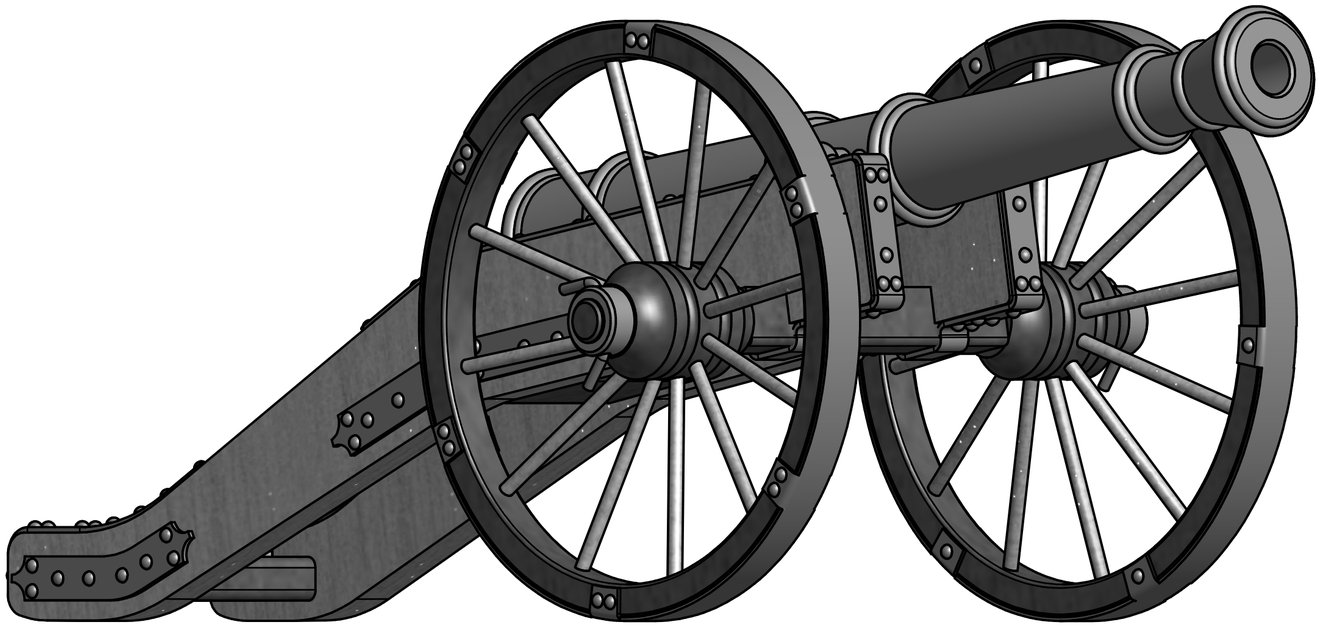
NOTES:
1- READ ALL NOTES
2- SEE PAGE 2 FOR PARTS LIST AND QUANTITIES.
3- SEE PAGE 3 FOR DRAWING NOTES.
4- SEE PAGE 4 FOR MANUFACTURING NOTES.

Build it yourself

DECORATIVE CANNON

design and annotated drawings
by Joly Concept



REVISION HISTORY			
REV	DESCRIPTION	DATE	DESIGNER
-	INITIAL RELEASE	07/12/2013	Joly Concept

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Les Cedres, Quebec
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TOLERANCES	
IMPERIAL	METRIC
FRAC:±1/64	
X.:±.015	X.:±
X.X:±.015	X.X:±
X.XX:±.010	X.XX:±
X.XXX:±.005	X.XXX:±
X.XXXX:±	
ANGULAR: ±1°	

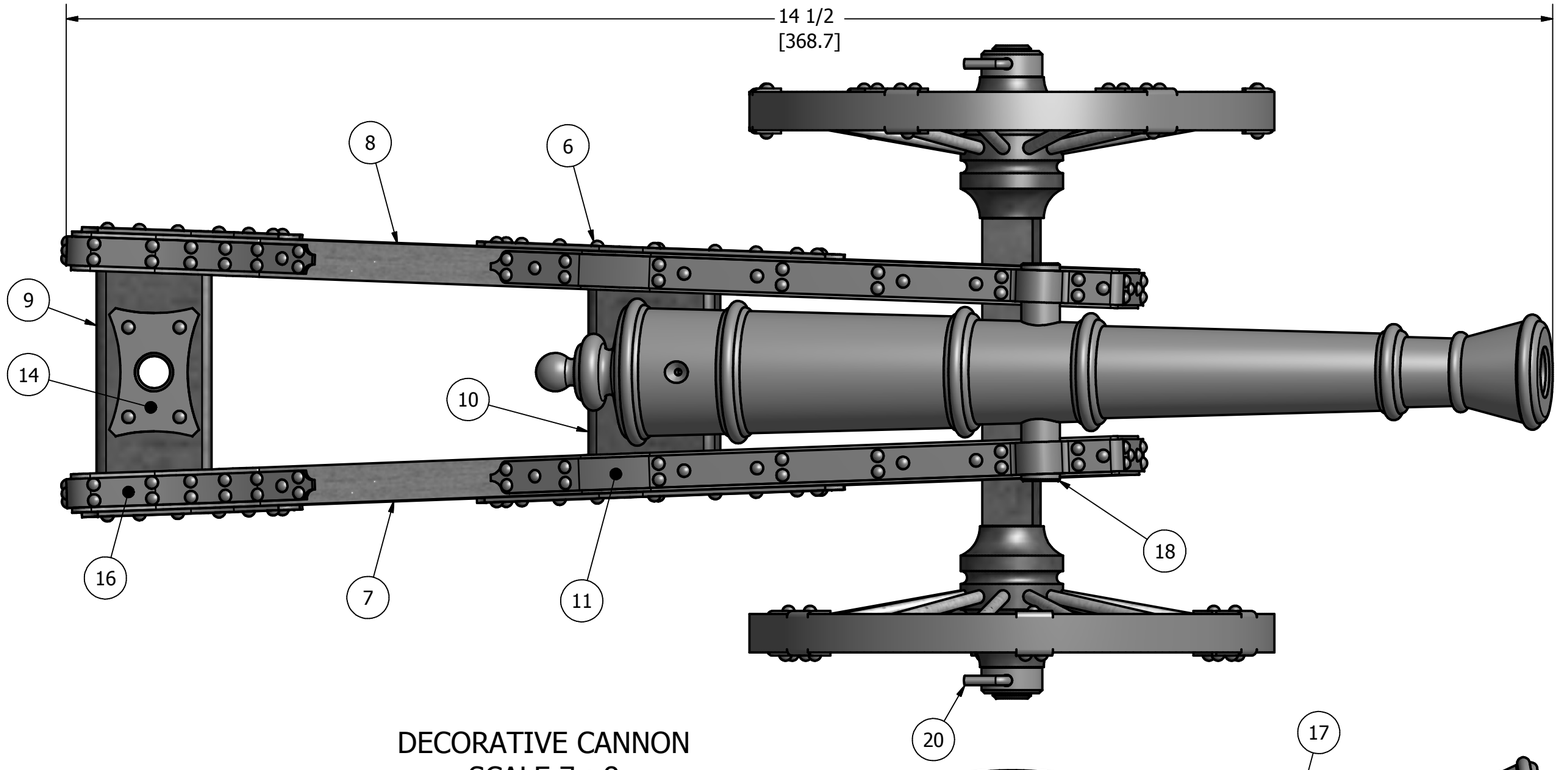
THIRD ANGLE PROJECTION

DRAWING UNITS
INCHES[MILLIMETERS]

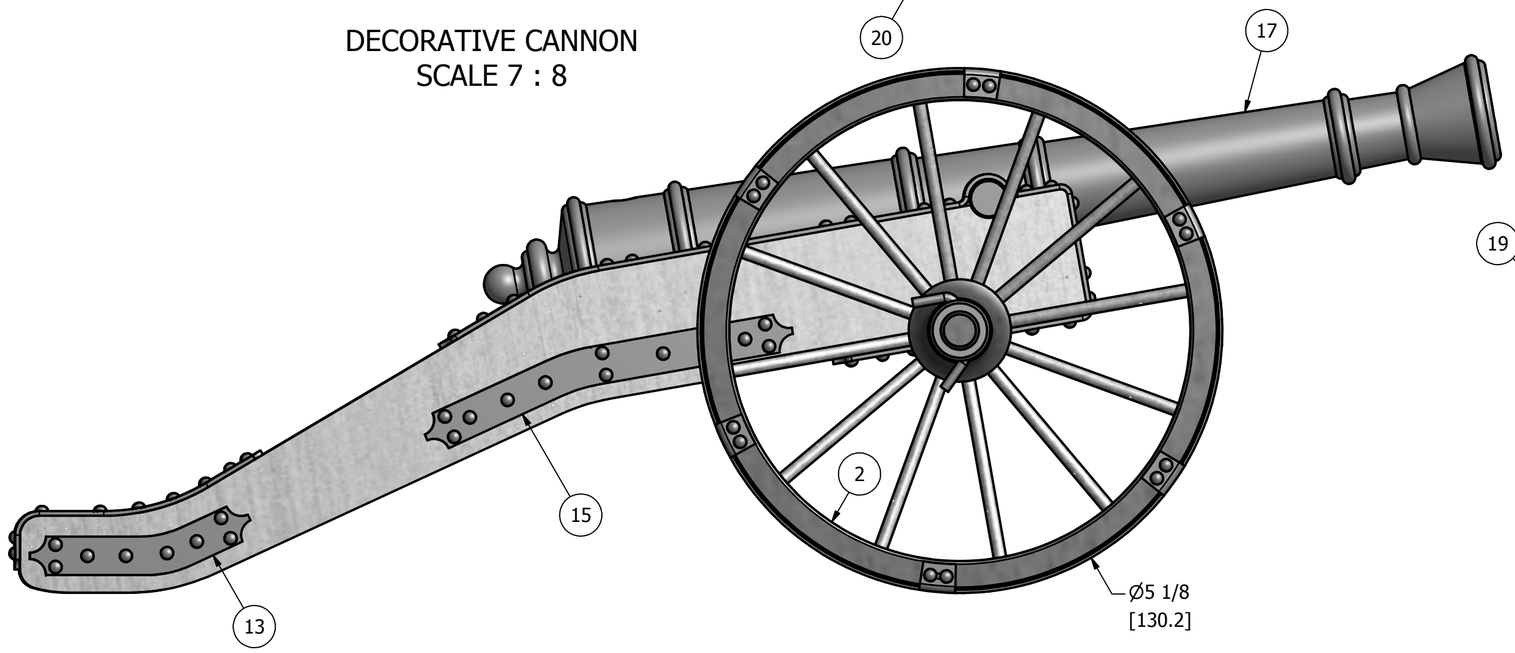
Dimensioning and Tolerancing Document Practices in accordance with **ASME Y14.5M-1994**

