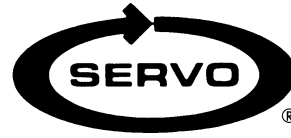


POWER FEED INSTALLATION

Model M-5300 Table Feed

Topwell Mill



REFERENCE DRAWINGS ENCLOSED

NA-5444	Bevel Gear Installation
NB-6348	Power Feed Installation
ND-6293	Type 150 Servo Drive
ND-6292	Type 140 Servo Drive
0800-80001	Servo Power Feed Operation

PREPARATION

- Step 1:* Move the table to the extreme left.
- Step 2:* Remove the nut, handle and dial assembly from the right-hand end of the table.
- Step 3:* Remove the four cap screws holding the bearing housing in place.
- Step 4:* Using a soft hammer, tap the bearing housing off. Clean the end surface of the table.

POWER FEED INSTALLATION

- Step 1:* With the table in the extreme left-hand position, install the adapter with the four cap screws.
- NOTE** *On some machines the drive pin holes do not line up with the adapter. Remove and discard the pins in such cases. The four cap screws are all that is necessary.*
- Step 2:* Slide the bearing spacer, then the bearing race onto the lead screw.
- Step 3:* Slide the power feed onto the bearing race and push flush to the end of the adaptor.
- NOTE** *Depending on the lead screw, the bearing race spacer might require to be shortened approximately 5/32 in order to get proper shimming of the bevel gear.*
- Step 4:* Secure the feed with two 1/4-20 x 1" long socket head cap screws.

BEVEL GEAR INSTALLATION

- Step 1:* 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. Four washers are provided for this, two solid and two laminated. Shim as required.

Step 2: In the following sequence, replace the dial and dial locking nut, slide the handle in place, and tighten with the locking nut.

LIMIT SWITCH INSTALLATION

Step 1: Remove the standard table stop pieces and install the table stop pieces furnished. Put the standard stops back in a position to prevent feed stops from being set beyond extreme table travel.

Step 2: Remove the two cap screws holding the T-shaped table stop. Using the same screws install, the limit switch as shown on drawing ND-6348.

Step 3: The T-stop is retained to act as a positive stop where required for manual operation.

NOTE *For proper operation, the electrical limit switch should be engaged .4 inch before the mechanical stop to allow for coasting of the table. The T-stops are often not symmetrical and may need to be ground to obtain proper operation.*

Step 4: Put the cable clamp on the cable and secure to the right-hand chip scraper screw.

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.

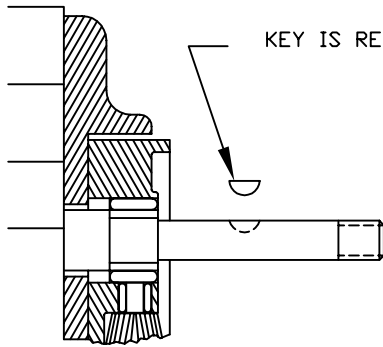
SERVO PRODUCTS COMPANY

433 North Fair Oaks Avenue, Pasadena, CA 91103 USA

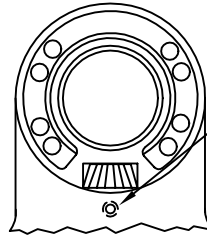
Phone: 800.521.7359 or 626.796.2460 Fax: 626.796.3845

Web: www.servoproductsco.com

Call for the location of our regional Service Centers.

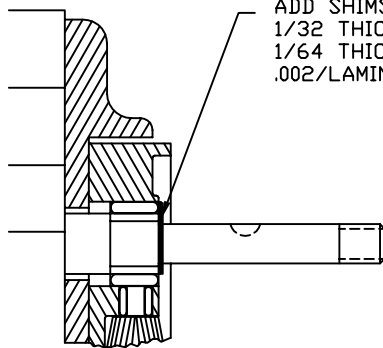


KEY IS REMOVED DURING SHIMMING

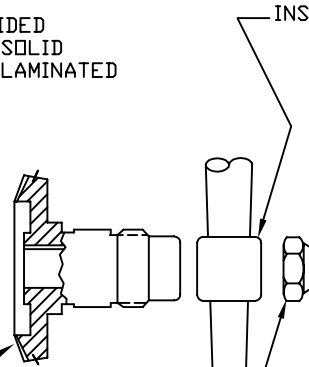


TIGHTEN SLIGHTLY (HOLDS BEVEL PINION STATIONARY DURING SHIMMING.)

