POWER FEED INSTALLATION
Model M-2100/3200 Table Feed
Holke Machinist, Marena 10 & others

REFERENCE DRAWINGS ENCLOSED

NA-5444	Bevel Gear Installation
NB-2265	Power Feed Installation
ND-6293	Type 150 Servo Power Feed
ND-6292	Type 140 Servo Power Feed
0800-80001	Servo Power Feed Operation

PREPARATION

Step 1: Gather together the following items that you will need to complete this installation.

a) 3/8" electric hand drill
b) #7 drill, 1/8" drill
c) 1/4-20 tap
d) 9/32" diameter transfer punch
e) flat file
f) 3/4" socket wrench
g) set of inch hex wrenches
h) grease
i) clean shop rag

Step 2: Move the table to the extreme left.

Step 3: Remove the nut, handle and dial assembly from the right-hand end of the table.

Step 4: Locate the tapped holes in the bearing retainer end cap by sliding #1178 bearing race onto the lead screw to the shoulder. Slide the adaptor #0771 onto the bearing race against the bearing bracket. Transfer the three counterbored hole locations through the adaptor to the end bracket using a 9/32" diameter transfer punch.

Step 5: Remove the adaptor and bearing race from the lead screw and tap 1/4-20 to 3/8" deep minimum thread into the end cap three places.

Step 6: Add #2267 shaft extension and tighten.

Step 7: Using the hole provided as a pilot, drill 1/8" diameter through and pin in place using the 1/8" x 5/8" long roll pin. File smooth.

POWER FEED INSTALLATION

Step 1: With the table in the extreme left-hand position, install the adaptor with the three 1/4-20 x 1/2" socket head cap screws.

Step 2: Slide the two spacers and bearing race onto the lead screw.

Step 3: Slide the Power Feed onto the bearing race and push flush to the end of the adaptor. Secure with two 1/4-20 x 1" long socket head cap screws.

BEVEL GEAR INSTALLATION

Step 1: Follow the drawing NA-5444 for installation of the bevel gear. Adjust for proper gear backlash.

Step 2: One spacer may be shortened to allow proper shimming of the bevel gear.

DIAL AND HANDWHEEL INSTALLATION

Step 1: After getting the proper gear 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. Three 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, place the 5 mm Woodruff key in the shaft extension, slide the handcrank onto shaft extension, followed by 1/2" S.A.E. washer, and secure with the 1/2-20 locking nut.

LIMIT SWITCH INSTALLATION

Refer to drawing NB-2265 for modifications and installation of the limit switch.

OPERATION

See separate *Servo Power Feed Operation* sheet. Plug the unit into a source of 120 volt, 50 or 60 cycle power.

WARNINGS

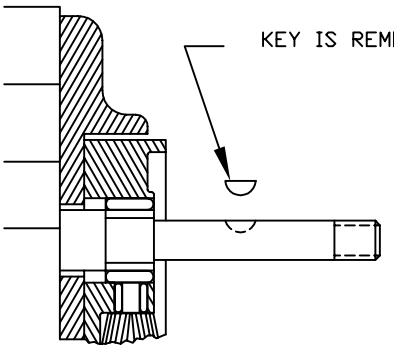
Check hand crank clearances before operation.

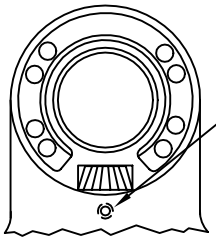
Clearances between the surfaces of the hand crank and the non-moving parts of the equipment on which the hand crank is installed must be at least one-fourth inch (1/4") to prevent injury. Modification of existing hand crank or replacement may be required.

Do not operate without proper clearance!

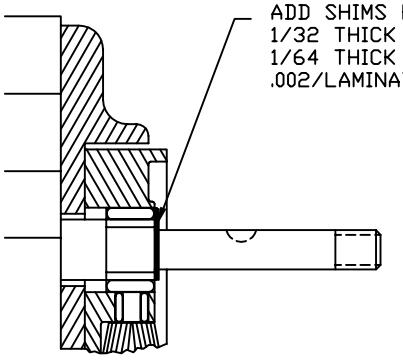
Prevent contact during fast traverses.

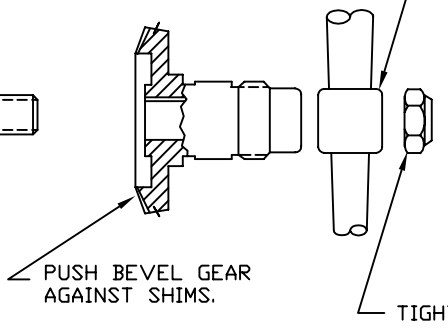
SERVO PRODUCTS COMPANY
433 North Fair Oaks Avenue, Pasadena, CA 91103 USA
Phone: 800.521.7359 or 626.796.2460 Fax: 626.796.3845
Web: www.servoproductsco.com
Call for the location of our regional Service Centers.

