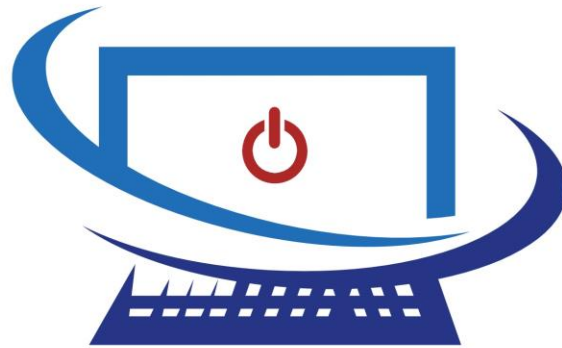


TUTORIAL PACKET NO. 600

LEVEL: INTERMEDIATE

HITCH ASSEMBLY



SOMAR TECHNICAL

Software Training

LET'S GO
DESIGN



CREATED BY:
HECTOR R.



INFORMATION ABOUT OUR TUTORIALS.

TO THE CUSTOMER

Thank you for your interested in Somar Technical. We strive to provide our customers with full knowledge on the most common and essential software used in today's work place. Most people only scratch the surface of these popular software. Here at Somar Technical, we understand the importance and positive impact that truly knowing a software can have at work and/or your personal tasks. This is why we focus on teaching, helping, and providing you with the tools and knowledge to utilize everyday software to its full potential!

INSTRUCTIONS

After this intro page, you will find several drawings. The mission, if you choose to accept it, is to recreate the 3D model in SolidWorks on your own. It doesn't matter which version of SolidWork you have, all versions are capable of modeling each of the following components. Once you have completed the model you can confirm the accuracy of your model by determining the weight of the final model you created and compare it to the weight listed on the title block of the tutorial. The acceptable range for the accuracy of the weight is to be either 1% under or over the weight provided. See our free YouTube videos on how to read our title blocks if needed.

CLASSES

If you are interested in taking our in-person classes, please refer to our website to view our available classes. All classes are held in Houston, Texas. We also provide on-line video tutorials to help with the content of this packet.

ON-LINE TUTORIALS

If there is a Tutorial No. that you can't complete. You can proceed to our website and select the Videos button. A sign-up page will pop up, we use this to create a customer list for future newsletters and notifications. You will need to sign up to get access to our video library. Once in the library you can search for the corresponding video that you are looking for. Each video is labeled exactly as the Tutorial No. for easy searching. The purchase of the video will walk you every step of the way to complete the model.

CONTACT US

If you have any questions or comments, please visit our website or drop us a line at info@somartech.com. Thanks again for your interest in Somar Technicial.

NOW LET'S GET TO WORK!

www.SomarTech.com

LET'S COMPARE RESULTS!

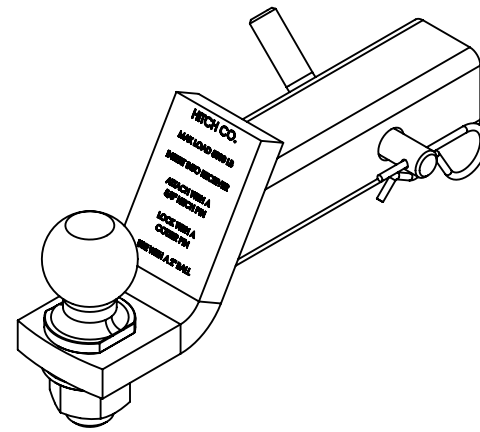
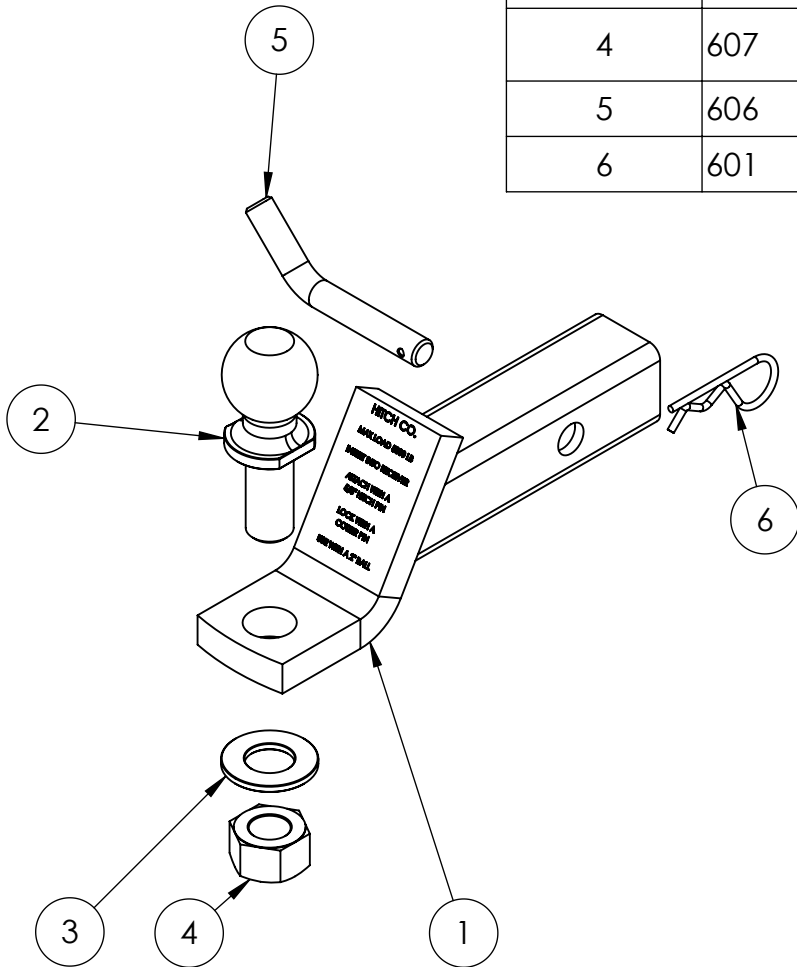
COMPARE YOUR RESULTS


