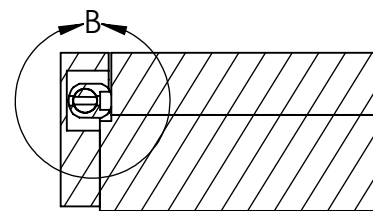
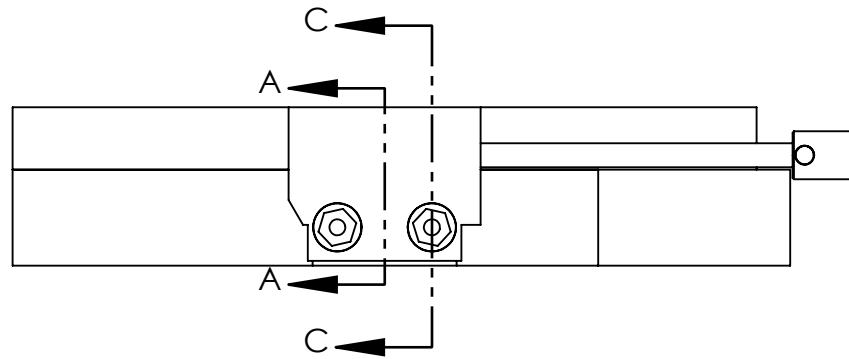
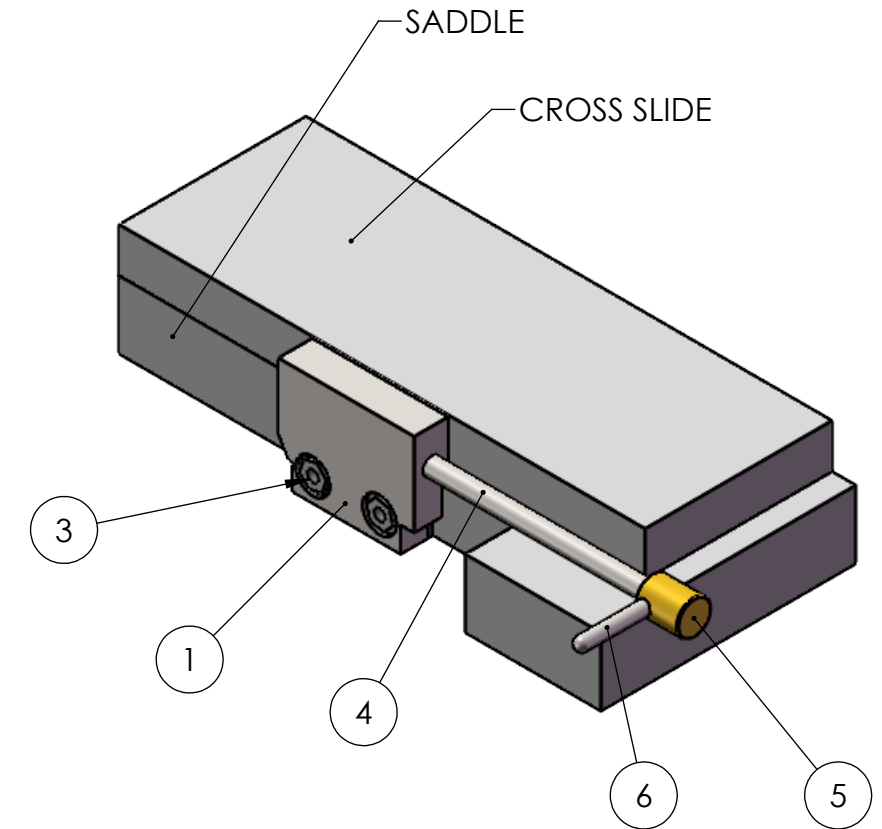
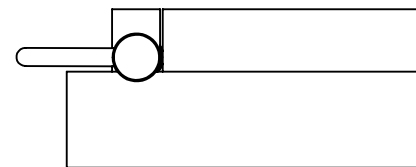
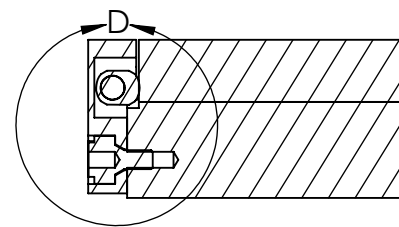


DETAIL D  
SCALE 1 : 2

DETAIL B  
SCALE 1 : 1



SECTION A-A



SECTION C-C

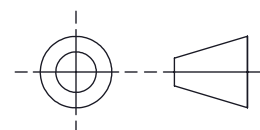
8	1	2100222	CROSS SLIDE
7	1	2100223	SADDLE
6	1	2100218	ACTUATOR LEVER
5	1	2100217	BRASS BOSS
4	1	2100216	ACTUATOR SHAFT
3	2	2100213	MOUNT BOLT
2	1	2100209	LOCKING CAM
1	1	2100211	CROSS SLIDE LOCK BRACKET
ITEM	QTY	PART NO.	Title

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Limits not specified  
Roughness  $\sqrt{63}$   
X.XXX =  $\pm 0.010$   
X.XX =  $\pm 0.020$   
X.X =  $\pm 0.1$

