POWER FEED INSTALLATION
Model M-1840 Table Feed
Wells Index 747, 847, 860, 889

REFERENCE DRAWINGS ENCLOSED

NA-5444	Bevel Gear Installation
NA-2090	Bevel Gear Installation
NA-1427	Dial Sleeve Modification
ND-1840	Power Feed Installation (101-501-101)
ND-6293	Type 150 Servo Drive
0800-80001	Servo Power Feed Operation

PREPARATION

Step 1: Remove the handwheel, dial, and dial sleeve from the right-hand end of the table.

Step 2: If your mill has a key slot in the lead screw, rework the dial sleeve per drawing A-1427.

POWER FEED INSTALLATION

Step 1: As shown in drawing NA-2090, assemble the dial sleeve and the bevel gear using a 1/8 x 1/2 roll pin or follow the alternate bevel gear installation on drawing ND-1840.

Step 2: Install the spacer and bearing race on the shaft.

Step 3: Slide the power feed onto the bearing race and secure using the 1/4-20 x 1-1/2" long socket head cap screws.

❑ **NOTE** *On some mills, you may have to tap the 1/4-20 threads to secure the feed.*

Step 4: Screw the shaft extension on the lead screw and tighten.

Step 5: Drill 1/8 diameter through the lead screw, 5/8 from the end of the screw. Insert the 1/8 x 5/8 roll pin. File ends smooth.

IF: If your lead screw does not have a key, this step is eliminated.

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 nut, tube, spring, and handwheel. Secure with washer and screw.

❑ **NOTE** *Some model Wells-Index do not have a safety handwheel. Conversion can be made easily by ordering the required parts from:*

A & D Machinery Co., Wells-Index Division
701 West Clay Ave.
Muskegon, MI 49440
Telephone: 231-759-0950, Fax: 231-728-7456
E-mail: wellsindex@aol.com

Part No. 2-111-346-216 Spacer
2-111-438-202 Spring

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 per drawing ND-1840.

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

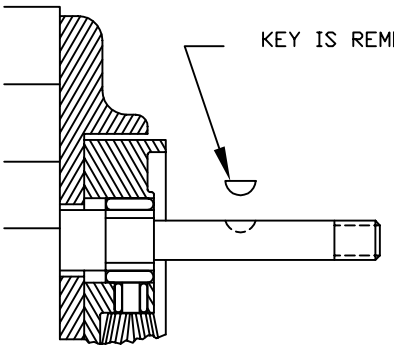
Check hand crank clearances before operation.

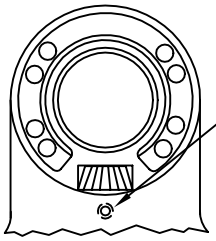
Clearances between the surfaces of the hand crank and the non-moving parts of the equipment on which the hand crank is installed must be at least one-fourth inch (1/4") to prevent injury. Modification of existing hand crank or replacement may be required.

Do not operate without proper clearance!

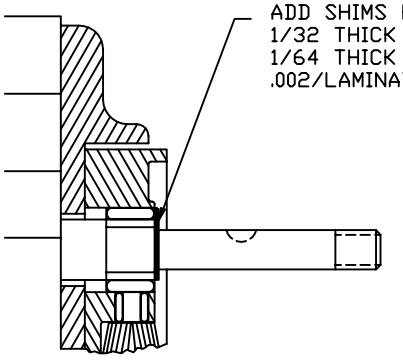
Prevent contact during fast traverses.

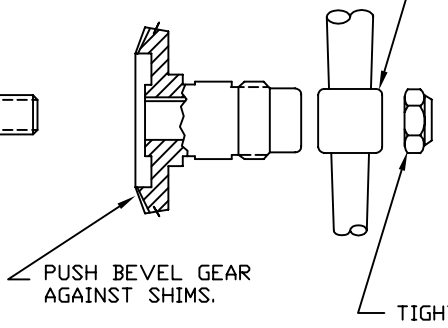
SERVO PRODUCTS COMPANY
433 North Fair Oaks Avenue, Pasadena, CA 91103 USA
Phone: 800.521.7359 or 626.796.2460 Fax: 626.796.3845
Web: www.servoproductsco.com
Call for the location of our regional Service Centers.