STEP 1
PREPARATION



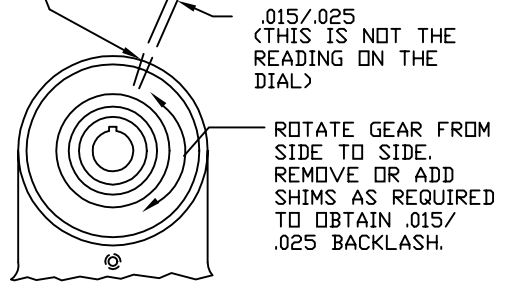
ADD SHIMS PROVIDED
1/32 THICK ARE SOLID
1/64 THICK ARE LAMINATED
.002/LAMINATION



PUSH BEVEL GEAR AGAINST SHIMS.

INSTALL HANDCRANK.

MARK HOUSING AND BEVEL GEAR WITH PENCIL TO CHECK BACKLASH.



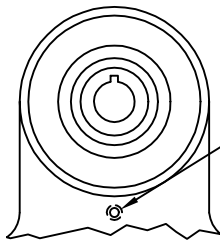
.015/.025
(THIS IS NOT THE READING ON THE DIAL)

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

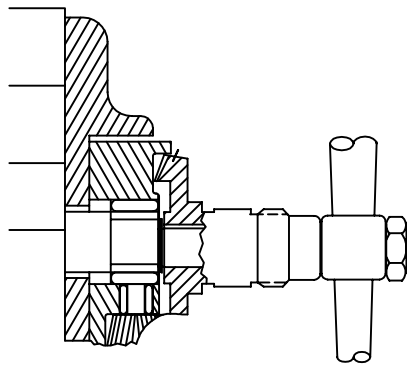
STEP 2
SHIMMING BEVEL GEAR

TIGHTEN NUT.

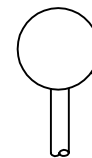
CAUTION: IF BACKLASH IS NOT PROPERLY SET BEFORE TURNING UNIT ON, BEVEL GEAR MAY BE DESTROYED.



LOOSEN SETSCREW

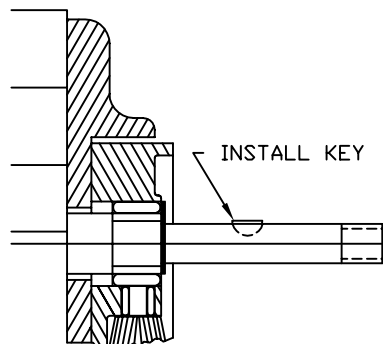


WITH POWER FEED IN NEUTRAL POSITION, TURN HANDCRANK. IF EXCESSIVE GEAR NOISE OR BINDING OCCURS, SHIMS NEED TO BE ADDED. WHEN ADDING SHIMS, REPEAT STEPS 1 AND 2.



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)