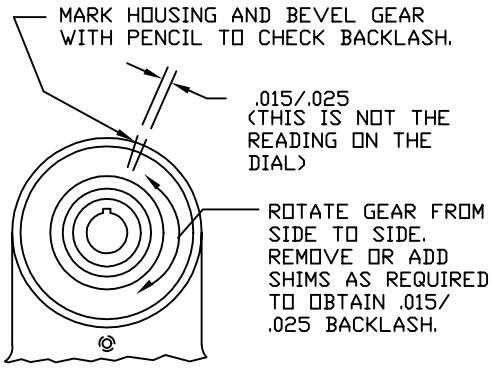




STEP 1
PREPARATION

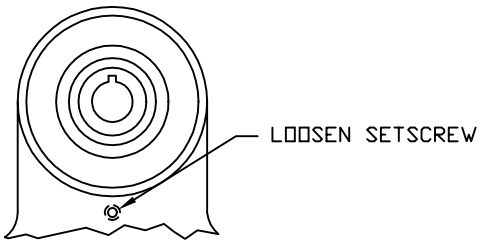


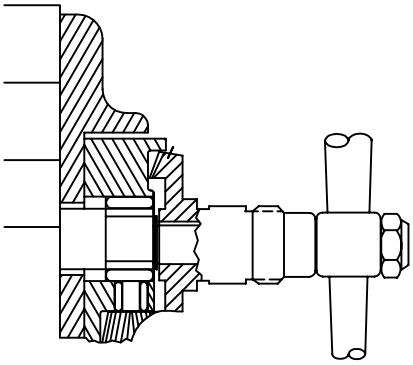




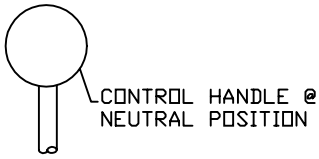
STEP 2
SHIMMING BEVEL GEAR

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

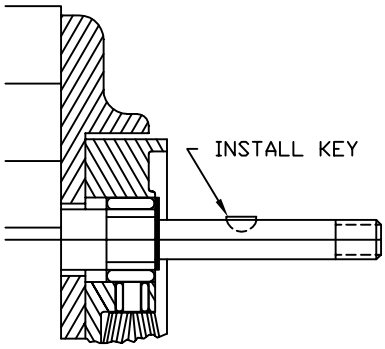


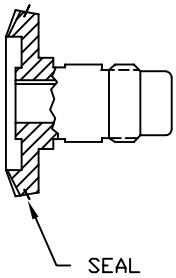


WITH POWER FEED IN NEUTRAL POSITION, TURN HANDCRANK. IF EXCESSIVE GEAR NOISE OR BINDING OCCURS, SHIMS NEED TO BE ADDED. WHEN ADDING SHIMS, REPEAT STEPS 1 AND 2.