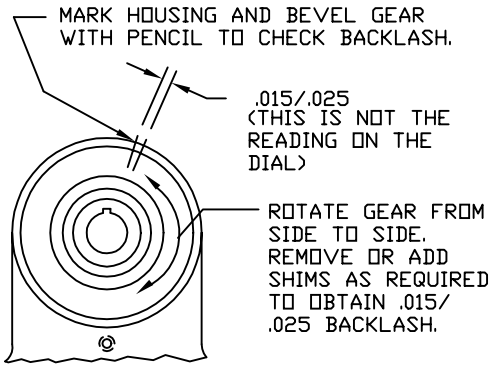




STEP 1
PREPARATION

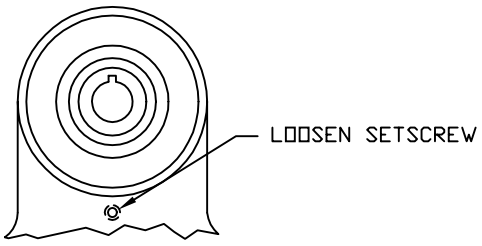


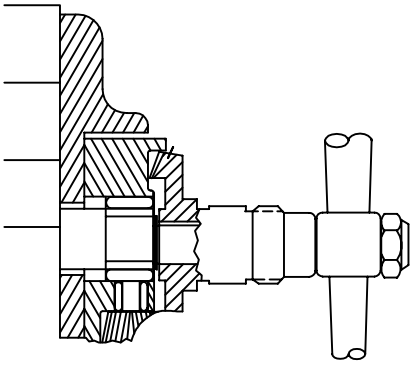




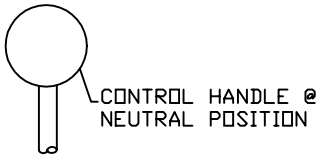
STEP 2
SHIMMING BEVEL GEAR

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

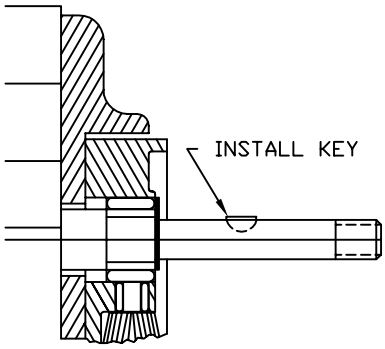


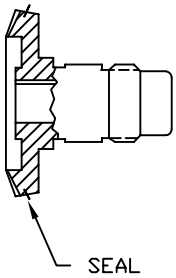


WITH POWER FEED IN NEUTRAL POSITION, TURN HANDCRANK. IF EXCESSIVE GEAR NOISE OR BINDING OCCURS, SHIMS NEED TO BE ADDED. WHEN ADDING SHIMS, REPEAT STEPS 1 AND 2.



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.

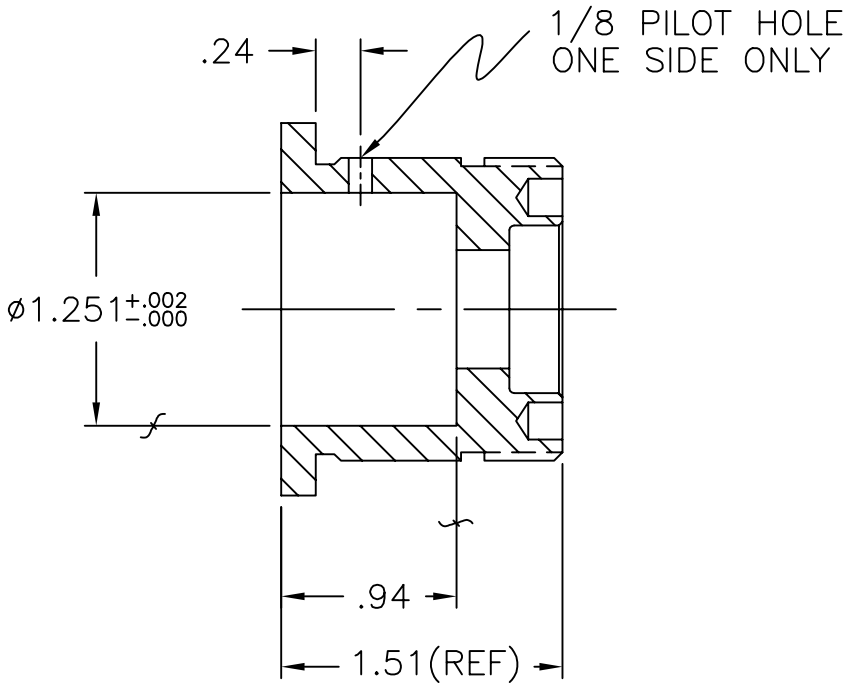
STEP 4
LUBRICATION

SERVO PRODUCTS COMPANY

BEVEL GEAR INSTALLATION

NA-5444 C

REVISION					
ECO	LTR	DESCRIPTION	DATE	DRAWN	CHECKED



NOTE:

IF YOUR MILL HAS A KEY SLOT IN THE LEAD SCREW REFER TO DRAWING 2090 FOR ASSEMBLING WITH THE BEVEL GEAR.