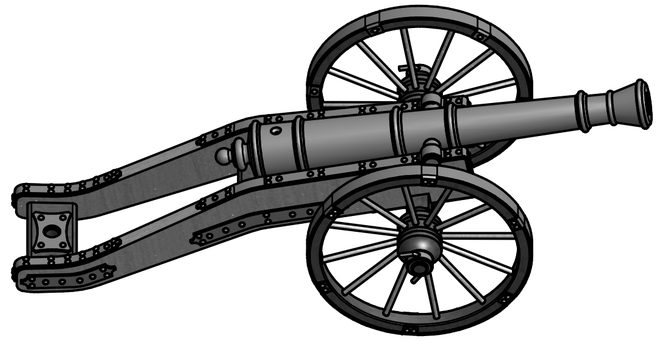
DECORATIVE CANNON

SIZE	CAGEC	DWG NO.	REV
C		0053505-41494	-
SCALE 1 : 1			SHEET 1 of 10

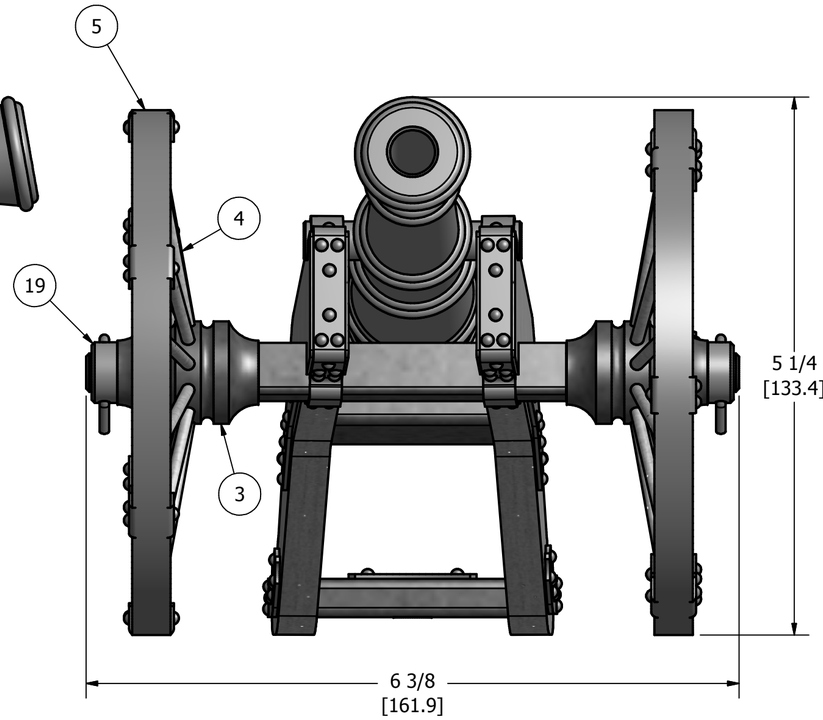


DECORATIVE CANNON
SCALE 7 : 8





ISOMETRIC
SCALE 3 : 8



PARTS LIST				PARTS LIST			
ITEM	QTY	PART NUMBER	MATERIAL	ITEM	QTY	PART NUMBER	MATERIAL
1	1	Axeltree	Wood	11	1	Capsquare	Brass
2	2	Felloe	Wood	12	12	No. 4-24 x 1" (Hidden)	Steel
3	2	Wheel hub	Wood	13	2	Hitch side plate	Brass
4	24	Wheel spoke	Wood	14	1	Hitch plate	Brass
5	2	Outer ring tire	Brass	15	2	Stool bed side plate	Brass
6	184	Brass nail .125	Brass	16	2	Traversing plate	Brass
7	1	Bracket Right	Wood	17	1	Main gun	S.Steel
8	1	Bracket Left	Wood	18	2	Trunnion	S.Steel
9	1	Hitch	Wood	19	2	Hubcap	S.Steel
10	1	Stool bed	Wood	20	2	Linch pin	Brass

TOLERANCES	
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X.XX:±.010	X.XX:±
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THIRD ANGLE PROJECTION

DRAWING UNITS
INCHES[MILLIMETERS]

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PARTS LIST

SIZE	CAGEC	DWG NO.	REV
C		0053505-41494	-
SCALE 7 : 8			SHEET 2 of 10

A- **SUPPORT**:

1- JOLY CONCEPT DOES NOT OFFER ANY TECHNICAL SUPPORT FOR THIS PROJECT.
2- EMBEDDED DOCUMENT ;"0053505-41494RFC.DOC" SHALL BE USED TO COMMUNICATE ANY REQUEST FOR CHANGE.
3- FILL OUT RFC.DOC USING A WORD PROCESSOR.
4- .ZIP COMPRESS MODIFIED "0053505-41494RFC.DOC" FILE.
5- APPEND EMAIL ADDRESS TO ARCHIVE FILE NAME (EX: 0053505-41494RFC-EMAIL@EMAIL.NET.ZIP)
6- EMAIL .ZIP FILE TO INFO@JOLYCONCEPT.COM OR FAX DOCUMENT.
7- JOLY CONCEPT DOES NOT GUARANTY ANY REPLY OR FURTHUR COMMUNICATION TO ANY REQUEST FOR CHANGE.

B- **DRAWING NOTES**:

1- ALL PAGES AND ATTACHMENTS OF THIS DOCUMENT SHALL BE KEPT AND TRANSMITTED/SHARED AS A WHOLE IN ACCORDANCE WITH THE CREATIVE COMMONS LICENSE.
2- INTERPRET DRAWING IN ACCORDANCE WITH ASME SPECIFICATION Y14 SERIES.
3- DIMENSIONING AND TOLERANCING DOCUMENT PRACTICES IN ACCORDANCE WITH ASME Y14.5 SERIES.
4- DIMENSIONS ARE IN INCHES.
5- DIMENSIONS IN BRACKETS [] ARE IN MILLIMETERS FOR REFERENCE ONLY.
6- DIMENSIONS IN PARENTHESES () ARE REFERENCE ONLY.
7- ALL VIEWS WITH A SCALE OF 1 : 1 CAN BE PRINTED TO SCALE AND USED AS TEMPLATES.
8- ANNOTATED DRAWING IS SUPPORTED BY ASSOCIATED CAD/CAM FILES WICH ARE EMBEDDED WITHIN THIS ELECTRONIC DOCUMENT.

C- **EMBEDDED ASSOCIATED 3D MODEL FILENAMES**:

1- MAIN DOCUMENT FILENAME: jcDecorativeCannonR-.PDF
2- REFERENCE AND FIXTURE DRAWING: 0053505-41494R.PDF
3- ITEM 1: AXELTREE-r-.SAT
4- ITEM 2: FELLOE-r-.SAT
5- ITEM 3: WHEELHUB-r-.SAT
6- ITEM 4: SPOKE-r-.SAT
7- ITEM 5: OUTRING-r-.SAT (OUTRING-r-PRE.SAT)
8- ITEM 6: (no file)
9- ITEM 7: BRACKET-LEFT-r-.SAT
10- ITEM 8: BRACKET-RIGHT-r-.SAT
11- ITEM 9: HITCH-r-.SAT
12- ITEM 10: STOOLBED-r-.SAT
13- ITEM 11: CAPSQUARE-r-.SAT
14- ITEM 12: (no file)
15- ITEM 13: HITCHSPLATE-r-.SAT
16- ITEM 14: HITCHPLATE-r-.SAT
17- ITEM 15: SBEDSPLATE-r-.SAT
18- ITEM 16: TRAVPLATE-r-.SAT
19- ITEM 17: GUN-r-.SAT
20- ITEM 18: TRUNNION-r-.SAT
21- ITEM 19: HUBCAP-r-.SAT
22- ITEM 20: LINCHPIN-r-.SAT

NOTES CONTINUED ON NEXT PAGE...

TOLERANCES	
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THIRD ANGLE PROJECTION

DRAWING UNITS
INCHES[MILLIMETERS]

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DOCUMENT NOTES

SIZE	CAGEC	DWG NO.	REV
C		0053505-41494	-
SCALE		SHEET	3 of 10

D- MANUFACTURING NOTES:

1- MATERIALS MAY BE SUBSTITUTED.
2- REMOVE ALL BURRS AND BREAK SHARP EDGES.
3- PREVENT WOOD FROM SPLITTING AND POSITIONNING.
PRE-DRILL NAIL POSITIONS 1/32 x 1/4". DO NOT BREAK THRU.
4- PREVENT WOOD FROM SPLITTING AND POSITIONNING. PRE-DRILL #4 SCREWS.
5- SEE FIXTURES AND HARDWARE BASIC SIZE DRAWING
6- RECOMMENDED MANUFACTURING SEQUENCE AS FOLLOW.
7- MAIN GUN
- a) FACE AND DRILL 7/16” X 8.0” MAX. DEEP HOLE.
- b) TURN AS PER DRAWING.
- c) 2x COUNTERBORES.

8- TRUNNION
- a) OUTSIDE DIAMETER SHALL BE PRESS FIT WITH MEASURED COUNTERBORE DIAMETERS +.001/-.000
- b) DO NOT INSTALL.