Angles - Machined  $\pm .5^\circ$   
All dimensions in inches,  
alternative dimensions  
mm unless otherwise stated

DRAWN *S.Shakespeare*  
CHECKED  
APPROVED



MATERIAL  
SEE BOM

SCALE  
**1:4**  
Fabricate to dimensions  
Do not scale



Minnesota, USA

## CROSS SLIDE LOCK

DRAWING DATE  
**3/23/2024**

SHT SIZE  
**B**

DRAWING NUMBER  
**2000029**

SHEET  
1 OF 2

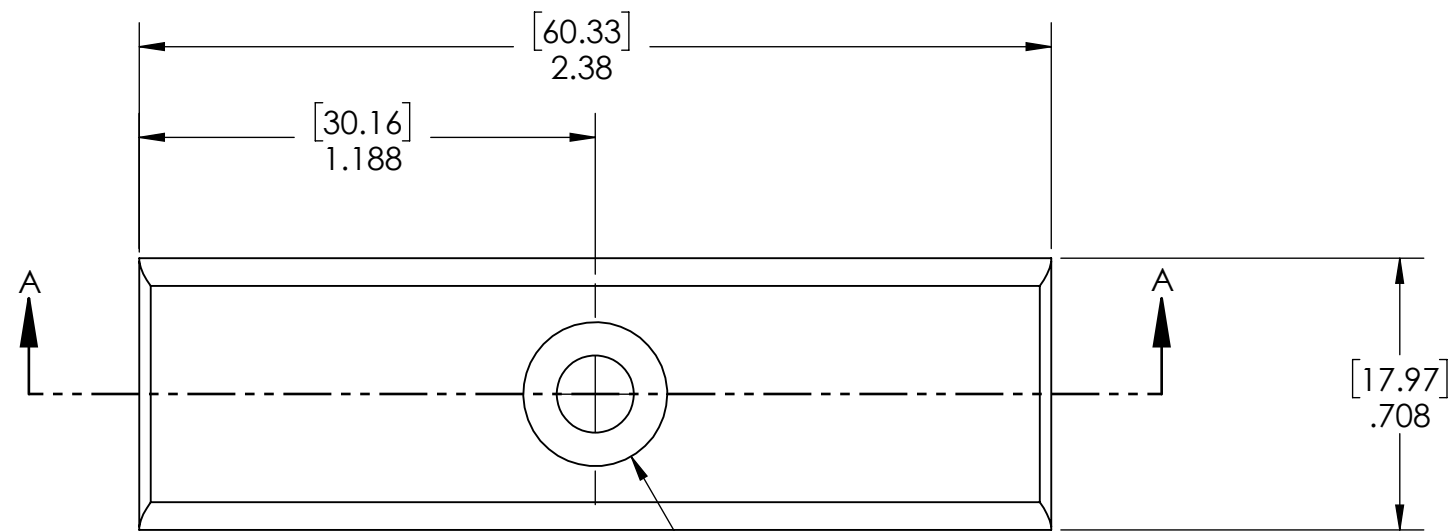
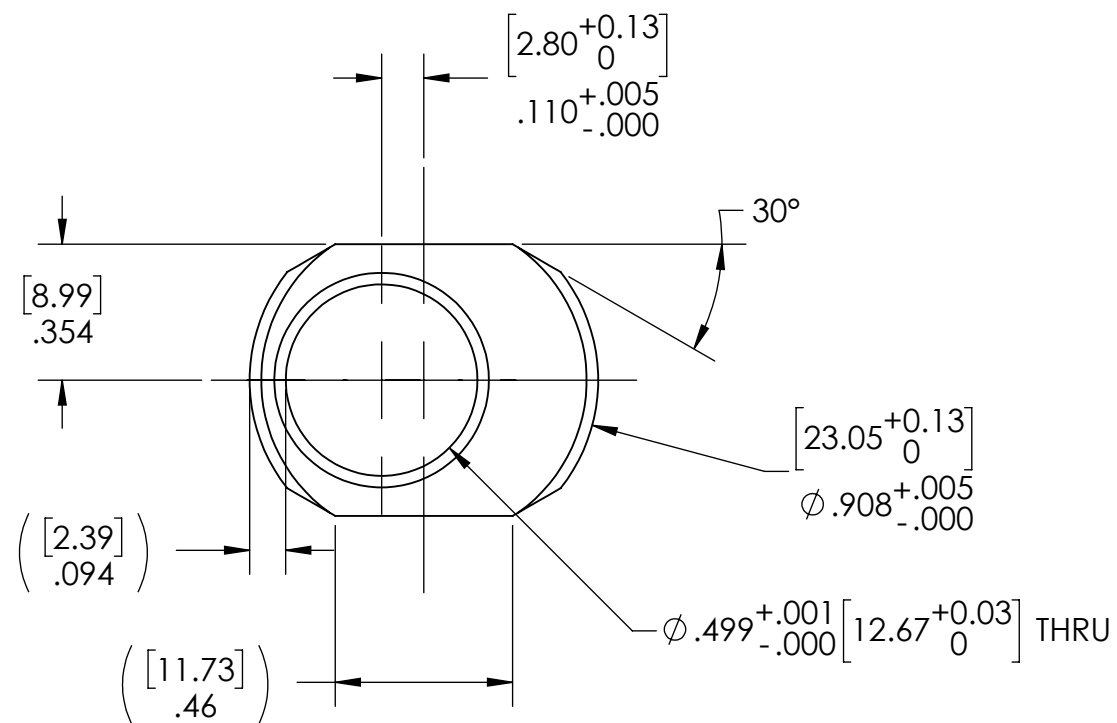
Revision  
**A**

