

POWER FEED INSTALLATION

Model M-9109 Table Feed

Kent 2S



REFERENCE DRAWINGS ENCLOSED

NA-5444	Bevel Gear Installation
NB-57215	Power Feed Installation
ND-6293	Type 150 Servo Drive
ND-6292	Type 140 Servo Power Feed
0800-80001	Servo Power Feed Installation

PREPARATION

- Step 1:* Move the table to the extreme left.
- Step 2:* Remove the nut, handle, dial assembly, and key from the lead screw. Save for installation later.
- Step 3:* Remove the bearing retainer. Save the screws for installation later.
- Step 4:* Screw the shaft extension onto the lead screw.
- Step 5:* Slide the bevel gear onto the lead screw to ensure proper fit. Then remove the bevel gear.
- Step 6:* Drill 1/8 diameter hole through the shaft using the hole provided in the shaft extension as a pilot. Pin the shaft extension to the lead screw using the 1/8 diameter x 5/8 long roll pin. File smooth.

POWER FEED INSTALLATION

- Step 1:* Using the existing screws, secure the bearing retainer #6544.
- Step 2:* Slide the shaft spacer #6740 and bearing race #0470 onto the lead screw.
- Step 3:* Slide the power feed over the bearing race and secure using the 1/4-20 x 1" long socket head cap screws.

BEVEL GEAR INSTALLATION

- Step 1:* Use the 3 mm parallel key you saved before for the bevel gear installation.
- Step 2:* 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 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 and the dial locking nut #2255. Insert the 3 mm key provided in the shaft extension and slide the handle in place. Tighten with the 1/2-20 locking nut.

Limit Switch Installation

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

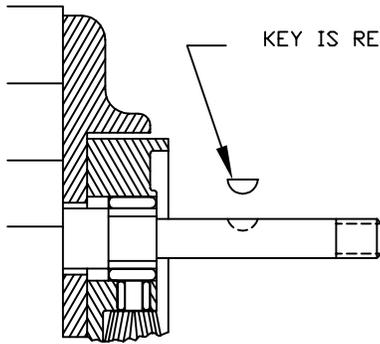
Clearances between the surfaces of the hand crank and the non-moving parts of the equipment on which the hand crank is installed must be at least one-fourth inch (1/4") to prevent injury. Modification of existing hand crank or replacement may be required.

Do not operate without proper clearance!

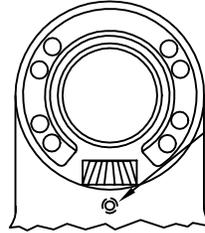
Prevent contact during fast traverses.

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.

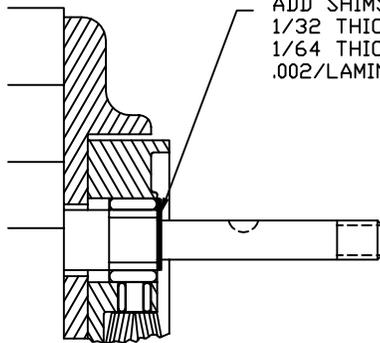


KEY IS REMOVED DURING SHIMMING

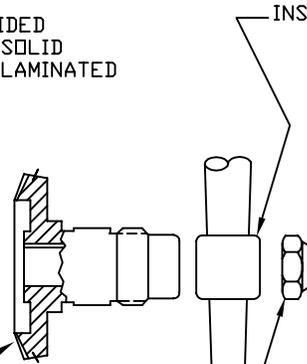


TIGHTEN SLIGHTLY (HOLDS BEVEL PINION STATIONARY DURING SHIMMING.)

STEP 1
PREPARATION



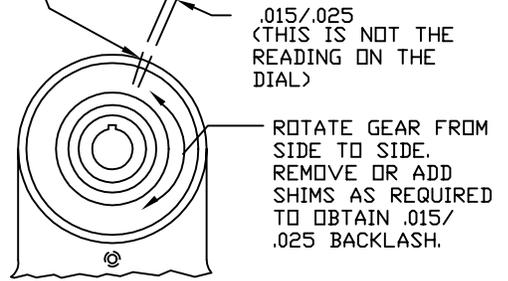
ADD SHIMS PROVIDED
1/32 THICK ARE SOLID
1/64 THICK ARE LAMINATED
.002/LAMINATION



PUSH BEVEL GEAR AGAINST SHIMS.

INSTALL HANDCRANK.