9- BRACKET RIGHT, BRACKET LEFT
- a) ITEMS 7 AND 8 SHALL BE A MATCHED SET
- b) MATCH DRILL .125 HOLES
- c) COUNTERSINK .250 X 82deg ON OPPOSITE SIDES.

10- HITCH, STOOL BED
- a) PRE-DRILL #4 SCREW HOLES SHALL BE SYMMETRICAL ABOUT CENTER LINE.

11- AXLETREE
12- BRACKET ASSEMBLY
- a) ASSEMBLE LEFT AND RIGHT BRACKETS, HITCH AND STOOL BED USING #4 SCREWS
- b) MATCH MILL AXELTREE SLOT PERPENDICULAR TO CENTER LINE.
- c) MATCH PRE-DRILL #4 SCREWS IN BRACKETS WITH AXELTREE.
- d) ASSEMBLE AXELTREE USING #4 SCREWS.
- e) MATCH MILL TRUNNION GROOVE PERPENDICULAR TO CENTER LINE.
- f) DISASSEMBLE BRACKET ASSEMBLY.

13- HITCH PLATE
14- HITCH SIDE PLATES
15- STOOL BED SIDE PLATES
16- TRAVERSING PLATES
- a) DRILL ALL HOLES.
- b) 2x TEMPORARY TACK TO BRACKET USING PRE-DRILLED HOLES.
- c) FORM TO BRACKET SHAPE.
- d) MATCH PRE-DRILL AND TEMPORARY TACK OTHER END.
- e) MATCH PRE-DRILL NAIL HOLES IN BRACKET NORMAL TO FORM.
- f) DISASSEMBLE.
- g) SEGREGATE BRACKET AND TRAVERSING PLATE AS MATCH SETS.

17- CAPSQUARE
- a) PREVENT KINKING AT BENDING OPERATION DRILL RECOMMENDED HOLES ONLY.
- b) LIGHTLY MARK OTHER HOLES.
- c) ENSURE CORRECT ORIENTATION AND 2x TEMPORARY TACK TO BRACKET USING PRE-DRILL FRONT HOLES.
- d) FORM TO BRACKET SHAPE USING TRUNNION AND AXELTREE. USE BEND RADIUS .06”.
- e) 2x MATCH PRE-DRILL AND TEMPORARY TACK ENDS.
- f) CENTER AND DRILL MISSING HOLES .055” THRU CAPSQUARE ONLY.
- g) MATCH PRE-DRILL NAIL HOLES IN BRACKET NORMAL TO FORM.
- h) DISASSEMBLE.
- i) SEGREGATE CAPSQUARE, BRACKET AND TRAVERSING PLATE AS MATCH SETS.

18- FELLOE
- a) MASK HOLES.
- b) APPLY SURFACE FINISH.

19- WHEEL HUB
- a) MASK HOLES.
- b) APPLY SURFACE FINISH.
- c) LIGHTLY SAND THRU HOLE SMOOTH AND FREE RUNNING ON AXLETREE.

20- WHEEL SPOKE
- a) MASK ENDS.
- b) APPLY SURFACE FINISH.

21- TRUCK ASSEMBLY
- a) MAKE FIXTURE TO ASSEMBLE, CLAMP AND CURE.
- b) MOUNT HUB ON FIXTURE CENTER PIN.
- c) INSERT SPOKES PARTIALLY THROUGH HOLES IN FELLOE.
- d) DRY FIT, ADJUST AND PARTIALLY DISASSEMBLE.
- e) APPLY GLUE TO SPOKE ENDS.
- f) PUSH SPOKE THROUGH FELLOE INTO HUB HOLES.
- g) CLAMP AND LET CURE.
- h) FILE OFF ENDS OF SPOKES.

22- OUTER RING TIRE ASSEMBLY
- a) 12x LIGHTLY HEAT TAB BENDING LOCATION TO PREVENT CRACKING.
- b) BEND TABS FLAT AND SQUARE SIDE ONE.
- c) INSERT WHEEL ASSEMBLY.
- d) POSITION TABS APPROPRIATELY.
- e) BEND TABS SIDE TWO.
- f) MARK, CENTER AND DRILL .055” THRU TABS ONLY.
- g) MATCH PREDRILL NAIL HOLES IN FELLOE. DO NOT BREAK THRU.
- h) TEMPORARY TACK IN PLACE
- i) PEEN EDGES TO FILL WHEEL RIM (FELLOE) CHAMFER ALL AROUND BOTH SIDES.
- j) FILE SMOOTH ALL AROUND.
- k) APPLY ALL SURFACE FINISH.
- l) FINISH ASSEMBLY USING NAILS.

23- HUBCAP
24- LINCH PIN
- a) DO NOT BEND AT 45deg.

25- MAIN GUN ASSEMBLY
- a) PRESS FIT TRUNNION PINS WITH MAIN GUN.
- b) ALTERNATIVE MOUNTING METHODS: GLUE, BRASE OR WELD.

26- APPLY SURFACE FINISH
- a) LEFT AND RIGHT BRACKETS, HITCH, STOOL BED, AXELTREE.
- b) LIGHTLY SAND AXLETREE AXLES SHALL BE SMOOTH AND FREE RUNNING WITH WHEEL HUB.
- c) FINISH ALL PLATE SURFACES.

27- FINAL ASSEMBLY
- a) ASSEMBLE HITCH, STOOL BED AND AXELTREE USING #4 SCREWS.
- b) DRY FIT TRUCK ASSEMBLIES, HUBCAPS, LINCH PINS, CANNON ASSEMBLY, CAPSQUARE AND MAKE FINAL ADJUSTMENTS.
- c) PARTIALLY DISASSEMBLE.
- d) MOUNT CANNON ASSEMBLY AND NAIL CAPSQUARES INTO FINAL POSITION.
- e) PRE-DRILL AND NAIL ALL OTHER PLATES INTO FINAL POSITION.
- f) INSTALL TRUCKS, HUBCAPS AND LINCH PINS.
- g) BEND LINCH PIN INTO FINAL SHAPE

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TOLERANCES	
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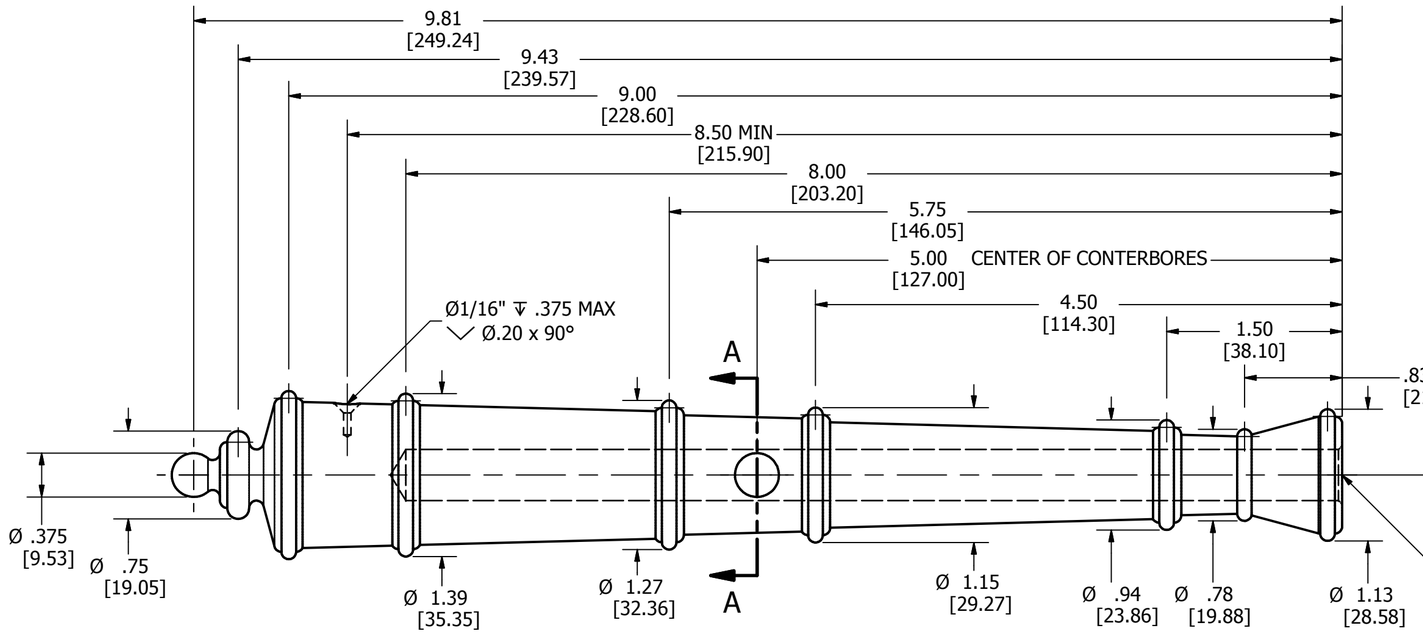
THIRD ANGLE PROJECTION

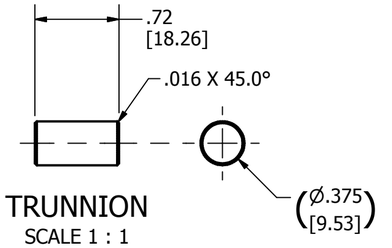
DRAWING UNITS
INCHES[MILLIMETERS]

Dimensioning and Tolerancing Document Practices in accordance with **ASME Y14.5M-1994**

