

POWER FEED INSTALLATION

Model M-2300/2308 Table Feed

Do All, Exacto, Maxmill, Select
and others



REFERENCE DRAWINGS ENCLOSED

NA-5444	Bevel Gear Installation
NB-3200	Power Feed Installation
ND-6293	Type 150 Servo Drive
ND-6292	Type 140 Servo Drive
0800-80001	Servo Power Feed Operation

PREPARATION

- Step 1:** Move the table to the extreme left.
- Step 2:** Remove the nut, handle and dial assembly from the right-hand end of the table.
- Step 3:** Remove the four cap screws holding the bearing housing in place.
- Step 4:** Using a soft hammer, tap the bearing housing off. Clean the end surface of the table.

POWER FEED INSTALLATION

- Step 1:** With the table in the extreme left-hand position, install the adaptor with the four cap screws.

NOTE *On some machines the drive pin holes do not line up with the adapter. Remove and discard the pins in such cases. The four cap screws are all that is necessary.*

- Step 2:** Slide the bearing spacer, then the bearing race onto the lead screw. Slide the power feed onto the bearing race and push flush to the end of the adaptor.

NOTE *Depending on the lead screw, the bearing race spacer might require to be shortened approximately 5/32" in order to get proper shimming of the bevel gear.*

- Step 3:** Secure the feed with two 1/4-20 x 1" 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: In the following sequence, replace the dial and dial locking nut, slide the handle in place and tighten with the 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 and replace with the limit switch bracket #01852. Secure with original 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 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

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Call for the location of our regional Service Centers.

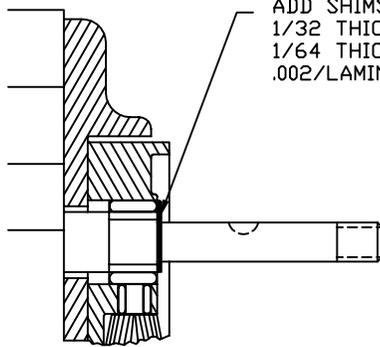


KEY IS REMOVED DURING SHIMMING



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

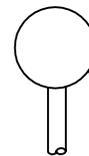
CAUTION: IF BACKLASH IS NOT PROPERLY SET BEFORE TURNING UNIT ON, BEVEL GEAR MAY BE DESTROYED.



LOOSEN SETSCREW

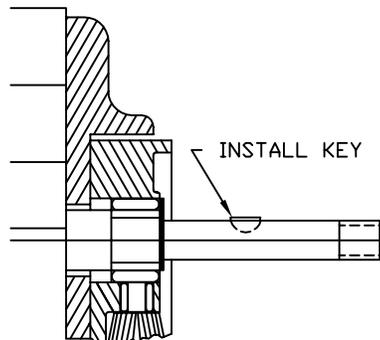


WITH POWER FEED IN NEUTRAL POSITION, TURN HANDCRANK. IF EXCESSIVE GEAR NOISE OR BINDING OCCURS, SHIMS NEED TO BE ADDED. WHEN ADDING SHIMS, REPEAT STEPS 1 AND 2.



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)

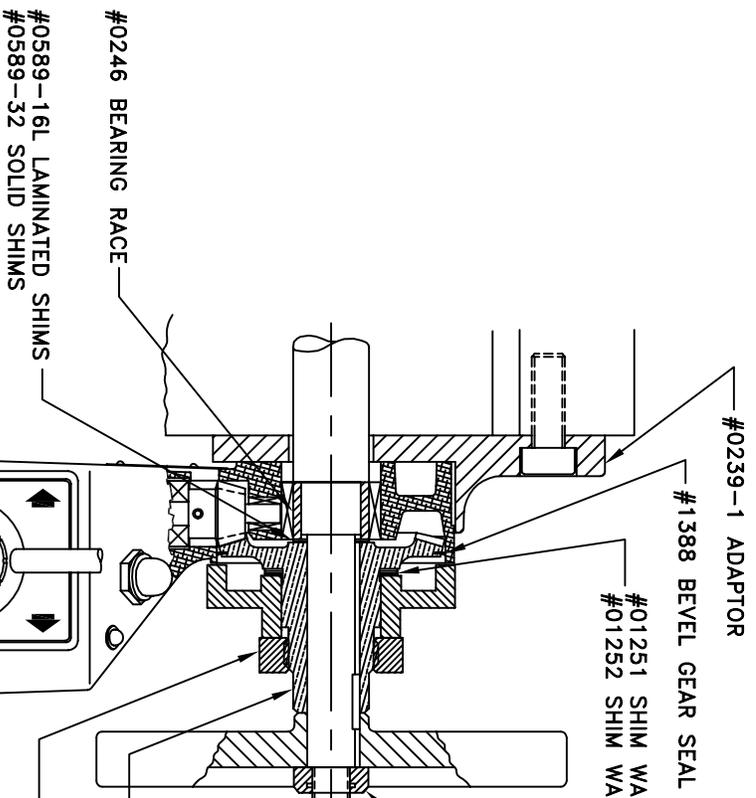
PICTURES IN THIS DRAWING ARE FOR REFERENCE ONLY. SEE INSTALLATION DRAWING OF CORRESPONDING MODEL FOR EXACT PARTS CONFIGURATION.

