

POWER FEED INSTALLATION

Model M-5051 Cross Feed

Acra 9x45



REFERENCE DRAWINGS ENCLOSED

NA-5444	Bevel Gear Installation
NB-6319	Power Feed 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, handle, dial assembly, and key from the lead screw.
- Step 2:* Slide the bearing race and the adaptor onto the lead screw.
- Step 3:* Using the adaptor as a template, spot 4 holes. Remove the bearing race and the adaptor. Drill and tap 1/4-20 through four places.
- Step 4:* Screw the shaft extension onto the lead screw and tighten. Using the hole provided as a pilot, drill 1/8 diameter through and pin the shaft extension in place using the 1/8 x 5/8 roll pin. File smooth.

POWER FEED INSTALLATION

- Step 1:* Slide the spacer, bearing race, and adaptor onto the lead screw and secure using 1/4-20 x 1" long socket head cap screws.
- Step 2:* Slide the power feed over the bearing race and secure to the adaptor using two 1/4-20 x 1" long socket head cap screws.

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:* After proper shimming of the bevel gear and the dial, install the woodruff key and handcrank. Tighten with the 1/2-20 locking nut.

LIMIT SWITCH INSTALLATION

Step 1: See limit switch installation on drawing NB-6319.

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!

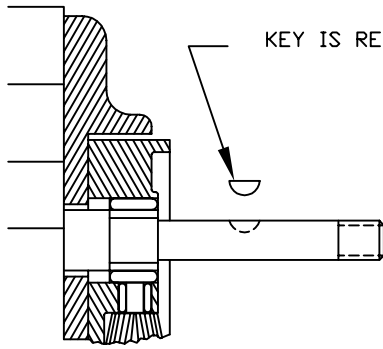
Prevent contact during fast traverses.

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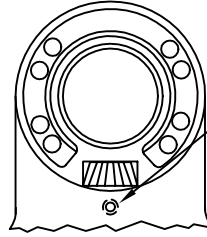
433 North Fair Oaks Avenue, Pasadena, CA 91103 USA
Phone: 800.521.7359 or 626.796.2460 Fax: 626.796.3845

Web: www.servoproductsco.com

Call for the location of our regional Service Centers.

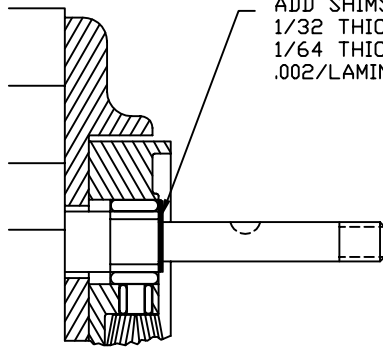


KEY IS REMOVED DURING SHIMMING

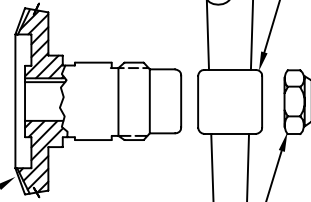


TIGHTEN SLIGHTLY (HOLDS BEVEL PINION STATIONARY DURING SHIMMING.)

STEP 1
PREPARATION



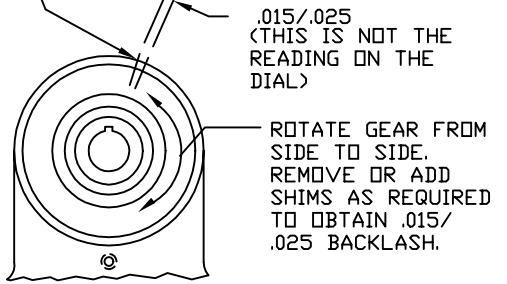
ADD SHIMS PROVIDED
1/32 THICK ARE SOLID
1/64 THICK ARE LAMINATED
.002/LAMINATION



PUSH BEVEL GEAR
AGAINST SHIMS.

INSTALL HANDCRANK.

