



RAILROAD PRODUCTS

235 COMMERCE DRIVE | SOUTH POINT, OH USA | (740)-377-3354 | WWW.XCALTOOLS.COM

Please Note: Contents of JENNMAR publications are provided for informational purposes only. Nominal values for technical data are provided. For site specific product information, contact your JENNMAR sales representative. While every effort has been made to ensure accuracy of these publications, they are not to be construed as warranties or guarantees, express or implied, regarding the products or services described herein or their use or applicability. All sales are governed by JENNMAR terms and conditions. We reserve the right to modify or improve the designs or specifications of such products at any time without notice. Not all products available in all areas. Technical data and information provided herein shall be considered non-binding and may be subject to change without notice. We do not assume any liability for losses or damages attributed to the use of this technical data and any improper use of our products. Should you require further information on particular products, please do not hesitate to contact us.

© 2021 JENNMAR, All Rights Reserved.



This catalog contains tabulated drawings of the basic railroad products currently furnished by XCAL TOOLS including:

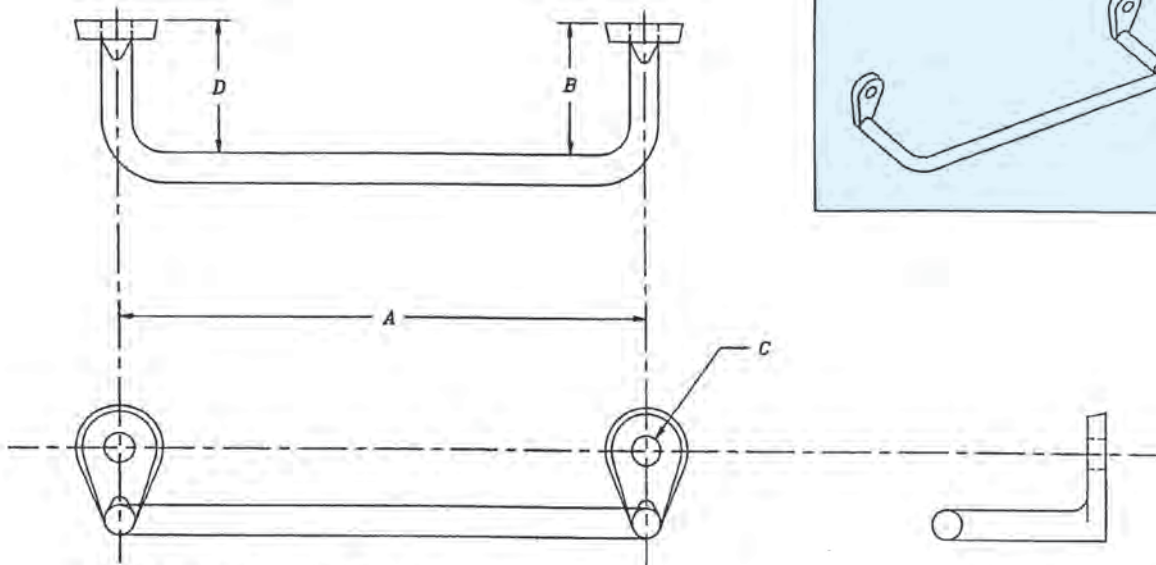
- **Hand Holds • Center Pins • Sill Steps**
- **Ladders • Release Rods • Door Bars**

Your exact requirements may be ordered by inserting the variable dimensions on the appropriate drawing and faxing it to us at (740) 377-3363.

Once your requirements are known, we will assign a part number to establish a permanent cross file index for future reference.

If you need a part not contained in this catalog, we can custom manufacture whatever you need. Just give us a call and put our extensive forging experience to work for you.

Call Customer Service at:
(740) 377-3354



TOLERANCES: UNLESS OTHERWISE NOTED
 DIM $\pm 1/16$ " ANG $\pm 1^\circ$ HOLE DIM $\pm 1/32$ "
 HOT FORM 1600° - 1800° F
 NO GOUGES, NICKS, OR CRACKS ALLOWED
 REMOVE ALL LOOSE SCALE AND SHARP EDGES OR FINS

