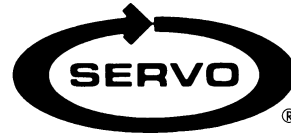


POWER FEED INSTALLATION

Model M-5580 Knee Feed

Kent 2S



REFERENCE DRAWINGS ENCLOSED

NA-5444	Bevel Gear Installation
NB-6841	Power Feed Installation
NC-0792	Limit Switch Installation
ND-6292	Type 140 Servo Drive
0800-80001	Servo Power Feed Operation

PREPARATION

- Step 1:* Remove the drive clutch, dial, and nut from the elevating jack shaft.
- Step 2:* Remove the bearing retainer.
- Step 3:* Pull the jack shaft out of the knee. ***Hold inboard end up*** while removing to avoid damage to the pinion gear.
- Step 4:* Remove the dial holder and press the bearing off the jack shaft.
- Step 5:* Drill and ream the end of the jack shaft .4375 diameter by 13/16 deep. The hole must be concentric to shaft o.d. within .002 TIR. Chamfer 1/32 x 1/2 diameter. ***For best results, machining should be done in a lathe.***
- Step 6:* Place the shaft extension onto the jack shaft. Drill 1/8 diameter through the shaft and pin the extension with 1/8 x 5/8" long roll pin. File smooth.
- Step 7:* Reassemble the bearing to the jack shaft.
- Step 8:* Replace the jack shaft in the machine.
- Step 9:* Replace the bearing retainer in the machine and tighten the screws.

POWER FEED INSTALLATION

- Step 1:* Slide the spacer #6843 onto the jack shaft.
- Step 2:* Slide the bearing race #6647 onto the jack shaft.
- Step 3:* Slide the feed unit over the bearing race and against the bearing retainer of the mill. Spot the mounting holes in the bearing retainer.
- Step 4:* Remove the bearing retainer from the machine.
- Step 5:* Drill and tap 1/4-20 thread through the bearing retainer at the spotted hole locations.
- Step 6:* Replace the bearing retainer in the machine and tighten the screws.
- Step 7:* With the spacer and bearing race in place, slide on the power feed.
- Step 8:* Secure the feed with 1/4-20 x 1" long socket 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. Four washers are provided for this, two solid and two laminated. Shim as required.

Step 2: In the following sequence, put on the dial locking nut, place the key in the shaft, slide the handcrank onto the end of the shaft extension and tighten with the 1/2-20 locking nut.

LIMIT SWITCH INSTALLATION

Step 1: See the limit switch installation drawing NC-0792 enclosed.

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!

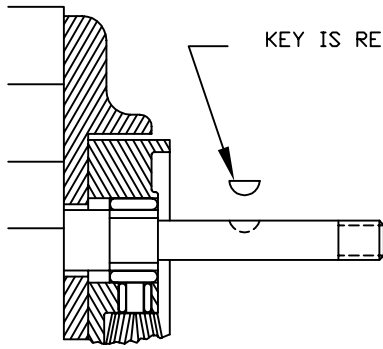
Prevent contact during fast traverses.

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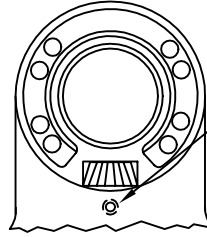
433 North Fair Oaks Avenue, Pasadena, CA 91103 USA
Phone: 800.521.7359 or 626.796.2460 Fax: 626.796.3845

Web: www.servoproductsco.com

Call for the location of our regional Service Centers.

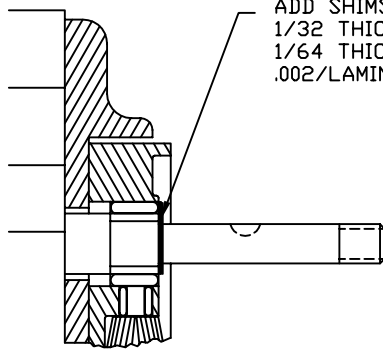


KEY IS REMOVED DURING SHIMMING

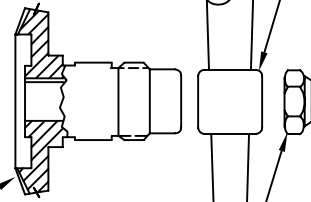


TIGHTEN SLIGHTLY (HOLDS BEVEL PINION STATIONARY DURING SHIMMING.)