MARK HOUSING AND BEVEL GEAR
WITH PENCIL TO CHECK BACKLASH.



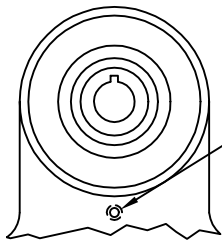
.015/.025
(THIS IS NOT THE
READING ON THE
DIAL)

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

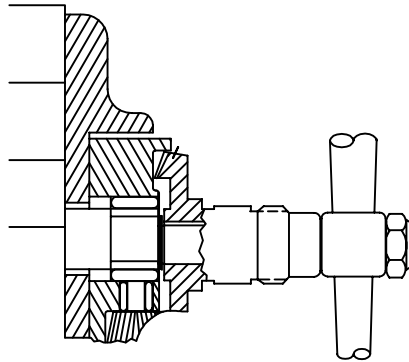
TIGHTEN NUT.

STEP 2
SHIMMING BEVEL
GEAR

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



LOOSEN SETSCREW

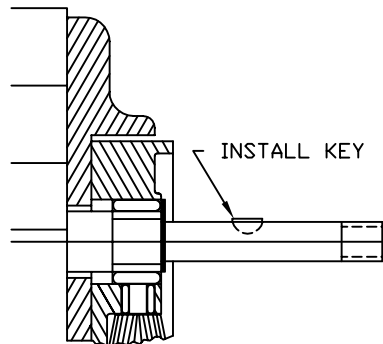


WITH POWER FEED IN
NEUTRAL POSITION, TURN
HANDCRANK. IF EXCESSIVE
GEAR NOISE OR BINDING
OCCURS, SHIMS NEED TO BE
ADDED. WHEN ADDING SHIMS,
REPEAT STEPS 1 AND 2.

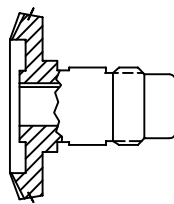


CONTROL HANDLE @
NEUTRAL POSITION

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.

