POWER FEED INSTALLATION
Model M-4250 Cross Feed
Microcut, Wells-Index 837

REFERENCE DRAWINGS ENCLOSED

NA-5444	Bevel Gear Installation
ND-1538	Limit Switch Installation
ND-5581	Power Feed Installation
ND-6293	Type 150 Servo Drive
ND-6292	Type 140 Servo Drive
0800-80001	Servo Power Feed Operation

PREPARATION

Step 1: Remove the nut, crank, dial assembly, and key from the lead screw.

Step 2: Slide the spacer and then the bearing race onto the lead screw. Slide the power feed over the bearing race.

Step 3: Line up the feed so that it sits square to the bearing housing. Using the power feed as a template, spot two mounting holes.

Step 4: Remove the power feed and bearing race from lead screw.

Step 5: Remove the four screws holding the bearing housing and then remove the bearing housing. (The lead screw can be used to jack the housing off the pins. The lead screw does not have to be removed from the mill.)

Step 6: Drill and tap two holes 1/4-20 x 7/8" deep.

Step 7: Put the bearing housing back onto the knee.

POWER FEED INSTALLATION

Step 1: Screw the shaft extension to the lead screw and tighten.

Step 2: Using the hole provided as a pilot, drill 1/8" diameter through the lead screw. Pin the extension in place using the 1/8 diameter x 5/8" long roll pin. File smooth.

Step 3: Replace the bearing race onto the lead screw.

Step 4: Slide the power feed over the bearing race. Secure using 1/4-20 x 1-1/2" long socket head cap screws provided.

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, place the key in the shaft, and slide the handcrank onto the shaft extension. Secure using the 1/2-20 lock nut provided.

❑ **NOTE** *A smaller diameter handcrank is supplied in order to have clearance between the cross feed crank and the knee crank.*

LIMIT SWITCH INSTALLATION

Step 1: See the limit switch installation on drawings ND-5581 and ND-1538.

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.

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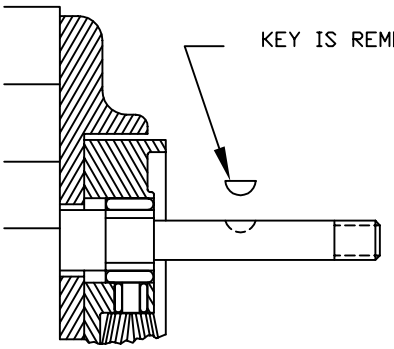
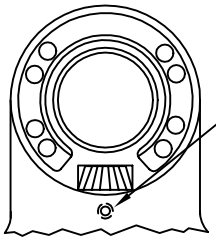
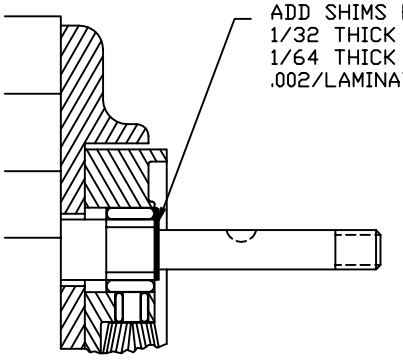
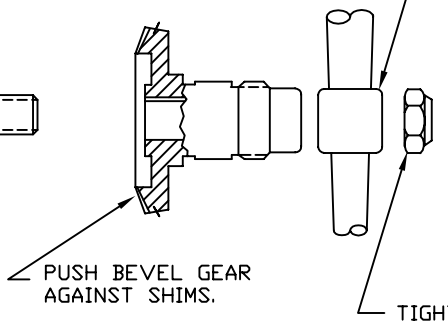
Web: www.servoproductsco.com
Call for the location of our regional Service Centers.

