

POWER FEED INSTALLATION

Model M-0850 Cross Feed

Ex-Cell-O 602



REFERENCE DRAWINGS ENCLOSED

NA-5444	Bevel Gear Installation
ND-0712	Power Feed Installation
ND-6293	Type 150 Servo Power Feed
ND-6292	Type 140 Servo Power Feed
0800-80001	Servo Power Feed Operation

POWER FEED INSTALLATION

- Step 1:* Remove the nut, handwheel, and dial assembly from the lead screw.
- Step 2:* Rework the dial per drawing ND-0712 detail A.
- Step 3:* Slide the bearing race onto the lead screw. Slide the power feed over the bearing race.
- Step 4:* Line up the feed so that it sits square to the bearing retainer end cap. Using the power feed as a template, spot two mounting holes.
- Step 5:* Remove the power feed and the bearing race.
- Step 6:* Drill and tap 1/4-20 x 3/8" deep into the end cap.
- Step 7:* Slide the bearing race and the power feed onto the lead screw. Secure using the 1/4-20 x 1" long cap screws provided.

BEVEL GEAR INSTALLATION

- Step 1:* Follow drawing NA-5444 for installation of the bevel gear.
- Step 2:* With the bevel gear shimmed and the shaft extension firmly holding the bevel gear in place, check the backlash per NA-5444 step 3.
- NOTE** *Extra care should be taken in NA-5444 step 3 since there is no woodruff key for locking the bevel gear and the shaft extension to the lead screw.*
- Step 3:* Grease the gear as noted in NA-5444 step 4.
- Step 4:* After obtaining the proper backlash, with the shaft extension holding the bevel gear firmly in place, drill a 1/8 diameter hole through the bevel gear and shaft. Pin with the 1/8 diameter x 1-1/4" long roll pin.

DIAL AND HANDCRANK INSTALLATION

- Step 1:* Slide the modified dial over the shaft extension and the bevel gear. Shim 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:* Install the Ex-Cell-O handwheel and nut.

LIMIT SWITCH INSTALLATION

Step 1: Install the limit switch as shown on installation drawing ND-0712.

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.

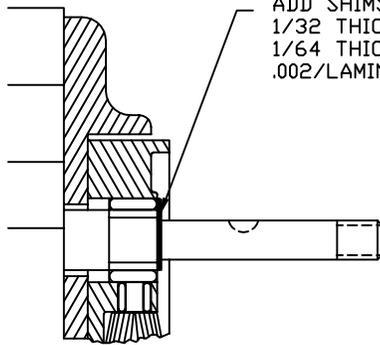


KEY IS REMOVED DURING SHIMMING



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.

TIGHTEN NUT.

STEP 2
SHIMMING BEVEL GEAR

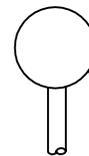
CAUTION: IF BACKLASH IS NOT PROPERLY SET BEFORE TURNING UNIT ON, BEVEL GEAR MAY BE DESTROYED.



LOOSEN SETSCREW

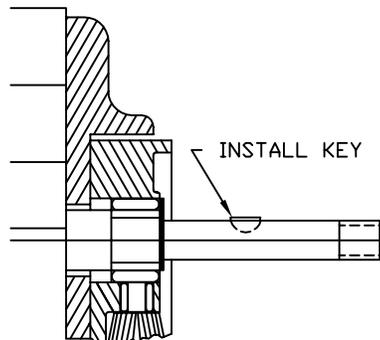


WITH POWER FEED IN NEUTRAL POSITION, TURN HANDCRANK. IF EXCESSIVE GEAR NOISE OR BINDING OCCURS, SHIMS NEED TO BE ADDED. WHEN ADDING SHIMS, REPEAT STEPS 1 AND 2.



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)

