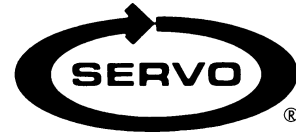


# POWER FEED INSTALLATION

## Model M-5650 Cross Feed

### Johnford MV54



#### REFERENCE DRAWINGS ENCLOSED

NA-5444	Bevel Gear Installation
NB-6825	Power Feed Installation
NB-1538	Limit Switch Installation
ND-6293	Type 150 Servo Power Feed
ND-6292	Type 140 Servo Power Feed
0800-80001	Servo Power Feed Operation

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#### PREPARATION

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

- a) 3/8" electric hand drill
- b) 1/8" drill
- c) flat file
- d) 3/4" socket wrench
- e) set of inch hex wrenches
- f) grease
- g) clean shop rag

*Step 2:* Remove the nut, handcrank, dial assembly and key from the lead screw.

#### POWER FEED INSTALLATION

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

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

*Step 3:* Slide the spacer bearing race and adaptor onto the lead screw. Secure using 1/4-20 x 1/2" long cap screws.

*Step 4:* Secure power feed to adaptor using 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.

## 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, install the Woodruff key and dial nut. Slide the handcrank in place and tighten with 1/2-20 lock nut #01115.

## LIMIT SWITCH INSTALLATION

Install the limit switch as shown on the installation drawings.

## 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.**

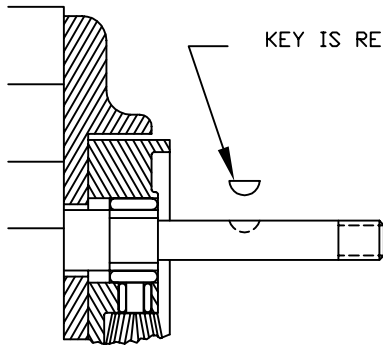
Clearances between the surfaces of the hand crank and the non-moving parts of the equipment on which the hand crank is installed must be at least one-fourth inch (1/4") to prevent injury. Modification of existing hand crank or replacement may be required.

***Do not operate*** without proper clearance!

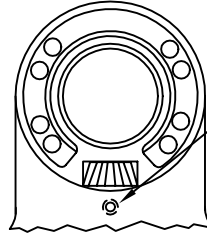
Prevent contact during fast traverses.

## 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.

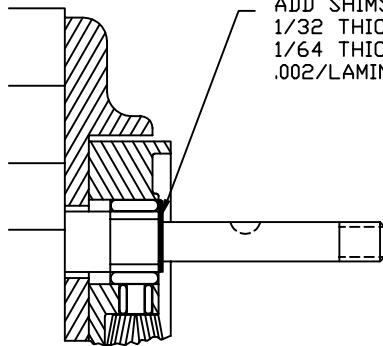


KEY IS REMOVED DURING SHIMMING

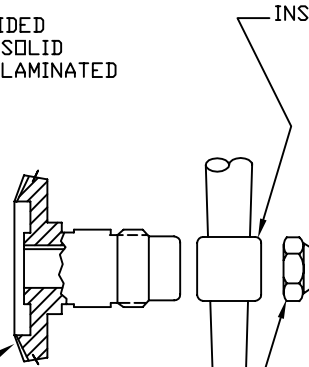


TIGHTEN SLIGHTLY (HOLDS BEVEL PINION STATIONARY DURING SHIMMING.)

STEP 1  
PREPARATION



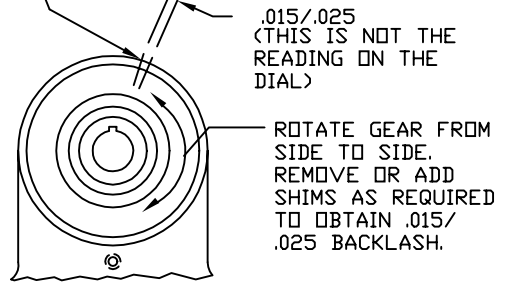
ADD SHIMS PROVIDED  
1/32 THICK ARE SOLID  
1/64 THICK ARE LAMINATED  
.002/LAMINATION



PUSH BEVEL GEAR AGAINST SHIMS.

INSTALL HANDCRANK.

MARK HOUSING AND BEVEL GEAR WITH PENCIL TO CHECK BACKLASH.