MATERIAL: 3/4" ROUND IRON ASTM A-576 GRADE 1015-1020

REVISIONS		
NO.	PREVIOUSLY	DATE
1		
2		
3		
4		
5		

XCALTOOLS

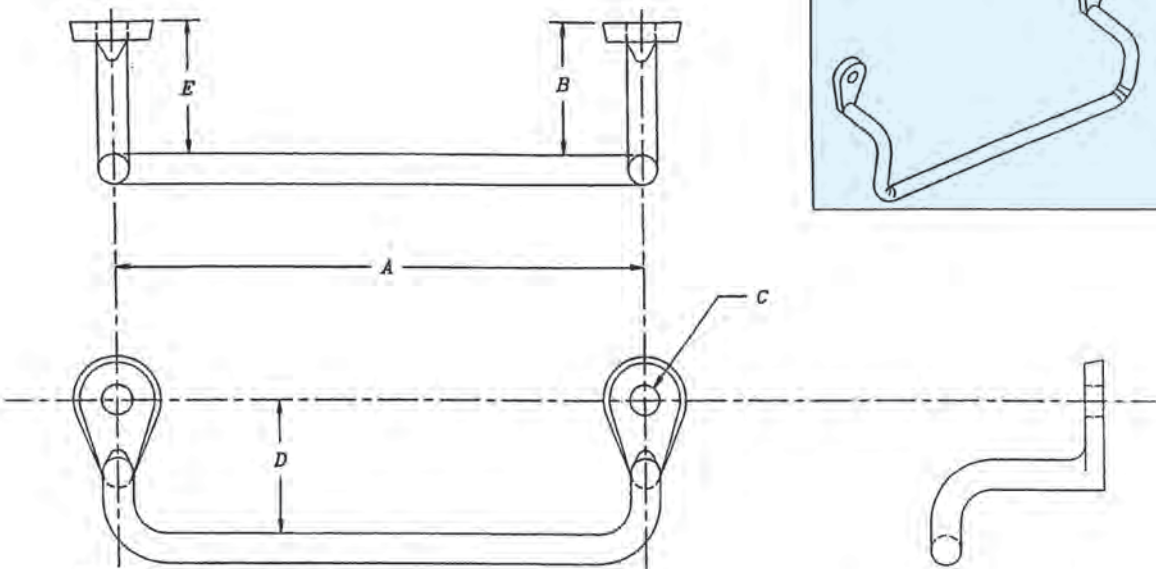
235 COMMERCE DR., SOUTH POINT, OH
 P: 740-377-3354 • F: 740-377-3363

DRAWN BY CT CHK'D DATE

PART NAME PART NUMBER

HANDHOLD HH-101-MC

A B C D E F G H I J K



TOLERANCES: UNLESS OTHERWISE NOTED
 DIM $\pm 1/16$ " ANG $\pm 1^\circ$ HOLE DIM $\pm 1/32$ "
 HOT FORM 1600° - 1800° F
 NO GOUGES, NICKS, OR CRACKS ALLOWED
 REMOVE ALL LOOSE SCALE AND SHARP EDGES OR FINS

MATERIAL: 3/4" ROUND IRON ASTM A-576 GRADE 1015-1020

REVISIONS		
NO.	PREVIOUSLY	DATE
1		
2		
3		
4		
5		

XCALTOOLS

235 COMMERCE DR., SOUTH POINT, OH
 P: 740-377-3354 • F: 740-377-3363

DRAWN BY CT CHK'D DATE

PART NAME PART NUMBER

HANDHOLD HH-102-MC

A B C D E F G H I J K

TOLERANCES: UNLESS OTHERWISE NOTED
 DIM $\pm 1/16"$ ANG $\pm 1^\circ$ HOLE DIM $\pm 1/32"$
 HOT FORM 1600° - 1800° F
 NO GOUGES, NICKS, OR CRACKS ALLOWED
 REMOVE ALL LOOSE SCALE AND SHARP EDGES OR FINIS

MATERIAL: 3/4" ROUND IRON ASTM A-576 GRADE 1015-1020

REVISIONS				
NO.	PREVIOUSLY	DATE		
1				
2				
3				
4				

A													B													C													D													E													F													G													H													I													J													K													L												
---	--	--	--	--	--	--	--	--	--	--	--	--	---	--	--	--	--	--	--	--	--	--	--	--	--	---	--	--	--	--	--	--	--	--	--	--	--	--	---	--	--	--	--	--	--	--	--	--	--	--	--	---	--	--	--	--	--	--	--	--	--	--	--	--	---	--	--	--	--	--	--	--	--	--	--	--	--	---	--	--	--	--	--	--	--	--	--	--	--	--	---	--	--	--	--	--	--	--	--	--	--	--	--	---	--	--	--	--	--	--	--	--	--	--	--	--	---	--	--	--	--	--	--	--	--	--	--	--	--	---	--	--	--	--	--	--	--	--	--	--	--	--	---	--	--	--	--	--	--	--	--	--	--	--	--

