

# POWER FEED INSTALLATION

## Model M-1300 Table Feed

### Kondia G, FV-1, Hurco SM1 and others



#### REFERENCE DRAWINGS ENCLOSED

NA-5444	Bevel Gear Installation
NB-0761	Power Feed Installation
ND-6293	Type 150 Servo Drive
ND-6292	Type 140 Servo Drive
0800-80001	Servo Power Feed Operation

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#### PREPARATION

- Step 1:* Remove the nut, handle, and dial assembly from the right-hand end of the table.
- Step 2:* Remove the bearing retainer from the end bracket. Save the screws.

#### POWER FEED INSTALLATION

- Step 1:* Attach the bearing retainer #2784 using the original screws.
- Step 2:* Slip the bearing race inside the adaptor. Slide them on the lead screw up to the end bracket and secure the adaptor with the three 1/4-20 x 1/2" long socket head cap screws. Remove the bearing race.
- Step 3:* Add the sleeve as shown, followed by the bearing race.
- Step 4:* Install the power feed to the adaptor using the 1/4-20 x 1" long socket head cap screws.
- Step 5:* Screw the shaft extension on the lead screw and tighten.
- Step 6:* You may wish to add the roll pin after determining the shims required for the bevel gear.  
Using the hole provided as a pilot, drill 1/8" diameter through the lead screw and pin the extension in place using the 1/8 diameter x 5/8" long roll pin. File smooth.

#### 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, add spacer #1230, and insert the woodruff key #1318. Slide the handcrank in place and secure with Kondia washer and handcrank nut #1229.

## **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:* Install the limit switch as shown in drawing ND-0761.

*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 to 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](http://www.servoproductsco.com)  
Call for the location of our regional Service Centers.

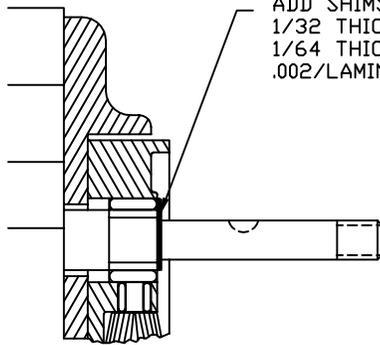


KEY IS REMOVED DURING SHIMMING

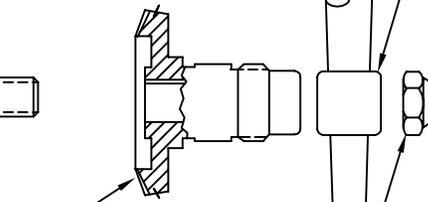


TIGHTEN SLIGHTLY (HOLDS BEVEL PINION STATIONARY DURING SHIMMING.)

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.



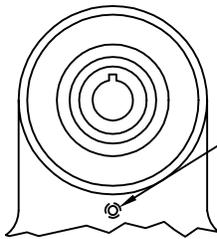
.015/.025  
(THIS IS NOT THE READING ON THE DIAL)

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

TIGHTEN NUT.

STEP 2  
SHIMMING BEVEL GEAR

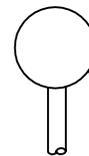
**CAUTION:** IF BACKLASH IS NOT PROPERLY SET BEFORE TURNING UNIT ON, BEVEL GEAR MAY BE DESTROYED.



LOOSEN SETSCREW

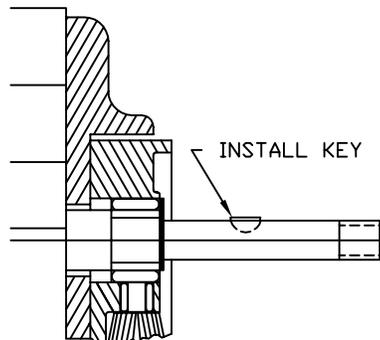


WITH POWER FEED IN NEUTRAL POSITION, TURN HANDCRANK. IF EXCESSIVE GEAR NOISE OR BINDING OCCURS, SHIMS NEED TO BE ADDED. WHEN ADDING SHIMS, REPEAT STEPS 1 AND 2.