STEP 3
DOUBLE CHECK OF SHIMMING





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

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

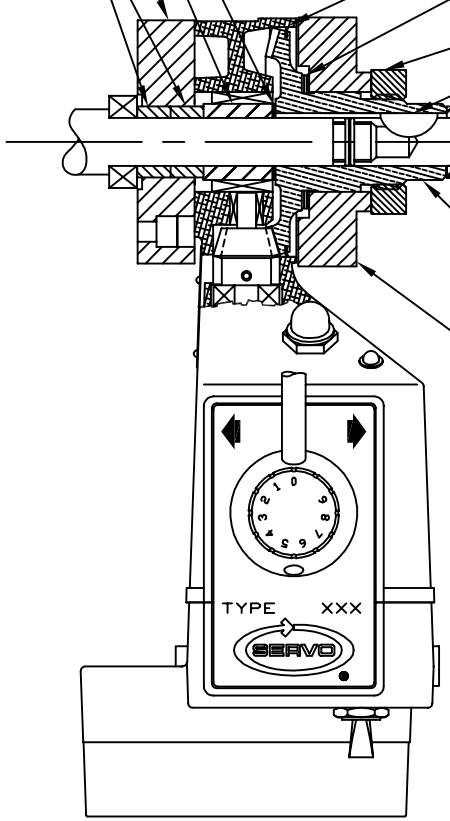
STEP 4
LUBRICATION

SERVO PRODUCTS COMPANY

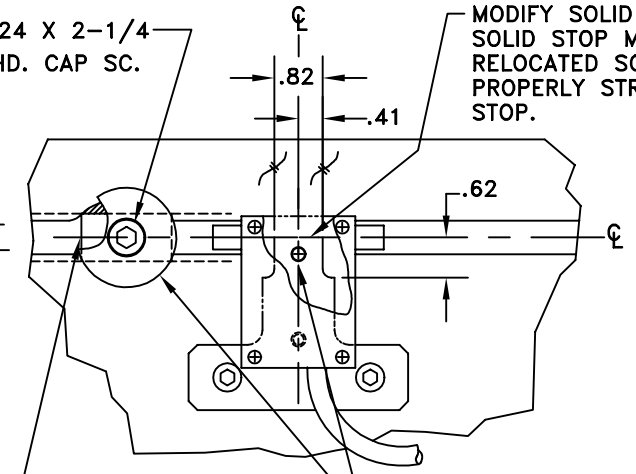
BEVEL GEAR INSTALLATION

NA-5444 C

#0477 SPACER
#0771 ADAPTOR
#1178 BEARING RACE
#0589-16L LAMINATED SHIMS
#0589-32 SOLID SHIMS
#1388 BEVEL GEAR SEAL
REMOVE HANDLE FROM HANDWHEEL FOR SAFETY.
#01251 SHIM WASHER DIAL
#01252 SHIM WASHER DIAL
#2255 DIAL NUT
#00614 WOODRUFF KEY 1/8 X 3/4 #7
#2267 SHAFT EXTENSION
#01115 1/2-20 LOCK NUT
#01169 WASHER 1/2 SAE
IF HANDCRANK HAS 5MM KEYSLOT USE THE KEY REMOVED FROM LEADSCREW.
#4743 SPACER HANDCRANK
#2266 BEVEL GEAR
SEE DETAIL "A"



#00941 5/16-24 X 2-1/4 SOC. HD. CAP SC.

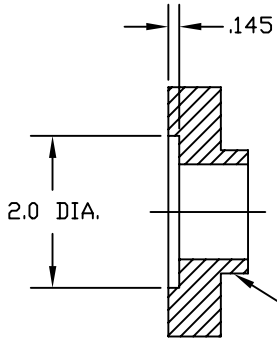


MODIFY SOLID STOP AS SHOWN. SOLID STOP MAY HAVE TO BE RELOCATED SO TRAVEL STOPS PROPERLY STRIKE THE SOLID STOP.

#1296 LIMIT STOP
#0247 STOP NUT

LIMIT SWITCH INSTALLATION

LOCATE LIMIT SWITCH BOX WITH L/S PLUNGER ON CENTER LINE. REMOVE PLATE FROM BOX AND TRANSFER 6-32 SCREW LOCATIONS TO SOLID STOP. TAP 6-32 X 1/4 MIN. THREAD DEPTH. (2 PLACES).



DETAIL "A"

SOME MILL DIALS WILL NEED COUNTER BORE IN ORDER FOR SERVO FEED TO FIT PROPERLY.

NOTE:

1. REVIEW ALL INSTALLATION INSTRUCTIONS AND POWER FEED OPERATION BEFORE TURNING ON SERVO POWER FEED.

UNLESS OTHERWISE SPECIFIED PERPENDICULARITY, PARALLELISM, STRAIGHTNESS, FLATNESS, RUNOUT, CONCENTRICITY, CYLINDRICITY TO BE WITHIN .01 TOTAL OR .040/ft. SURFACE ROUGHNESS WITHIN 125 $\sqrt{}$ REMOVE SHARP CORNERS AND EDGES .005 MIN.
DRAFTING STANDARD PER ANSI Y14.5M-1982

NEXT ASSY | USED ON
APPLICATION

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES & APPLY AFTER PLATING
TOLERANCES ARE: FRACTIONS ± 1/64 DECIMALS .XX ± .01 .XXX ± .005 ANGLES ± 1/2°

MATERIAL: NOTED

FINISH

DO NOT SCALE DRAWING

CONTRACT NO.

APPROVALS	DATE
DRAWN J. TUCKER	12/3/96
CHECKED	

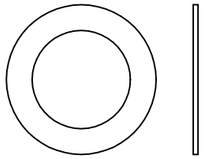
COMPUTER NO.