XCALTOOLS

235 COMMERCE DR., SOUTH POINT, OH
 P: 740-377-3354 • F: 740-377-3363

DRAWN BY *GT* CHK'D DATE

PART NAME PART NUMBER

HANDHOLD HH-103-MC

TOLERANCES: UNLESS OTHERWISE NOTED
 DIM $\pm 1/16"$ ANG $\pm 1^\circ$ HOLE DIM $\pm 1/32"$
 HOT FORM 1600° - 1800° F
 NO GOUGES, NICKS, OR CRACKS ALLOWED
 REMOVE ALL LOOSE SCALE AND SHARP EDGES OR FINIS

MATERIAL: 3/4" ROUND IRON ASTM A-576 GRADE 1015-1020

REVISIONS				
NO.	PREVIOUSLY	DATE		
1				
2				
3				
4				

A													B													C													D													E													F													G													H													I													J													K													L												
---	--	--	--	--	--	--	--	--	--	--	--	--	---	--	--	--	--	--	--	--	--	--	--	--	--	---	--	--	--	--	--	--	--	--	--	--	--	--	---	--	--	--	--	--	--	--	--	--	--	--	--	---	--	--	--	--	--	--	--	--	--	--	--	--	---	--	--	--	--	--	--	--	--	--	--	--	--	---	--	--	--	--	--	--	--	--	--	--	--	--	---	--	--	--	--	--	--	--	--	--	--	--	--	---	--	--	--	--	--	--	--	--	--	--	--	--	---	--	--	--	--	--	--	--	--	--	--	--	--	---	--	--	--	--	--	--	--	--	--	--	--	--	---	--	--	--	--	--	--	--	--	--	--	--	--

XCALTOOLS

235 COMMERCE DR., SOUTH POINT, OH
 P: 740-377-3354 • F: 740-377-3363

DRAWN BY *GT* CHK'D DATE

PART NAME PART NUMBER

HANDHOLD HH-104-MC

TOLERANCES: UNLESS OTHERWISE NOTED
 DIM $\pm 1/16"$ ANG $\pm 1^\circ$ HOLE DIM $\pm 1/32"$
 HOT FORM 1600° - 1800° F
 NO GOUGES, NICKS, OR CRACKS ALLOWED
 REMOVE ALL LOOSE SCALE AND SHARP EDGES OR FINIS

MATERIAL: 3/4" ROUND IRON ASTM A-576 GRADE 1015-1020

													REVISIONS			 235 COMMERCE DR., SOUTH POINT, OH P: 740-377-3354 • F: 740-377-3363					
													NO.	PREVIOUSLY	DATE						
													1								
													2								
													3								
													4								
A	B	C	D	E	F	G	H	I	J	K	L	M				DRAWN BY	CT	CHK'D	DATE		
																PART NAME			PART NUMBER		
																HANDHOLD			HH-105-MC		

MATERIAL: 3/4" ROUND IRON ASTM A-576 GRADE 1015-1020

													REVISIONS			 235 COMMERCE DR., SOUTH POINT, OH P: 740-377-3354 • F: 740-377-3363					
													NO.	PREVIOUSLY	DATE						
													1								
													2								
													3								
													4								
A	B	C	D	E	F	G	H	I	J	K	L	M				DRAWN BY	CT	CHK'D	DATE		
																PART NAME			PART NUMBER		
																HANDHOLD			HH-106-MC		

TOLERANCES: UNLESS OTHERWISE NOTED
 DIM $\pm 1/16"$ ANG $\pm 1^\circ$ HOLE DIM $\pm 1/32"$
 HOT FORM 1600° - 1800° F
 NO COUGES, NICKS, OR CRACKS ALLOWED
 REMOVE ALL LOOSE SCALE AND SHARP EDGES OR FINS