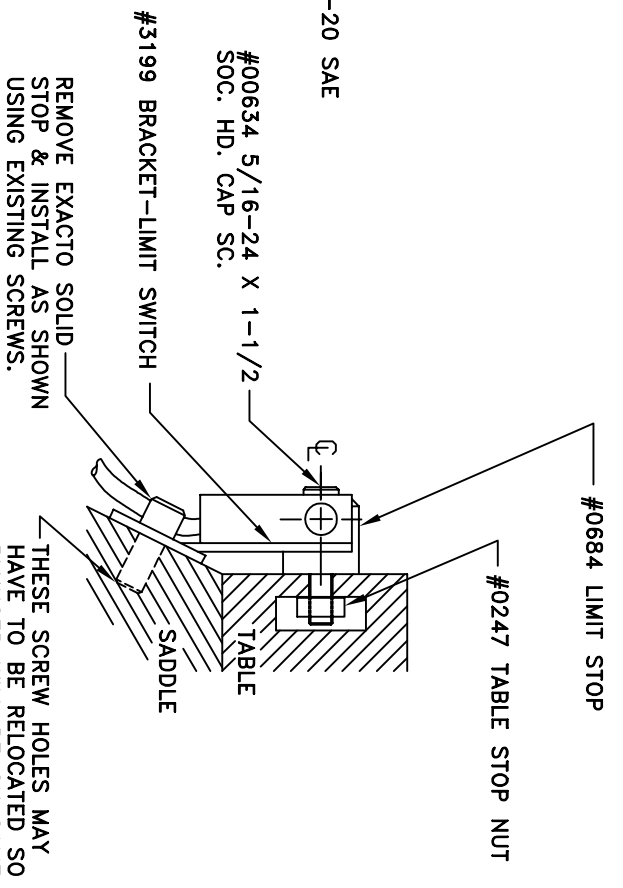
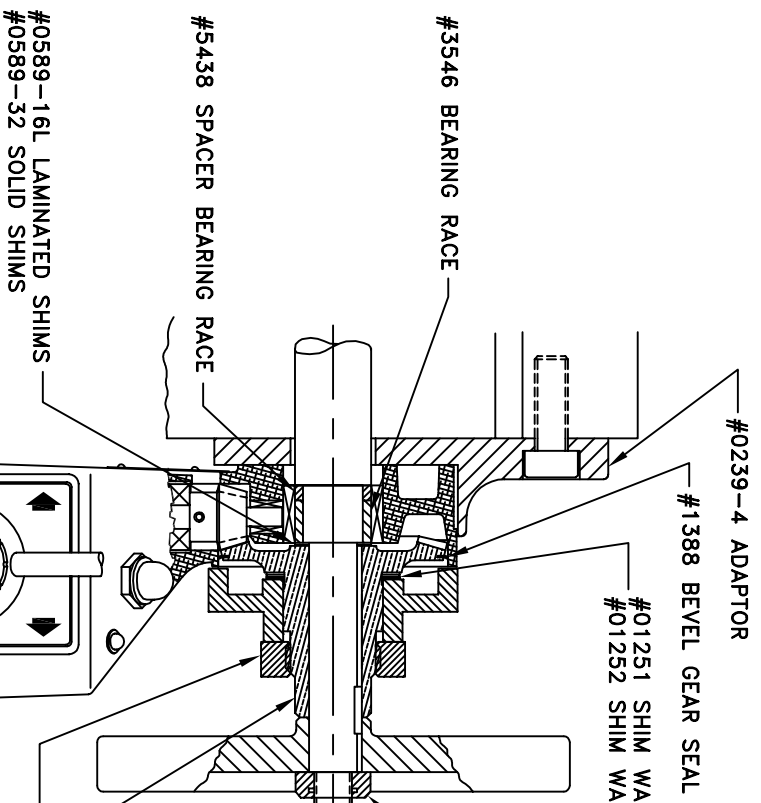
PICTURES IN THIS DRAWING ARE FOR REFERENCE ONLY. SEE INSTALLATION DRAWING OF CORRESPONDING MODEL FOR EXACT PARTS CONFIGURATION.

SERVO PRODUCTS COMPANY

BEVEL GEAR INSTALLATION

NA-5444 C

STEP 4
LUBRICATION



INSTALLATION LIMIT SWITCH

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

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

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UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES & TOLERANCES ARE LISTED FRACTIONS DECIMALS ANGLES MATERIAL

