



TURBO DRIVE INSTALLATION

MODEL 0200T TABLE FEED

Bridgeport Mill & Others

➔ **NOTE** This Turbo Drive Table Feed is configured for mounting the feed on the right hand end of the table. The lead screw pitch is 5 turns per inch. See **CAUTION** below before changing anything!

CAUTION

The Turbo Drive power cable should be left **unplugged** until the drive is properly installed on the lead screw.

See the **Operation** manual to reverse the direction of travel or to change the lead screw pitch default. Turn **off** the Turbo Drive and **remove** the power plug from the wall before you attempt to change any jumpers or reverse the top housing.

WARNINGS

DO NOT install and operate this power feed without safety handwheel Servo #58923 on **BOTH** ends of the table. This is required to prevent injury.

Check handwheel clearances before operation.

Clearances between the surfaces of the handwheel and the non-moving parts of the equipment on which the handwheel is installed must be at least one-fourth inch (1/4") to prevent injury.

Do not operate without proper clearance!

Prevent contact during fast traverses.

WARRANTY CAUTION

There are **NO** user-serviceable parts inside the center or bottom housings. Removal of the motor, keyboard, or bottom housing screws **voids** the warranty.

REFERENCE DRAWINGS ENCLOSED

NA-58496	Bevel Gear Installation
NB-58541	Turbo Drive Installation
0800-80678	Turbo Drive Operation manual

PREPARATION

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

- a) 3/8" electric hand drill
- b) 11/64" drill, 3/16" drill
- c) ball peen hammer & support piece
- d) flat file
- e) 3/4" socket wrench

- f) set of inch hex wrenches
- g) grease
- h) clean shop rag

Step 2: Clean the power feed mounting area completely.

Step 3: Remove the nut, handle, and dial assembly from the right hand end of the table. Keep the dial for reuse later.

MOUNTING HARDWARE INSTALLATION

Step 1: Install the bearing retainer #6544 to the right side table bracket with three (3) #00675 screws.

Step 2: Lubricate the shaft with a light coat of grease then slip the bearing race #0714 onto the lead screw shaft.

Step 3: Slip the adaptor over the race to center it with the shaft. Keeping the portion of the race sticking out beyond the counterbored end of the adaptor so that it can be removed later, slide both pieces to locate the adaptor against the table bracket. Secure the adaptor with three 1/4-20 x 1" long socket head cap screws provided. Remove the bearing race.

Step 4: Slip spacer #58539 onto the shaft followed by the bearing race as shown.

SHAFT EXTENSION AND TURBO DRIVE INSTALLATION

Step 1: Screw on the shaft extension #57099 onto the lead screw and tighten.

Step 2: Following the existing pilot hole, drill through the shaft extension using an 11/64" diameter drill. Finish the hole using a 3/16" diameter drill.

Step 3: Support the other side of the hole with a heavy piece of metal and hammer in the #00596 roll pin. File smooth and clean thoroughly.

Step 4: Slide the Turbo Drive onto the bearing race and push against the adaptor. Secure with two 1/4-20 x 1-1/8" long socket head cap screws.

IF: If the bearing race is not flush with the needle bearing in the unit within $\pm.05$ ", then either shim behind the race or machine the spacer to correctly locate the race.

BEVEL GEAR INSTALLATION

Step 1: Follow the drawing NA-58496 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 key, dial and dial nut #59254. Slide the spacer #58540 and the handwheel #58923 in place and tighten with 1/2-20 locknut #01115.

Step 3: Replace the handwheel on the left end of the table with the handwheel #58923 provided. This is required to prevent injury.

TURBO DRIVE OPERATION

See the separate **Servo Turbo Drive Operation** manual for complete operating instructions. Plug the unit into a properly grounded three-wire outlet supplying 110 volt single phase 50/60 Hz 6 amp power. Turn the control switch ON and follow the instructions in the manual or on the **Quick Reference** sheet for setting limits.

SERVO PRODUCTS COMPANY

Web: www.servoproductsco.com

CALIFORNIA BRANCH

1355 W. Foothill Blvd.
Azusa, CA 91702

Ph. 626.691.0121 Fax 626.334.7301

HEADQUARTERS

34940 Lakeland Blvd.
Eastlake, OH 44095

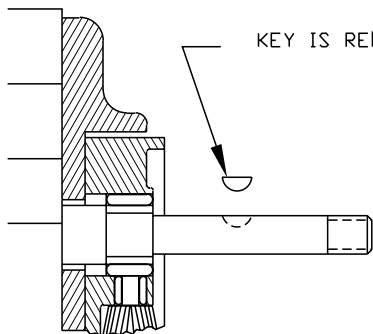
Ph. 440.942.9999 Fax 440.942-9100

FLORIDA BRANCH

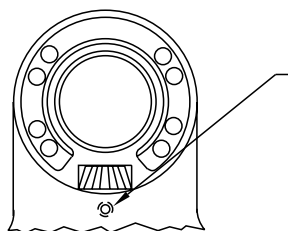
8950 131st Ave. N.
Largo, FL 33773

Ph. 727.585.8555 Fax 727.585.6555

DO NOT PLUG IN POWER UNTIL ALL STEPS ARE COMPLETED.