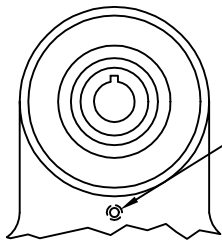
.015/.025  
(THIS IS NOT THE READING ON THE DIAL)

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

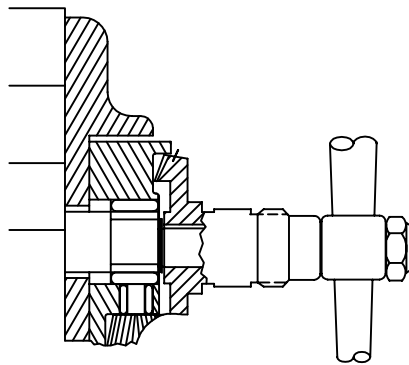
STEP 2  
SHIMMING BEVEL GEAR

TIGHTEN NUT.

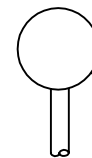
**CAUTION:** IF BACKLASH IS NOT PROPERLY SET BEFORE TURNING UNIT ON, BEVEL GEAR MAY BE DESTROYED.



LOOSEN SETSCREW

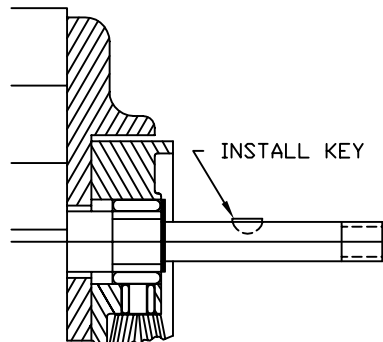


WITH POWER FEED IN NEUTRAL POSITION, TURN HANDCRANK. IF EXCESSIVE GEAR NOISE OR BINDING OCCURS, SHIMS NEED TO BE ADDED. WHEN ADDING SHIMS, REPEAT STEPS 1 AND 2.

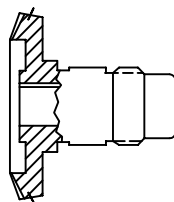


CONTROL HANDLE @ NEUTRAL POSITION

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)