NOTES:

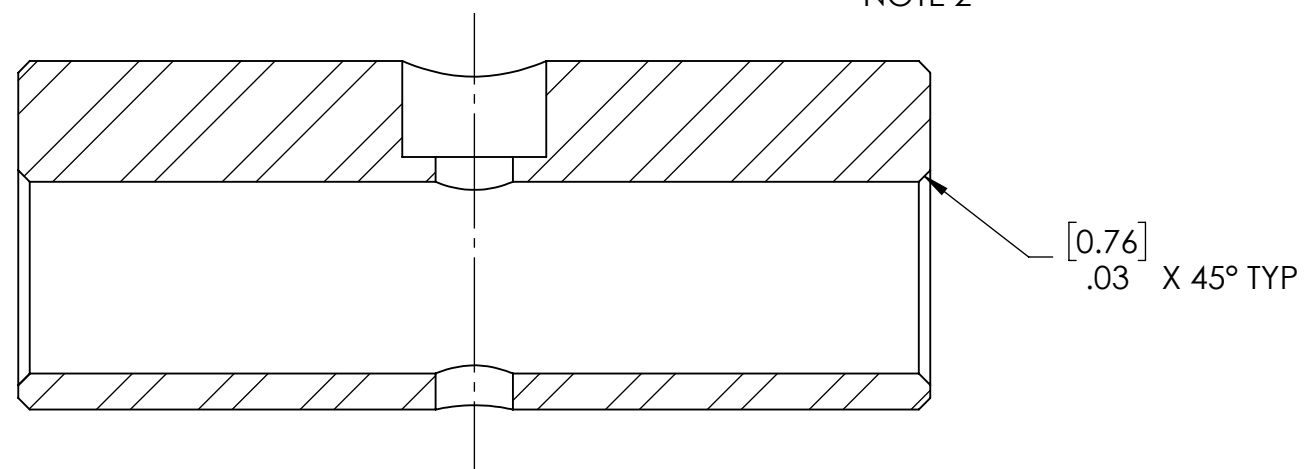
1. DESIGN IS BASED AROUND A SUMMIT 1440D LATHE, 2023 MODEL YEAR.
2. DIMENSIONS MAY HAVE TO BE ALTERED SIGNIFICANTLY TO SUIT DIFFERENT MACHINES.
3. ON MY LATHE A .020" INTERFERENCE BETWEEN CAM AND CROSS SLIDE WORKED WELL, BUT THIS MAY HAVE TO BE ALTERED FOR OTHER MACHINES.
4. THE DESIGN IS FREELY SUPPLIED FOR THE GOOD OF THE AMATEUR MACHINING COMMUNITY. PLEASE CREDIT STUARTS SHEDNANIGANS YOUTUBE CHANNEL WHERE POSSIBLE.
5. NO LIABILITY IS ACCEPTED FOR YOUR USE OF THIS DESIGN. USE IT AT YOUR OWN RISK - TAKE PRECAUTIONS!
6. THE PURPOSE OF THE LOCK IS TO ALLOW PREVENTION OF LEADSCREW BACKLASH FROM AFFECTING TURNING ACCURACY, AND TO MAKE USE OF THE LOCK MORE CONVENIENT THAN A TRADITIONAL GIB LOCKING SCREW.
7. FASTENING SCREW FOR CAM IS NOT SHOWN

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<small>Limits not specified</small> <small>Roughness <math>\sqrt{63}</math></small> <small>X.XXX = <math>\pm 0.010</math></small> <small>X.XX = <math>\pm 0.020</math></small> <small>X.X = <math>\pm 1</math></small>  <small>Angles - Machined <math>\pm .5^\circ</math></small> <small>All dimensions in inches,</small> <small>alternative dimensions</small> <small>mm unless otherwise stated</small>	<small>DRAWN</small> <i>S.Shakespeare</i>	<small>MATERIAL</small> <p style="text-align: center;">SEE BOM</p>	<h2>CROSS SLIDE LOCK</h2>				
	<small>CHECKED</small>  <small>APPROVED</small>	<small>SCALE</small> <p style="text-align: center;">1:4</p> <small>Fabricate to dimensions</small> <small>Do not scale</small>	 Minnesota, USA	<small>DRAWING DATE</small> <p style="text-align: center;">3/23/2024</p>	<small>SHT SIZE</small> <p style="text-align: center;">B</p>	<small>DRAWING NUMBER</small> <p style="text-align: center;">2000029</p>	<small>SHEET</small> <p style="text-align: center;">2 OF 2</p>