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.

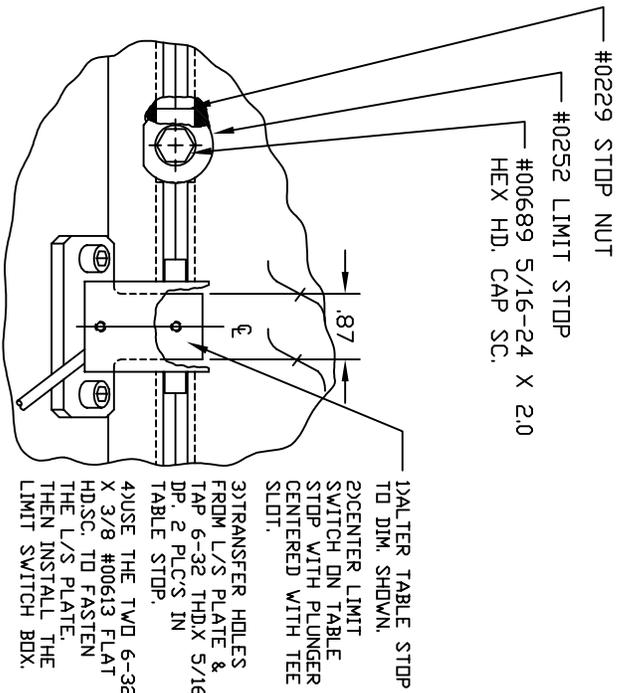
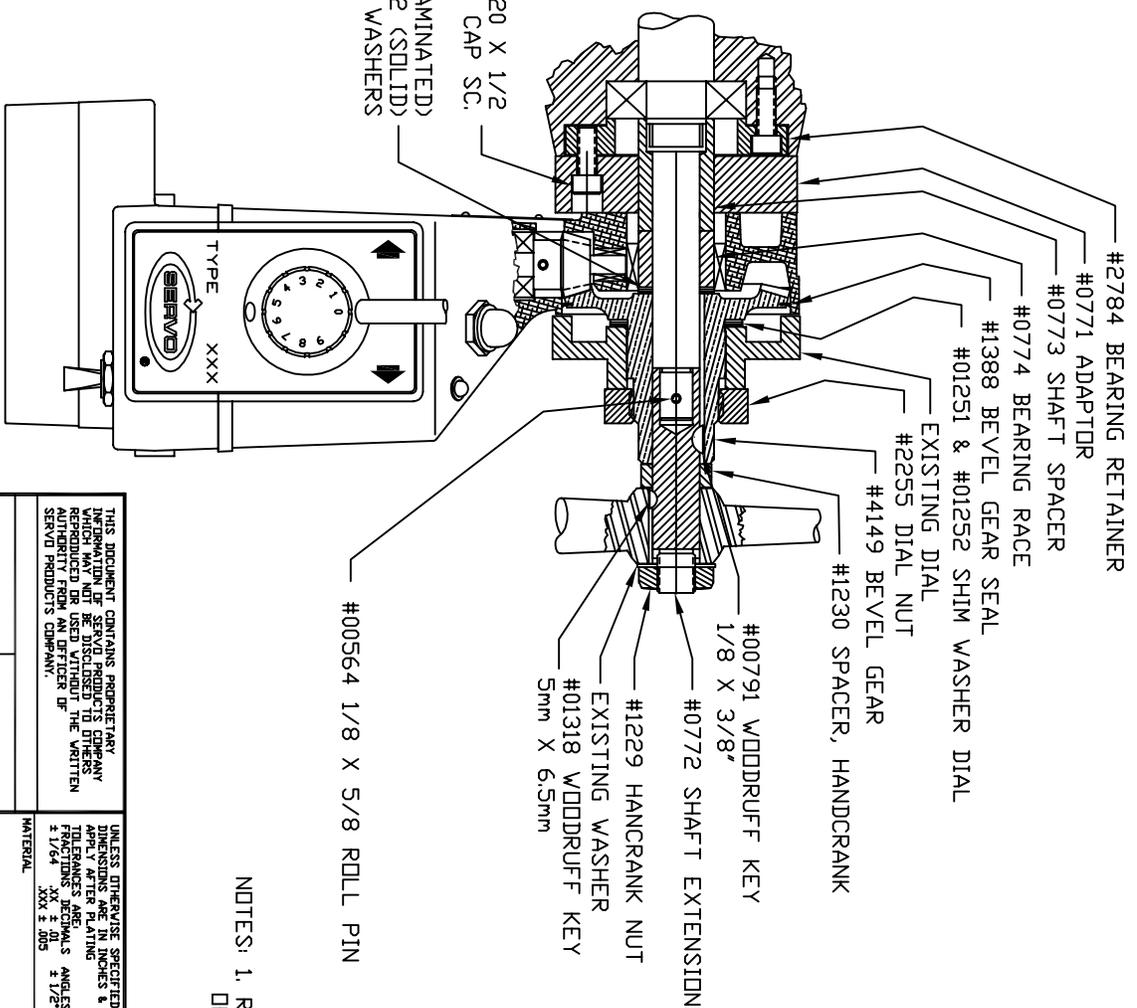
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BEVEL GEAR INSTALLATION