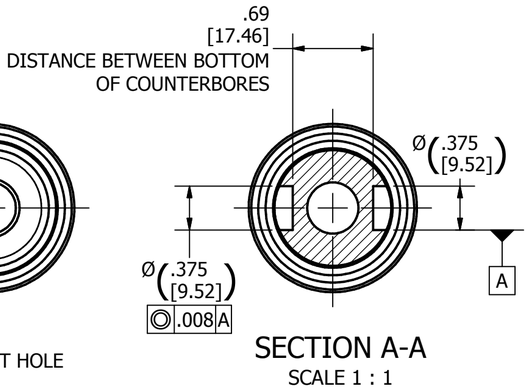
MANUFACTURING NOTES

SIZE	CAGEC	DWG NO.	REV
C		0053505-41494	-
SCALE		SHEET	4 of 10

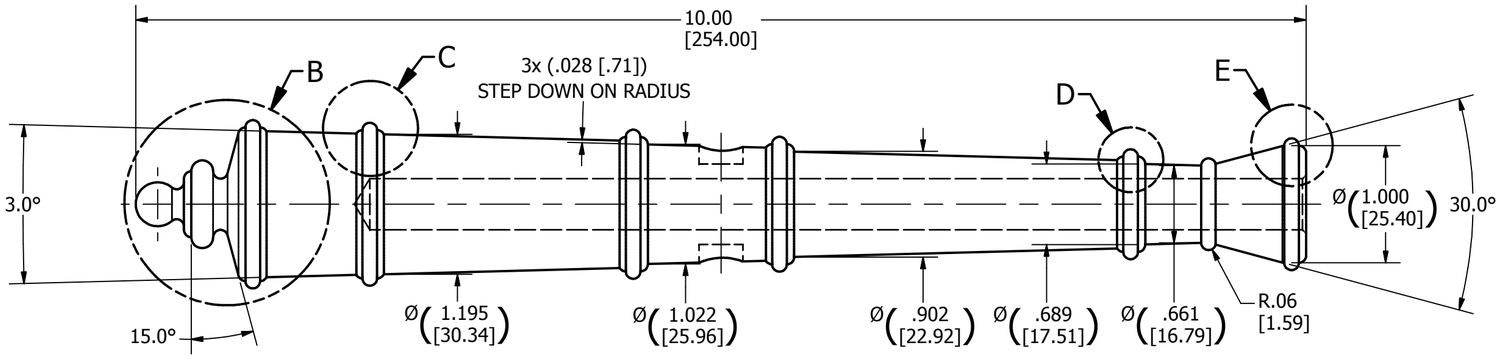




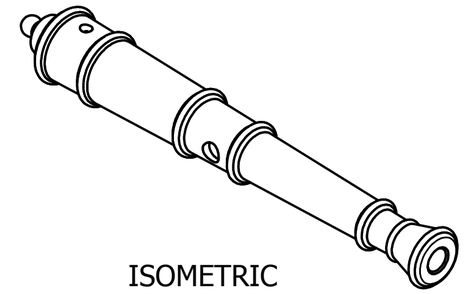
TRUNNION
SCALE 1 : 1



SECTION A-A
SCALE 1 : 1



MAIN GUN
SCALE 1 : 1



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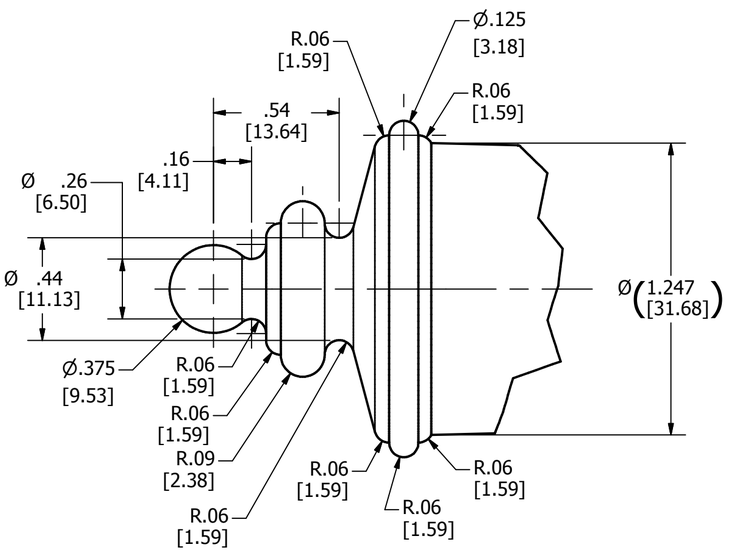
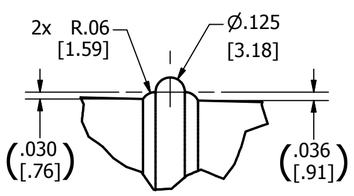
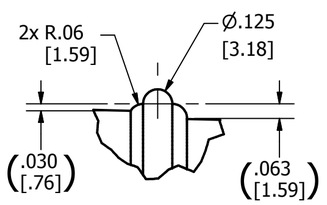


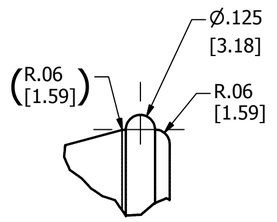
DETAIL B
SCALE 2 : 1



TAPER INLINE
1 PLACE
DETAIL C
SCALE 2 : 1



TAPER STEP DOWN
3 PLACES
DETAIL D
SCALE 2 : 1



DETAIL E
SCALE 2 : 1

NOTES:
- DIMENSIONS IN PARENTHESES ARE REFERENCE ONLY

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THIRD ANGLE PROJECTION

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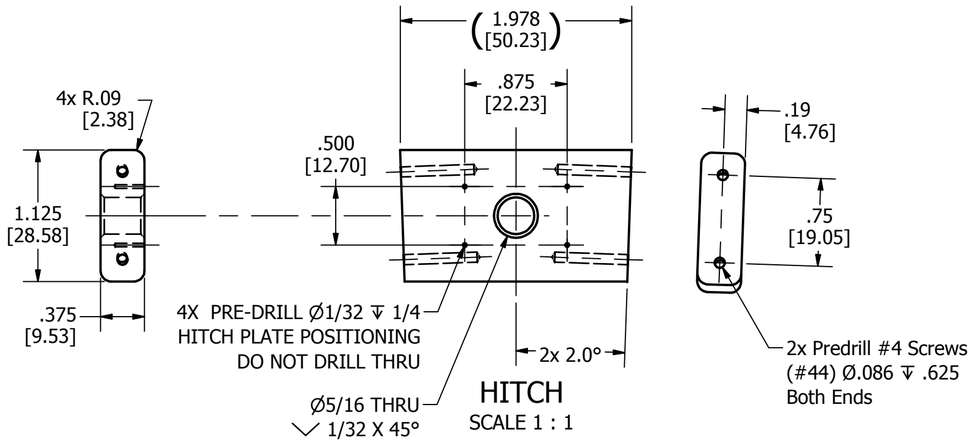
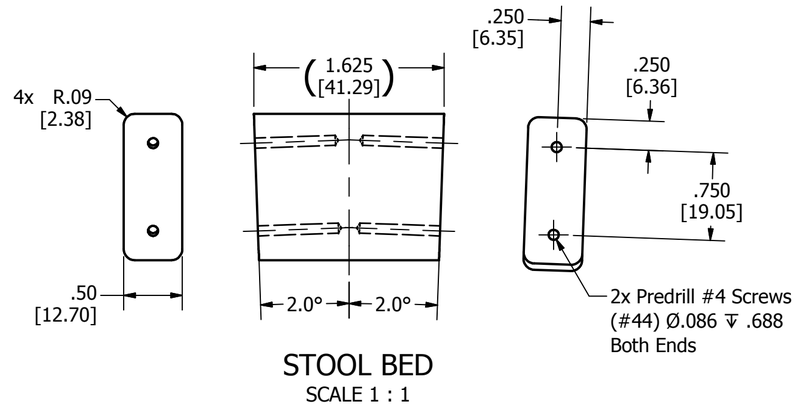
MAIN GUN, TRUNNION

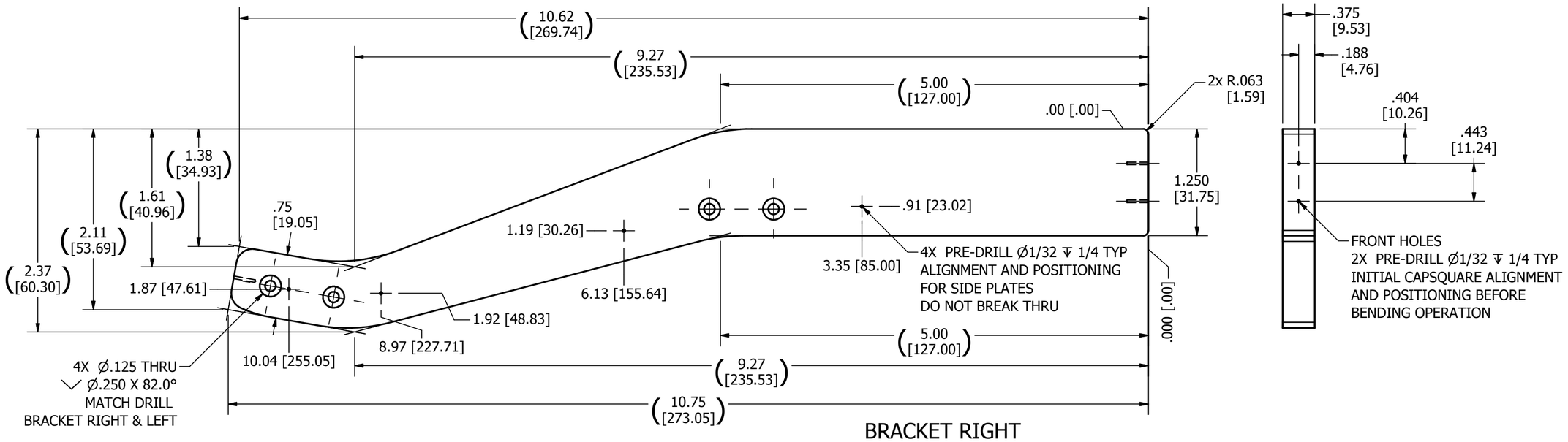
SIZE	CAGEC	DWG NO.	REV
C		0053505-41494	-
SCALE		SHEET	5 of 10



