

POWER FEED INSTALLATION

Model M-9811 Knee Feed

Acer Mill



REFERENCE DRAWINGS ENCLOSED

| | |
|------------|----------------------------|
| NA-5444 | Bevel Gear Installation |
| ND-6292 | Type 140 Servo Drive |
| NB-57658 | Limit Switch Installation |
| NB-57953 | Power Feed Installation |
| 0800-80001 | Servo Power Feed Operation |

PREPARATION

- Step 1:* Remove the drive clutch, dial, nut, and key from elevating jack shaft. Save the key for installation later.
- Step 2:* Remove the bearing retainer.
- Step 3:* Screw the shaft extension into the jack shaft and tighten. Use the handwheel and key on the shaft extension to apply torque. Using the hole provided as a pilot, drill 1/8" diameter through the shaft and pin the extension with 1/8 diameter x 5/8" long roll pin. File smooth.
- Step 4:* Install the bearing retainer provided using the #03594 M6x1 x 16 mm socket head cap screws.

POWER FEED INSTALLATION

- Step 1:* Slide the spacer bearing onto the jack shaft.
- Step 2:* Slide the bearing race onto the lead screw.
- Step 3:* Slide the power feed onto the bearing race and secure to the bearing retainer using the 1/4-20 x 1" long socket head cap screws.

BEVEL GEAR INSTALLATION

- Step 1:* Replace the key removed in Preparation Step 1 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 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 and washer #04603. Place the square key #04986 in the shaft and slide the handwheel #1685 onto the end of the shaft extension. Tighten with the 1/2-20 lock nut.

LIMIT SWITCH INSTALLATION

Step 1: See the limit switch installation drawing NB-57658 enclosed.

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

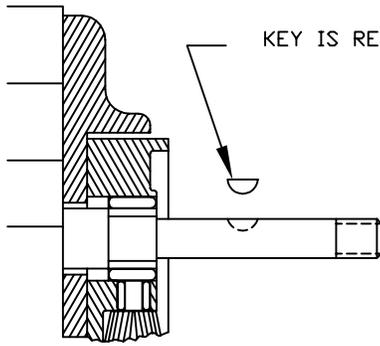
14254 Valley Blvd., Unit A
City of Industry, CA 91746
Ph. 626.961.7800 Fax 626.961.2444

HEADQUARTERS

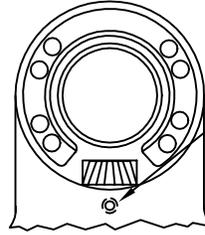
34940 Lakeland Blvd.
Eastlake, OH 44095
Ph. 440.942.9999 Fax 440.942-9100

FLORIDA BRANCH

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

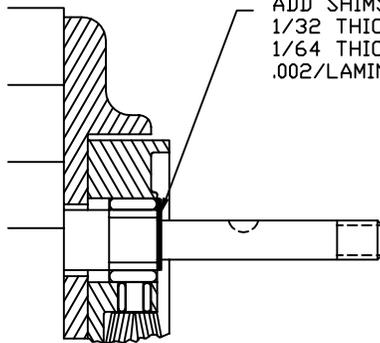


KEY IS REMOVED DURING SHIMMING

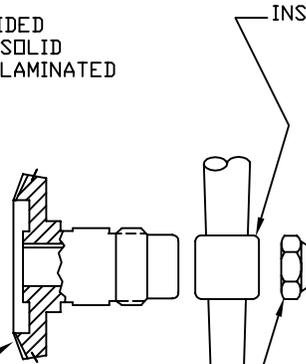


TIGHTEN SLIGHTLY (HOLDS BEVEL PINION STATIONARY DURING SHIMMING.)

STEP 1
PREPARATION



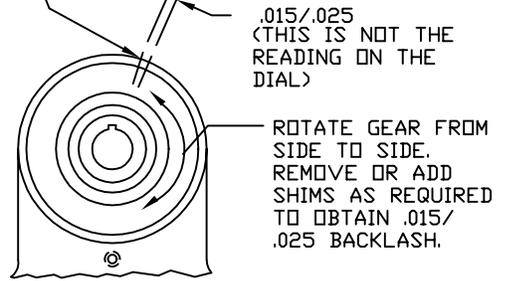
ADD SHIMS PROVIDED
1/32 THICK ARE SOLID
1/64 THICK ARE LAMINATED
.002/LAMINATION



PUSH BEVEL GEAR AGAINST SHIMS.