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BEVEL GEAR INSTALLATION

NA-5444 C

STEP 4
LUBRICATION



REMOVE EXACTO SOLID STOP & INSTALL AS SHOWN USING EXISTING SCREWS.

THESE SCREW HOLES MAY HAVE TO BE RELOCATED SO PLUNGER WILL BE ON SAME ϕ AS TRAVEL STOP.

INSTALLATION LIMIT SWITCH

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

UNLESS OTHERWISE SPECIFIED PERPENDICULARITY, PARALLELISM, STRAIGHTNESS, FLATNESS, ROUNDNESS, CONCENTRICITY, CYLINDRICITY TO BE WITHIN .01 TOTAL OR .040/4 ϕ . SURFACE ROUGHNESS WITHIN 125 \sqrt REMOVE SHARP CORNERS AND EDGES .005 MIN. DRAWING STANDARD PER ANSI Y14.5M-1982

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UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES & TOLERANCES ARE LISTED FRACTIONS, DECIMALS \pm 1/64, .XX, \pm .005 ANGLES \pm 1/2 $^\circ$ MATERIAL FINISH NOTED

CONTRACT NO.	APPROVALS	DATE
	DRAWN J. TUCKER	12/4/96
CHECKED		
APPLICATION	USED ON	
NEXT ASSY		

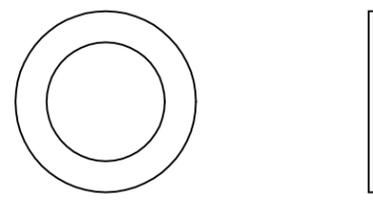
DID NOT SCALE DRAWING	COMPUTER NO.

SCALE	SIZE	CODE IDENT NO.	DRAWING NO.
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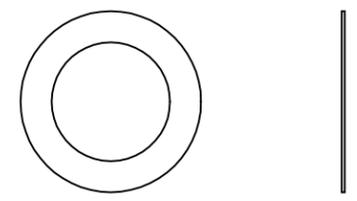
REV.	A
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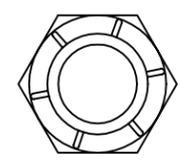
MODEL 2300/2308
INSTALLATION DRAWING
SUPER MAX, MAXMILL, EXACTO



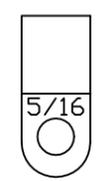
0589-32 (5)
SHIM WASHER
SOLID BRASS



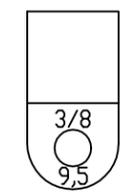
0589-16L (4)
SHIM WASHER
LAMINATED BRASS