MATERIAL: 3/4" ROUND IRON ASTM A-576 GRADE 1015-1020

REVISIONS												
NO.	PREVIOUSLY	DATE										
1												
2												
3												
4												
5												

A													B													C													D													E													F													G													H													I													J													K													L												
---	--	--	--	--	--	--	--	--	--	--	--	--	---	--	--	--	--	--	--	--	--	--	--	--	--	---	--	--	--	--	--	--	--	--	--	--	--	--	---	--	--	--	--	--	--	--	--	--	--	--	--	---	--	--	--	--	--	--	--	--	--	--	--	--	---	--	--	--	--	--	--	--	--	--	--	--	--	---	--	--	--	--	--	--	--	--	--	--	--	--	---	--	--	--	--	--	--	--	--	--	--	--	--	---	--	--	--	--	--	--	--	--	--	--	--	--	---	--	--	--	--	--	--	--	--	--	--	--	--	---	--	--	--	--	--	--	--	--	--	--	--	--	---	--	--	--	--	--	--	--	--	--	--	--	--

235 COMMERCE DR., SOUTH POINT, OH
 P: 740-377-3354 • F: 740-377-3363

DRAWN BY	CT	CHK'D	DATE
PART NAME		PART NUMBER	
HANDHOLD		HH-107-MC	

TOLERANCES: UNLESS OTHERWISE NOTED
 DIM $\pm 1/16"$ ANG $\pm 1^\circ$ HOLE DIM $\pm 1/32"$
 HOT FORM 1600° - 1800° F
 NO COUGES, NICKS, OR CRACKS ALLOWED
 REMOVE ALL LOOSE SCALE AND SHARP EDGES OR FINS

MATERIAL: 3/4" ROUND IRON ASTM A-576 GRADE 1015-1020

REVISIONS												
NO.	PREVIOUSLY	DATE										
1												
2												
3												
4												
5												

A													B													C													D													E													F													G													H													I													J													K													L												
---	--	--	--	--	--	--	--	--	--	--	--	--	---	--	--	--	--	--	--	--	--	--	--	--	--	---	--	--	--	--	--	--	--	--	--	--	--	--	---	--	--	--	--	--	--	--	--	--	--	--	--	---	--	--	--	--	--	--	--	--	--	--	--	--	---	--	--	--	--	--	--	--	--	--	--	--	--	---	--	--	--	--	--	--	--	--	--	--	--	--	---	--	--	--	--	--	--	--	--	--	--	--	--	---	--	--	--	--	--	--	--	--	--	--	--	--	---	--	--	--	--	--	--	--	--	--	--	--	--	---	--	--	--	--	--	--	--	--	--	--	--	--	---	--	--	--	--	--	--	--	--	--	--	--	--

235 COMMERCE DR., SOUTH POINT, OH
 P: 740-377-3354 • F: 740-377-3363

DRAWN BY	CT	CHK'D	DATE
PART NAME		PART NUMBER	
HANDHOLD		HH-108-MC	

TOLERANCES: UNLESS OTHERWISE NOTED
 DIM $\pm 1/16"$ ANG $\pm 1^\circ$ HOLE DIM $\pm 1/32"$
 HOT FORM 1600° - 1800° F
 NO GOUGES, NICKS, OR CRACKS ALLOWED
 REMOVE ALL LOOSE SCALE AND SHARP EDGES OR FINS

MATERIAL: 3/4" ROUND IRON ASTM A-576 GRADE 1015-1020

REVISIONS				
NO.	PREVIOUSLY	DATE		
1				
2				
3				
4				
5				

		235 COMMERCE DR., SOUTH POINT, OH P: 740-377-3354 • F: 740-377-3363	
		DRAWN BY CT	CHK'D
PART NAME HANDHOLD		PART NUMBER HH-109-MC	

MATERIAL: 3/4" ROUND IRON ASTM A-576 GRADE 1015-1020

REVISIONS				
NO.	PREVIOUSLY	DATE		
1				
2				
3				
4				
5				

		235 COMMERCE DR., SOUTH POINT, OH P: 740-377-3354 • F: 740-377-3363	
		DRAWN BY CT	CHK'D
PART NAME HANDHOLD		PART NUMBER HH-110-MC	

TOLERANCES: UNLESS OTHERWISE NOTED
 DIM $\pm 1/16"$ ANG $\pm 1^\circ$ HOLE DIM $\pm 1/32"$
 HOT FORM 1600° - 1800° F
 NO GOUGES, NICKS, OR CRACKS ALLOWED
 REMOVE ALL LOOSE SCALE AND SHARP EDGES OR FINS