NA-5444 C

STEP 4  
LUBRICATION

REVISION		DATE	DRAWN	CHECKED
ECD	LTR	DESCRIPTION		



NOTES: 1. REVIEW ALL INSTALLATION INSTRUCTIONS AND POWER FEED OPERATIONS BEFORE TURNING ON SERVO POWER FEED.

UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE WITHIN 0.1 CENTRICITY TO BE WITHIN 0.1 REMOVE SHARP EDGES AND CORNERS 0.005 MIN. DRAWING STANDARD PER ANSI Y14.5M-1982

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UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES & TOLERANCES ARE FRACTIONS DECIMALS ANGLES ± 1/64 ± .005 ± .005 ± 1/2° MATERIAL FINISH DID NOT SCALE DRAWING

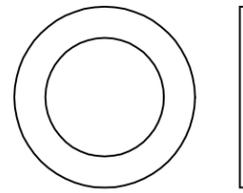
CONTRACT NO.	APPROVALS	DATE
	T. KU	9/26/89
	CHECKED	


**SERVO PRODUCTS COMPANY**  
 433 N. FAIR OAKS AVE., PASADENA CALIFORNIA 91109

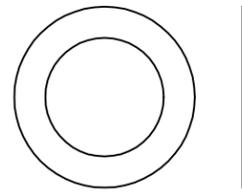
**INSTALLATION DRAWING**  
 KONDIA "G"  
 MODEL 1300