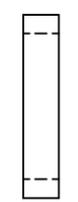
01115 (1)
1/2-20
LOCK NUT



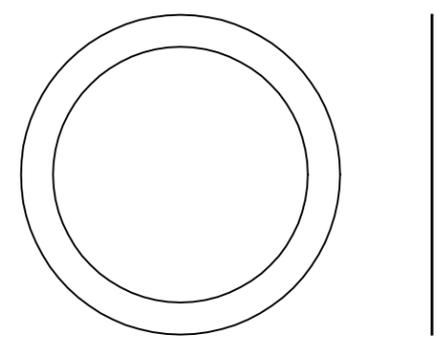
00579 (1)
CLAMP 70



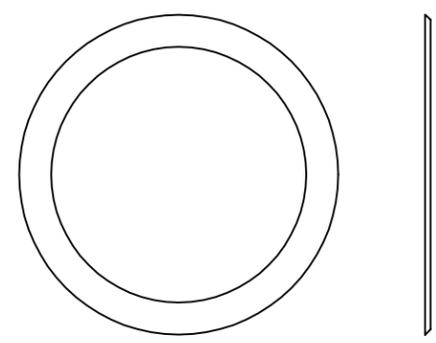
01050 (1)
CLAMP FOR
L/S CORD



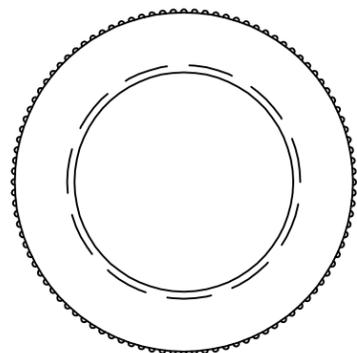
5438 (1)
SPACER BEARING



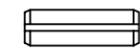
001251 (5)
WASHER
.005 X 1.395 X 1.748
BRASS



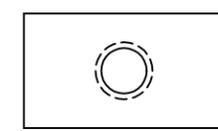
01252 (2)
WASHER
.030 X 1.395 X 1.748
PLASTIC



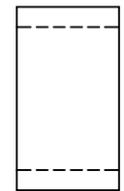
2255
DIAL NUT



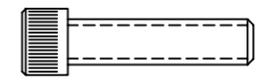
00596 (2)
ROLL PIN
3/16 X 5/8
(ALREADY INSTALLED
IN 0239-4 ADAPTOR)



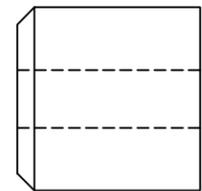
0247 (2)
STOP NUT



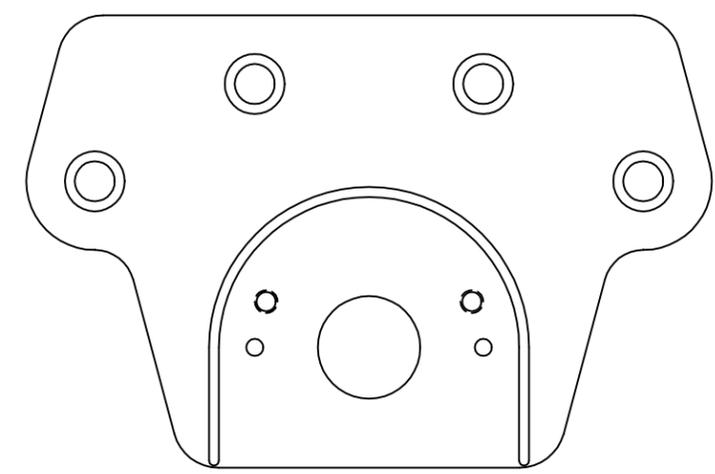
3546 (1)
BEARING RACE



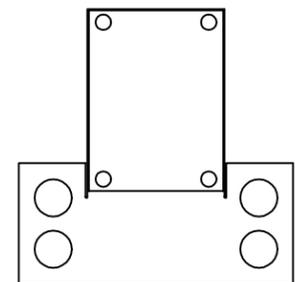
00586 (2)
1/4-20 X 1
SOC. HD. CAP. SC.



0684 (2)
L/S STOP

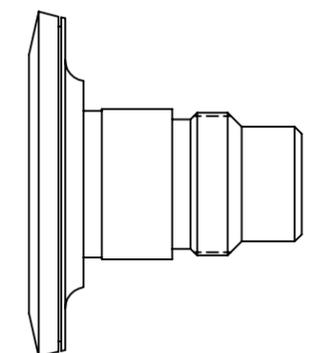


0239-4 (1)
ADAPTOR
1/2 SCALE

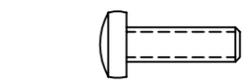


3199 (1)
BRACKET L/S

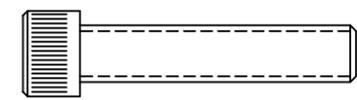
0266 (1)
GASKET L/S



3201 (1)
BEVEL GEAR
1/2 SCALE



00688 (1)
10-32 X 5/8
PHIL. PAN HD. SC.



00634 (2)
5/16-24 X 1-1/2
SOC. HD. CAP. SC.