φ .20 [5.11] THRU  
 □ φ .38 [9.53] ▽ .25 [6.35]  
 FOR 10-32 SKT HEAD CAP SCREW  
 NOTE 2



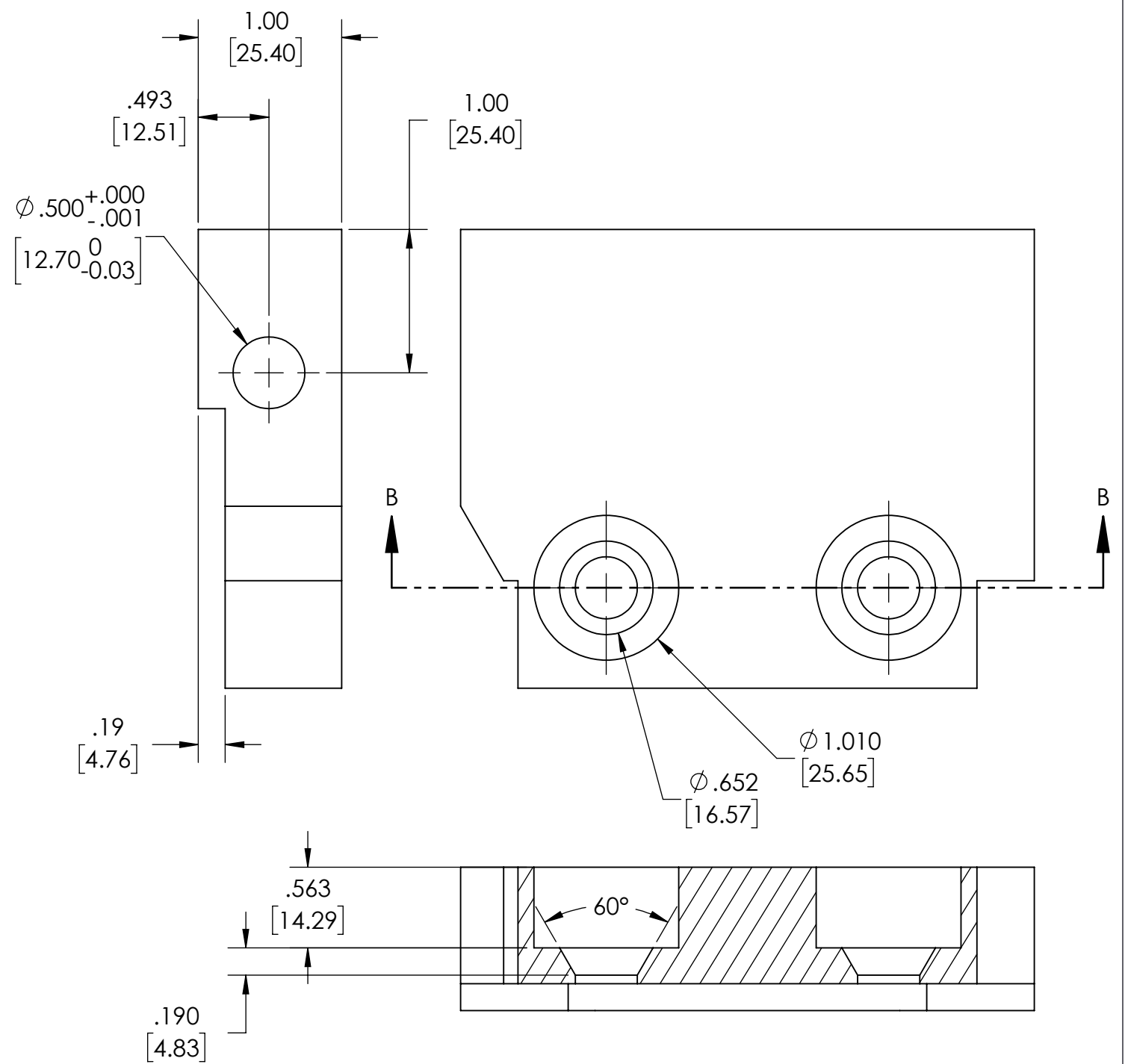
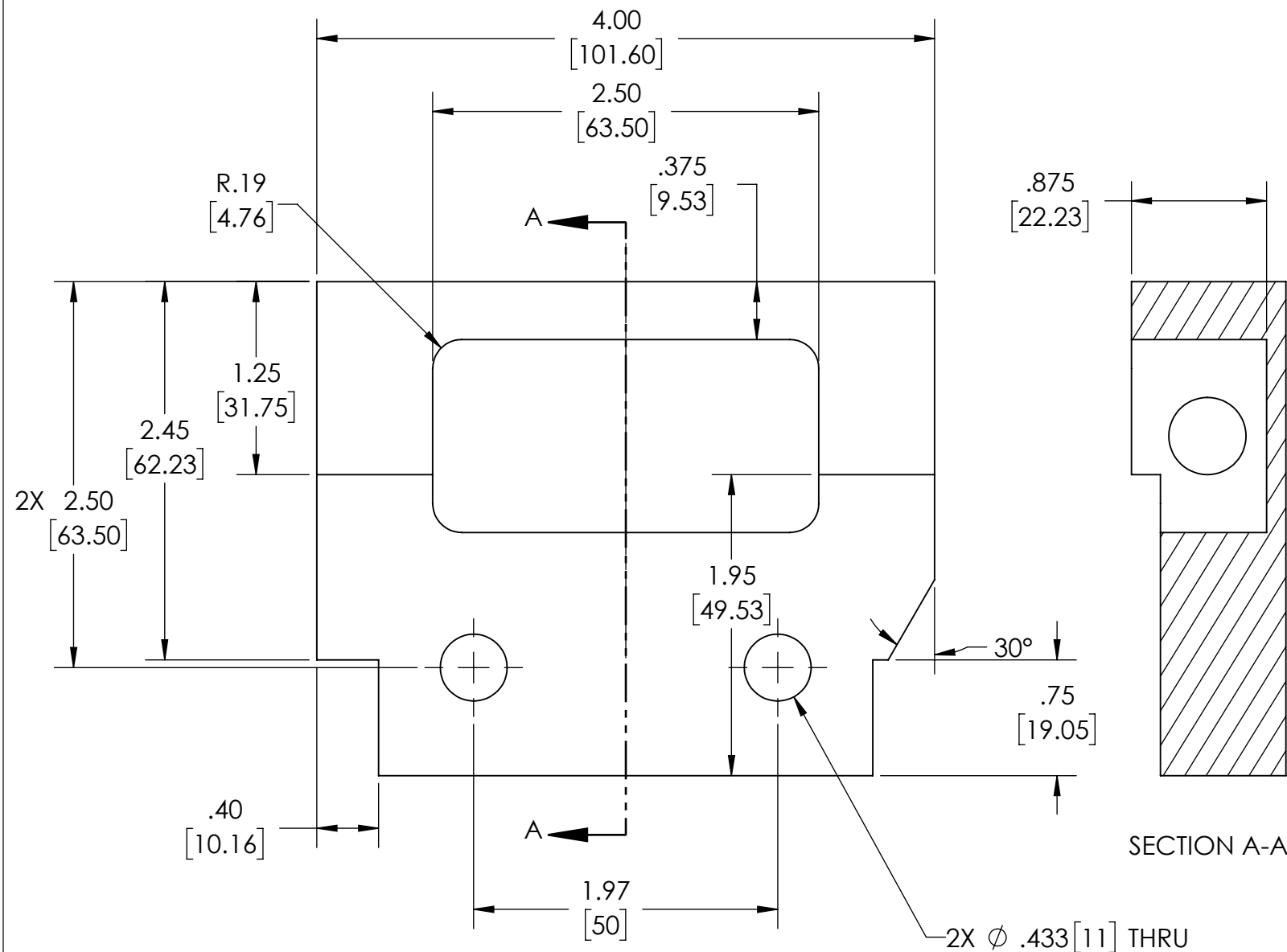
SECTION A-A