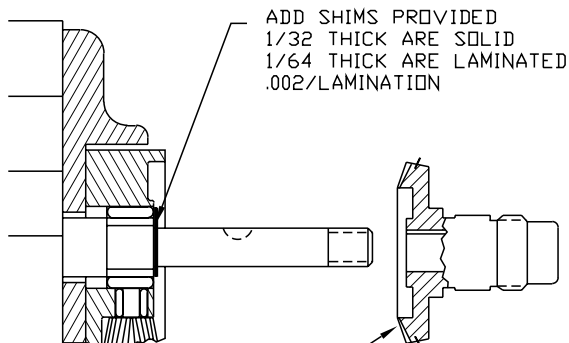


KEY IS REMOVED DURING SHIMMING

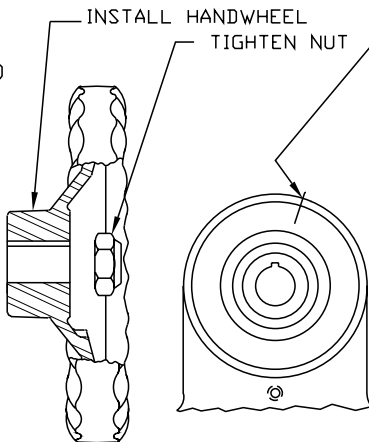


TIGHTEN SLIGHTLY (HOLDS BEVEL PINION STATIONARY DURING SHIMMING.)
(TIGHTEN UPPER ONE ONLY)

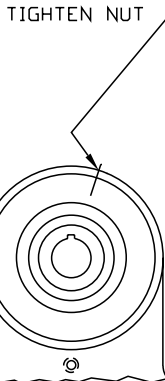
STEP 1
PREPARATION



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

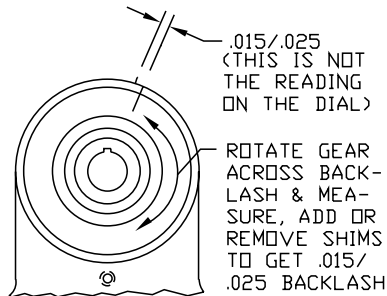


INSTALL HANDWHEEL



TIGHTEN NUT

SCRIBE ACROSS GEAR & HOUSING WHILE PUSHING GEAR AGAINST ONE SIDE OF THE BACKLASH



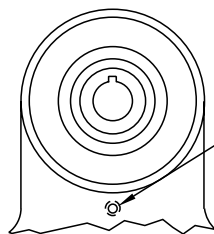
.015/.025
(THIS IS NOT THE READING ON THE DIAL)

ROTATE GEAR ACROSS BACKLASH & MEASURE, ADD OR REMOVE SHIMS TO GET .015/.025 BACKLASH

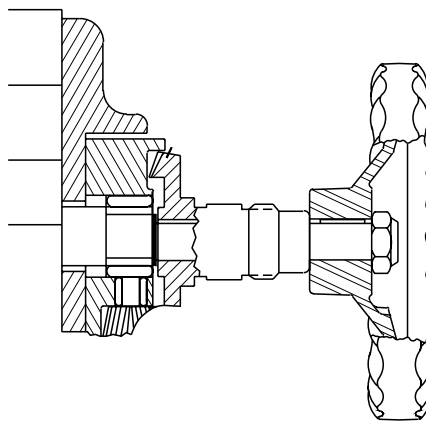
PUSH BEVEL GEAR AGAINST SHIMS.

STEP 2
SHIMMING BEVEL GEAR

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

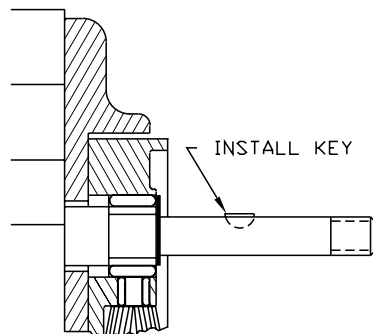


LOOSEN SETSCREW

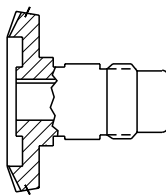


MANUALLY TURN HANDWHEEL. IF EXCESSIVE GEAR NOISE OR BINDING OCCURS, SHIMS NEED TO BE ADDED OR REMOVED, WHEN RE-SHIMMING, REPEAT STEPS 1 AND 2.

