOSED

NA-5444	Bevel Gear Installation
NB-6816	Power Feed Installation
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) lathe
 - b) 3/8" electric hand drill
 - c) #7 drill, 1/8" drill, 7/16" drill
 - d) 1/4-20 tap
 - e) flat file
 - f) 3/4" socket wrench
 - g) set of inch hex wrenches
 - h) grease
 - i) clean shop rag
- Step 2:** Remove the drive clutch from the elevating jack shaft. (Clutch is a push fit on the shaft.)
- Step 3:** Remove the dial and nut.
- Step 4:** Remove screws from bearing retainer.
- Step 5:** Pull jack shaft out of knee (easy pull). Hold inboard end up while removing to avoid damage to the pinion gear.
- Step 6:** Hold dial hub in soft jaws and unscrew.
- Step 7:** Remove the bearing retainer if it exists and press the bearing housing and bearing off the shaft.
- Step 8:** Drill and ream the end of the jack shaft .4375" diameter by 13/16" deep. The .4375" diameter must be concentric to the shaft O.D. within .002" T.I.R. Chamfer 1/32" x 1/2" diameter. **For best results, machining should be done in a lathe.**
- Step 9:** Place the shaft extension into the jack shaft. Finish drill 1/8" diameter hole through the shaft and pin with the 1/8" diameter x 5/8" long roll pin. File smooth.
- Step 10:** Reassemble and replace the jack shaft in the machine.

POWER FEED INSTALLATION

- Step 1:* Slide the bearing race onto the lead screw.
- Step 2:* Slide the Power Feed over bearing race and against the bearing housing of the mill.
- IF:* If necessary, rotate feed 30 degrees clockwise from the vertical position.
- Step 3:* Spot two mounting holes in the bearing retainer. Drill and tap 1/4-20 thread. Secure feed with 1/4-20 x 1" socket screws provided.

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, put on the dial lock nut, place the key in the shaft, slide the handwheel in place and tighten with 1/2-20 locknut #01115.

LIMIT SWITCH INSTALLATION

Install the limit switch as shown.

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.

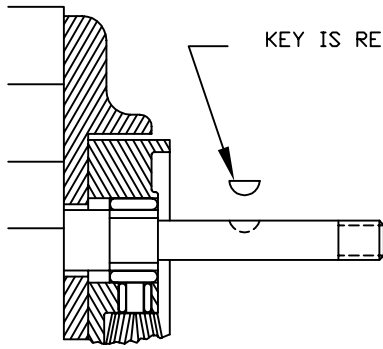
Clearances between the surfaces of the hand crank and the non-moving parts of the equipment on which the hand crank is installed must be at least one-fourth inch (1/4") to prevent injury. Modification of existing hand crank or replacement may be required.

Do not operate without proper clearance!

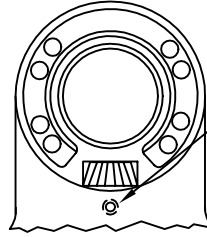
Prevent contact during fast traverses.

SERVO PRODUCTS COMPANY

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.

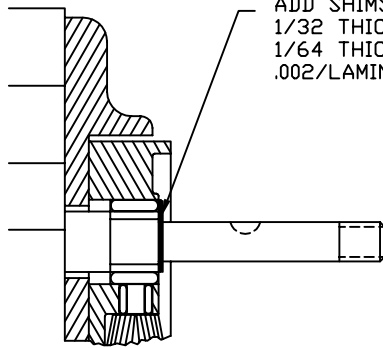


KEY IS REMOVED DURING SHIMMING

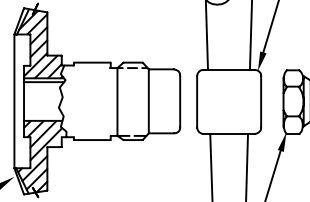


TIGHTEN SLIGHTLY (HOLDS BEVEL PINION STATIONARY DURING SHIMMING.)