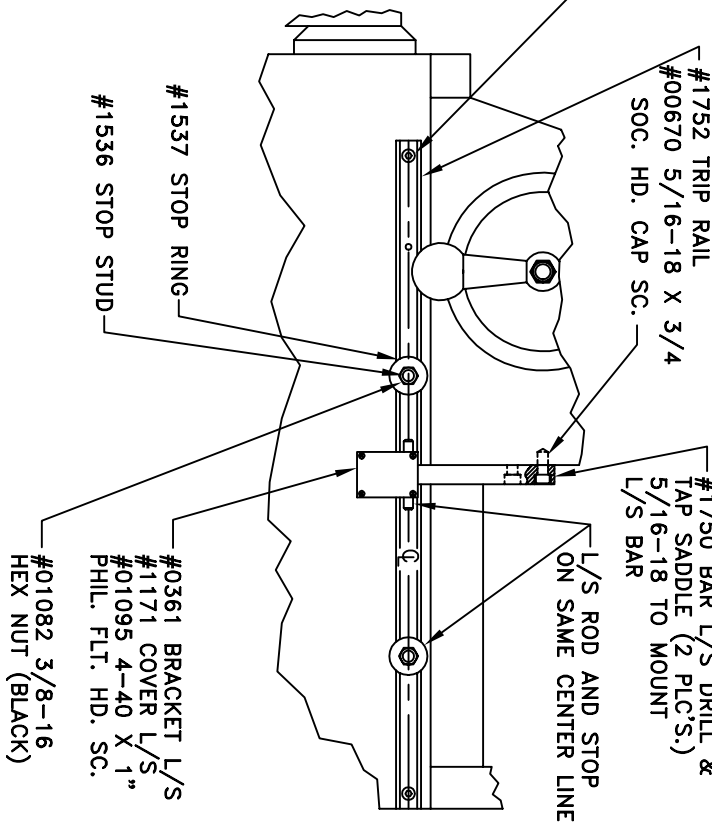
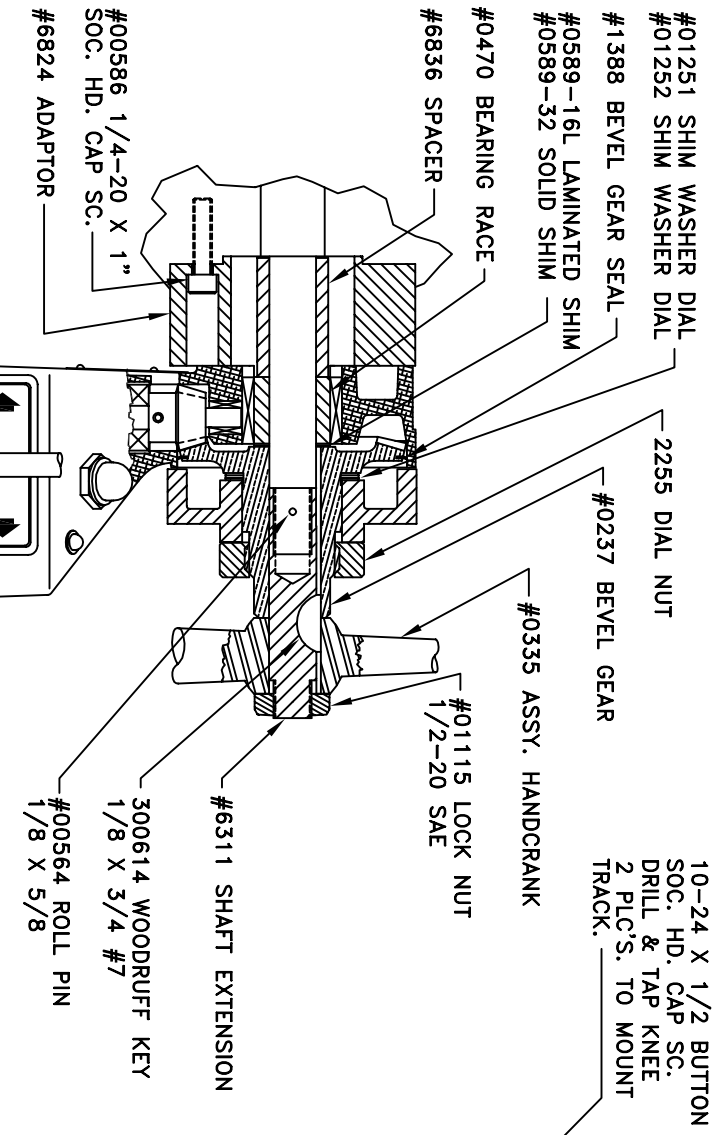
PICTURES IN THIS DRAWING ARE FOR REFERENCE ONLY. SEE INSTALLATION DRAWING OF CORRESPONDING MODEL FOR EXACT PARTS CONFIGURATION.

SERVO PRODUCTS COMPANY

BEVEL GEAR INSTALLATION

NA-5444 C

STEP 4  
LUBRICATION



**NOTE:**  
 1. REVIEW ALL INSTALLATION INSTRUCTIONS AND POWER FEED OPERATION INSTRUCTION BEFORE TURNING ON SERVO POWER FEED.  
 2. BUTT AND LINE UP RAILS SO THAT IT IS PARALLEL WITH CROSS SLIDE.