MARK HOUSING AND BEVEL GEAR WITH PENCIL TO CHECK BACKLASH.



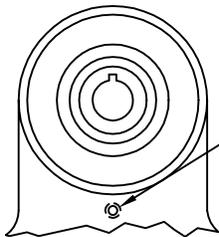
.015/.025
(THIS IS NOT THE READING ON THE DIAL)

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

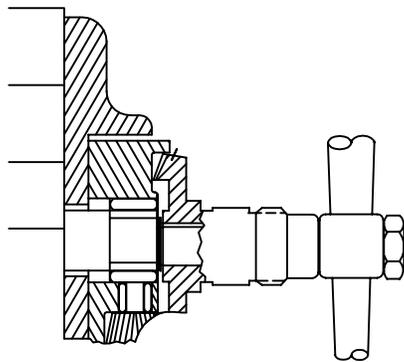
STEP 2
SHIMMING BEVEL GEAR

TIGHTEN NUT.

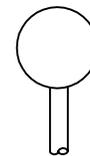
CAUTION: IF BACKLASH IS NOT PROPERLY SET BEFORE TURNING UNIT ON, BEVEL GEAR MAY BE DESTROYED.



LOOSEN SETSCREW

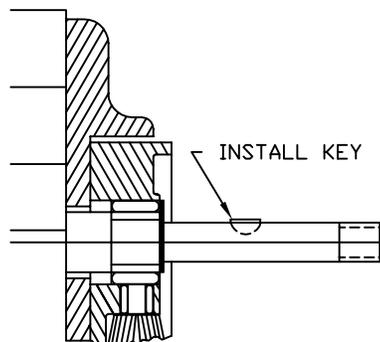


WITH POWER FEED IN NEUTRAL POSITION, TURN HANDCRANK. IF EXCESSIVE GEAR NOISE OR BINDING OCCURS, SHIMS NEED TO BE ADDED. WHEN ADDING SHIMS, REPEAT STEPS 1 AND 2.

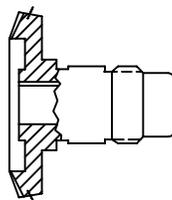


CONTROL HANDLE @ NEUTRAL POSITION

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.