NOTES:

1. BORE CHOSEN TO SUIT ACTUATOR SHAFT
2. SOCKET HEAD CAP SCREW COUNTERBORE DEPTH MUST BE SUITABLE TO KEEP HEAD OF SCREW COMPLETELY SUB FLUSH TO SURFACE OF CAM

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Limits not specified Roughness $\sqrt{63}$ X.XXX = ±.010 X.XX = ±.020 X.X = ±.1 Angles - Machined ± .5° All dimensions in inches, alternative dimensions mm unless otherwise stated	DRAWN <i>S.Shakespeare</i>	MATERIAL <b>Brass 360</b>	 Minnesota, USA				<h1>LOCKING CAM</h1>		
	CHECKED APPROVED	SCALE <b>2:1</b> Fabricate to dimensions Do not scale					DRAWING DATE <b>3/23/2024</b>	SHT SIZE <b>B</b>	DRAWING NUMBER <b>2100209</b>



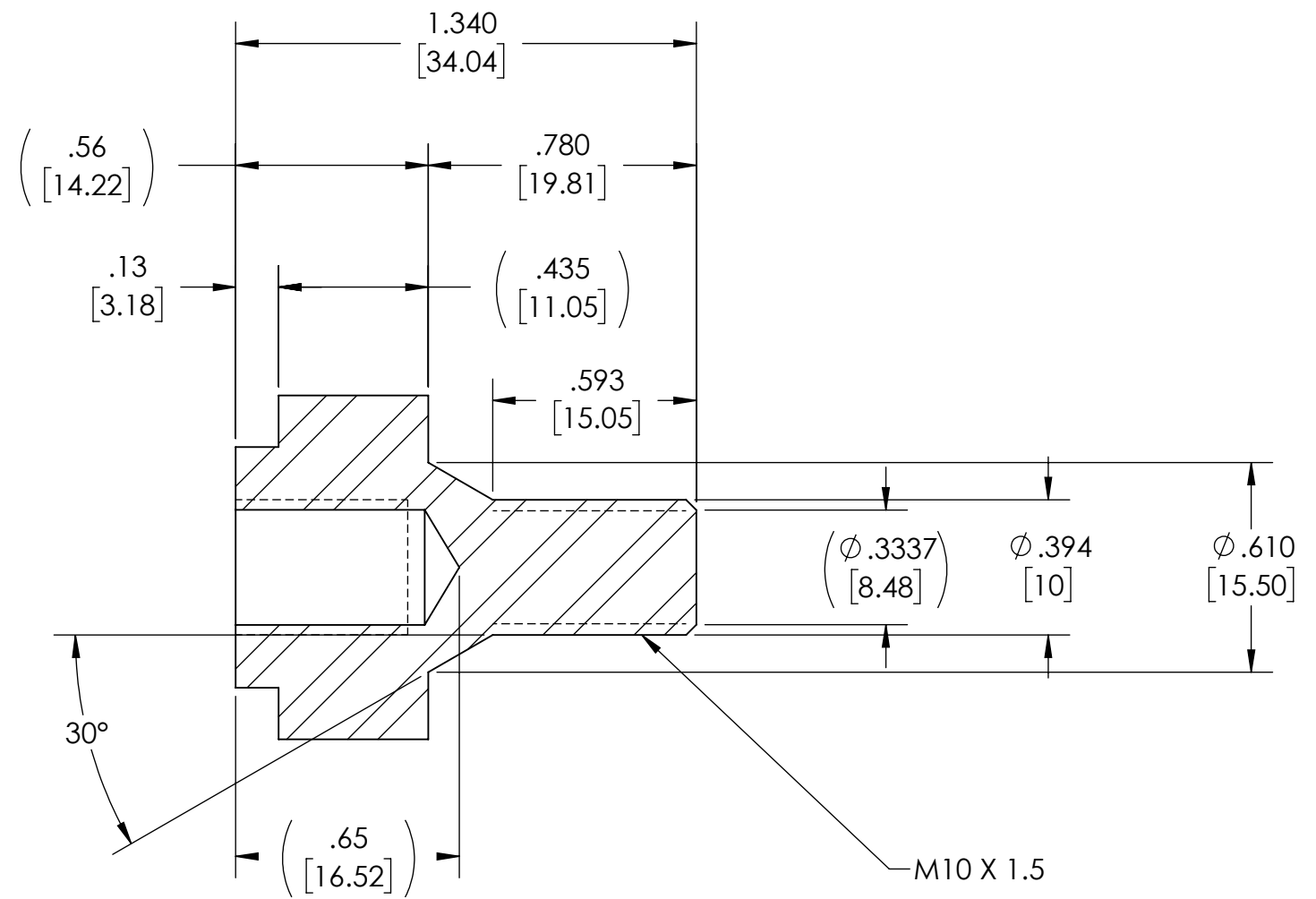
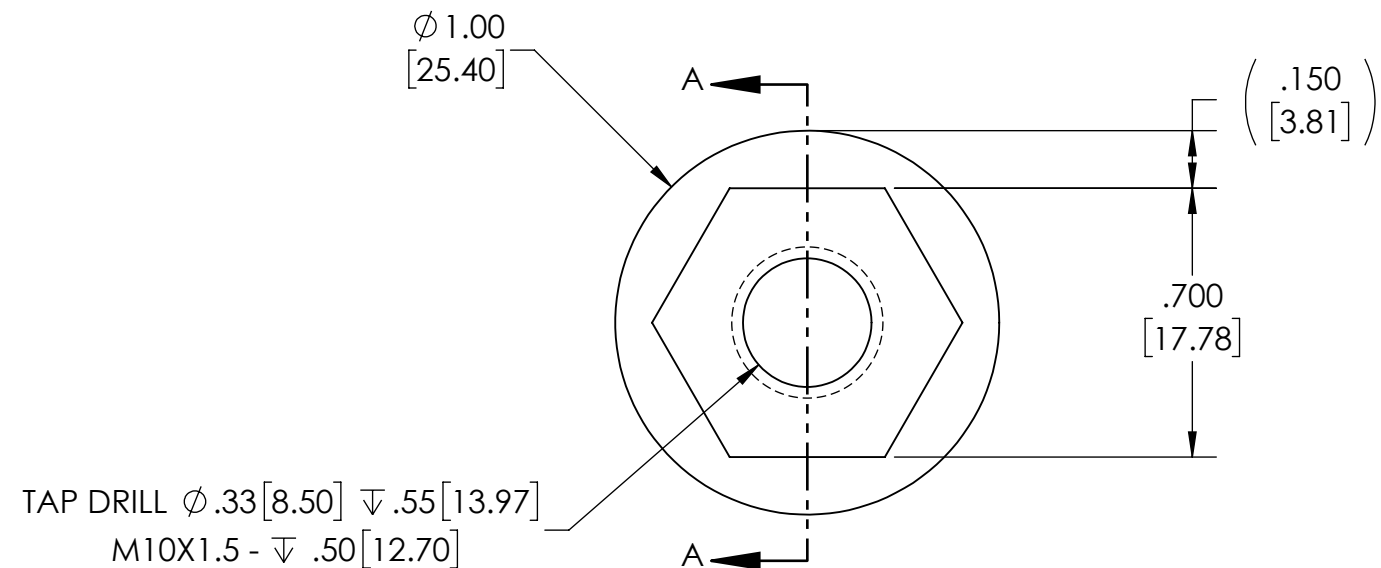
NOTES:  
 1. DIMENSIONS FOR CLEARANCE OF BEDWAYS AND MOUNTING LOCATIONS MUST BE CHOSEN TO SUIT A SPECIFIC MACHINE

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Limits not specified Roughness $\sqrt{63}$ X.XXX = $\pm$ .010 X.XX = $\pm$ .020 X.X = $\pm$ .1 Angles - Machined $\pm$ .5° All dimensions in inches, alternative dimensions mm unless otherwise stated	DRAWN <i>S.Shakespeare</i>	MATERIAL <b>Plain Carbon Steel</b>	<h1>CROSS SLIDE LOCK BRACKET</h1>			
	CHECKED APPROVED					