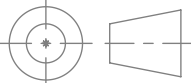
Make sure you have updated the material and are working in the proper units for each component. The titleblock for each component will have the material listed, units being used, and the final weight. Below is the acceptable range in weight for each component.

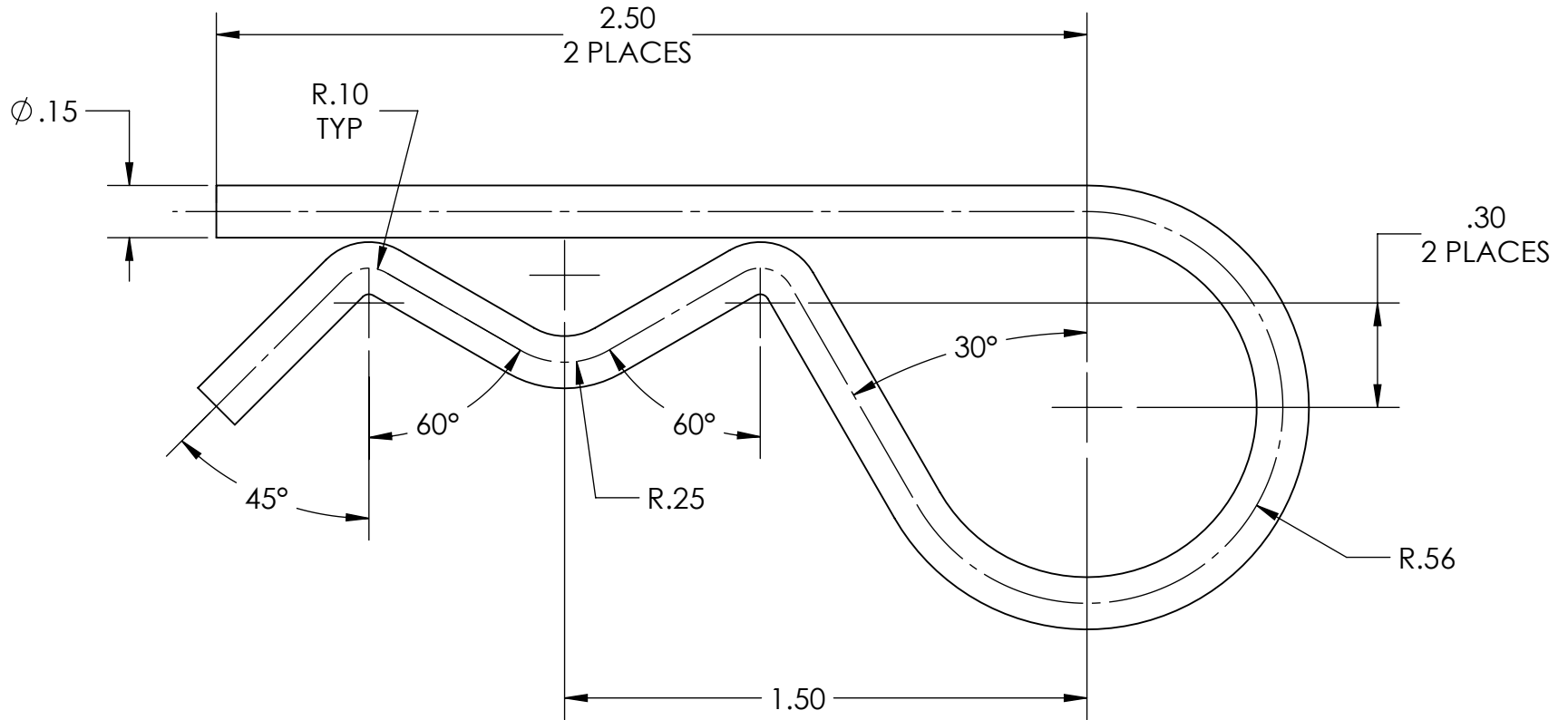
TUTORIAL NO.	Minimum (lbs)	Nominal (lbs)	Maximum (lbs)
600	9.86	9.96	10.06
601	0.03	0.04	0.05
602	3.55	3.59	3.63
603	2.05	2.08	2.11
604	3.30	3.34	3.38
605	6.85	6.92	6.99
606	0.47	0.48	0.49
607	0.32	0.33	0.34
608	0.10	0.11	0.12