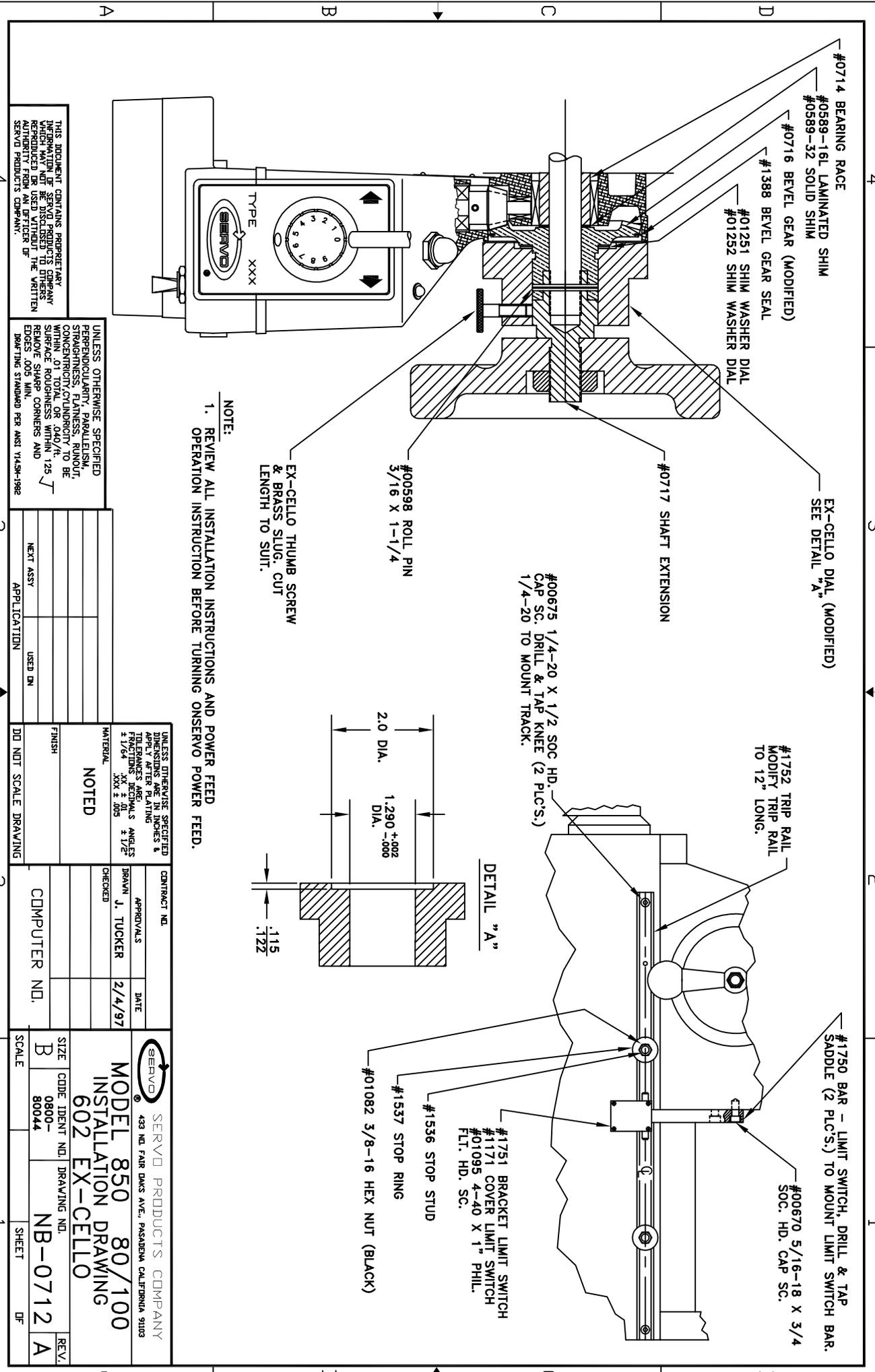
PICTURES IN THIS DRAWING ARE FOR REFERENCE ONLY. SEE INSTALLATION DRAWING OF CORRESPONDING MODEL FOR EXACT PARTS CONFIGURATION.

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BEVEL GEAR INSTALLATION

NA-5444 C

STEP 4
LUBRICATION



#0714 BEARING RACE
 #0589-16L LAMINATED SHIM
 #0589-52 SOLID SHIM

#0716 BEVEL GEAR (MODIFIED)
 #1388 BEVEL GEAR SEAL
 #01251 SHIM WASHER DIAL
 #01252 SHIM WASHER DIAL

EX-CELLO DIAL (MODIFIED)
 SEE DETAIL "A"

#0717 SHAFT EXTENSION

#00675 1/4-20 X 1/2 SOC HD.
 CAP SC. DRILL & TAP KNEE (2 PLC'S.)
 1/4-20 TO MOUNT TRACK.

#1752 TRIP RAIL
 MODIFY TRIP RAIL
 TO 12" LONG.

DETAIL "A"

#1750 BAR - LIMIT SWITCH, DRILL & TAP
 SADDLE (2 PLC'S.) TO MOUNT LIMIT SWITCH BAR.
 #00670 5/16-18 X 3/4
 SOC. HD. CAP SC.

#1751 BRACKET LIMIT SWITCH
 #1171 COVER LIMIT SWITCH
 #01095 4-40 X 1" PHLL.
 FLT. HD. SC.

#1536 STOP STUD
 #1537 STOP RING
 #01082 3/8-16 HEX NUT (BLACK)

EX-CELLO THUMB SCREW
 & BRASS SLUG. CUT
 LENGTH TO SUIT.

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

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

APPROVALS	DATE
BRAYN J. TUCKER	2/4/97
CHECKED	
FINISH	
USED IN	
APPLICATION	
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ANGLES ± 1/2°		
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SERVOPRODUCTS COMPANY
 433 N. FAIR BANKS AVE., PASADENA, CALIFORNIA 91030
MODEL 850 80/100
INSTALLATION DRAWING
602 EX-CELLO
 SIZE CODE IDENT. NO. DRAWING NO. REV.
 B 0800-80044 NB-0712 A
 SCALE SHEET OF