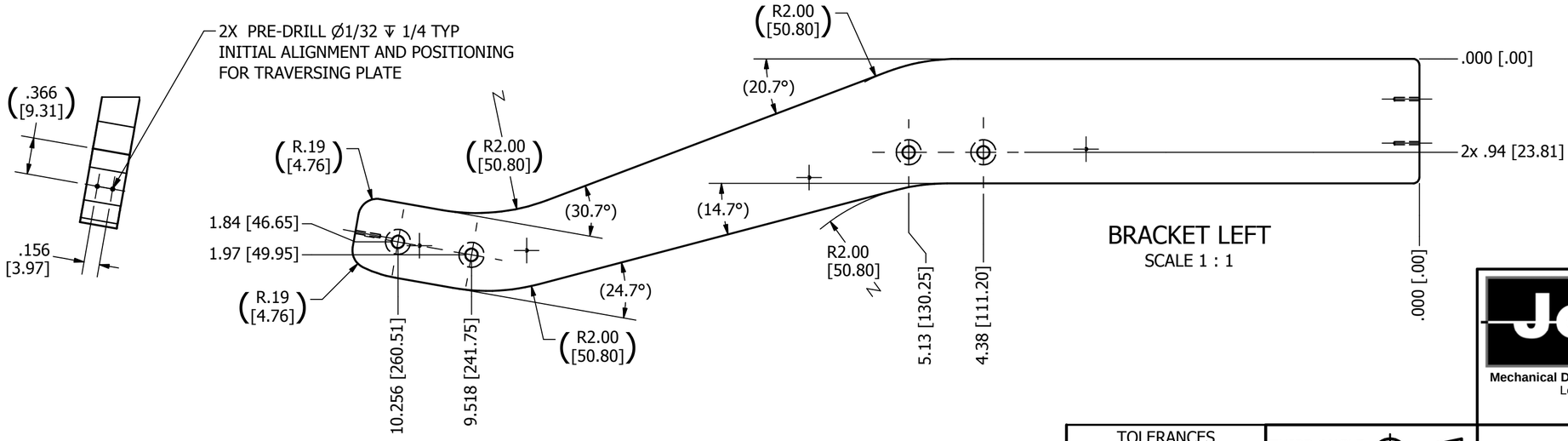
HITCH
SCALE 1 : 1



STOOL BED
SCALE 1 : 1



BRACKET RIGHT
SCALE 1 : 1



BRACKET LEFT
SCALE 1 : 1

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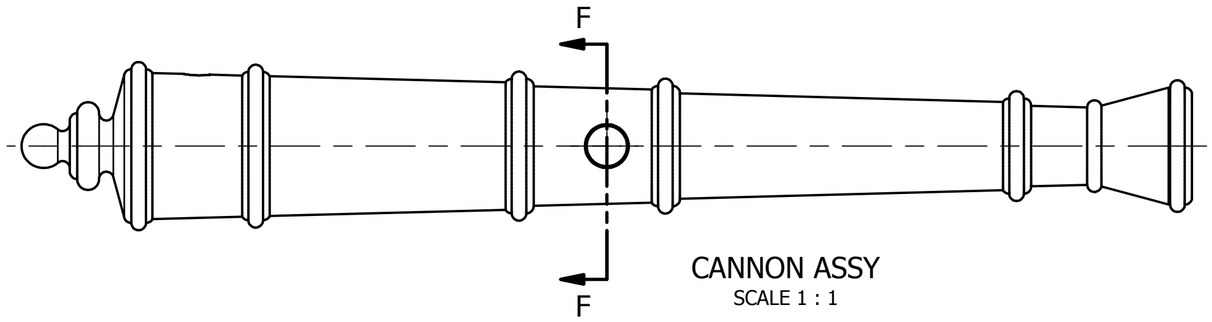
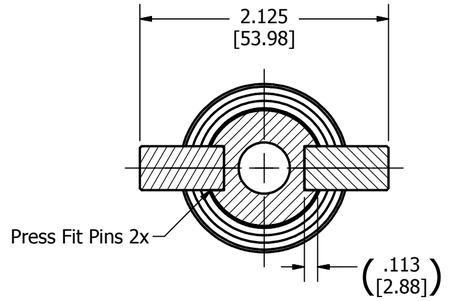
BRACKET RIGHT, BRACKET LEFT, HITCH, STOOL BED

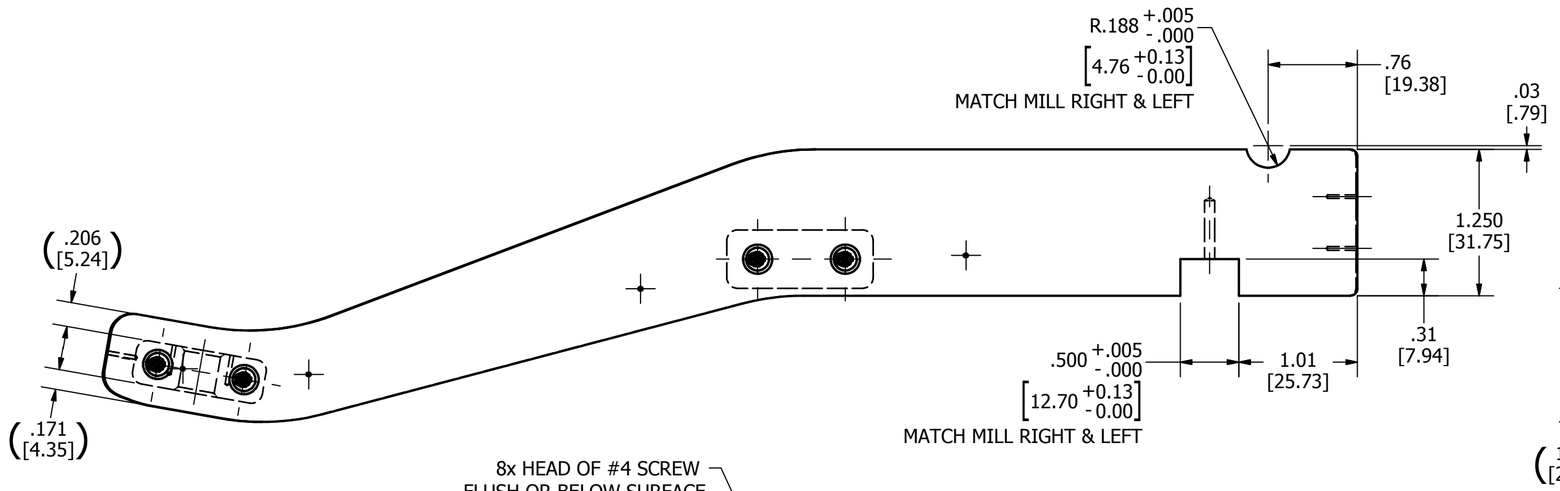
SIZE	CAGEC	DWG NO.	REV
C		0053505-41494	-
SCALE		SHEET	6 of 10

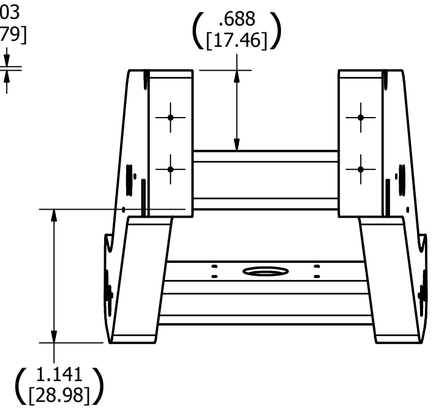


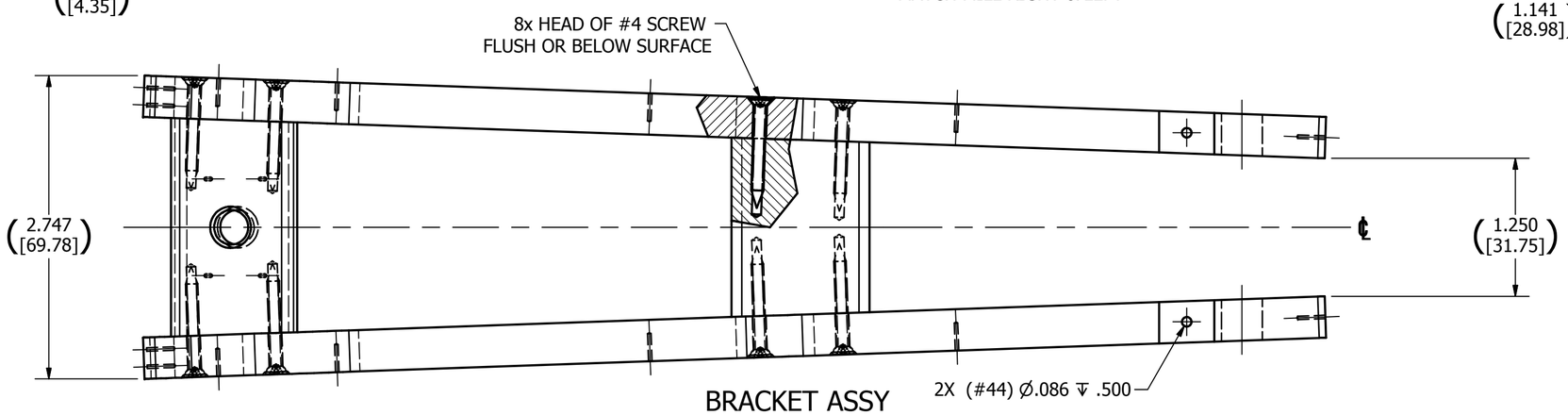
CANNON ASSY
SCALE 1 : 1



SECTION F-F
SCALE 1 : 1







BRACKET ASSY
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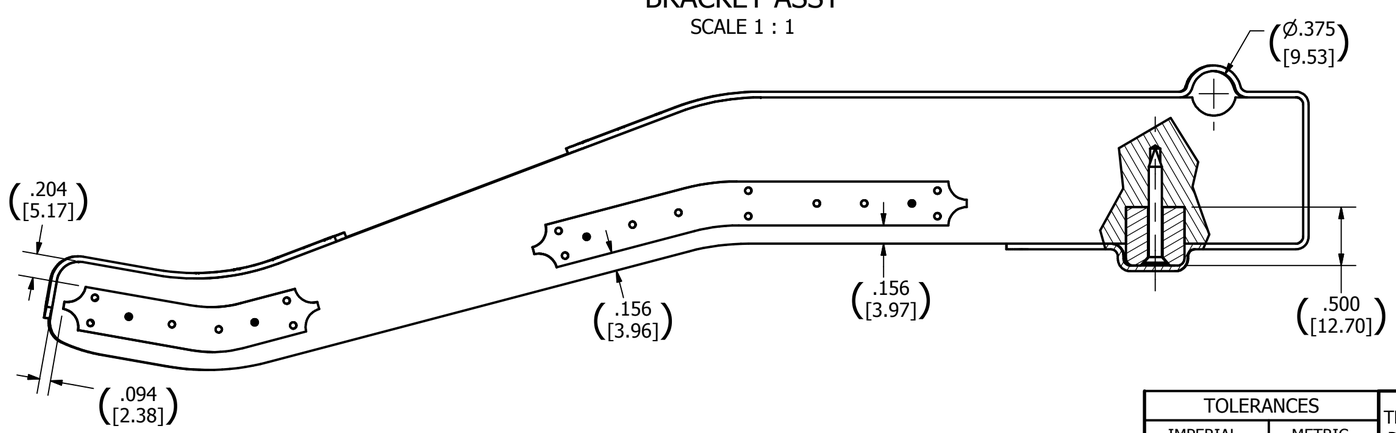