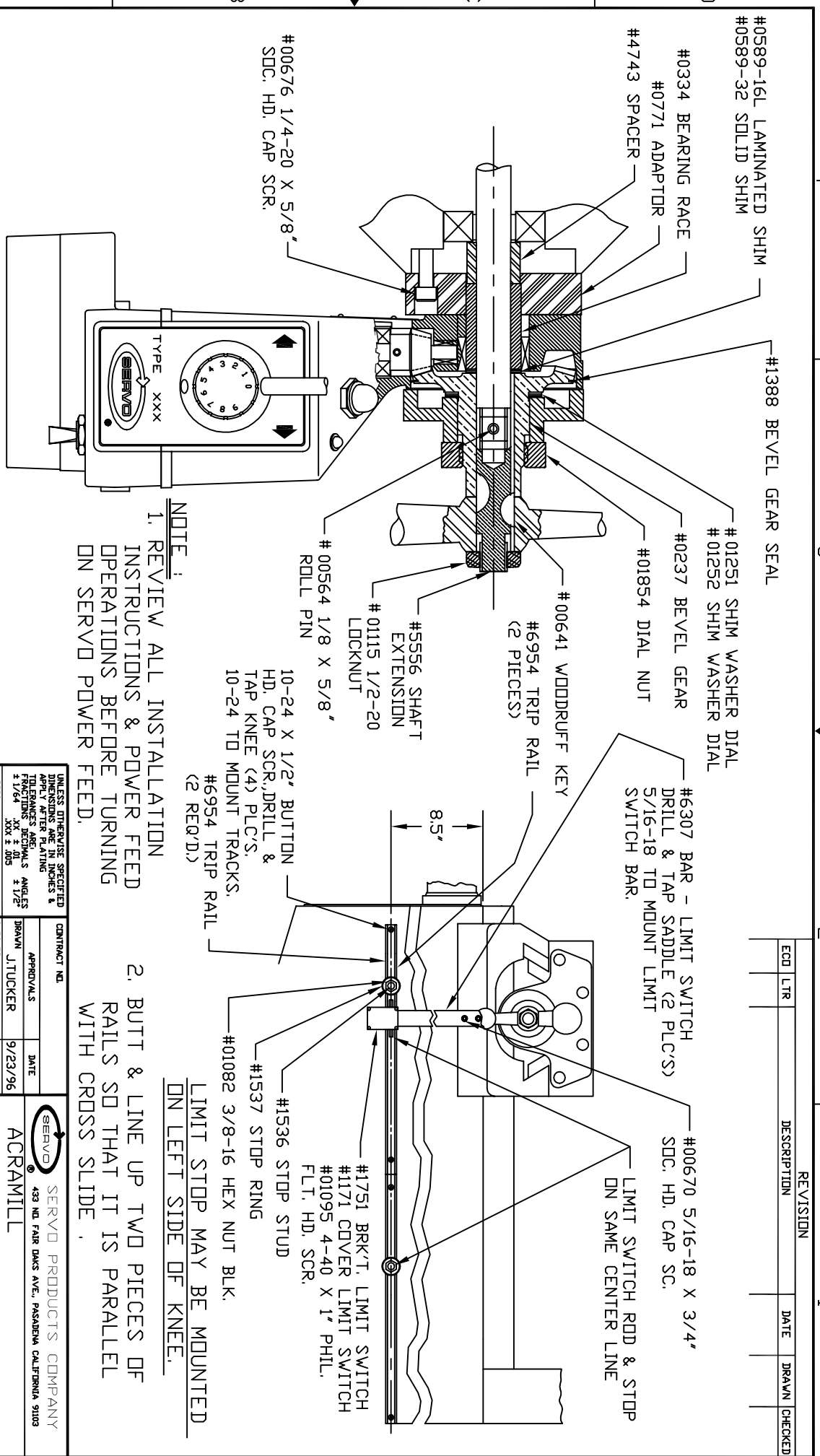
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BEVEL GEAR INSTALLATION

NA-5444 C

STEP 4
LUBRICATION

REVISION		DATE	DRAWN	CHECKED
ECD	LTR			
DESCRIPTION				



- NOTE:**
1. REVIEW ALL INSTALLATION INSTRUCTIONS & POWER FEED OPERATIONS BEFORE TURNING ON SERVO POWER FEED.
 2. BUTT & LINE UP TWO PIECES OF RAILS SO THAT IT IS PARALLEL WITH CROSS SLIDE.
- LIMIT STOP MAY BE MOUNTED ON LEFT SIDE OF KNEE.

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UNLESS OTHERWISE SPECIFIED PERPENDICULARITY, PARALLELISM, STRAIGHTNESS, FLATNESS, ROUNDNESS, CONCENTRICITY, CYLINDRICITY TO BE WITHIN 0.010 TOTAL OR 0.040/ft. SURFACE ROUGHNESS WITHIN 125 REMOVE SHARP CORNERS AND EDGES .005 MIN. DRAWING STANDARD PER ANSI Y14.5M-1982

TYPE	XXX
1	
2	
3	
4	
5	
6	
7	
8	
9	
0	

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES & TOLERANCES ARE AS FOLLOWS	CONTRACT NO.
FRACTIONS DECIMALS ANGLES	APPROVALS
± 1/64 ± .005 ± .015 ± 1/2°	DATE
MATERIAL	CHECKED
NOTED	
FINISH	
DID NOT SCALE DRAWING	

APPROVALS	DATE
BRAUN, J. TUCKER	9/23/96
COMPUTER NO.	

SERVO PRODUCTS COMPANY
 433 N. FAIR BANKS AVE., PASADENA, CALIFORNIA 91103

ACRAMILL
 INSTALLATION DRAWING
 MODEL 5051

SIZE	CODE	IDENT. NO.	DRAWING NO.	REV.
B	0800-	80184	NB-6319	B
SCALE			SHEET	OF