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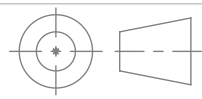
ITEM NO.	PART NUMBER	DESCRIPTION	Default/ QTY.	Material
1	605	HITCH WELDMENT	1	REFER TO BOM
2	603	2" BALL	1	AISI 304
3	608	1" NARROW TYPE A WASHER	1	Galvanized Steel
4	607	1-8 UNC HEX NUT	1	Galvanized Steel
5	606	5/8" HITCH PIN	1	AISI 304
6	601	COTTER PIN	1	AISI 304



 SOMAR TECHNICAL Software Training	EDUCATIONAL PURPOSES ONLY THE INFORMATION CONTAINED IN THIS DRAWING IS FOR EDUCATIONAL PURPOSES ONLY AND SHOULD NOT BE USED FOR MANUFACTURING.		
	TITLE: <h1>HITCH ASSY W/ 2" BALL</h1>		
MATERIAL REFER TO BOM	SIZE A	TUTORIAL NO. 600	REV A
 DIMENSIONS ARE IN INCHES	SCALE: 1:4	WEIGHT: 9.96	SHEET 1 OF 1



MATERIAL
AISI 304



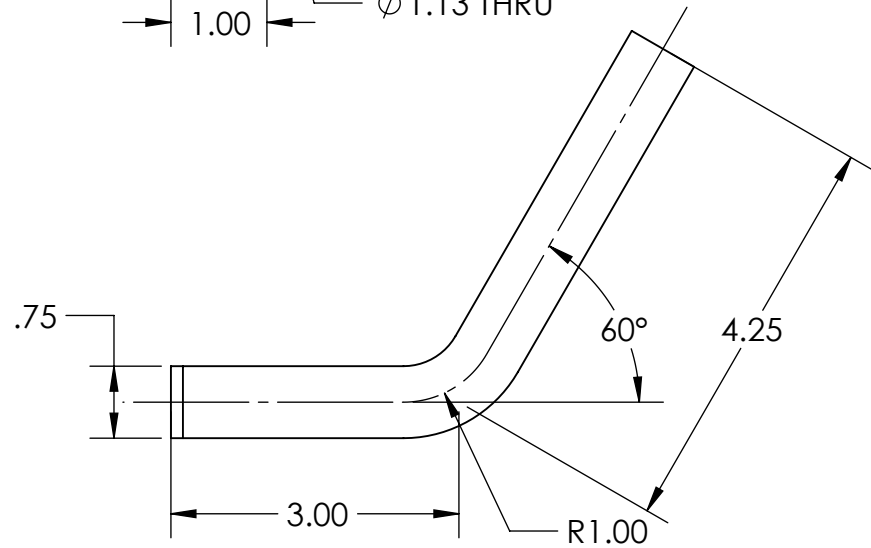
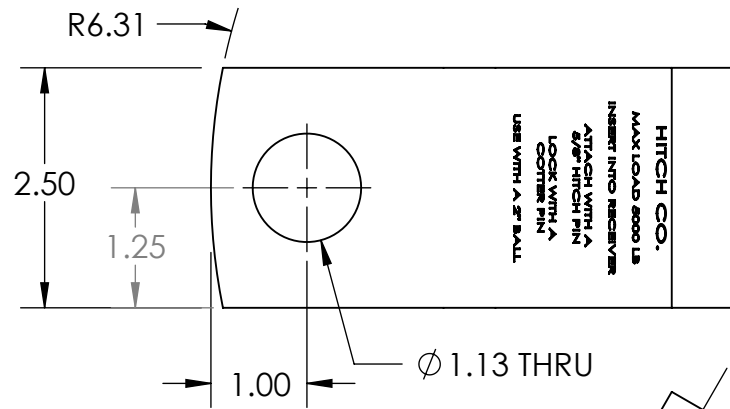
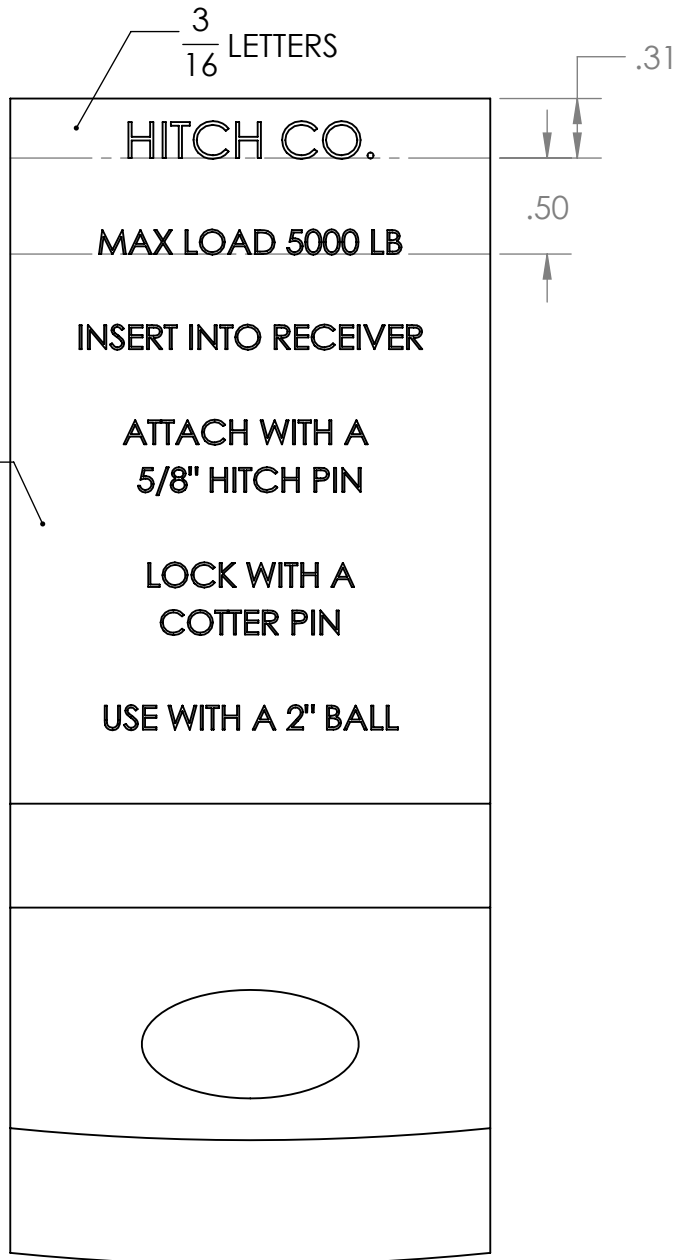
DIMENSIONS ARE IN INCHES


