

POWER FEED INSTALLATION

Model M-3950 Cross Feed

Kondia SM2, FV-300, Lepac and others



REFERENCE DRAWINGS ENCLOSED

NA-5444	Bevel Gear Installation
NB-5514	Power Feed Installation
ND-1481	Safety Handle Model 620
ND-6293	Type 150 Servo Drive
ND-6292	Type 140 Servo Drive
0800-80001	Servo Power Feed Operation

PREPARATION

Step 1: Remove the nut, handwheel, dial, dial hub, key and M6 screws from the bearing retainer.

POWER FEED INSTALLATION

Step 1: Slide the alignment sleeve onto the shaft.

Step 2: Slide the adaptor onto the alignment sleeve and secure to the bearing retainer using four M6 x 30 mm. Remove the alignment sleeve.

Step 3: Slide the bearing race spacer onto the lead screw, followed by the bearing race.

Step 4: Mount the power feed to the adaptor using two 1/4-20 x 1" long socket head cap screws.

Step 5: Screw the shaft extension onto the lead screw and tighten.

Step 6: Drill 1/8 diameter hole through the shaft extension and lead screw. Install the 1/8 x 5/8 roll pin. File smooth.

BEVEL GEAR INSTALLATION

Step 1: Install the 6 x 6 mm x 20 mm square key and slide the bevel gear in place.

Step 2: Follow drawing NA-5444 for installation of the bevel gear. Adjust for proper gear backlash.

DIAL 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: Put on the dial locking nut.

SAFETY HANDLE INSTALLATION

Step 1: Install the key in the shaft extension.

Step 2: Follow drawing ND-1481 for the installation of the safety handle kit.

IF: If the Kondia mill SM2 is supplied without the M-620 safety handle, install a balanced crank handle using the 6 mm x 7.5 mm woodruff key (03407).

LIMIT SWITCH INSTALLATION

Step 1: Install the limit switch as shown on drawing ND-5514.

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

Web: www.servoproductsco.com

CALIFORNIA BRANCH

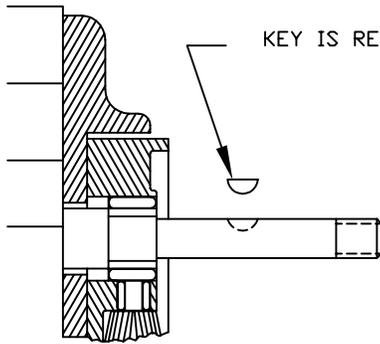
14254 Valley Blvd., Unit A
City of Industry, CA 91746
Ph. 626.961.7800 Fax 626.961.2444

HEADQUARTERS

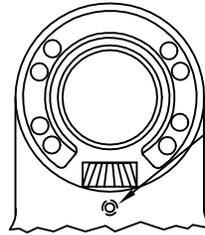
34940 Lakeland Blvd.
Eastlake, OH 44095
Ph. 440.942.9999 Fax 440.942-9100

FLORIDA BRANCH

8950 131st Ave. N.
Largo, FL 33773
Ph. 727.585.8555 Fax 727.585.6555

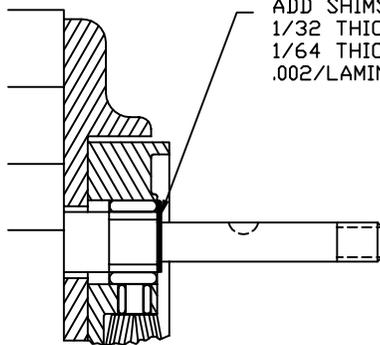


KEY IS REMOVED DURING SHIMMING

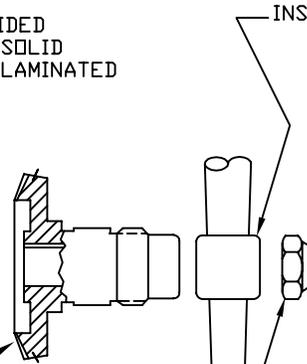


TIGHTEN SLIGHTLY (HOLDS BEVEL PINION STATIONARY DURING SHIMMING.)

STEP 1
PREPARATION



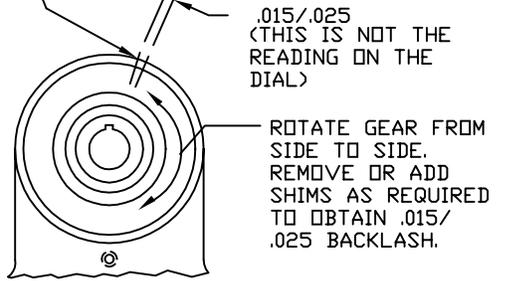
ADD SHIMS PROVIDED
1/32 THICK ARE SOLID
1/64 THICK ARE LAMINATED
.002/LAMINATION



PUSH BEVEL GEAR AGAINST SHIMS.