MATERIAL: 3/4" ROUND IRON ASTM A-576 GRADE 1015-1020

REVISIONS												
NO.	PREVIOUSLY	DATE										
1												
2												
3												
4												
5												

A													B													C													D													E													F													G													H													I													J													K												
---	--	--	--	--	--	--	--	--	--	--	--	--	---	--	--	--	--	--	--	--	--	--	--	--	--	---	--	--	--	--	--	--	--	--	--	--	--	--	---	--	--	--	--	--	--	--	--	--	--	--	--	---	--	--	--	--	--	--	--	--	--	--	--	--	---	--	--	--	--	--	--	--	--	--	--	--	--	---	--	--	--	--	--	--	--	--	--	--	--	--	---	--	--	--	--	--	--	--	--	--	--	--	--	---	--	--	--	--	--	--	--	--	--	--	--	--	---	--	--	--	--	--	--	--	--	--	--	--	--	---	--	--	--	--	--	--	--	--	--	--	--	--

XCALTOOLS
 235 COMMERCE DR., SOUTH POINT, OH
 P: 740-377-3354 • F: 740-377-3363

DRAWN BY GT CHK'D DATE

PART NAME PART NUMBER

HANDHOLD **HH-111-MC**

TOLERANCES: UNLESS OTHERWISE NOTED
 DIM $\pm 1/16"$ ANG $\pm 1^\circ$ HOLE DIM $\pm 1/32"$
 HOT FORM 1600° - 1800° F
 NO GOUGES, NICKS, OR CRACKS ALLOWED
 REMOVE ALL LOOSE SCALE AND SHARP EDGES OR FINS

MATERIAL: 3/4" ROUND IRON ASTM A-576 GRADE 1015-1020

REVISIONS												
NO.	PREVIOUSLY	DATE										
1												
2												
3												
4												

A													B													C													D													E													F													G													H													I													J													K												
---	--	--	--	--	--	--	--	--	--	--	--	--	---	--	--	--	--	--	--	--	--	--	--	--	--	---	--	--	--	--	--	--	--	--	--	--	--	--	---	--	--	--	--	--	--	--	--	--	--	--	--	---	--	--	--	--	--	--	--	--	--	--	--	--	---	--	--	--	--	--	--	--	--	--	--	--	--	---	--	--	--	--	--	--	--	--	--	--	--	--	---	--	--	--	--	--	--	--	--	--	--	--	--	---	--	--	--	--	--	--	--	--	--	--	--	--	---	--	--	--	--	--	--	--	--	--	--	--	--	---	--	--	--	--	--	--	--	--	--	--	--	--

XCALTOOLS
 235 COMMERCE DR., SOUTH POINT, OH
 P: 740-377-3354 • F: 740-377-3363

DRAWN BY GT CHK'D DATE

PART NAME PART NUMBER

HANDHOLD **HH-112-MC**

TOLERANCES: UNLESS OTHERWISE NOTED
 DIM $\pm 1/16"$ ANG $\pm 1^\circ$ HOLE DIM $\pm 1/32"$
 HOT FORM 1600° - 1800° F
 NO GOUGES, NICKS, OR CRACKS ALLOWED
 REMOVE ALL LOOSE SCALE AND SHARP EDGES OR FINS

MATERIAL: 3/4" ROUND IRON ASTM A-576 GRADE 1015-1020

REVISIONS				
NO.	PREVIOUSLY	DATE		
1				
2				
3				
4				

DRAWN BY GT		CHK'D	DATE
PART NAME		PART NUMBER	
HANDHOLD		HH-113-MC	

A	B	C	D	E	F	G	H	I	J	K	L
---	---	---	---	---	---	---	---	---	---	---	---

TOLERANCES: UNLESS OTHERWISE NOTED
 DIM $\pm 1/16"$ ANG $\pm 1^\circ$ HOLE DIM $\pm 1/32"$
 HOT FORM 1600° - 1800° F
 NO GOUGES, NICKS, OR CRACKS ALLOWED
 REMOVE ALL LOOSE SCALE AND SHARP EDGES OR FINS