EDUCATIONAL PURPOSES ONLY THE INFORMATION CONTAINED IN THIS DRAWING IS FOR EDUCATIONAL PURPOSES ONLY AND SHOULD NOT BE USED FOR MANUFACTURING.

TITLE:
COTTER PIN

SIZE A	TUTORIAL NO. 601	REV A
------------------	----------------------------	-----------------

SCALE: 2:1	WEIGHT: 0.04	SHEET 1 OF 1
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 SOMAR TECHNICAL Software Training		EDUCATIONAL PURPOSES ONLY THE INFORMATION CONTAINED IN THIS DRAWING IS FOR EDUCATIONAL PURPOSES ONLY AND SHOULD NOT BE USED FOR MANUFACTURING.	
MATERIAL AISI 1020		TITLE: <h1>FACE PLATE</h1>	
SIZE A	TUTORIAL NO. <h1>602</h1>	REV A	
DIMENSIONS ARE IN INCHES		SCALE: 1:2	WEIGHT: 3.59
		SHEET 1 OF 1	

2

1

B

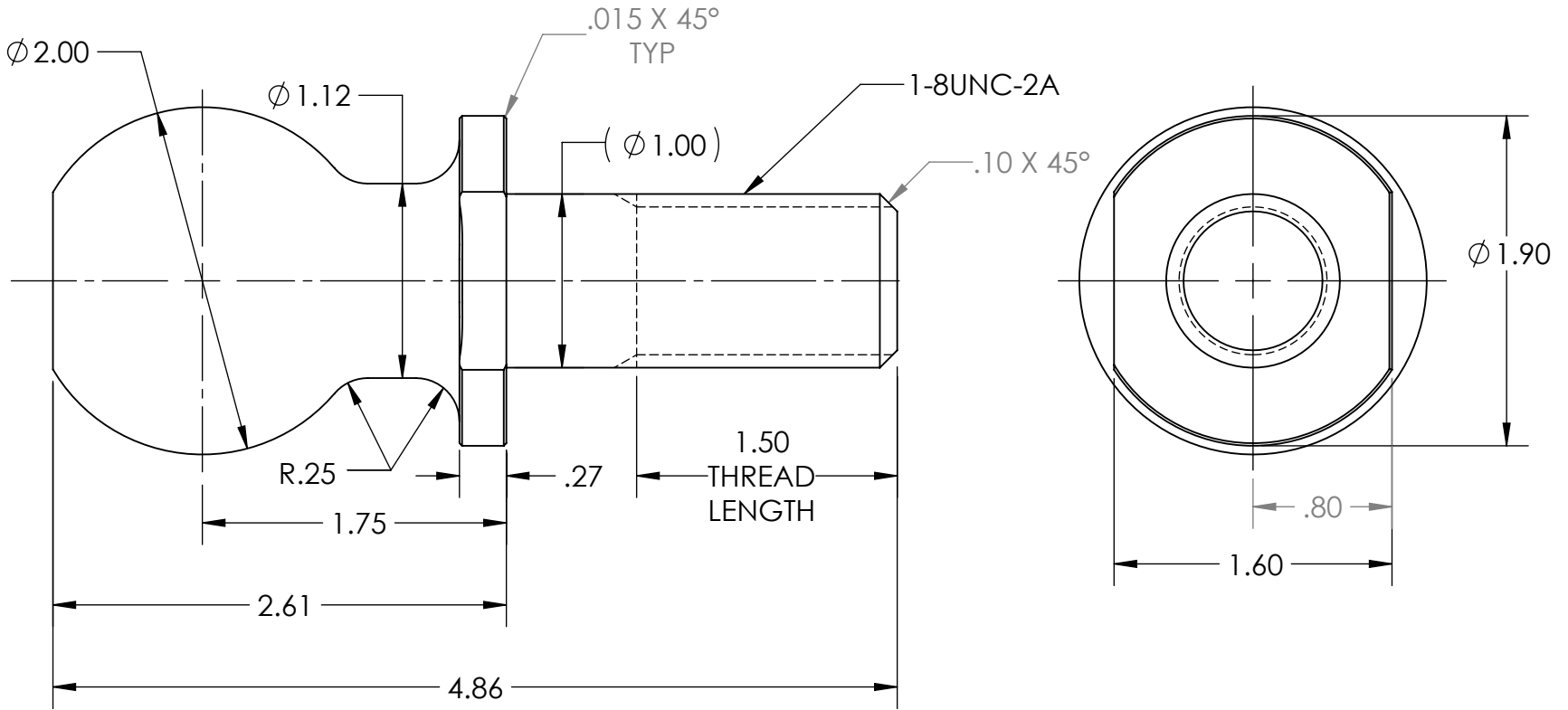
B

A

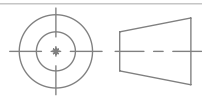
A

2

1