STEP 1
PREPARATION



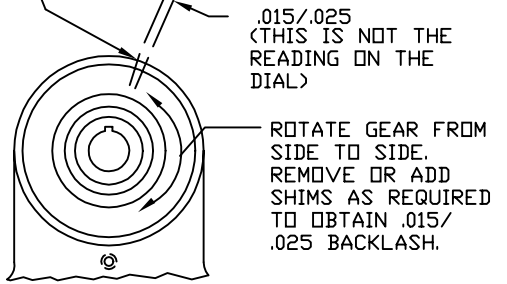
ADD SHIMS PROVIDED
1/32 THICK ARE SOLID
1/64 THICK ARE LAMINATED
.002/LAMINATION



PUSH BEVEL GEAR
AGAINST SHIMS.

INSTALL HANDCRANK.

MARK HOUSING AND BEVEL GEAR
WITH PENCIL TO CHECK BACKLASH.



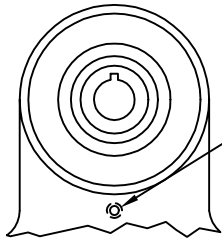
.015/.025
(THIS IS NOT THE
READING ON THE
DIAL)

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

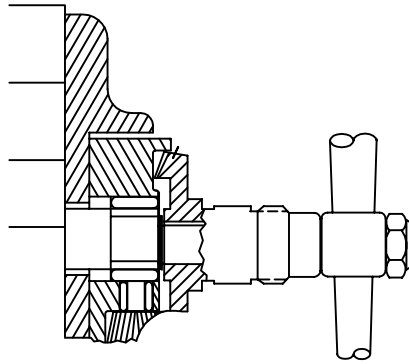
TIGHTEN NUT.

STEP 2
SHIMMING BEVEL
GEAR

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



LOOSEN SETSCREW

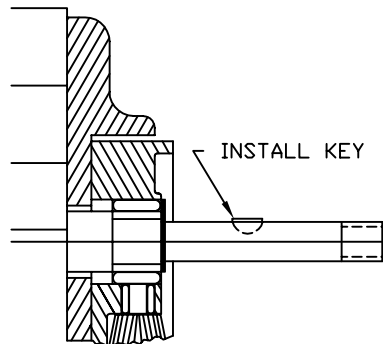


WITH POWER FEED IN
NEUTRAL POSITION, TURN
HANDCRANK. IF EXCESSIVE
GEAR NOISE OR BINDING
OCCURS, SHIMS NEED TO BE
ADDED. WHEN ADDING SHIMS,
REPEAT STEPS 1 AND 2.

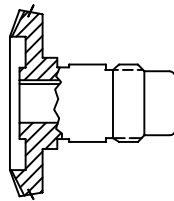


CONTROL HANDLE @
NEUTRAL POSITION

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)

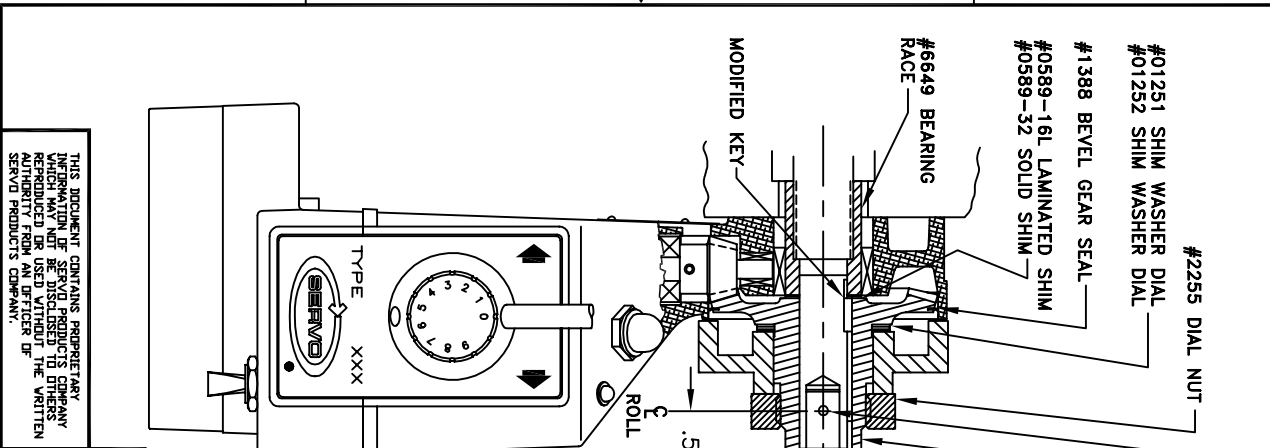
PICTURES IN THIS DRAWING ARE FOR
REFERENCE ONLY. SEE INSTALLATION
DRAWING OF CORRESPONDING MODEL
FOR EXACT PARTS CONFIGURATION.