INSTALL HANDCRANK.

MARK HOUSING AND BEVEL GEAR WITH PENCIL TO CHECK BACKLASH.



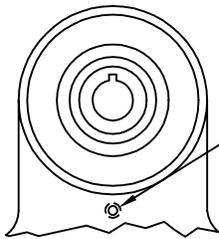
.015/.025
(THIS IS NOT THE READING ON THE DIAL)

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

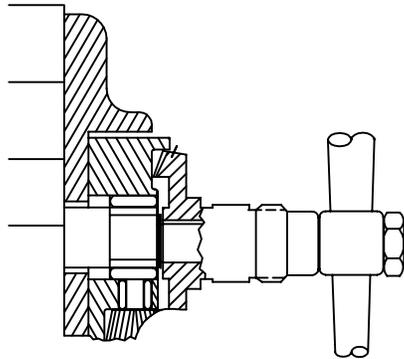
STEP 2
SHIMMING BEVEL GEAR

TIGHTEN NUT.

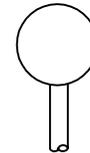
CAUTION: IF BACKLASH IS NOT PROPERLY SET BEFORE TURNING UNIT ON, BEVEL GEAR MAY BE DESTROYED.



LOOSEN SETSCREW

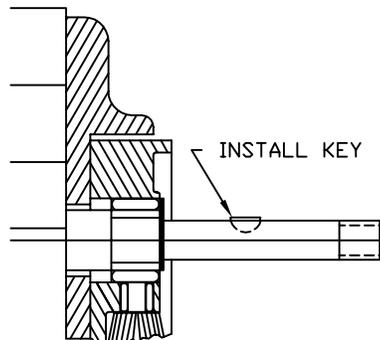


WITH POWER FEED IN NEUTRAL POSITION, TURN HANDCRANK. IF EXCESSIVE GEAR NOISE OR BINDING OCCURS, SHIMS NEED TO BE ADDED. WHEN ADDING SHIMS, REPEAT STEPS 1 AND 2.

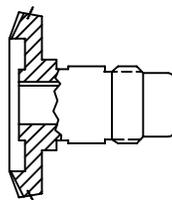


CONTROL HANDLE @ NEUTRAL POSITION

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)

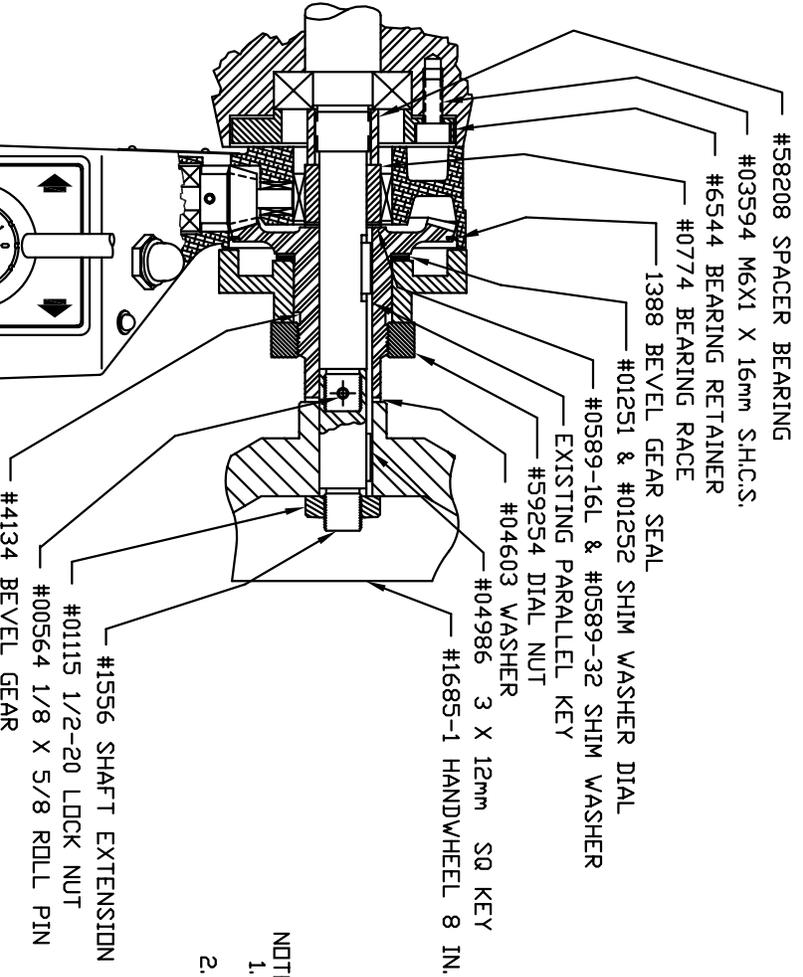
PICTURES IN THIS DRAWING ARE FOR REFERENCE ONLY. SEE INSTALLATION DRAWING OF CORRESPONDING MODEL FOR EXACT PARTS CONFIGURATION.