MATERIAL
AISI 304



DIMENSIONS ARE IN INCHES

EDUCATIONAL PURPOSES ONLY

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TITLE:

2" BALL

SIZE

A

TUTORIAL NO.

603

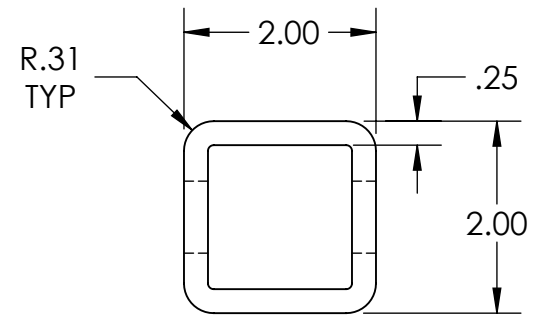
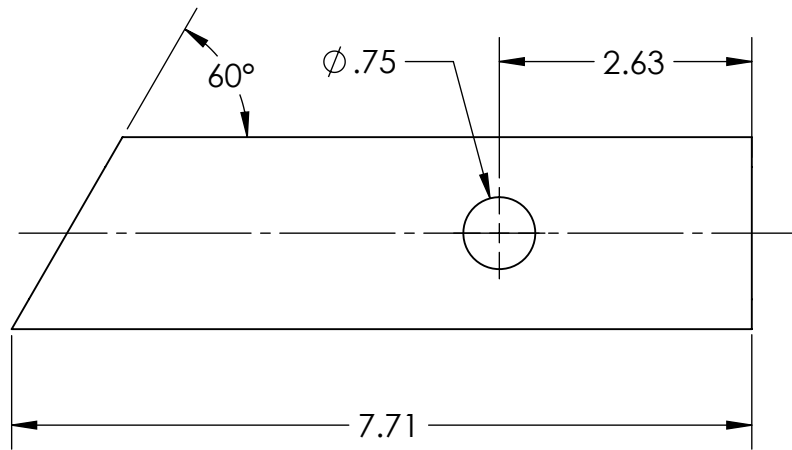
REV


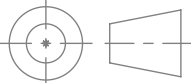
A

SCALE: 1:1

WEIGHT: 2.08

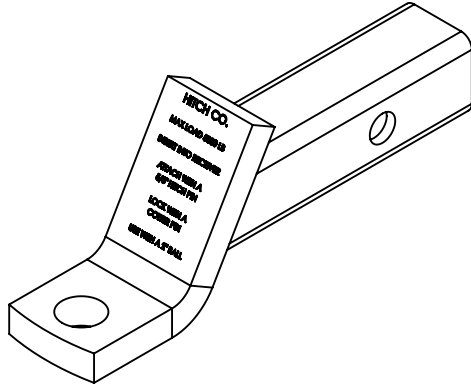
SHEET 1 OF 1



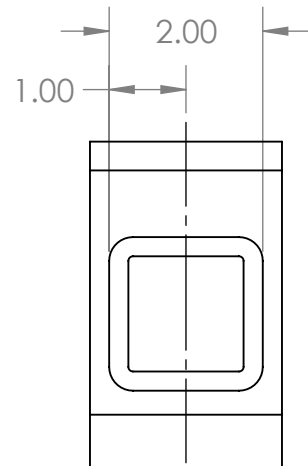
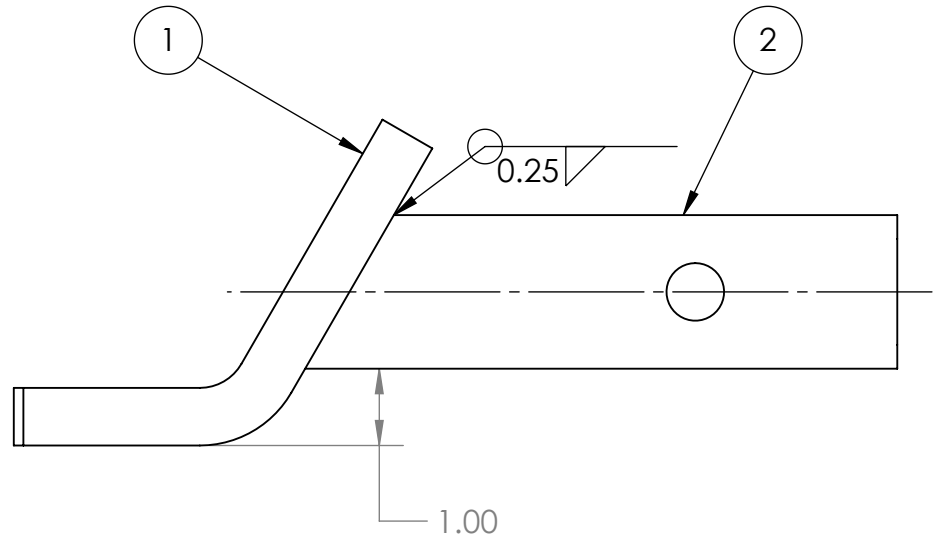
 SOMAR TECHNICAL Software Training	EDUCATIONAL PURPOSES ONLY THE INFORMATION CONTAINED IN THIS DRAWING IS FOR EDUCATIONAL PURPOSES ONLY AND SHOULD NOT BE USED FOR MANUFACTURING.		
	TITLE: 2" SQUARE TUBING		
MATERIAL AISI 1020	SIZE A	TUTORIAL NO. 604	REV A
	SCALE: 1:2		WEIGHT: 3.34
DIMENSIONS ARE IN INCHES		SHEET 1 OF 1	