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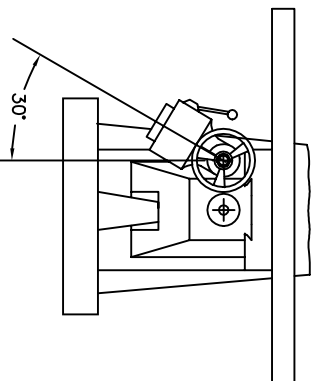
BEVEL GEAR INSTALLATION

NA-5444 C

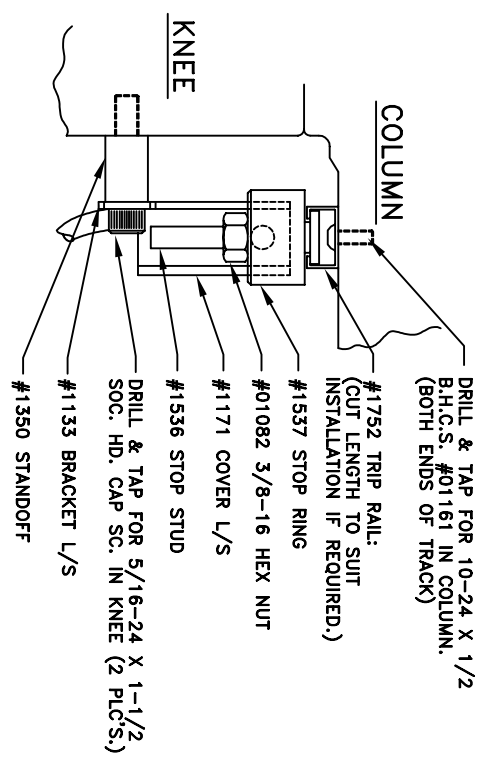
STEP 4
LUBRICATION



NOTE:
1. REVIEW ALL INSTALLATION INSTRUCTIONS AND POWER FEED.
FEED OPERATION BEFORE TURNING ON SERVO POWER FEED.



ROTATE FEED 30° CLOCKWISE FOR CLEARANCE OF CROSS FEED.



UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES & FRACTIONS DECIMALS $\pm 1/64$ ANGLES $\pm 1/2^\circ$ FINISH MATERIAL NOTED CHECKED
DRAWN J. TUCKER DATE 1/30/97
APPROVALS
CONTRACT NO.
DATE
1/30/97
COMPUTER NO.
DATE

UNLESS OTHERWISE SPECIFIED PERPENDICULARITY, PARALLELISM, STRAIGHTNESS, FLATNESS, ROUNDNESS, CONCENTRICITY, CYLINDRICITY TO BE WITHIN .01 TOTAL OR .040/IN. SURFACE ROUGHNESS WITHIN 125 REMOVE SHARP CORNERS AND EDGES .005 MIN. DRAGGING STANDARD PER ANSI Y43M-1982

APPICATION	USED IN	DID NOT SCALE DRAWING

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SERVOPRODUCTS COMPANY 433 N. FAIR DAKS AVE., PASADENA CALIFORNIA 91103		
MODEL 5980		
INSTALLATION DRAWING VICTOR 380VSK or VK		
SIZE	CODE IDENT NO.	DRAWING NO.
B	0800-	NB6816
SCALE	80341	REV. B