STEP 1
PREPARATION



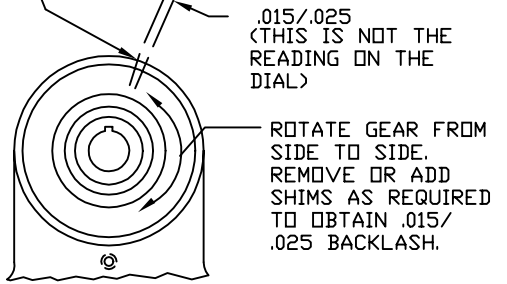
ADD SHIMS PROVIDED
1/32 THICK ARE SOLID
1/64 THICK ARE LAMINATED
.002/LAMINATION



PUSH BEVEL GEAR AGAINST SHIMS.

INSTALL HANDCRANK.

MARK HOUSING AND BEVEL GEAR WITH PENCIL TO CHECK BACKLASH.



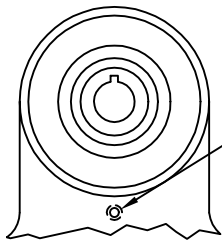
.015/.025
(THIS IS NOT THE READING ON THE DIAL)

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

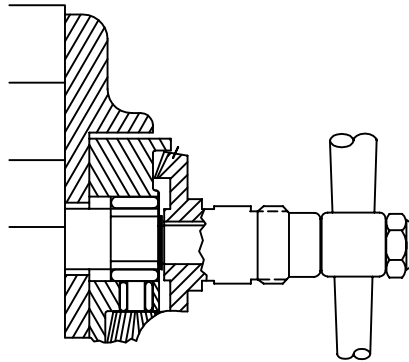
TIGHTEN NUT.

STEP 2
SHIMMING BEVEL GEAR

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



LOOSEN SETSCREW

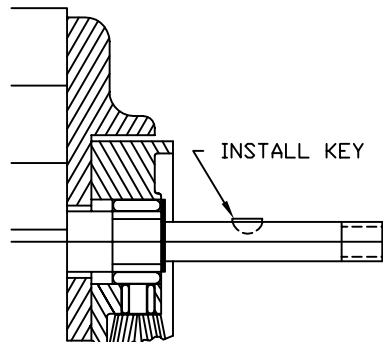


WITH POWER FEED IN NEUTRAL POSITION, TURN HANDCRANK. IF EXCESSIVE GEAR NOISE OR BINDING OCCURS, SHIMS NEED TO BE ADDED. WHEN ADDING SHIMS, REPEAT STEPS 1 AND 2.