STEP 3
DOUBLE CHECK OF SHIMMING



INSTALL KEY



SEAL

STEP 4
LUBRICATION

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-58496

EXISTING BRACKET & LEAD SCREW

#6544 BEARING RETAINER
#57237 ADAPTOR
#04554 1/4-20 X 1-1/8" S.H.C.S. X(2)

#58923 HAND WHEEL

#01115 1/2-20 LOCKNUT

#57099 SHAFT EXTENSION

#6990 KEY, CUT TO FIT

#58540 SPACER
#00596 Ø3/16X5/8LG ROLL PIN

#59254 DIAL NUT
EXISTING DIAL

#01251 & #01252 SHIM DIAL

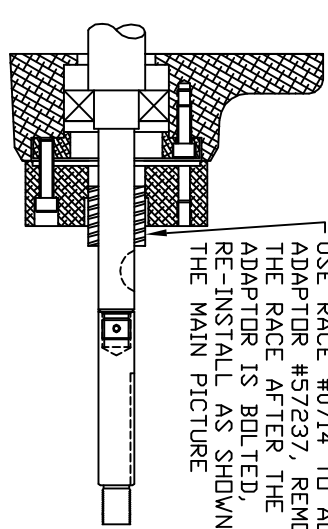
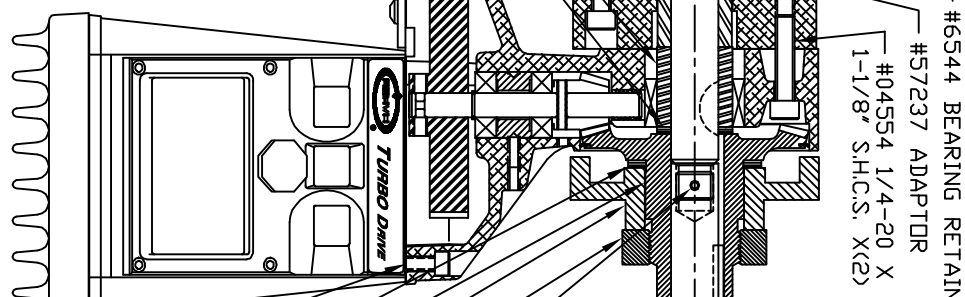
#58490 #10-24X3/4 SEALING SCREW
ALWAYS REPLACE W/ NEW SCREWS
(4) PLC'S (REF)

#00675 1/4-20X 1/2" S.H.C.S. X(3)
EXISTING BEARING

#00586 1/4-20X1" S.H.C.S. X(3)
DO NOT BOTTOM OUT, USE WASHER #04964 IS NEEDED

#58539 SPACER
#0714 BEARING RACE

#0589-32 & #0589-16L SHIM WASHERS, SHIM AS REQ'D



USE RACE #0714 TO ALIGN ADAPTOR #57237, REMOVE THE RACE AFTER THE ADAPTOR IS BOLTED, RE-INSTALL AS SHOWN IN THE MAIN PICTURE

NOTES: 1. REVIEW ALL INSTALLATION INSTRUCTIONS AND OPERATION SHEETS BEFORE TURNING ON SERVO POWER FEED.
2. REMOVAL OF MOTOR, KEY PAD AND BOTTOM HOUSING SCREWS VOIDS THE WARRANTY.
3. REPLACE TABLE LEFT SIDE HANDLE WITH EXTRA HANDWHEEL #58923 PROVIDED TO AVOID INJURY.

UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES & TOLERANCES ARE AS FOLLOWS: FRACTIONS: DECIMALS: ANGLES: ± 1/64" XX ± .005 ± 1/2°		CONTRACT NO.		SERVO PRODUCTS COMPANY	
THIS DOCUMENT CONTAINS PROPRIETARY INFORMATION OF SERVO PRODUCTS COMPANY WHICH MAY NOT BE DISCLOSED TO OTHERS WITHOUT THE WRITTEN AUTHORITY FROM AN OFFICER OF SERVO PRODUCTS COMPANY.		APPROVALS		34940 LABELAND BLVD, EASTLAKE, OHIO 44095	
UNLESS OTHERWISE SPECIFIED, FINISH TO BE WITHIN .01 CONCENTRICITY TO BE WITHIN .01 REMOVE SHARP EDGES AND CORNERS DROTTING STANDARD PER ANSI Y4.3M-1982		DATE		INSTALLATION DRAWING,	
NEXT ASSY		07/17/98		MODEL 0200T	
APPLICATION		CHECKED		BRIDGEPORT	
USED ON		DRAWN		DRAWING NO.	
DID NOT SCALE DRAWING		T. KU		NB-58541	
COMPUTER NO.		SCALE		SHEET	
1		5/8		OF	
2		B		REV. A	
3		0800-80711		REV. A	
4		SCALE		REV. A	