NOTE:
- ALL NAIL POSITIONS MUST BE PRE-DRILLED Ø1/32 TO PREVENT WOOD FROM SPLITTING. (DO NOT DRILL THRU)

TOLERANCES	
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X.X:±.015	X.X:±
X.XX:±.010	X.XX:±
X.XXX:±.005	X.XXX:±
X.XXXX:±	
ANGULAR: ±1°	

THIRD ANGLE PROJECTION

DRAWING UNITS
INCHES[MILLIMETERS]

Dimensioning and Tolerancing Document Practices in accordance with **ASME Y14.5M-1994**

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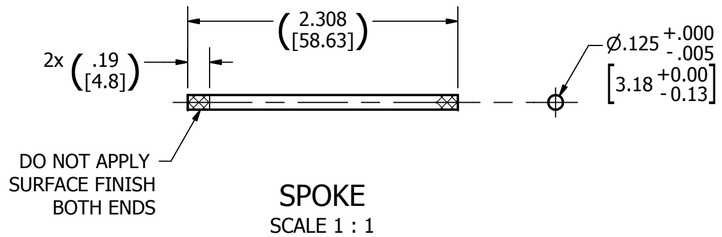
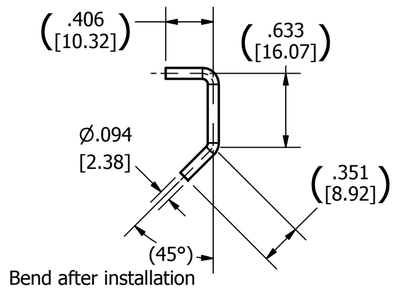
Canada, J7T 1A5
JolyConcept.com
Tel:
Fax:
Email: info@JolyConcept.com

CANNON ASSY, FRAME ASSY

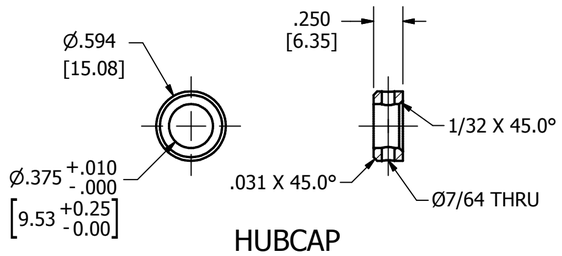
SIZE	CAGEC	DWG NO.	REV
C		0053505-41494	-
SCALE 1 : 1			SHEET 7 of 10



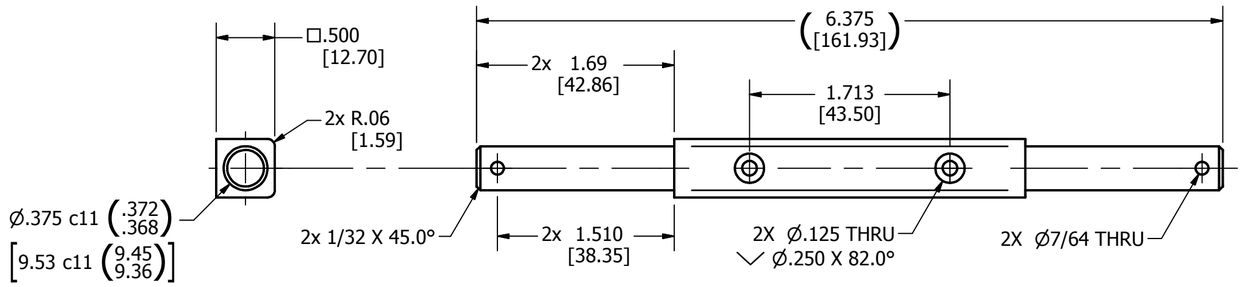
SPOKE
SCALE 1 : 1



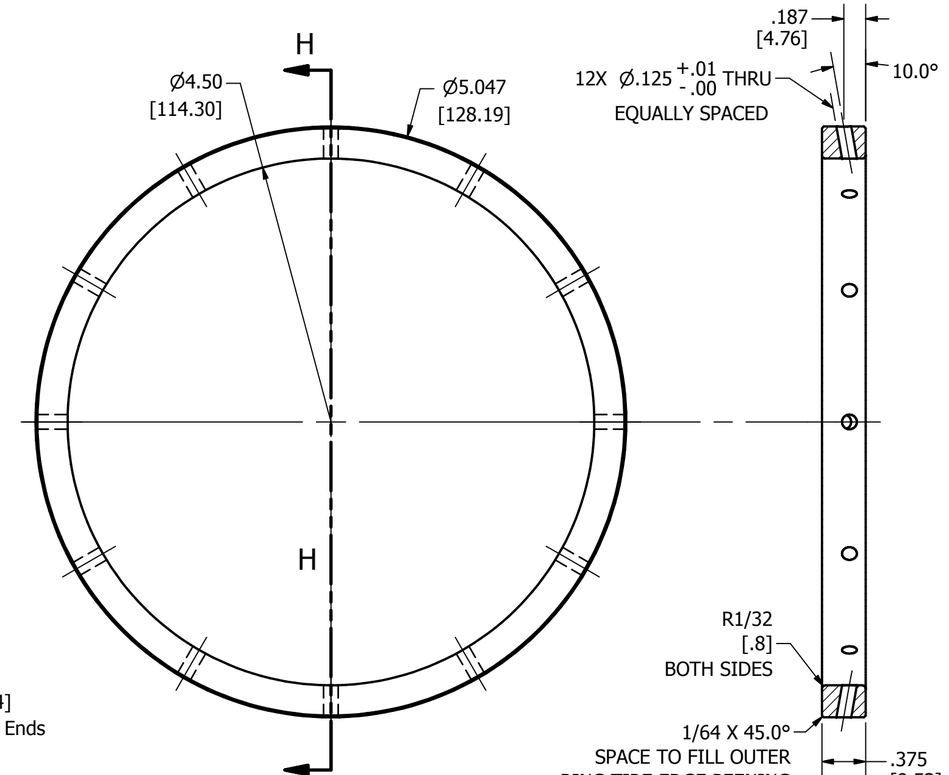
LINCH PIN
SCALE 1 : 1
Approximate length before bending: 1-7/16 [36.5]



HUBCAP
SCALE 1 : 1

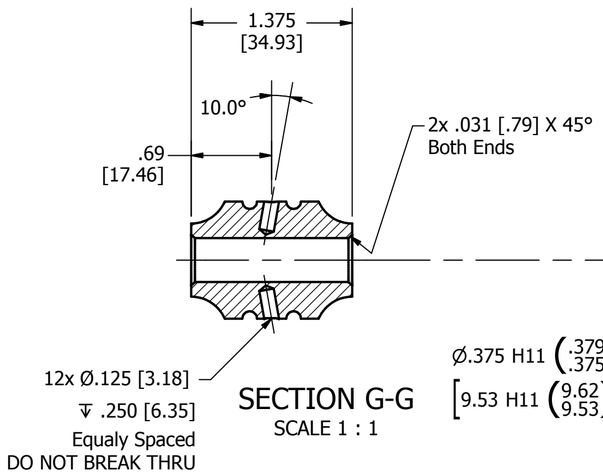


AXELTREE
SCALE 1 : 1

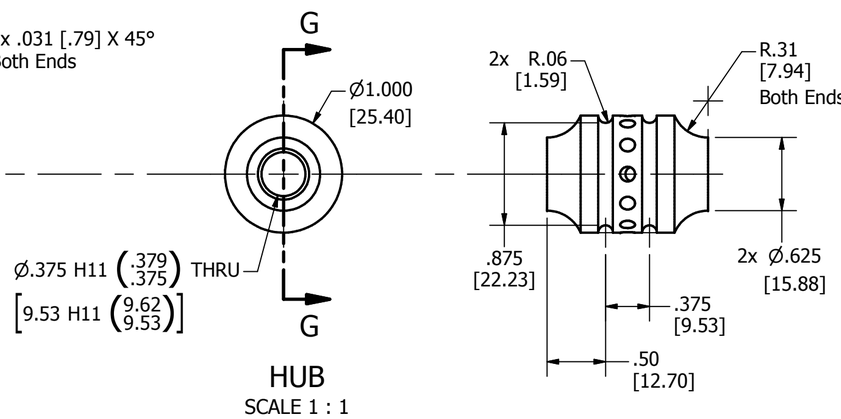


FELLOE
SCALE 1 : 1

SECTION H-H
SCALE 1 : 1



SECTION G-G
SCALE 1 : 1



HUB
SCALE 1 : 1

TOLERANCES	
IMPERIAL	METRIC
FRAC:±1/64	
X.:±.015	X.:±
X.X:±.015	X.X:±
X.XX:±.010	X.XX:±
X.XXX:±.005	X.XXX:±
X.XXXX:±	
ANGULAR: ±1°	