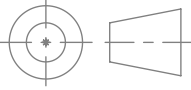
www.SomarTech.com

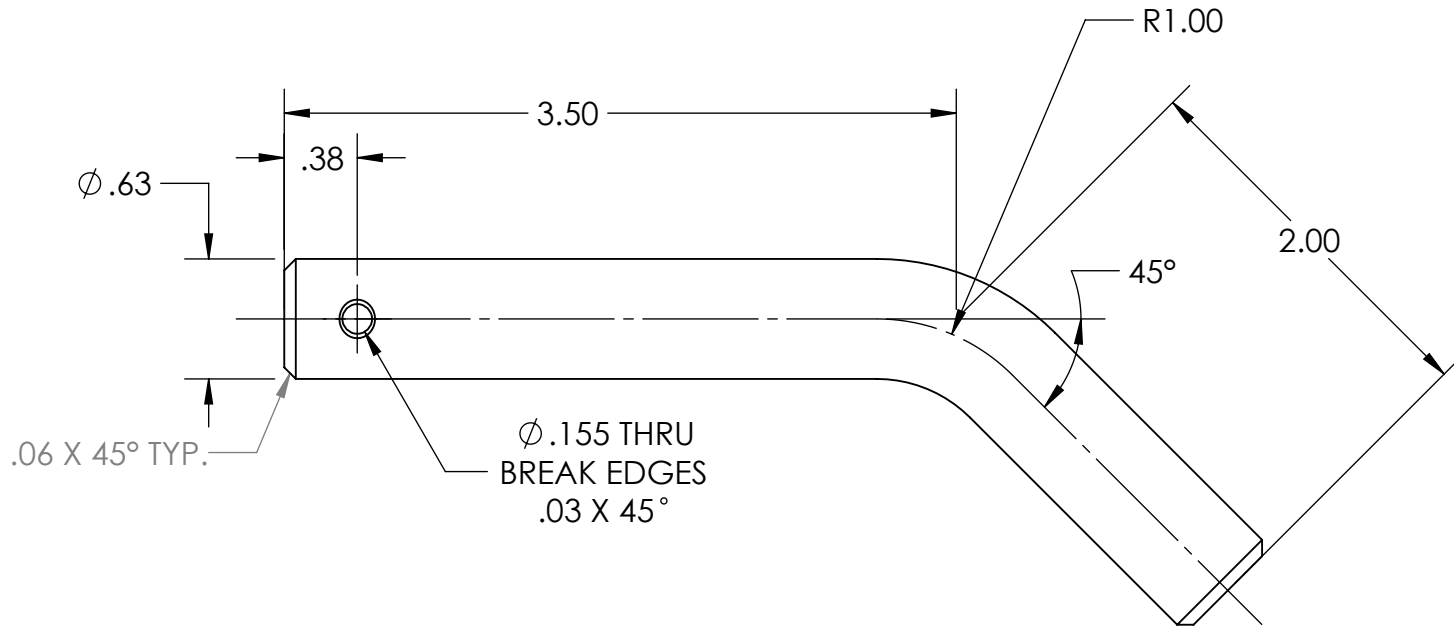
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.	Material
1	602	FACE PLATE	1	AISI 1020
2	604	2" SQUARE TUBING	1	AISI 1020



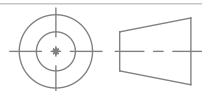
HITCH CO.
 MAX LOAD 8000 LB
 INSERT INTO RECEIVER
 ATTACH WITH A
 5/8" HITCH PIN
 LOCK WITH A
 COTTER PIN
 USE WITH A 2" BALL