MATERIAL: 3/4" ROUND IRON ASTM A-576 GRADE 1015-1020

REVISIONS				
NO.	PREVIOUSLY	DATE		
1				
2				
3				
4				

DRAWN BY GT		CHK'D	DATE
PART NAME		PART NUMBER	
HANDHOLD		HH-114-MC	

A	B	C	D	E	F	G	H	I	J	K	L
---	---	---	---	---	---	---	---	---	---	---	---

TOLERANCES: UNLESS OTHERWISE NOTED
 DIM $\pm 1/16"$ ANG $\pm 1^\circ$ HOLE DIM $\pm 1/32"$
 HOT FORM 1600° - 1800° F
 NO GOUGES, NICKS, OR CRACKS ALLOWED
 REMOVE ALL LOOSE SCALE AND SHARP EDGES OR FINIS

MATERIAL: 3/4" ROUND IRON ASTM A-576 GRADE 1015-1020

REVISIONS				
NO.	PREVIOUSLY	DATE		
1				
2				
3				
4				
5				

DRAWN BY CT		CHK'D	DATE
PART NAME		PART NUMBER	
HANDHOLD		HH-115-MC	

235 COMMERCE DR., SOUTH POINT, OH
 P: 740-377-3354 • F: 740-377-3363

TOLERANCES: UNLESS OTHERWISE NOTED
 DIM $\pm 1/16"$ ANG $\pm 1^\circ$ HOLE DIM $\pm 1/32"$
 HOT FORM 1600° - 1800° F
 NO GOUGES, NICKS, OR CRACKS ALLOWED
 REMOVE ALL LOOSE SCALE AND SHARP EDGES OR FINIS

MATERIAL: 3/4" ROUND IRON ASTM A-576 GRADE 1015-1020

REVISIONS				
NO.	PREVIOUSLY	DATE		
1				
2				
3				
4				
5				

DRAWN BY CT		CHK'D	DATE
PART NAME		PART NUMBER	
HANDHOLD		HH-116-MC	

235 COMMERCE DR., SOUTH POINT, OH
 P: 740-377-3354 • F: 740-377-3363

TOLERANCES: UNLESS OTHERWISE NOTED
 DIM $\pm 1/16"$ ANG $\pm 1^\circ$ HOLE DIM $\pm 1/32"$
 HOT FORM 1600° - 1800° F
 NO GOUGES, NICKS, OR CRACKS ALLOWED
 REMOVE ALL LOOSE SCALE AND SHARP EDGES OR FINIS

MATERIAL: 3/4" ROUND IRON ASTM A-576 GRADE 1015-1020

REVISIONS		
NO.	PREVIOUSLY	DATE
1		
2		
3		
4		

DRAWN BY		GT	CHK'D	DATE
PART NAME		PART NUMBER		
HANDHOLD		HH-117-MC		

A B C D E F G H I J K L

TOLERANCES: UNLESS OTHERWISE NOTED
 DIM $\pm 1/16"$ ANG $\pm 1^\circ$ HOLE DIM $\pm 1/32"$
 HOT FORM 1600° - 1800° F
 NO GOUGES, NICKS, OR CRACKS ALLOWED
 REMOVE ALL LOOSE SCALE AND SHARP EDGES OR FINIS

MATERIAL: 3/4" ROUND IRON ASTM A-576 GRADE 1015-1020

REVISIONS		
NO.	PREVIOUSLY	DATE
1		
2		
3		
4		

DRAWN BY		GT	CHK'D	DATE
PART NAME		PART NUMBER		
HANDHOLD		HH-118-MC		

A B C D E F G H I J K L

TOLERANCES: UNLESS OTHERWISE NOTED
 DIM $\pm 1/16"$ ANG $\pm 1^\circ$ HOLE DIM $\pm 1/32"$
 HOT FORM 1800° - 1800° F
 NO GOUGES, NICKS, OR CRACKS ALLOWED
 REMOVE ALL LOOSE SCALE AND SHARP EDGES OR FINIS

MATERIAL: 3/4" ROUND IRON ASTM A-576 GRADE 1015-1020

REVISIONS		
NO.	PREVIOUSLY	DATE
1		
2		
3		
4		

DRAWN BY CT		CHK'D	DATE
PART NAME		PART NUMBER	
HANDHOLD		HH-119-MC	

XCALTOOLS
 235 COMMERCE DR., SOUTH POINT, OH
 P: 740-377-3354 • F: 740-377-3363

TOLERANCES: UNLESS OTHERWISE NOTED
 DIM $\pm 1/16"$ ANG $\pm 1^\circ$ HOLE DIM $\pm 1/32"$
 HOT FORM 1800° - 1800° F
 NO GOUGES, NICKS, OR CRACKS ALLOWED
 REMOVE ALL LOOSE SCALE AND SHARP EDGES OR FINIS