**LIMIT STOP MAY BE MOUNTED ON LEFT SIDE OF KNEE.**

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

TYPE	XXX
APPLICATION	USED DN
NEXT ASSY	

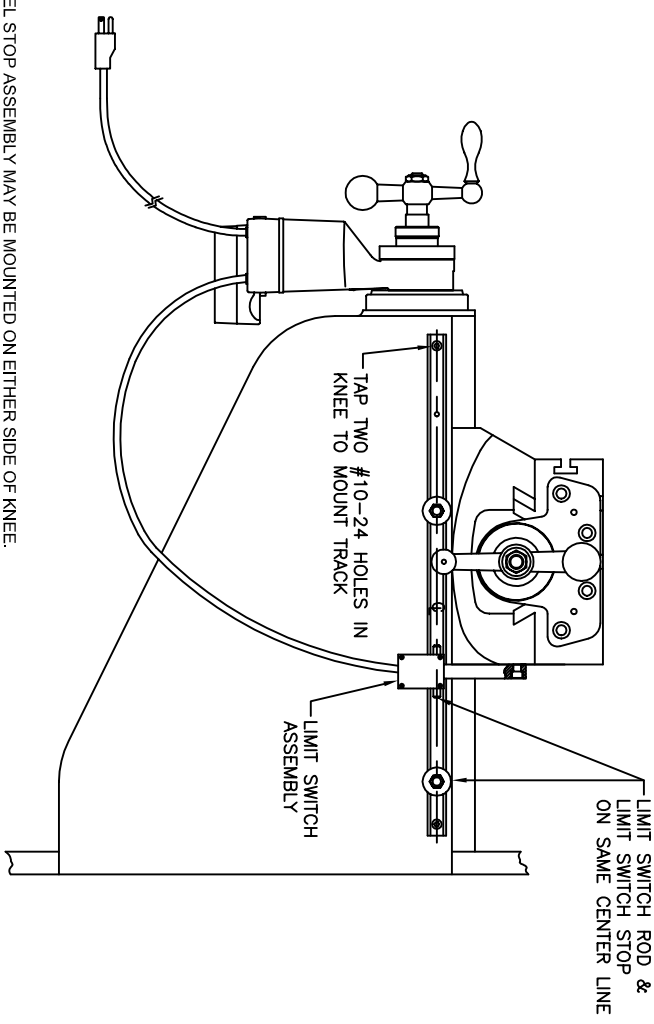
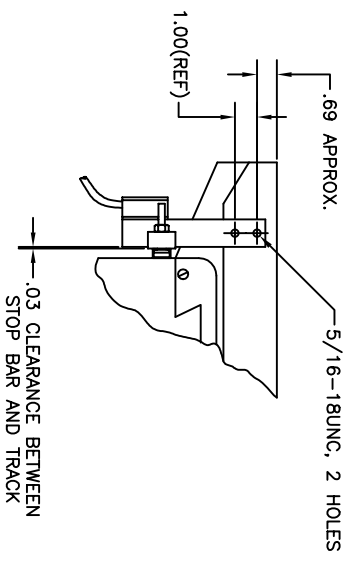
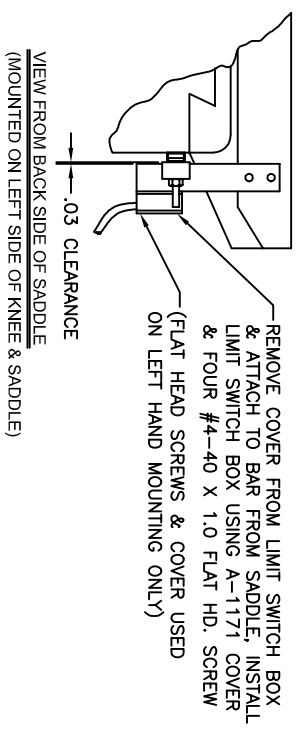
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES & TOLERANCES ARE AS FOLLOWS FRACTIONS DECIMALS ANGLES	± 1/64	± .005	± 1/2°
	XX	XX ± .005	XX ± .005
MATERIAL	NOTED	CHECKED	
FINISH			
DID NOT SCALE DRAWING	COMPUTER NO.		

SERVO PRODUCTS COMPANY  
 433 N. FAIR BANKS AVE., PASADENA, CALIFORNIA 91103

**MODEL 5650**  
**INSTALLATION DRAWING**  
**JOHNFORDD MV54**

SIZE B CODE IDENT NO. 0800-80349 DRAWING NO. NB-6825 SHEET B OF B

REVISION		DATE	DRAWN	CHECKED
ECC	LTR			
DESCRIPTION				



- 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, ROUNDNESS, CONCENTRICITY, CYLINDRICITY TO BE WITHIN .01 TOTAL OR .040/IN. SURFACE ROUGHNESS WITHIN 125 REMOVE SHARP CORNERS AND EDGES .005 MIN. DRAFTING STANDARD PER ANSI Y14.5M-1982

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UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES & TOLERANCES ARE: .005 ANGLES ± 1/2°	CONTRACT NO.	APPROVALS	DATE
MATERIAL	DRAWN T. KU	CHECKED	02/01/01
FINISH			
DO NOT SCALE DRAWING			
APPLICATION	USED ON		
NEXT ASSY			

**SERVO** 433 NO. FAIR OAKS AVE., PASADENA CALIFORNIA 91103

INSTALLATION DRAWING  
LIMIT SWITCH, CROSS FEEDS

SIZE	CODE IDENT NO.	DRAWING NO.	REV.
B	0800-8002-1	NB-1538	A
SCALE	NONE	SHEET	OF