SERVO PRODUCTS COMPANY

BEVEL GEAR INSTALLATION

NA-5444 C

| REVISION | | DATE | DRAWN | CHECKED |
|----------|-----|-------------|-------|---------|
| ECD | LTR | DESCRIPTION | | |



NOTE:
 1. REVIEW ALL INSTALLATION INSTRUCTIONS AND POWER FEED OPERATION INSTRUCTION BEFORE TURNING ON SERVO POWER FEED.
 2. SEE DRAWING NB-57658 FOR KNEE LIMIT SWITCH INSTALLATION. USE FOLLOWING TABLE TO RELATE PART NUMBERS WITH LETTER SYMBOLS ON DWG NB-57658.

| SYMBOL | A-1 | A-2 | B | C | D |
|---------|----------|----------|---------|------------------|-----------|
| P/N | 0405 | 1350 | 1133 | 05292 | 1752 |
| DESCRIP | STANDOFF | STANDOFF | BRACKET | 5/16-18 S.H.C.S. | TRIP RAIL |
| LENGTH | 1.12 | .56 | - | 2.50 | - |

UNLESS OTHERWISE SPECIFIED PERPENDICULARITY, PARALLELISM, STRAIGHTNESS, FLATNESS, ROUNDNESS, 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

THIS DOCUMENT CONTAINS PROPRIETARY INFORMATION OF SERVOD PRODUCTS COMPANY WHICH MAY NOT BE DISCLOSED TO OTHERS WITHOUT THE WRITTEN AUTHORITY FROM AN OFFICER OF SERVOD PRODUCTS COMPANY.