CONTROL HANDLE @ NEUTRAL POSITION

STEP 3
DOUBLE CHECK OF SHIMMING



INSTALL KEY



SEAL

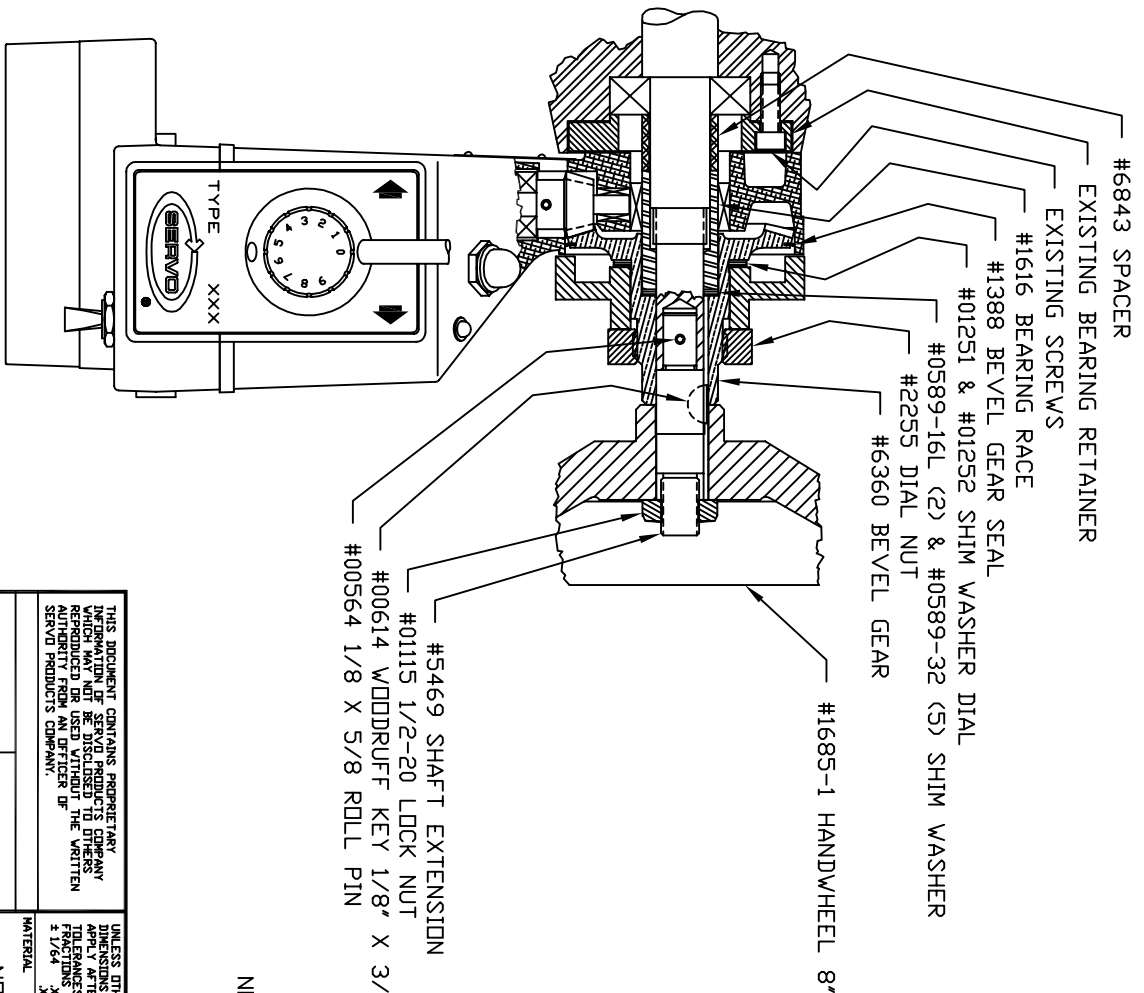
REMOVE GEAR, PACK WITH GREASE. (DO NOT USE SILICONE TYPE GREASE) REPLACE GEAR. (DO NOT LOSE ANY SHIMS)

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




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 FRACTIONS. DECIMALS ± 1/64 ". ANGLES ± 1/2°. FINISH: .XX ± .005. REMOVE SHARP EDGES AND CORNERS .005 MIN. DRAWING STANDARD PER ANSI Y43M-1982