INSTALL HANDCRANK.

MARK HOUSING AND BEVEL GEAR WITH PENCIL TO CHECK BACKLASH.



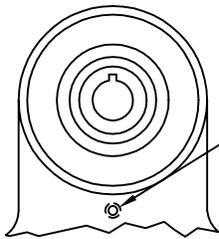
.015/.025
(THIS IS NOT THE READING ON THE DIAL)

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

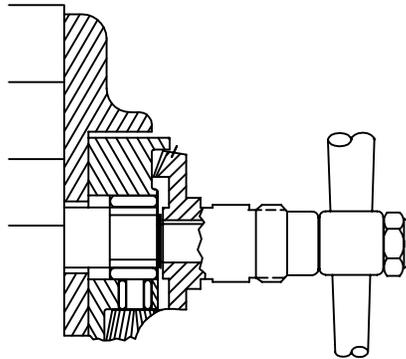
STEP 2
SHIMMING BEVEL GEAR

TIGHTEN NUT.

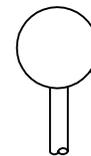
CAUTION: IF BACKLASH IS NOT PROPERLY SET BEFORE TURNING UNIT ON, BEVEL GEAR MAY BE DESTROYED.



LOOSEN SETSCREW

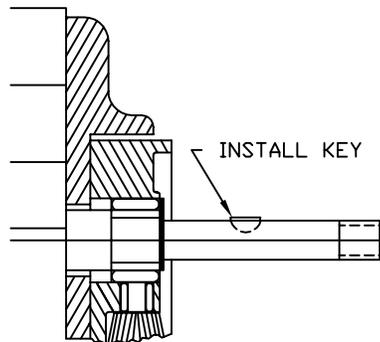


WITH POWER FEED IN NEUTRAL POSITION, TURN HANDCRANK. IF EXCESSIVE GEAR NOISE OR BINDING OCCURS, SHIMS NEED TO BE ADDED. WHEN ADDING SHIMS, REPEAT STEPS 1 AND 2.

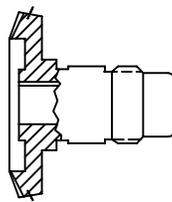


CONTROL HANDLE @ NEUTRAL POSITION

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.

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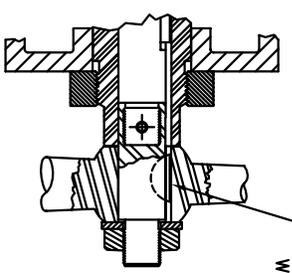
BEVEL GEAR INSTALLATION

NA-5444 C

STEP 4
LUBRICATION

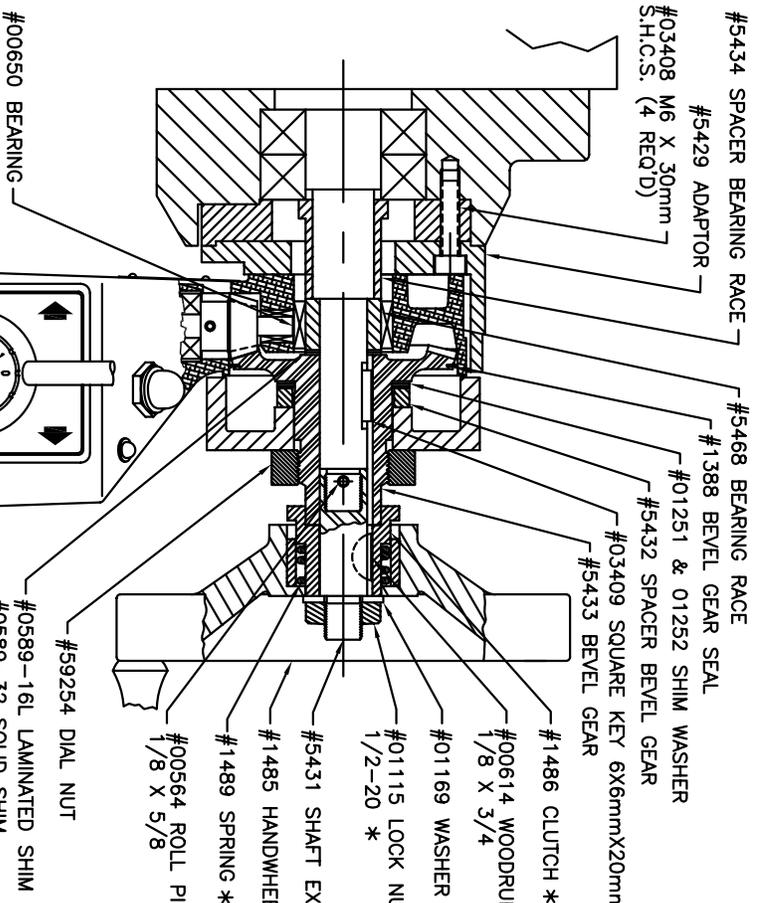
REVISION		DATE	DRAWN	CHECKED
ECD	LTR			
DESCRIPTION				

*OPTIONAL
SAFETY HANDLE M-620
SEE DWG. NB-1481 FOR
INSTALLATION.