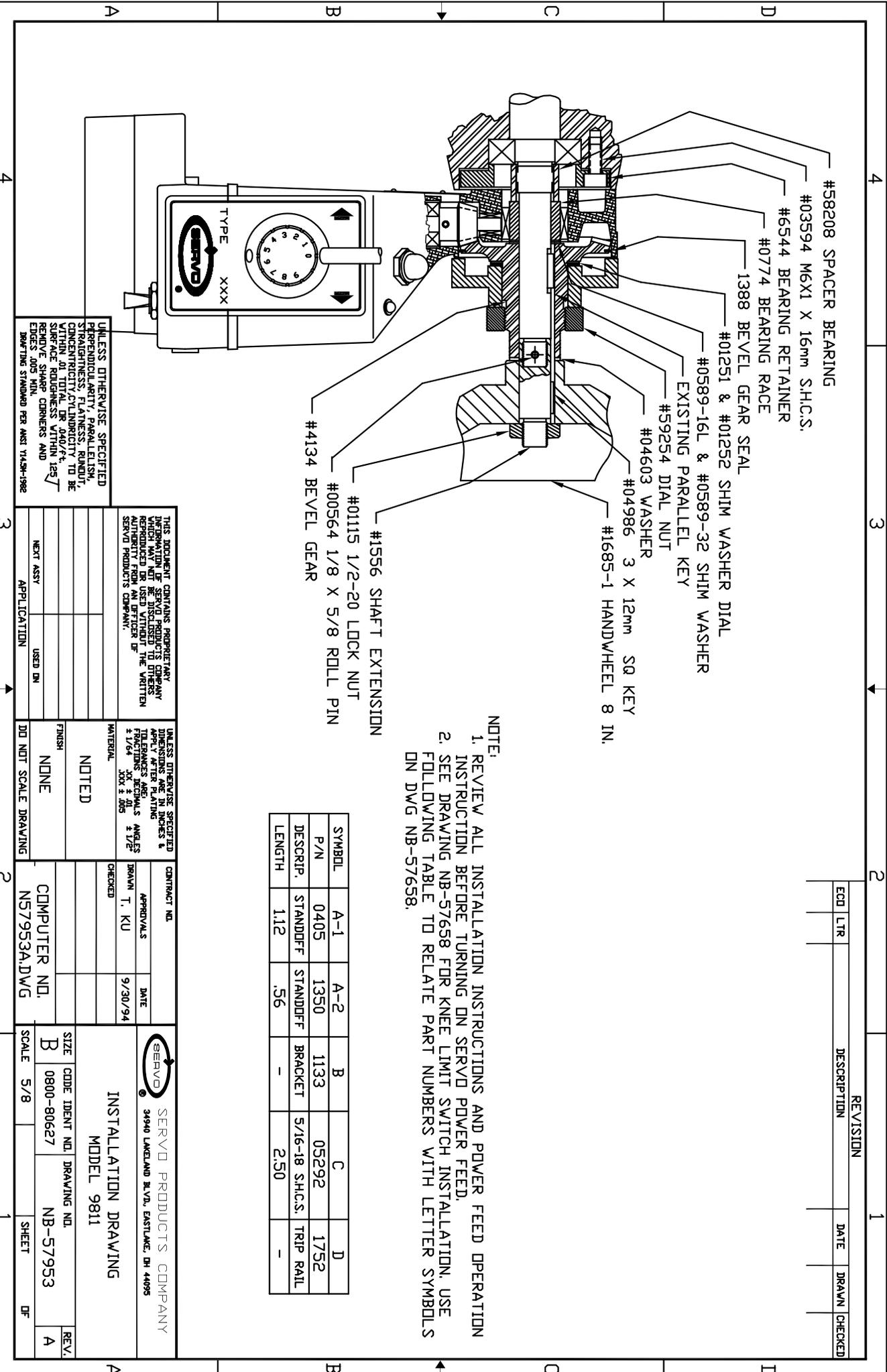
| UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES & TOLERANCES ARE AS SHOWN FRACTIONS DECIMALS ANGLES | ± 1/64 | XX ± .005 | ± 1/2° |
|---|----------------|-----------|--------|
| MATERIAL | | | |
| FINISH | NOTED | | |
| NONE | NONE | | |
| DID NOT SCALE DRAWING | COMPUTER AIDED | | |
| APPLICATION | USED IN | | |
| NEXT ASSY | | | |