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CONTRACT NO.	APPROVALS	DATE
	DRAWN J. TUCKER	2/11/97
CHECKED		


SERVO PRODUCTS COMPANY
 433 N. FAIR OAKS AVE., PASADENA, CALIFORNIA 91103
MODEL 5580
INSTALLATION DRAWING
KENT SKV & 2S

SIZE	CODE IDENT NO.	DRAWING NO.	REV.
B	0800-80347	NB-6841	A
SCALE	5/8	SHEET	1 OF 1

APPLICATION	USED ON
NEXT ASSY	

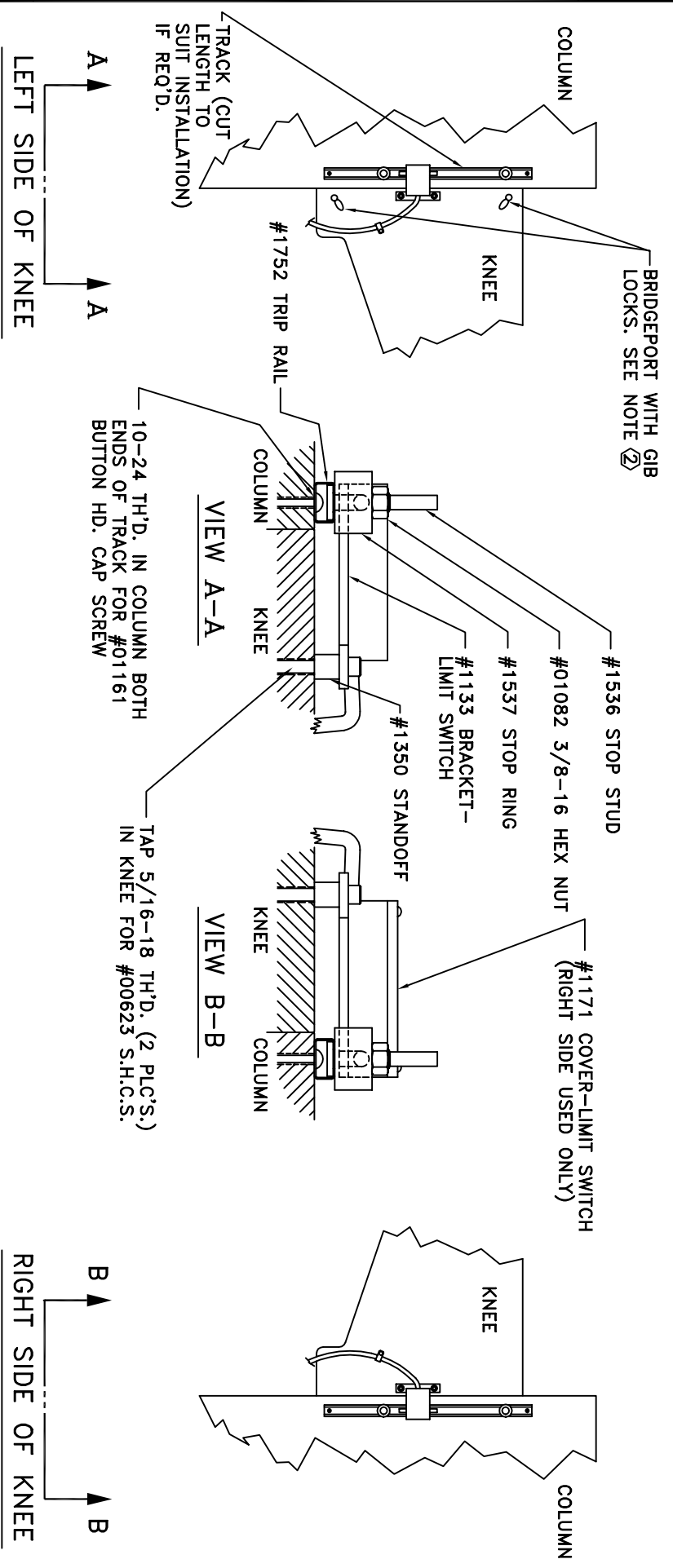
DID NOT SCALE DRAWING

COMPUTER NO.

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REVISION		DATE	DRAWN	CHECKED
ECD	LTR	DESCRIPTION		

- NOTES:**
- LIMIT SWITCH MAY BE MOUNTED ON RIGHT OR LEFT HAND SIDE OF MILL.
 - BRIDGEPORT WITH GIB LOCKS IN KNEE MOUNT LIMIT SWITCH ON RIGHT HAND SIDE OF KNEE.



UNLESS OTHERWISE SPECIFIED, FLATNESS TO BE WITHIN .01 CONCENTRICITY TO BE WITHIN .01 REMOVE SHARP EDGES AND CORNERS .005 MIN.

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

CONTRACT NO.	APPROVALS	DATE
	J. TUCKER	05/20/98
DID NOT SCALE DRAWING	FINISH NOTED	CHECKED

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INSTALLATION LIMIT STOP

SIZE CODE IDENT. NO. DRAWING NO. NC-0792

SCALE B SHEET 1 OF 1

A B C D 4 3 2 1

A B C D 4 3 2 1