SERVO PRODUCTS COMPANY
433 NO. FAIR OAKS AVE., PASADENA CALIFORNIA 91103

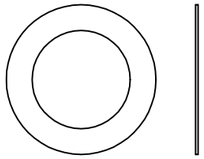
MODEL 2100 & 3200 INSTALLATION DRAWING
HOLKE, MACHINISTS, MARENA 10

SIZE	CODE IDENT NO.	DRAWING NO.	REV.
B	0800-80056	NB-2265	A

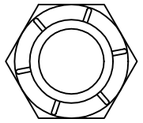
SCALE | SHEET OF



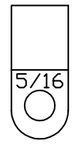
0589-32 (2)
SHIM WASHER
SOLID BRASS



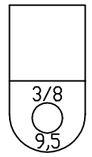
0589-16L (2)
SHIM WASHER
LAMINATED BRASS



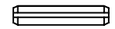
01115 (1)
1/2-20
LOCK NUT



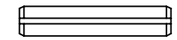
00579 (1)
CLAMP 70



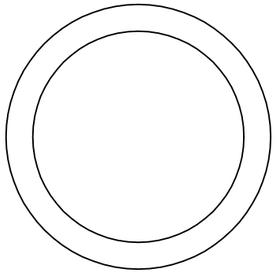
01050 (1)
CLAMP FOR
L/S CORD



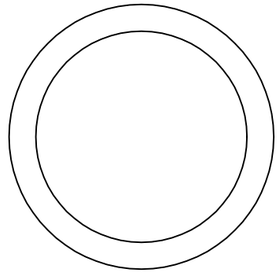
00564 (1)
ROLL PIN
1/8 X 5/8



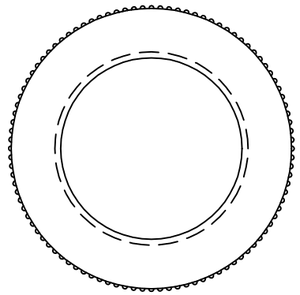
00595 (2)
ROLL PIN
3/16 X 1.0



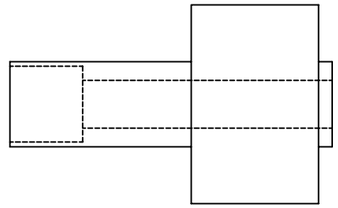
001251 (5)
WASHER
.005 X 1.395 X 1.748
BRASS



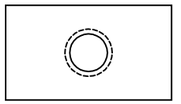
01252 (2)
WASHER
.030 X 1.395 X 1.748
PLASTIC



2255 (1)
DIAL NUT

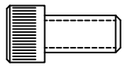


1296 (2)
LIMIT STOP

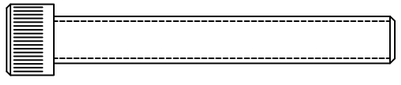


0247 (2)
STOP NUT

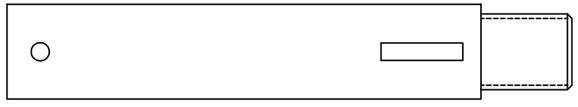
0477 (3)
SPACER



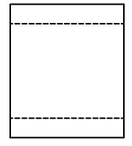
00675 (3)
1/4-20 X 1/2
SOC. HD. CAP. SC.



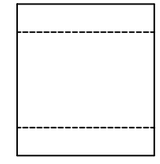
00941 (2)
5/16-24 X 2-1/4
SOC. HD. CAP. SC.



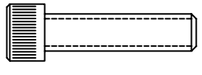
2267 (1)
SHAFT
EXTENSION



4743 (1)
SPACER
HANDCRANK

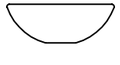


1178 (1)
BEARING RACE



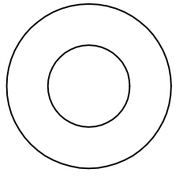
00586 (2)
1/4-20 X 1
SOC. HD. CAP. SC.

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

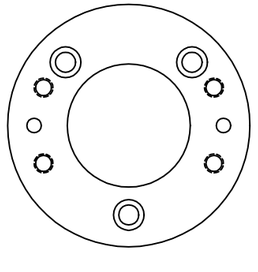


00614 (1)
1/8 X 3/4 #7
WOODRUFF KEY

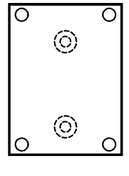
00613 (2)
6-32 X 3/8
PHIL. FLT. HD. SC.



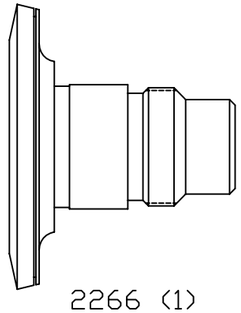
01169 (1)
WASHER
1/2 SAE



0771 (1)
ADAPTOR
1/2 SCALE



0361 (1) BRACKET L/S / 0266 (1) GASKET L/S
1/2 SCALE



2266 (1)
BEVEL GEAR
1/2 SCALE