| CONTRACT NO. | APPROVALS | DATE |
|--------------|-------------|---------|
| | BRAUN T. KU | 9/30/94 |
| CHECKED | | |

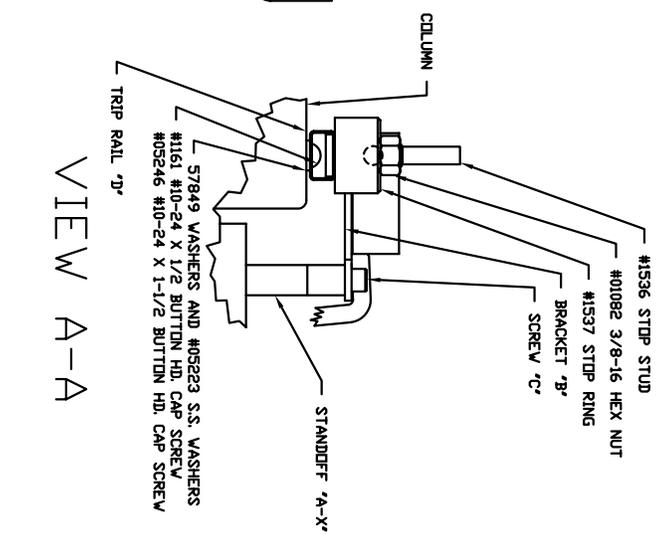
SERVOD PRODUCTS COMPANY
 34940 LAKELAND BLVD, EASTLAKE, OH 44095

INSTALLATION DRAWING
 MODEL 9811

| | | | |
|-------|----------------|-------------|------|
| SIZE | CODE IDENT NO. | DRAWING NO. | REV. |
| B | 0800-80627 | NB-57953 | A |
| SCALE | 5/8 | SHEET | DF |

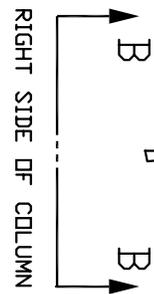
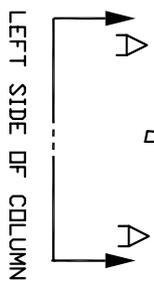
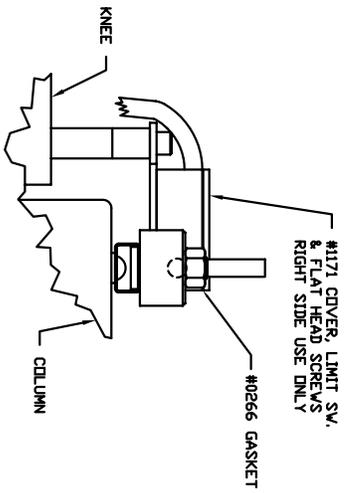


| REVISION | | DATE | DRAWN | CHECKED |
|-------------|-----|------|-------|---------|
| ECD | LTR | | | |
| DESCRIPTION | | | | |



VIEW A-A

VIEW B-B
SAME COMPONENTS AS IN VIEW 'A-A'
EXCEPT AS SHOWN



NOTES:

1. LIMIT SWITCH MAY BE MOUNTED ON EITHER SIDE OF THE COLUMN.

UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE TO BE WITHIN 0.1 CONCENTRICITY TO BE WITHIN 0.1 REMOVE SHARP EDGES AND CORNERS 0.05 MIN.

THIS DOCUMENT CONTAINS PROPRIETARY INFORMATION OF SERVOD PRODUCTS COMPANY WHICH MAY NOT BE DISCLOSED TO OTHERS WITHOUT THE WRITTEN AUTHORITY FROM AN OFFICER OF SERVOD PRODUCTS COMPANY.

| | |
|--|--|
| UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES & TOLERANCES ARE AS FOLLOWS: FRACTIONS: DECIMALS: ANGLES: MATERIAL: FINISH: CHECKED: | CONTRACT NO. APPROVALS T. KU DATE 03/18/93 |
|--|--|

| | | | | | | | | | | |
|--|--|--|--|---|--|---------------------------------|----------------------|------------|-------|-------|
| UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE TO BE WITHIN 0.1 CONCENTRICITY TO BE WITHIN 0.1 REMOVE SHARP EDGES AND CORNERS 0.05 MIN. | THIS DOCUMENT CONTAINS PROPRIETARY INFORMATION OF SERVOD PRODUCTS COMPANY WHICH MAY NOT BE DISCLOSED TO OTHERS WITHOUT THE WRITTEN AUTHORITY FROM AN OFFICER OF SERVOD PRODUCTS COMPANY. | UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES & TOLERANCES ARE AS FOLLOWS: FRACTIONS: DECIMALS: ANGLES: MATERIAL: FINISH: CHECKED: | CONTRACT NO. APPROVALS T. KU DATE 03/18/93 | SERVOD PRODUCTS COMPANY 34940 LAKELAND BLVD., EASTLAKE, OH 44095 | INSTALLATION DRAWING LIMIT SWITCH, KNEE | SIZE CODE IDENT. NO. 0800-80540 | DRAWING NO. NB-57658 | SCALE NINE | SHEET | REV B |
|--|--|--|--|---|--|---------------------------------|----------------------|------------|-------|-------|