MATERIAL: 3/4" ROUND IRON ASTM A-576 GRADE 1015-1020

REVISIONS		
NO.	PREVIOUSLY	DATE
1		
2		
3		
4		
5		

DRAWN BY CT		CHK'D	DATE
PART NAME		PART NUMBER	
HANDHOLD		HH-120-MC	

XCALTOOLS
 235 COMMERCE DR., SOUTH POINT, OH
 P: 740-377-3354 • F: 740-377-3363

TOLERANCES: UNLESS OTHERWISE NOTED
 DIM $\pm 1/16"$ ANG $\pm 1^\circ$ HOLE DIM $\pm 1/32"$
 HOT FORM 1600° - 1800° F
 NO GOUGES, NICKS, OR CRACKS ALLOWED
 REMOVE ALL LOOSE SCALE AND SHARP EDGES OR FINS

MATERIAL: 3/4" ROUND IRON ASTM A-576 GRADE 1015-1020

REVISIONS																	
															NO.	PREVIOUSLY	DATE
															1		
															2		
															3		
															4		
															5		

XCALTOOLS

235 COMMERCE DR., SOUTH POINT, OH
 P: 740-377-3354 • F: 740-377-3363

DRAWN BY GT	CHK'D	DATE
PART NAME		PART NUMBER
HANDHOLD		HH-121-MC

TOLERANCES: UNLESS OTHERWISE NOTED
 DIM $\pm 1/16"$ ANG $\pm 1^\circ$ HOLE DIM $\pm 1/32"$
 HOT FORM 1600° - 1800° F
 NO GOUGES, NICKS, OR CRACKS ALLOWED
 REMOVE ALL LOOSE SCALE AND SHARP EDGES OR FINS

MATERIAL: 3/4" ROUND IRON ASTM A-576 GRADE 1015-1020

REVISIONS																	
															NO.	PREVIOUSLY	DATE
															1		
															2		
															3		
															4		
															5		

XCALTOOLS

235 COMMERCE DR., SOUTH POINT, OH
 P: 740-377-3354 • F: 740-377-3363

DRAWN BY GT	CHK'D	DATE
PART NAME		PART NUMBER
HANDHOLD		HH-121-MC

TOLERANCES: UNLESS OTHERWISE NOTED
 DIM $\pm 1/16"$ ANG $\pm 1^\circ$ HOLE DIM $\pm 1/32"$
 HOT FORM 1600° - 1800° F
 NO GOUGES, NICKS, OR CRACKS ALLOWED
 REMOVE ALL LOOSE SCALE AND SHARP EDGES OR FINIS

MATERIAL: 3/4" ROUND IRON ASTM A-576 GRADE 1015-1020

													REVISIONS		
													NO.	PREVIOUSLY	DATE
													1		
													2		
													3		
													4		
													5		