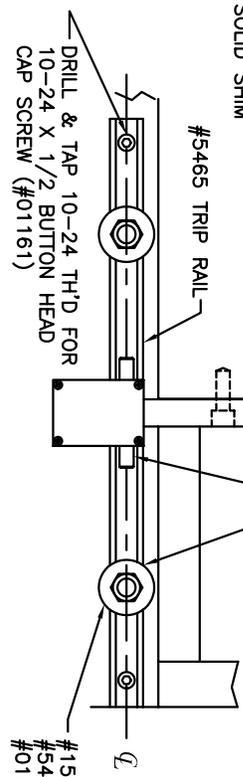


#03407 6mm X 7.5mm
WOODRUFF KEY

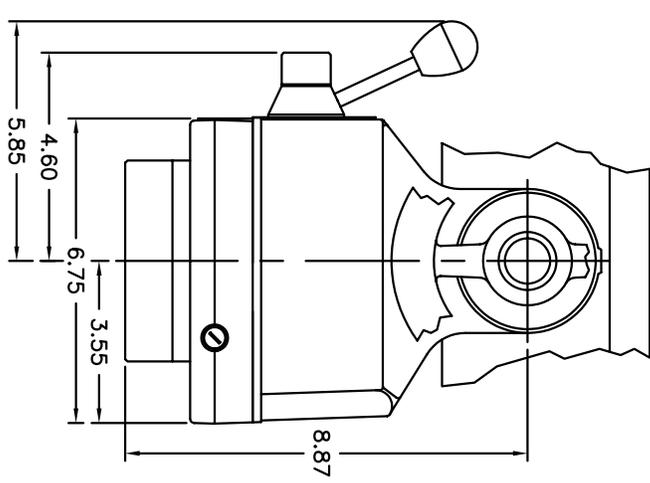
IF KONDA SM2 OR FV300(LEPAC)
MILL SUPPLIED WITHOUT M-620
SAFETY HANDLE, USE 6mmX7.5mm
WOODRUFF KEY & BALANCED CRANK
HANDLE.



#5434 SPACER BEARING RACE
#5429 ADAPTOR
#03408 M6 X 30mm
S.H.C.S. (4 REQ'D)
#5468 BEARING RACE
#1388 BEVEL GEAR SEAL
#01251 & 01252 SHIM WASHER
#5432 SPACER BEVEL GEAR
#03409 SQUARE KEY 6X6mmX20mm
#5433 BEVEL GEAR
#1486 CLUTCH *
#00614 WOODRUFF KEY
1/8 X 3/4
#01169 WASHER *
1/2-20 *
#01115 LOCK NUT
#5431 SHAFT EXTENSION
#1485 HANDWHEEL *
#1489 SPRING *
#00564 ROLL PIN
1/8 X 5/8
#59254 DIAL NUT
#0589-16L LAMINATED SHIM
#0589-32 SOLID SHIM



#1536 STOP STUD
#5470 STOP RING
#01082 3/8-16 HEX NUT



SCALE 3/8

- NOTE:
1. LIMIT STOP MAY BE MOUNTED ON LEFT SIDE OF KNEE.
 2. BUTT & LINE UP TOW RAILS SO THAT THEY ARE PARALLEL TO CROSS SLIDE.
 3. REVIEW ALL INSTALLATION INSTRUCTIONS & POWER FEED INSTRUCTION BEFORE TURNING ON SERVO POWER FEED.

UNLESS OTHERWISE SPECIFIED PERPENDICULARITY, PARALLELISM, STRAIGHTNESS, FLATNESS, ROUNDNESS, CONCENTRICITY, CYLINDRICITY TO BE WITHIN 0.10 TOTAL OR 0.040/ft. SURFACE ROUGHNESS WITHIN 125/1000 REMOVED SHARP CORNERS AND EDGES .005 MIN. DIMS TO BE SHOWN PER ANSI Y14.5M-1982