Minnesota, USA



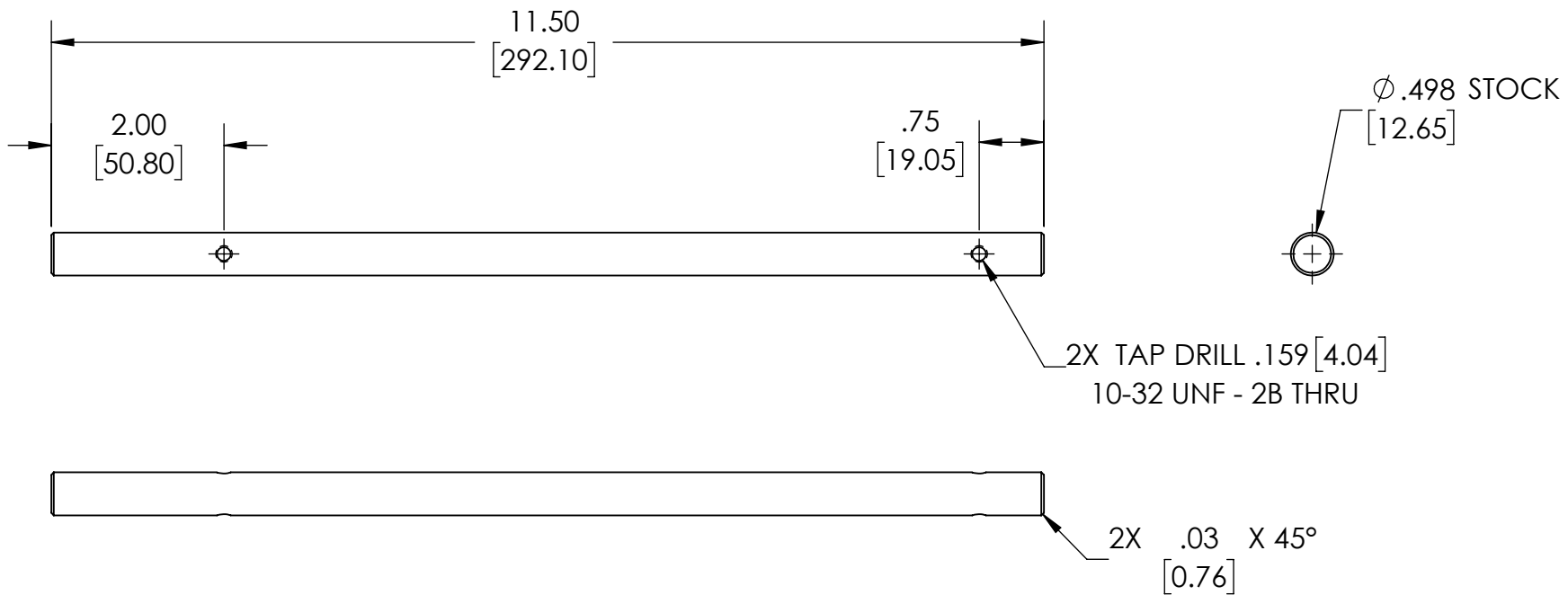
SECTION A-A

NOTES:

1. MAY BE MADE FROM CARBON STEEL 1018 OR SIMILAR.

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Limits not specified Roughness $\sqrt{63}$ X.XXX = $\pm 0.010$ X.XX = $\pm 0.020$ X.X = $\pm 0.1$ Angles - Machined $\pm .5^\circ$ All dimensions in inches, alternative dimensions mm unless otherwise stated	DRAWN <i>S.Shakespeare</i>	MATERIAL	 Minnesota, USA				<h1>MOUNT BOLT</h1>			
	CHECKED	304/304L SS								
	APPROVED	SCALE	DRAWING DATE	SHT SIZE	DRAWING NUMBER	SHEET	Revision			
	2:1 Fabricate to dimensions Do not scale	3/23/2024	B	2100213	1 OF 1	A				