THIRD ANGLE PROJECTION

DRAWING UNITS
INCHES[MILLIMETERS]

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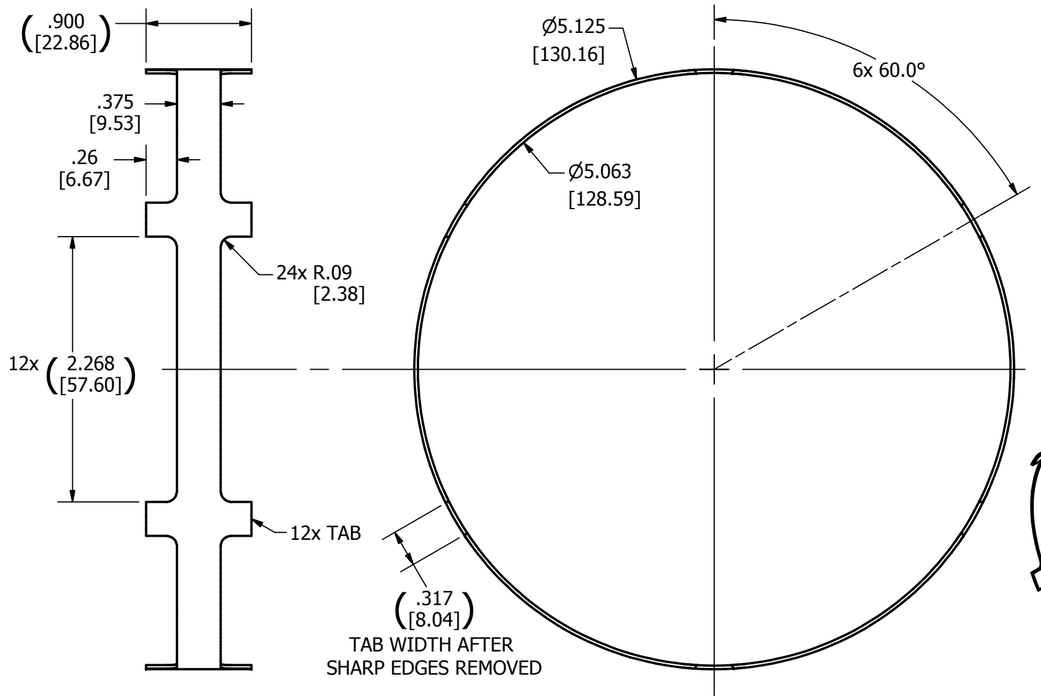
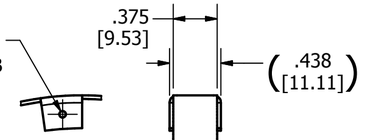
AXEL, HUB, HUBCAP, SPOKE, WHEEL RIM, TIRE, LINCH PIN

SIZE	CAGEC	DWG NO.	REV
C		0053505-41494	-
SCALE		SHEET	8 of 10



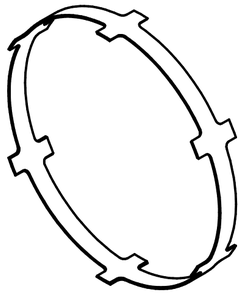
Outer ring Tire machining
before bending for reference only

SCALE 1 : 1



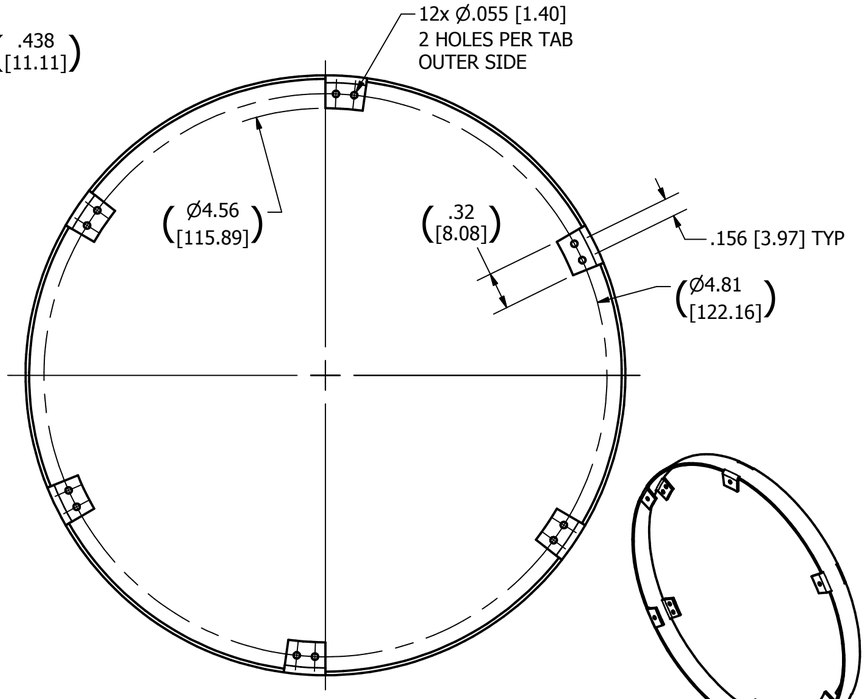
OUTER RING TIRE

SCALE 1 : 1



ISOMETRIC

SCALE 1 : 2

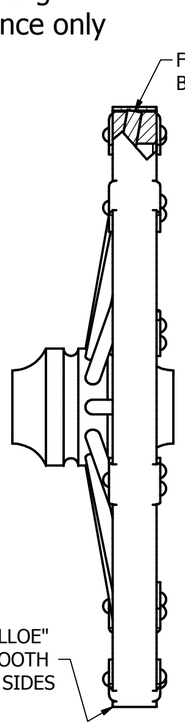


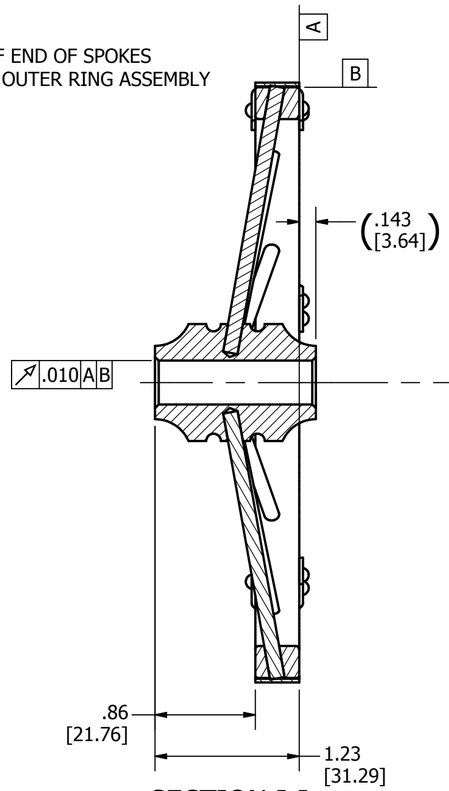
Outer ring Tire after bending operation
Wheel rim "FELLOE" **excluded**
for **reference only**

SCALE 1 : 1

ISOMETRIC

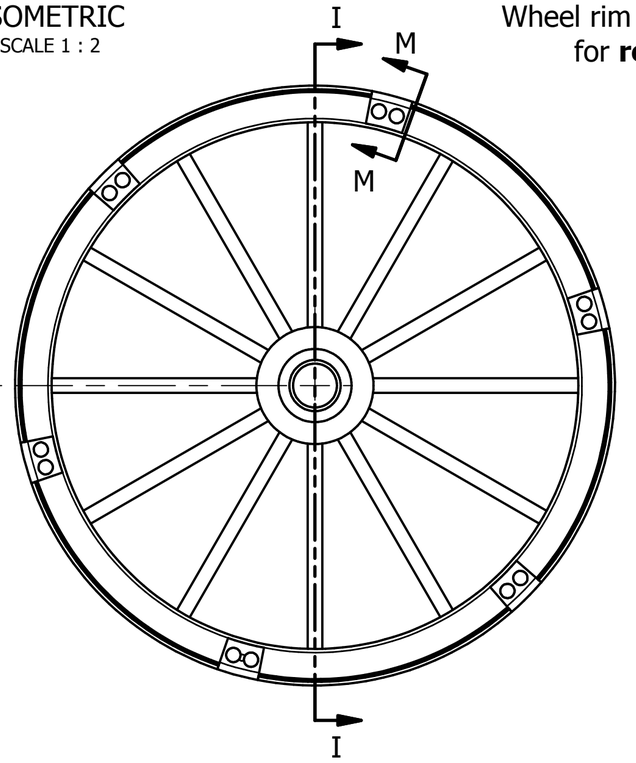
SCALE 1 : 2





SECTION I-I

SCALE 1 : 1



TRUCK ASSY

SCALE 1 : 1

NAIL DETAIL
DO NOT BREAK THRU

SECTION M-M

SCALE 1 : 1

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TOLERANCES	
IMPERIAL	METRIC
FRAC:±1/64	
X.:±.015	X.:±
X.X:±.015	X.X:±
X.XX:±.010	X.XX:±
X.XXX:±.005	X.XXX:±
X.XXXX:±	
ANGULAR: ±1°	

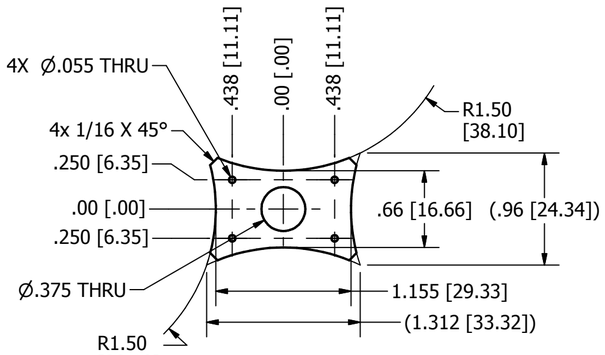
THIRD ANGLE PROJECTION

DRAWING UNITS
INCHES[MILLIMETERS]