REF. INDEX PART NO. 111438201

UNLESS OTHERWISE SPECIFIED
PERPENDICULARITY, PARALLELISM, STRAIGHTNESS, FLATNESS, RUNOUT, CONCENTRICITY, CYLINDRICITY TO BE WITHIN .01 TOTAL OR .040/ft.
SURFACE ROUGHNESS WITHIN 125
REMOVE SHARP CORNERS AND EDGES .005 MIN.

REMOVE SHARP CORNERS .005 R. TYP.
DRAFTING STANDARD PER ANSI Y14.5M-1982

C-1431	
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 RON. K	4/20/70
CHECKED	

COMPUTER NO.

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

INSTRUCTION
MOD. DIAL SLEEVE

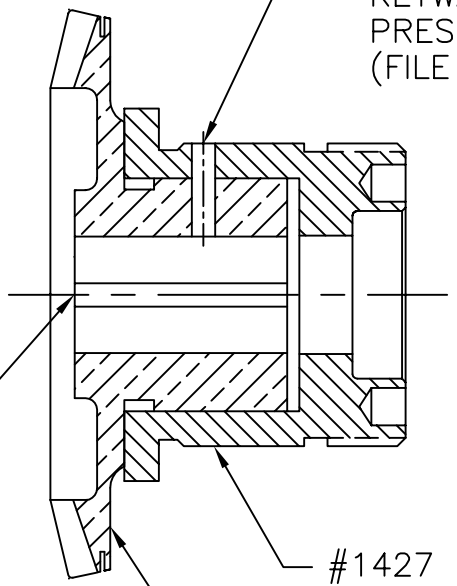
SIZE	CODE IDENT NO.	DRAWING NO.	REV.
A	0800-80573	NA-1427	

SCALE FULL | SHEET 1 OF 1

REVISION					
ECO	LTR	DESCRIPTION	DATE	DRAWN	CHECKED

NOTES:

1. THIS ASSEMBLY IS FOR MILLS WITH KEY IN LEADSCREW.
2. MILLS WITHOUT KEY, THE BEVEL GEAR AND DIAL HUB ARE PINNED TO THE LEADSCREW WITH A 1/8 X 1/2 PIN.



UNLESS OTHERWISE SPECIFIED
PERPENDICULARITY, PARALLELISM, STRAIGHTNESS, FLATNESS, RUNOUT, CONCENTRICITY, CYLINDRICITY TO BE WITHIN .01 TOTAL OR .040/ft.
SURFACE ROUGHNESS WITHIN 125
REMOVE SHARP CORNERS AND EDGES .005 MIN.

REMOVE SHARP CORNERS .005 R. TYP.
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

FINISH

DO NOT SCALE DRAWING

CONTRACT NO.

APPROVALS	DATE
DRAWN RON K.	6/23/73
CHECKED	

COMPUTER NO.