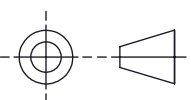



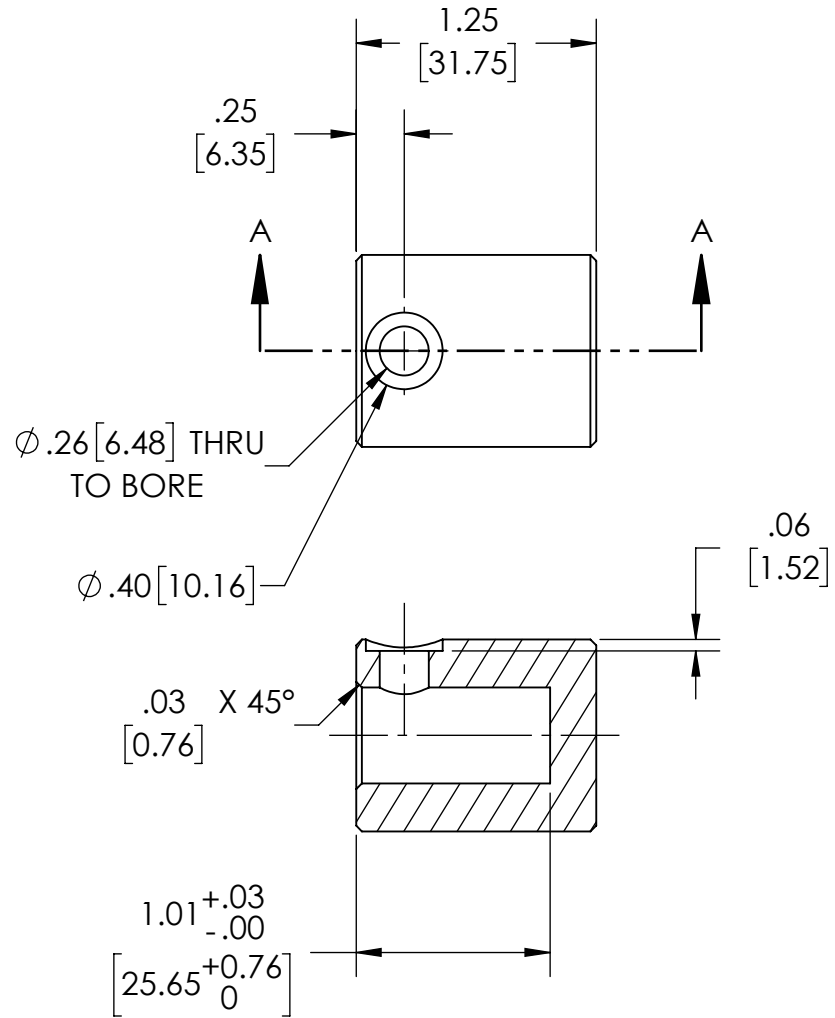
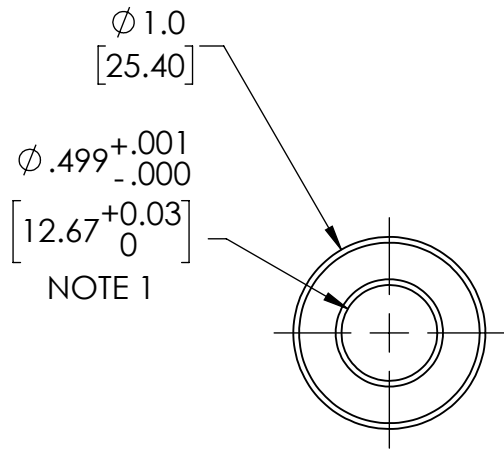
**NOTES**

1. THREAD SIZES CHOSEN TO SUIT YOUR APPLICATION

Limits not specified  
 Roughness  $\sqrt{63}$   
 X.XXX =  $\pm .010$   
 X.XX =  $\pm .020$   
 X.X =  $\pm .1$   
 Angles - Machined  $\pm .5^\circ$   
 All dimensions in inches,  
 alternative dimensions  
 mm unless otherwise stated

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	MATERIAL Plain Carbon Steel	 Minnesota, USA	<h1>ACTUATOR SHAFT</h1>			
	SCALE <b>1:2</b> Fabricate to dims Do not scale		DRAWN <i>S.Shakespeare</i> CHECKED APPROVED	DRAWING DATE <b>3/23/2024</b>	SHT SIZE <b>A</b>	DRAWING NUMBER <b>2100216</b>



SECTION A-A

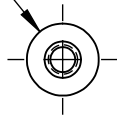
NOTES:  
1. BORE DIAMETER CHOSEN TO SUIT SHAFT

Limits not specified  
Roughness  $\sqrt{63}$   
X.XXX =  $\pm .010$   
X.XX =  $\pm .020$   
X.X =  $\pm .1$   
Angles - Machined  $\pm .5^\circ$   
All dimensions in inches,  
alternative dimensions  
mm unless otherwise stated

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	MATERIAL <b>BRASS</b>		<b>BRASS BOSS</b>			
	DRAWN <i>S.Shakespeare</i>		DRAWING DATE <b>3/23/2024</b>	SHT SIZE <b>A</b>	DRAWING NUMBER <b>2100217</b>	SHEET 1 OF 1
SCALE <b>1:1</b> Fabricate to dims Do not scale	CHECKED					
	APPROVED					

Ø .38 STOCK  
[9.53]



.190  
[4.83]



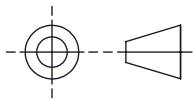
.63  
[15.88]

2.50  
[63.50]

FULL RADIUS

Limits not specified  
Roughness  $\sqrt{63}$   
X.XXX =  $\pm .010$   
X.XX =  $\pm .020$   
X.X =  $\pm .1$   
Angles - Machined  $\pm .5^\circ$   
All dimensions in inches,  
mm unless otherwise stated

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MATERIAL  
Plain Carbon Steel



Minnesota, USA

# ACTUATOR LEVER

SCALE

1:1

Fabricate to dims  
Do not scale

DRAWN *S.Shakespeare*

CHECKED

APPROVED

DRAWING DATE  
3/23/2024

SHT SIZE  
A

DRAWING NUMBER  
2100218

SHEET  
1 OF 1

Revision  
A