$\pm 1/64$.XX $\pm .005$ $\pm 1/2^\circ$

CONTRACT NO.	APPROVALS	DATE
	DRAWN J. TUCKER	1/29/97
CHECKED		
FINISH	NOTED	
APPLICATION	USED ON	
NEXT ASSY		

DID NOT SCALE DRAWING	COMPUTER NO.
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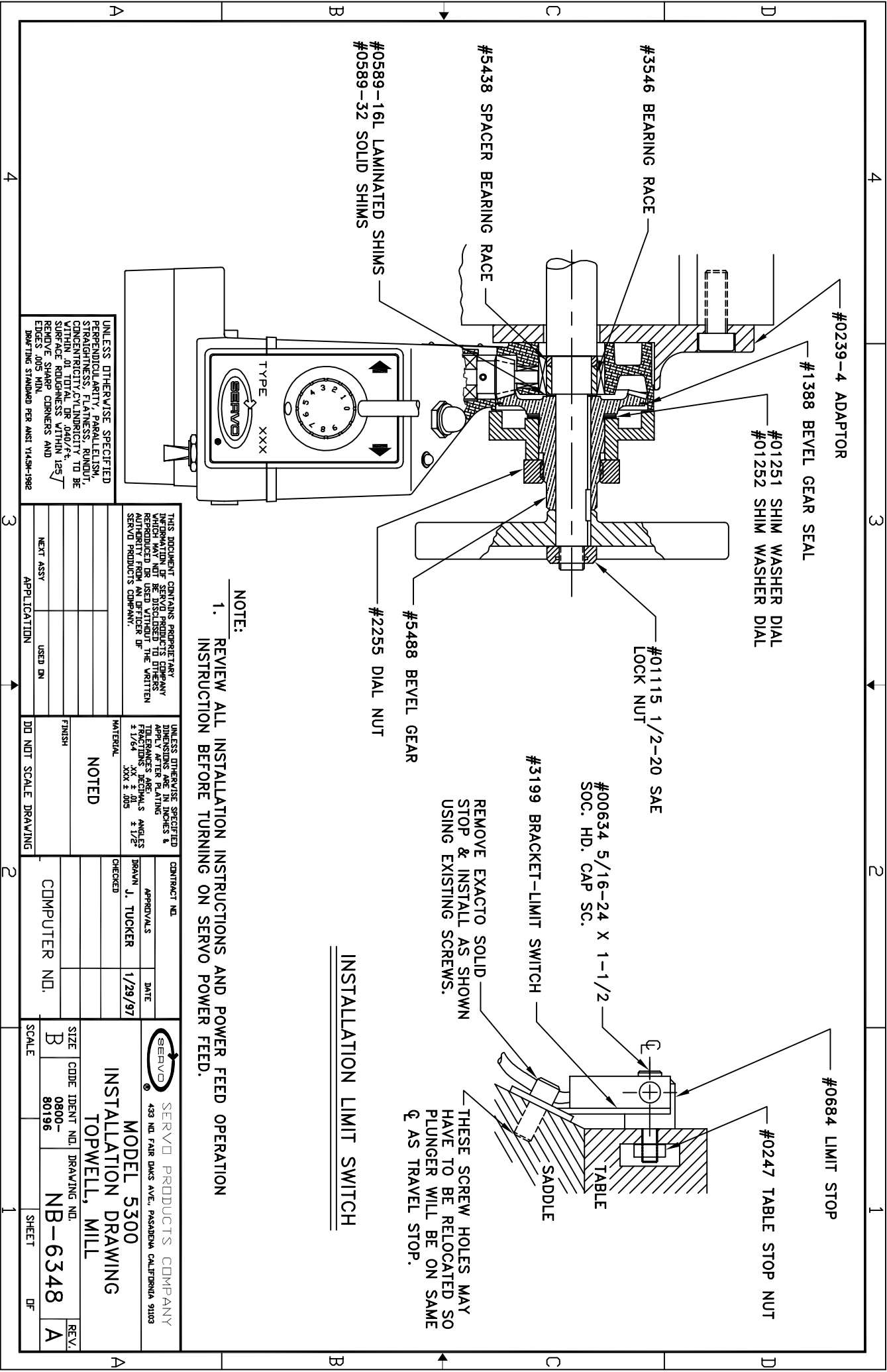
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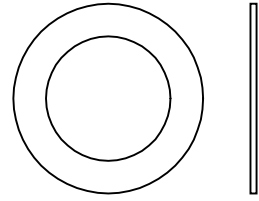
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REV. A

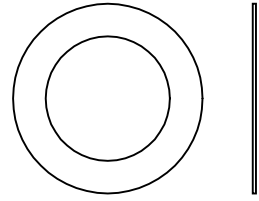
SERVO PRODUCTS COMPANY
433 N. FAIR OAKS AVE., PASADENA, CALIFORNIA 91109

MODEL 5300
INSTALLATION DRAWING
TOPWELL, MILL

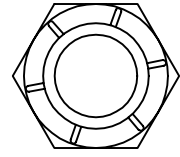




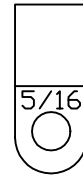
0589-32 (2)
SHIM WASHER
SOLID BRASS



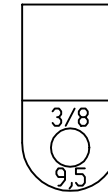
0589-16L (2)
SHIM WASHER
LAMINATED BRASS



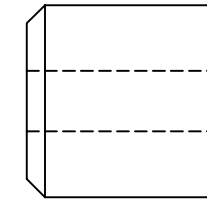
01115 (1)
1/2-20
LOCK NUT



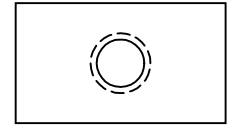
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CLAMP 70