 SOMAR TECHNICAL Software Training	EDUCATIONAL PURPOSES ONLY THE INFORMATION CONTAINED IN THIS DRAWING IS FOR EDUCATIONAL PURPOSES ONLY AND SHOULD NOT BE USED FOR MANUFACTURING.	
	TITLE: <h1 style="text-align: center;">HITCH WELDMENT</h1>	
MATERIAL REFER TO BOM	SIZE A	TUTORIAL NO. <h2 style="text-align: center;">605</h2>
	REV A	SCALE: 1:2.5 WEIGHT: 6.92 SHEET 1 OF 1



MATERIAL
AISI 304



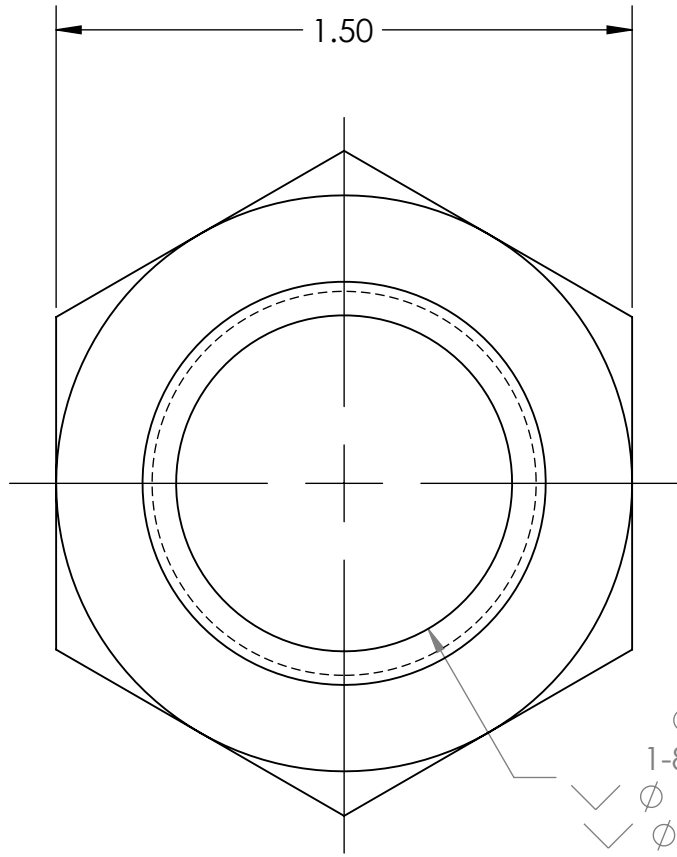
DIMENSIONS ARE IN INCHES

EDUCATIONAL PURPOSES ONLY THE INFORMATION CONTAINED IN THIS DRAWING IS FOR EDUCATIONAL PURPOSES ONLY AND SHOULD NOT BE USED FOR MANUFACTURING.

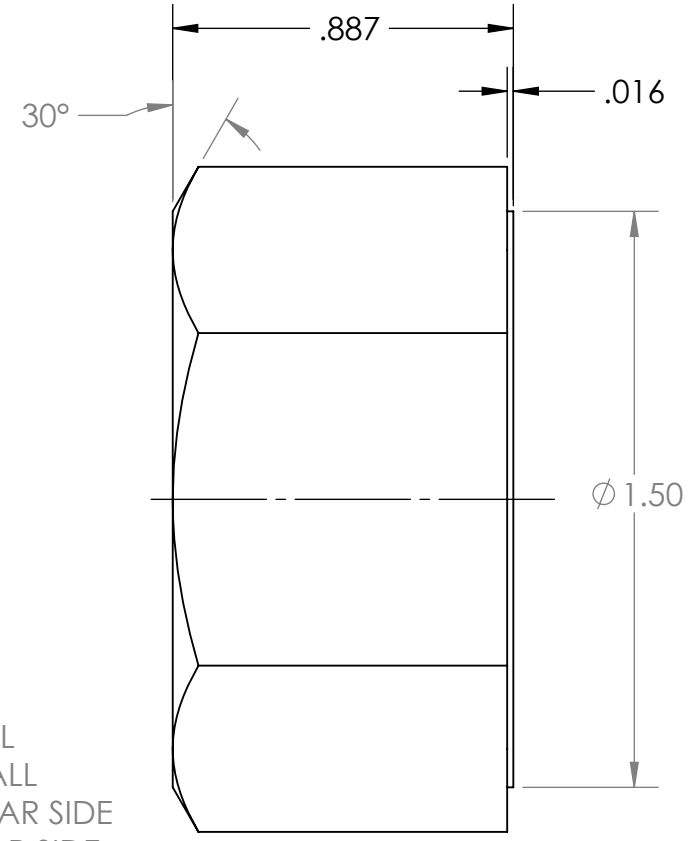
TITLE:
5/8" HITCH PIN

SIZE A	TUTORIAL NO. 606	REV A
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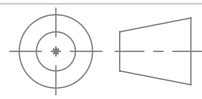
SCALE: 1:1	WEIGHT: 0.48	SHEET 1 OF 1
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- ✓ ϕ .88 THRU ALL
- ✓ 1-8 UNC THRU ALL
- ✓ ϕ 1.05 X 90°, NEAR SIDE
- ✓ ϕ 1.05 X 90°, FAR SIDE