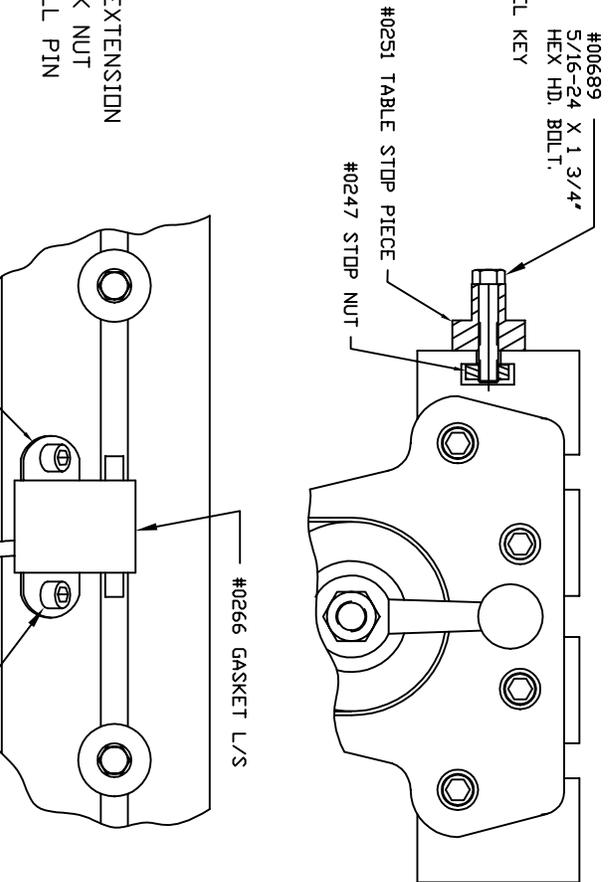
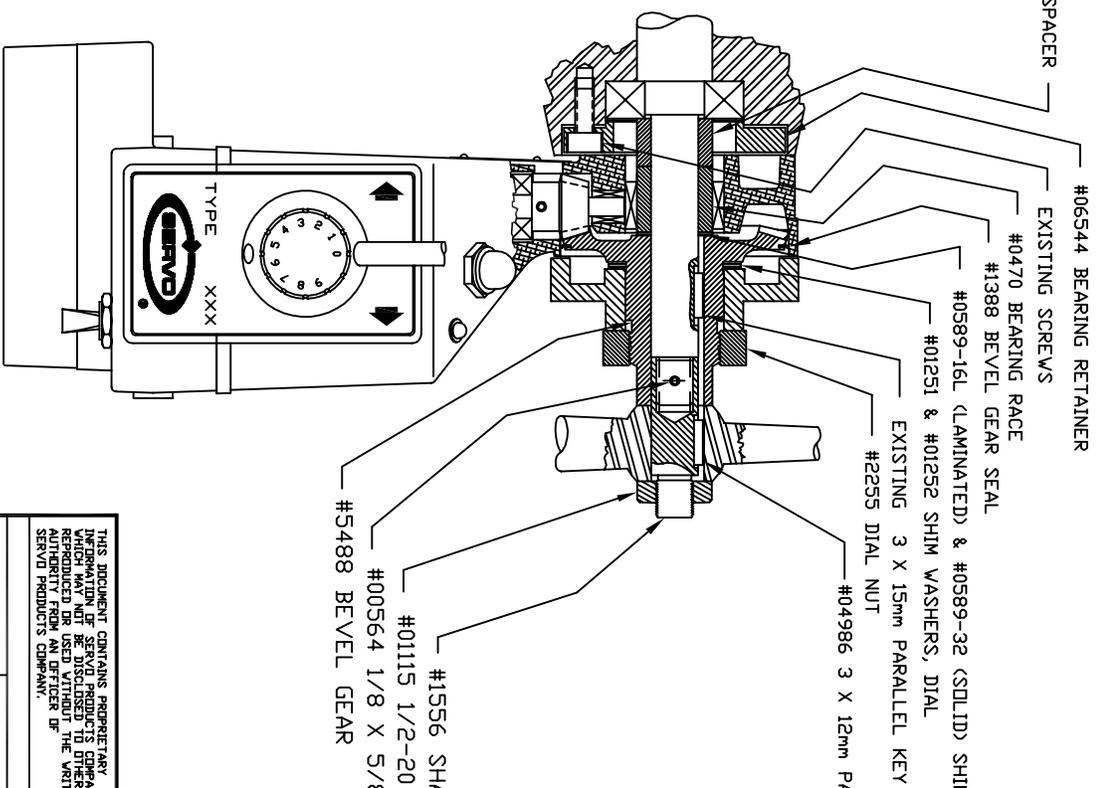
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BEVEL GEAR INSTALLATION

NA-5444 C

STEP 4
LUBRICATION

REVISION		DATE	DRAWN	CHECKED
ECD	LTR	DESCRIPTION		



#0859 SHAFT SPACER
 #06544 BEARING RETAINER
 EXISTING SCREWS
 #0470 BEARING RACE
 #1388 BEVEL GEAR SEAL
 #0589-16L (LAMINATED) & #0589-32 (SOLID) SHIM WASHERS
 #01251 & #01252 SHIM WASHERS, DIAL
 EXISTING 3 X 15mm PARALLEL KEY
 #2255 DIAL NUT
 #04986 3 X 12mm PARALLEL KEY
 #00689 5/16-24 X 1 3/4" HEX HD. BOLT.
 #0251 TABLE STOP PIECE
 #0247 STOP NUT
 #1556 SHAFT EXTENSION
 #01115 1/2-20 LOCK NUT
 #00564 1/8 X 5/8 ROLL PIN
 #5488 BEVEL GEAR
 #0272 LIMIT SWITCH BRACKET
 #0266 GASKET L/S
 #00585 3/8-16 X 1 1/4 SH.C.S.
 #0271 SPACER LIMIT SWITCH

UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES & TOLERANCES ARE LISTED IN FRACTIONS. DECIMALS ± 1/64 .XX ± .005 ANGLES ± 1/2° MATERIAL NOTED FINISH NONE DID NOT SCALE DRAWING

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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 Y43M-1982

CONTRACT NO.	APPROVALS	DATE	DATE
	BRAUN G. BADEA	06/25/91	
CHECKED			

SERVO PRODUCTS COMPANY
 433 N. FAIR OAKS AVE., PASADENA, CALIFORNIA 9103

INSTALLATION DRAWING,
 MODEL 9109
 KENT 2S

SIZE CODE IDENT. NO. DRAWING NO. REV.
 B 0800-80466 NB-57215 A

SCALE 5/8 SHEET DF

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 Y43M-1982