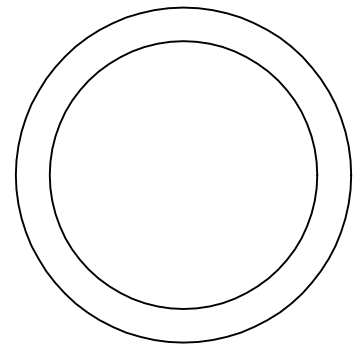
01050 (1)
CLAMP FOR
L/S CORD



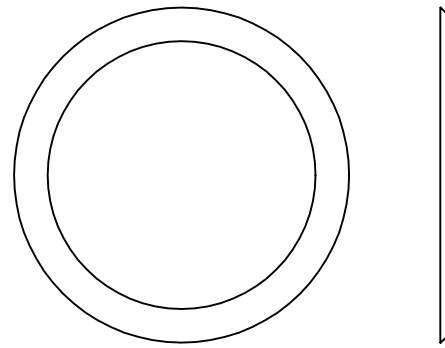
0684 (2)
L/S STOP



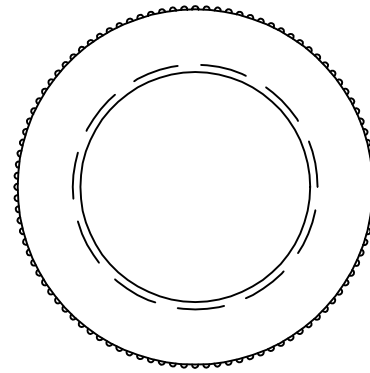
0247 (2)
STOP NUT



001251 (5)
WASHER
.005 X 1.395 X 1.748
BRASS



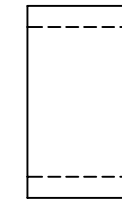
01252 (2)
WASHER
.030 X 1.395 X 1.748
PLASTIC



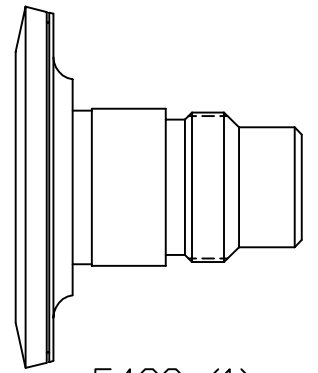
2255
DIAL NUT



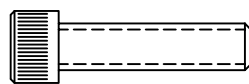
5438 (1)
SPACER
BEARING RACE



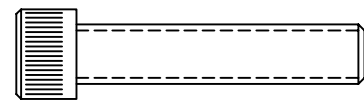
3546 (1)
BEARING RACE



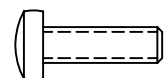
5488 (1)
BEVEL GEAR
1/2 SCALE



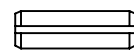
00586 (2)
1/4-20 X 1
SOC. HD. CAP. SC.



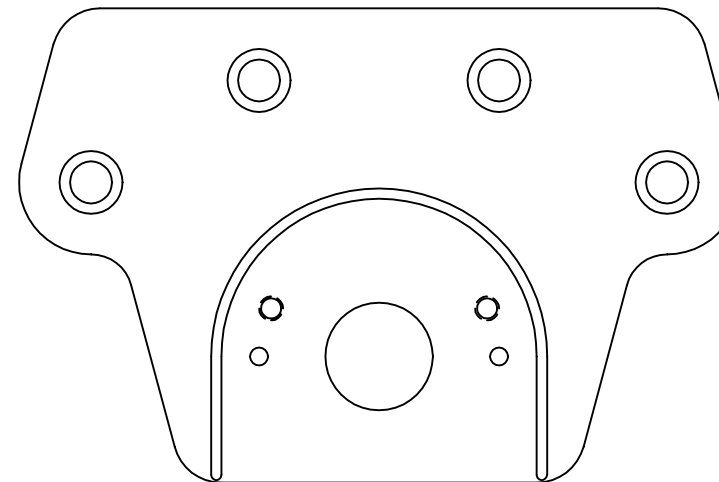
00634 (2)
5/16-24 X 1-1/2
SOC. HD. CAP. SC.



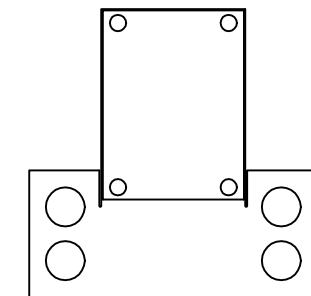
00688 (1)
10-32 X 5/8
PHIL. PAN HD. SC.



00596 (2)
ROLL PIN
3/16 X 5/8
(ALREADY INSTALLED
IN 0239-4 ADAPTOR)



0239-4 (1)
ADAPTOR
1/2 SCALE



3199 (1) / 0266 (1)
BRACKET L/S / GASKET L/S
1/2 SCALE