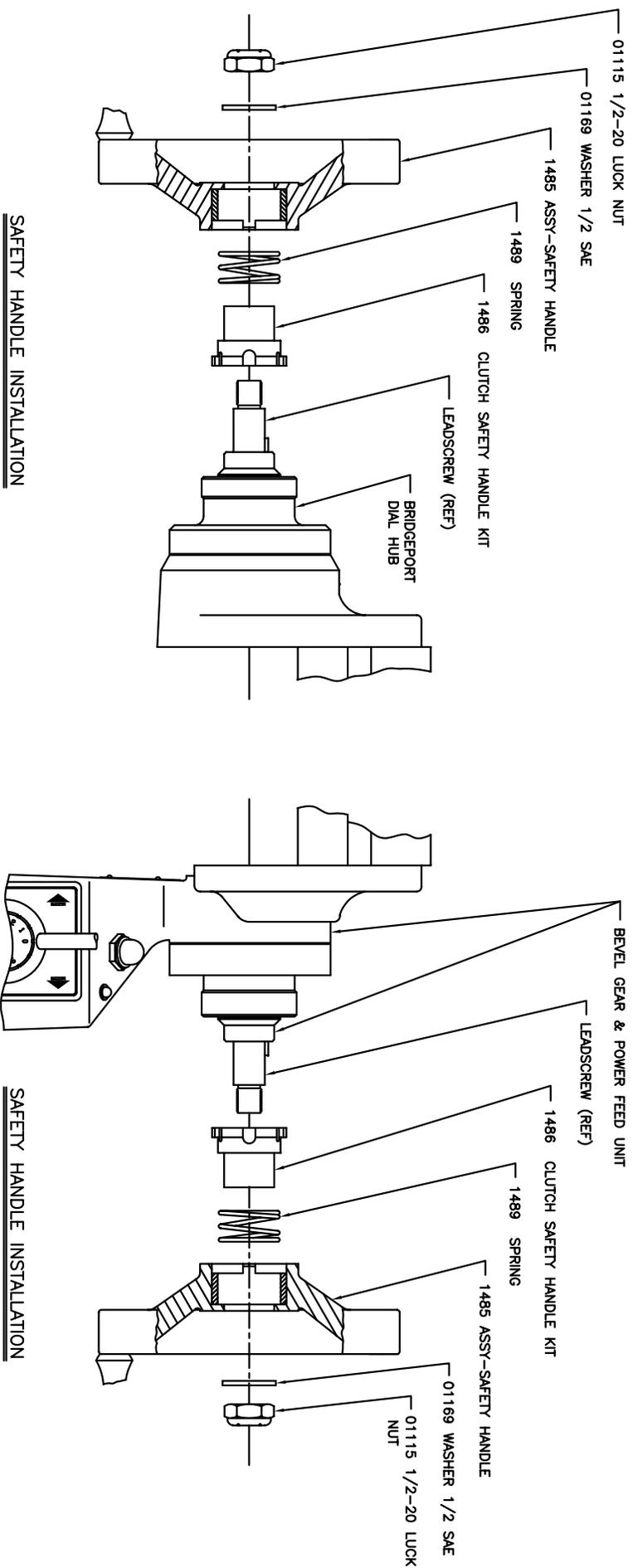
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CONTRACT NO.	APPROVALS	DATE
	M.W.	1/2/02

SERVO PRODUCTS COMPANY
34940 LANCELAND BLVD., EASTLAKE, OH 44095
INSTALLATION DRAWING
MODEL 3950
CROSS FEED
SIZE CODE IDENT. NO. DRAWING NO. REV.
B 0800-80136 NB-5514 B
SCALE 5/8 SHEET DF

REVISION		DATE	DRAWN	CHECKED
ECD	LTR	DESCRIPTION		



SAFETY HANDLE INSTALLATION
 TYPICAL FOR EITHER END OF
 TABLE WITHOUT POWER FEED

SAFETY HANDLE INSTALLATION
 WITH SERVO POWER FEED RIGHT
 END OF MILL TABLE ONLY

NOTE: BRIDGEPORT MILL SHOWN.

UNLESS OTHERWISE SPECIFIED,
 DIMENSIONS ARE IN INCHES &
 TOLERANCES ARE AS FOLLOWS:
 FRACTIONS DECIMALS ANGLES
 ± 1/64 ± .005 ± .015 ± 1/2°
 ± .005 ± .005 ± .015 ± 1/2°
 UNLESS OTHERWISE SPECIFIED,
 FINISHES TO BE WITHIN .01
 CONCENTRICITY TO BE WITHIN .01
 REMOVE SHARP EDGES AND CORNERS
 .005 MIN.
 DRAWING STANDARD PER ANSI Y43M-1982

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SERVO PRODUCTS COMPANY
 34940 LAKELAND BLVD., EASTLAKE, OH 44095

**SAFETY HANDLE, "SH" KIT
 INSTALLATION DRAWING
 MODEL 620**

SIZE: B CODE IDENT. NO.: 0800-80086 DRAWING NO.: NB-1481

SCALE: 1/2 SHEET: DF

4 3 2 1