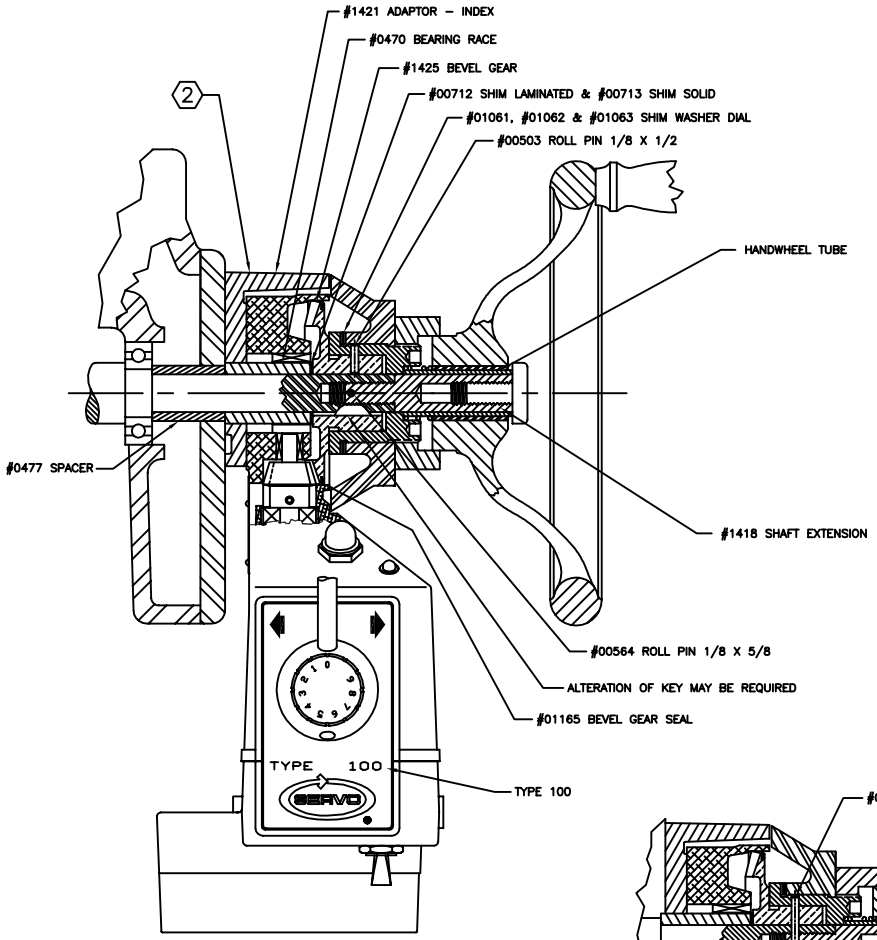
SERVO PRODUCTS COMPANY
433 NO. FAIR OAKS AVE., PASADENA CALIFORNIA 91103

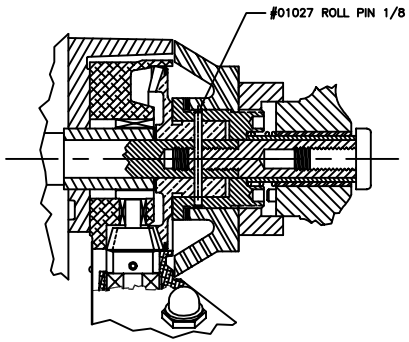
INSTALLATION BEVEL GEAR

SIZE	CODE IDENT NO.	DRAWING NO.	REV.
A	0800-80574	NA-2090	

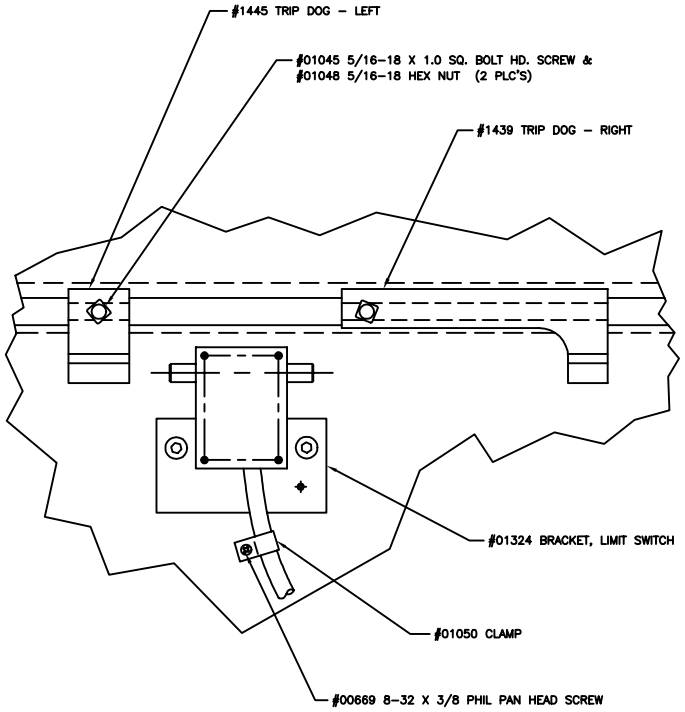
SCALE FULL SHEET 1 OF 1

REVISION					
ECO	LTR	DESCRIPTION	DATE	DRAWN	CHECKED





ALTERNATE BEVEL GEAR INSTALLATION



NOTES:

1. REVIEW ALL INSTALLATION INSTRUCTION AND POWER FEED OPERATIONS BEFORE TURNING ON SERVO POWER FEED.
2. TABLE, POWER FEED AND ADAPTOR, SPOT 1/4 DIA HOLES (4 PLACES), DRILL #7 HOLE AND TAP SUPPORT BRACKET 1/4-20 THD. 1/2 DEEP. #01072 1/4-20 X 1/4 SOC HEAD CAP SCREWS FOR MOUNTING.

QTY	ITEM	PART NO.	DESCRIPTION

UNLESS OTHERWISE SPECIFIED PERPENDICULARITY, PARALLELISM, FLATNESS, STRAIGHTNESS, RUNOUT, CONCENTRICITY, CYLINDRICITY TO BE WITHIN .01 TOTAL OR .040/Ft. SURFACE ROUGHNESS WITHIN 125 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 DEG.

MATERIAL: NOTED

FINISH

DO NOT SCALE DRAWING

CONTRACT NO.

APPROVALS	DATE
DRAWN E. YOUNG	8/10/84
CHECKED	

101-501-101

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

WELLS INDEX INSTALLATION DRAWING
MODEL-1840

SIZE	CODE IDENT NO.	DRAWING NO.	REV.
D	0800-80575	ND-1840	

SCALE – SHEET 1 OF 1