SIZE	CODE IDENT NO.	DRAWING NO.
B	0800-80058	NB-0761
SCALE 5/8		

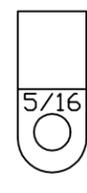
4  
 3  
 2  
 1  
 A B C D



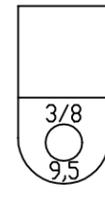
0589-32 (2)  
SHIM WASHER  
SOLID BRASS



0589-16L (2)  
SHIM WASHER  
LAMINATED BRASS



00579 (1)  
CLAMP 70



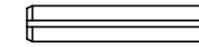
01050 (1)  
CLAMP FOR  
L/S CORD



00564 (1)  
ROLL PIN  
1/8 X 5/8



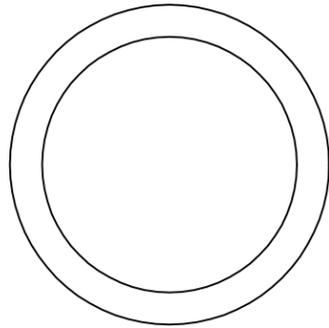
00791 (1)  
1/8 X 3/8  
WOODRUFF KEY



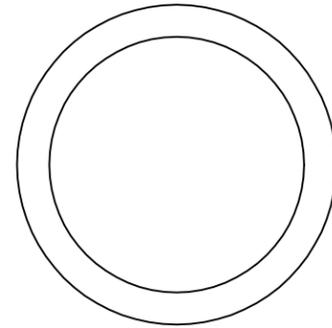
00595 (2)  
ROLL PIN  
3/16 X 1.0



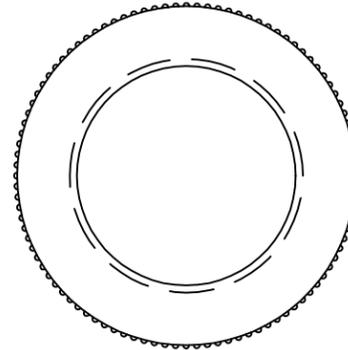
01318 (1)  
5MM X 6.5MM  
WOODRUFF KEY



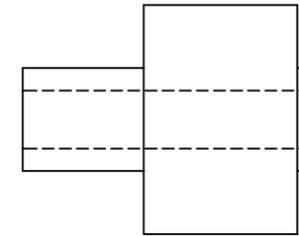
001251 (5)  
WASHER  
.005 X 1.395 X 1.748  
BRASS



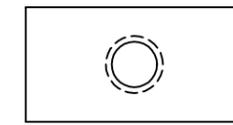
01252 (2)  
WASHER  
.030 X 1.395 X 1.748  
PLASTIC



2255 (1)  
DIAL NUT



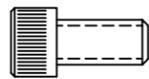
0252 (2)  
LIMIT STOP



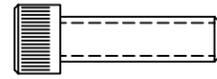
0229 (2)  
STOP NUT



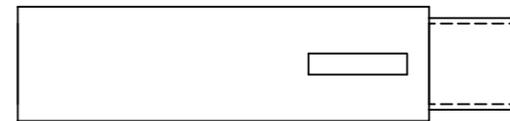
1230 (1)  
SPACER



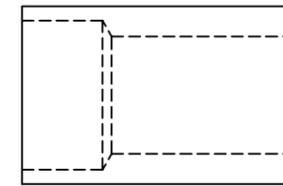
00675 (3)  
1/4-20 X 1/2  
SOC. HD. CAP. SC.



00632 (3)  
1/4-20 X 7/8  
SOC. HD. CAP. SC.



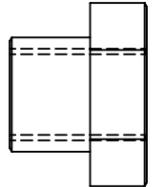
0772 (1)  
SHAFT  
EXTENSION



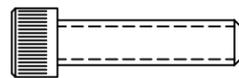
0773 (1)  
SPACER  
HANDCRANK



0774 (1)  
BEARING RACE



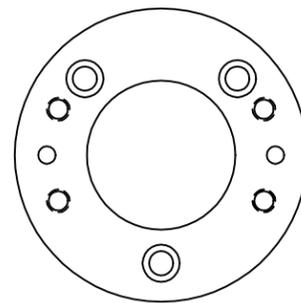
1229 (1)  
HANDCRANK  
NUT



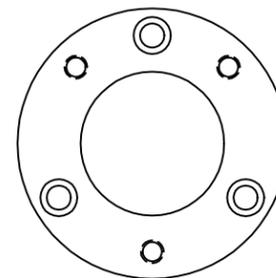
00586 (4)  
1/4-20 X 1  
SOC. HD. CAP. SC.



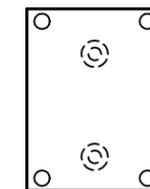
00669 (1)  
8-32 X 3/8  
PHIL. PAN HD. SC.



0771 (1)  
ADAPTOR  
1/2 SCALE



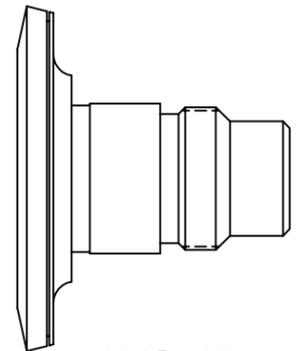
2784 (1)  
ADAPTOR  
1/2 SCALE



0361 (1)  
BRACKET L/S

0266 (1)  
GASKET L/S

1/2 SCALE



4149 (1)  
BEVEL GEAR  
1/2 SCALE