MATERIAL
Galvanized Steel



DIMENSIONS ARE IN INCHES

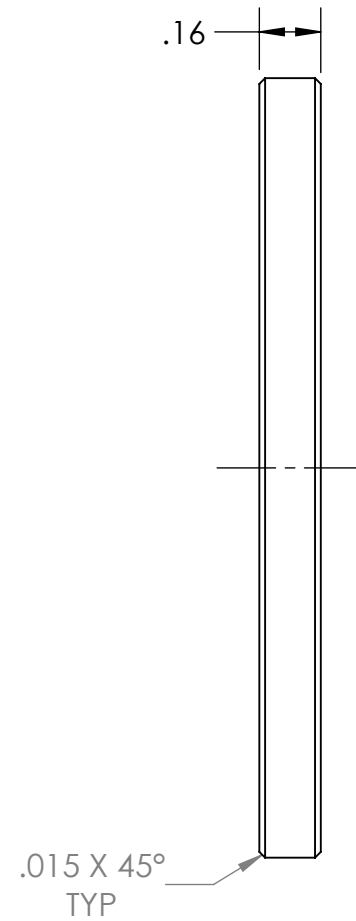
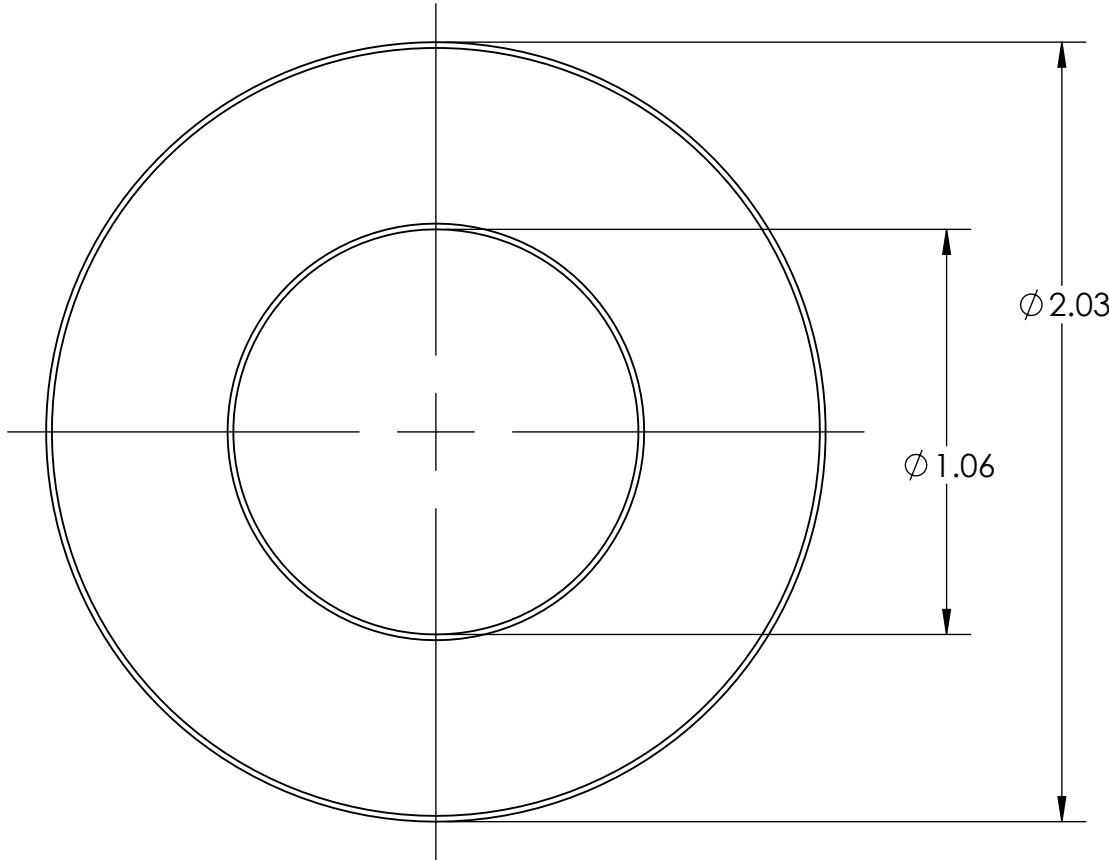
EDUCATIONAL PURPOSES ONLY

THE INFORMATION CONTAINED IN THIS DRAWING IS FOR EDUCATIONAL PURPOSES ONLY AND SHOULD NOT BE USED FOR MANUFACTURING.

TITLE:
1-8 UNC HEX NUT

SIZE	TUTORIAL NO.	REV
A	607	A

SCALE: 2:1 WEIGHT: 0.33 SHEET 1 OF 1



2


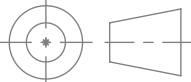
1

B

B

A

A

 SOMAR TECHNICAL Software Training	EDUCATIONAL PURPOSES ONLY		THE INFORMATION CONTAINED IN THIS DRAWING IS FOR EDUCATIONAL PURPOSES ONLY AND SHOULD NOT BE USED FOR MANUFACTURING.
	TITLE: 1" NARROW TYPE A WASHER		
MATERIAL Galvanized Steel	SIZE A	TUTORIAL NO. 608	REV A
	DIMENSIONS ARE IN INCHES	SCALE: 2:1	WEIGHT: 0.11
		SHEET 1 OF 1	

2

1