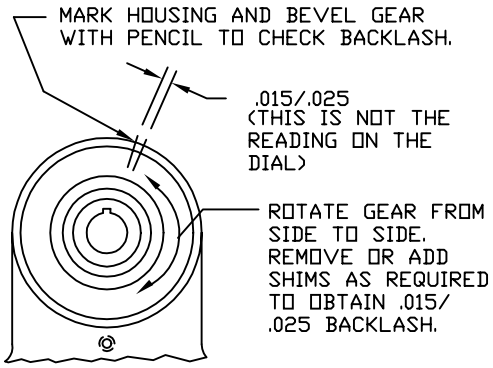




STEP 1
PREPARATION

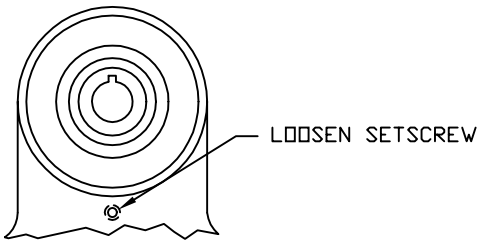


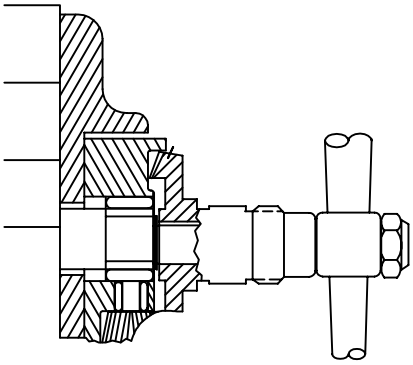




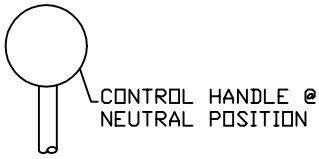
STEP 2
SHIMMING BEVEL GEAR

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

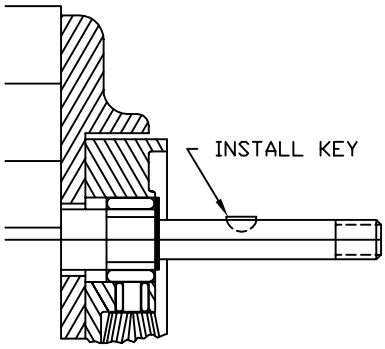


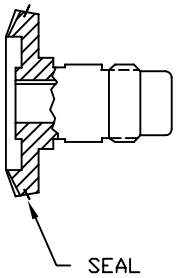


WITH POWER FEED IN NEUTRAL POSITION, TURN HANDCRANK. IF EXCESSIVE GEAR NOISE OR BINDING OCCURS, SHIMS NEED TO BE ADDED. WHEN ADDING SHIMS, REPEAT STEPS 1 AND 2.



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

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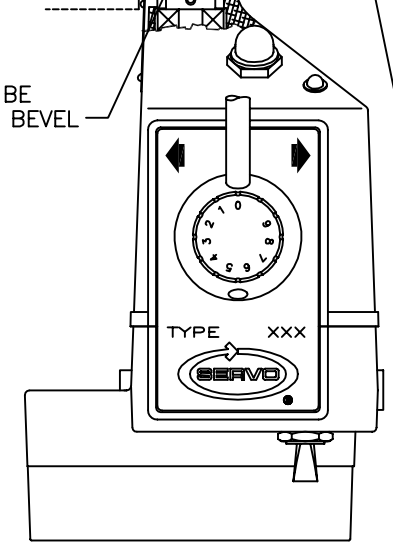
BEVEL GEAR INSTALLATION

NA-5444 C

#01251 SHIM WASHER DIAL
#01252 SHIM WASHER DIAL
#2255 DIAL NUT
#1388 BEVEL GEAR SEAL
#5488 BEVEL GEAR
#0589-16L LAMINATED SHIM
#0589-32 SOLID SHIM
#5486 WOODRUFF KEY (MODIFIED)
#01115 1/2-20 LOCK NUT
#0714 BEARING RACE
#0333 SHAFT EXTENSION
#0477 SPACER

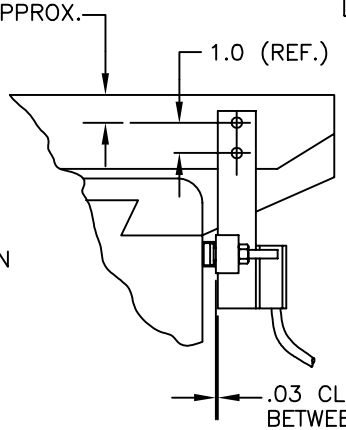
NOTE:
KEY MAY HAVE TO BE ALTERED TO CLEAR BEVEL GEAR SHIMS.

#00564 ROLL PIN 1/8 X 5/8



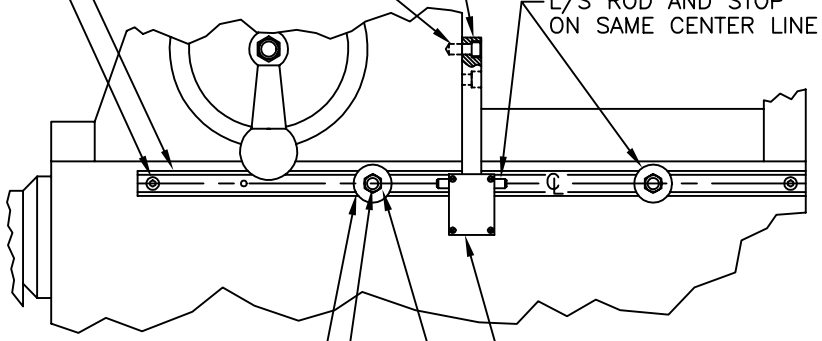
NOTE:
1. REVIEW ALL INSTALLATION INSTRUCTIONS AND POWER FEED OPERATIONS BEFORE TURNING ON SERVO POWER FEED.

#00681 1/4-20 X 3/8 SOC. HD. CAP SC. DRILL & TAP KNEE (2PLC'S.) 1/4-20 TO MOUNT TRACK



VIEW FROM BACK SIDE OF SADDLE
(MOUNTED ON LEFT SIDE OF KNEE AND SADDLE)

#1752 TRIP RAIL
#00670 5/16-18 X 3/4 SOC. HD. CAP SC.
#1750 BAR L/S DRILL & TAP SADDLE (2 PLC'S.) 5/16-18 TO MOUNT L/S BAR
L/S ROD AND STOP ON SAME CENTER LINE



#1537 STOP RING
#1536 STOP STUD
#1751 BRACKET L/S
#1171 COVER L/S
#01093 4-40 X 1 PHIL. FLT. HD. SC. REMOVE COVER FROM L/S BOX & ATTACH TO BAR FROM SADDLE
#01082 3/8-16 HEX NUT (BLACK)

INSTALLATION LIMIT SWITCH

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.
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	1/8/97
CHECKED	

COMPUTER NO.