Dimensioning and Tolerancing Document Practices in accordance with **ASME Y14.5M-1994**

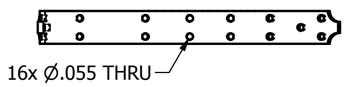
WHEEL ASSY

SIZE	CAGEC	DWG NO.	REV
C		0053505-41494	-
SCALE		SHEET	9 of 10



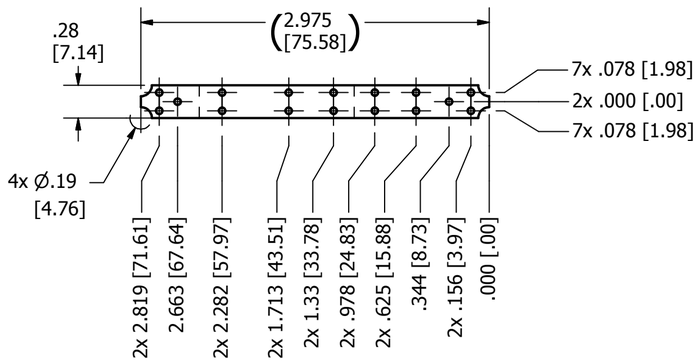
HITCH PLATE

PL .047 [1.20] thk
SCALE 1 : 1



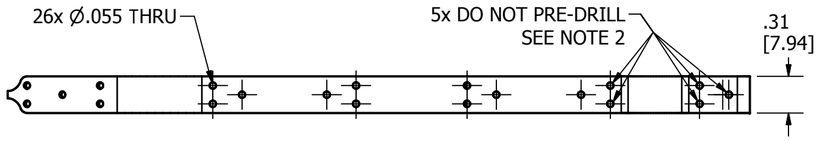
TRAVERSING PLATE

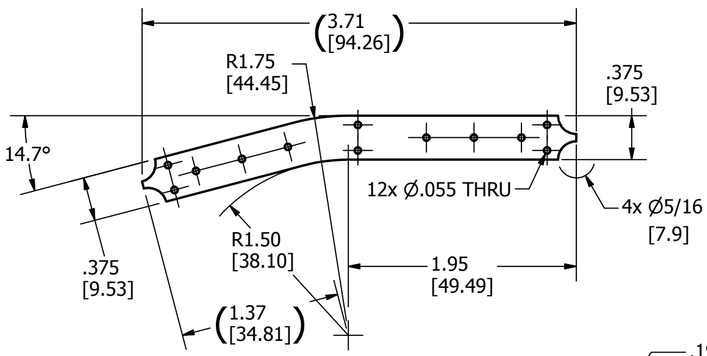
PL .047 [1.20] thk
SCALE 1 : 1

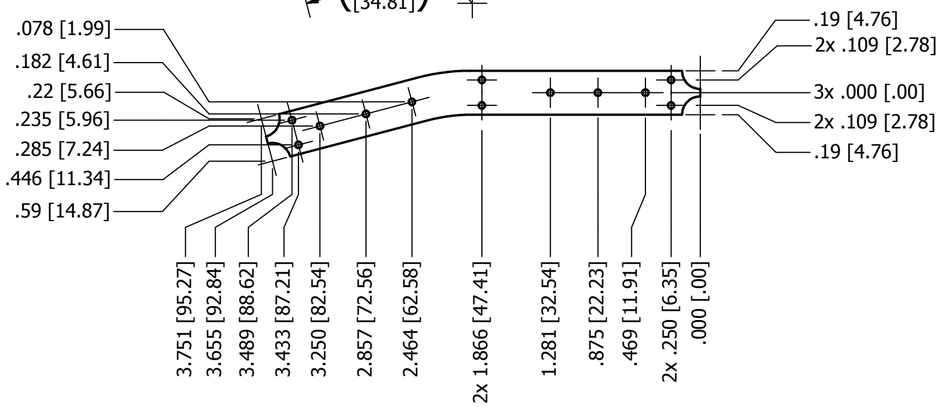


TRAVERSING PLATE

UNFOLDED
SCALE 1 : 1

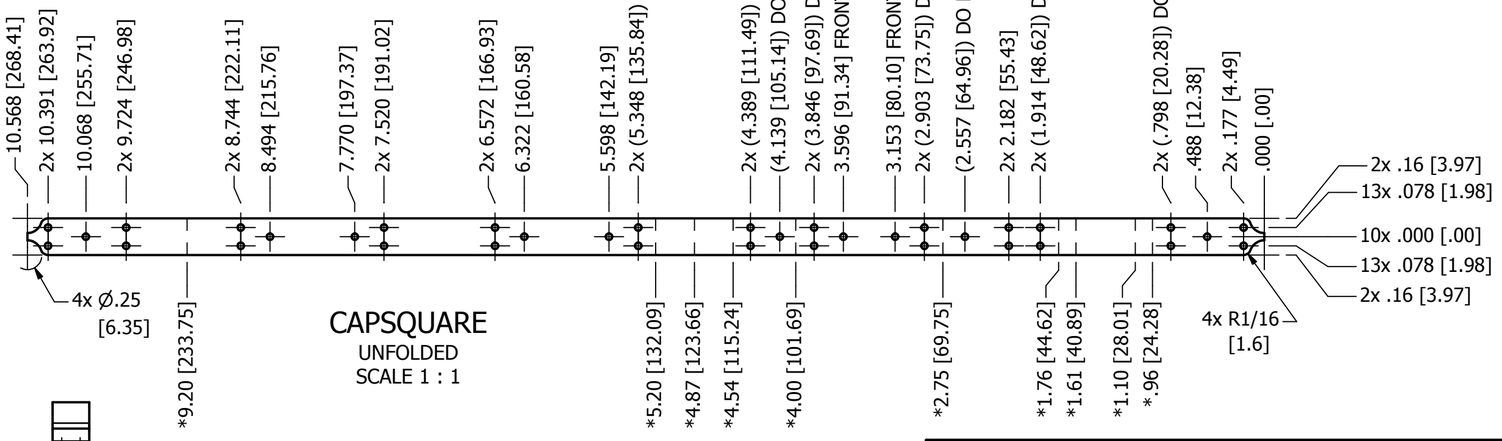






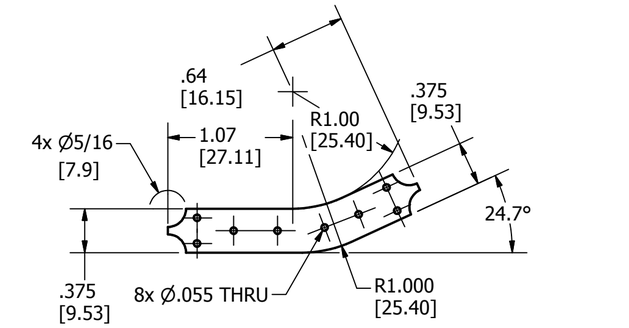
STOOL BED SIDE PLATE

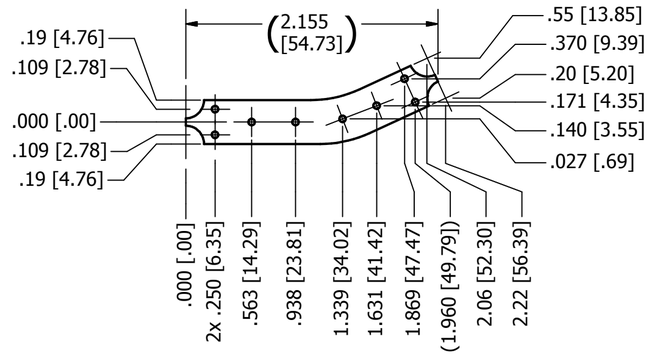
PL .047 [1.20] thk
SCALE 1 : 1



CAPSQUARE

UNFOLDED
SCALE 1 : 1



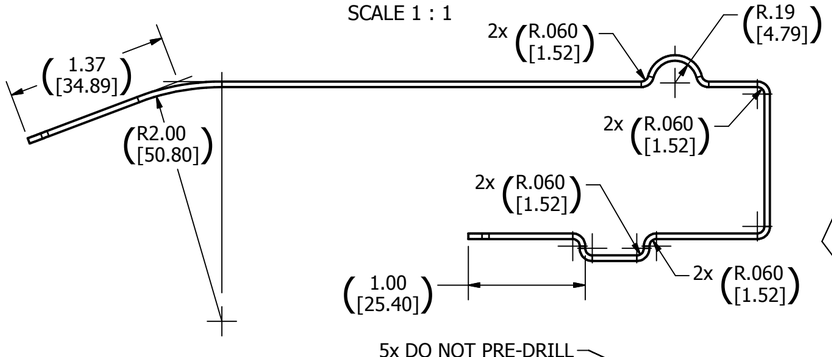


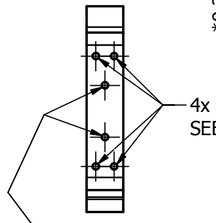
HITCH SIDE PLATE

PL .047 [1.20] thk
SCALE 1 : 1

CAPSQUARE

PL .047 [1.20] thk
SCALE 1 : 1





NOTES:
1- * APROXIMATE BEND LINE LOCATIONS 10x
2- DO NOT PRE-DRILL THESE LOCATION TO PREVENT KINKING AT BENDING OPERATION. MARK ONLY

TOLERANCES	
IMPERIAL	METRIC
FRAC:±1/64	
X.:±.015	X.:±
X.X:±.015	X.X:±
X.XX:±.010	X.XX:±
X.XXX:±.005	X.XXX:±
X.XXXX:±	
ANGULAR: ±1°	

THIRD ANGLE PROJECTION

DRAWING UNITS
INCHES[MILLIMETERS]

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TRAVERSING, STOOL BED, HITCH, HITCH PLATE, SIDE PLATES, CAPSQUARE

SIZE	CAGEC	DWG NO.	REV
C		0053505-41494	-
SCALE			SHEET 10 of 10