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MODEL 4250 INSTALLATION DRAWING WELLS INDEX 837

SIZE	CODE IDENT NO.	DRAWING NO.	REV.
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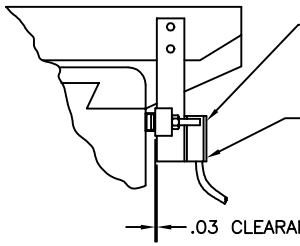
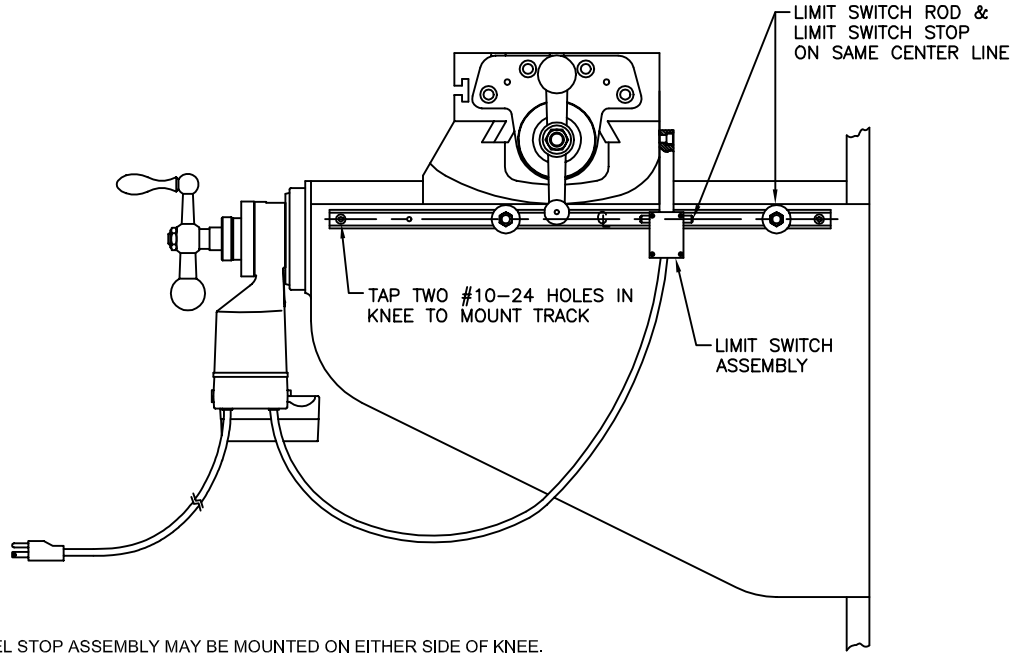
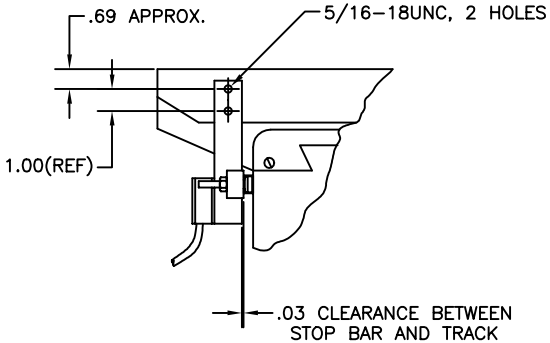
SCALE | SHEET OF

REVISION					
ECO	LTR	DESCRIPTION	DATE	DRAWN	CHECKED



VIEW FROM BACK SIDE OF SADDLE
(MOUNTED ON LEFT SIDE OF KNEE & SADDLE)





VIEW FROM BACK SIDE OF SADDLE
(MOUNTED ON RIGHT SIDE OF KNEE & SADDLE)

NOTES:
1. CROSS TRAVEL STOP ASSEMBLY MAY BE MOUNTED ON EITHER SIDE OF KNEE.
2. WHEN MILL HAS MEASURING ATTACHMENT, MOUNT LIMIT SWITCH, STOPS & TRACK ON OPP. SIDE.
3. REFERENCE DRAWING ONLY. INSTALLATION SHOWN IS A BRIDGEPORT MILL.

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. 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 DECIMALS ANGLES
±1/64 .XX ±.01 ± 1/2°
.XXX±.005

MATERIAL
–

FINISH
–

DO NOT SCALE DRAWING

CONTRACT NO.

APPROVALS	DATE
DRAWN T. KU	02/01/01
CHECKED	

COMPUTER NO.

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INSTALLATION DRAWING
LIMIT SWITCH, CROSS FEEDS

SIZE	CODE IDENT NO.	DRAWING NO.	REV.
B	0800-80021	NB-1538	A

SCALE NONE SHEET OF