XCALTOOLS
 235 COMMERCE DR., SOUTH POINT, OH
 P: 740-377-3354 • F: 740-377-3363

DRAWN BY CT	CHK'D	DATE
PART NAME		PART NUMBER
HANDHOLD		HH-121-MC

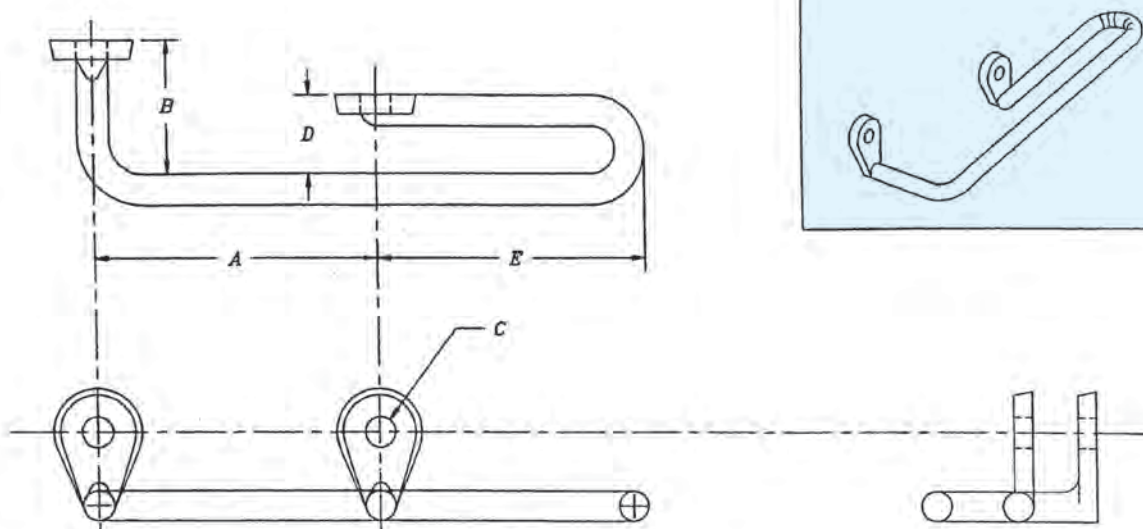
MATERIAL: 3/4" ROUND IRON ASTM A-576 GRADE 1015-1020

													REVISIONS		
													NO.	PREVIOUSLY	DATE
													1		
													2		
													3		
													4		
													5		

TOLERANCES: UNLESS OTHERWISE NOTED
 DIM $\pm 1/16"$ ANG $\pm 1^\circ$ HOLE DIM $\pm 1/32"$
 HOT FORM 1600° - 1800° F
 NO GOUGES, NICKS, OR CRACKS ALLOWED
 REMOVE ALL LOOSE SCALE AND SHARP EDGES OR FINIS

XCALTOOLS
 235 COMMERCE DR., SOUTH POINT, OH
 P: 740-377-3354 • F: 740-377-3363

DRAWN BY CT	CHK'D	DATE
PART NAME		PART NUMBER
HANDHOLD		HH-124-MC

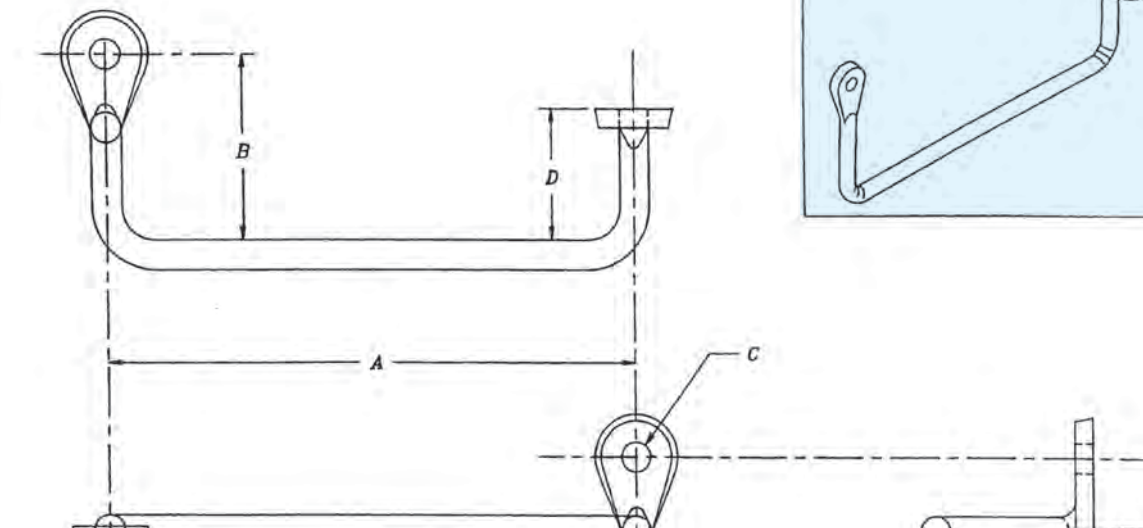


TOLERANCES: UNLESS OTHERWISE NOTED
 DIM $\pm 1/16"$ ANG $\pm 1^\circ$ HOLE DIM $\pm 1/32"$
 HOT FORM 1600° - 1800° F
 NO GOUGES, NICKS, OR CRACKS ALLOWED
 REMOVE ALL LOOSE SCALE AND SHARP EDGES OR FINIS

MATERIAL: 3/4" ROUND IRON ASTM A-576 GRADE 1015-1020

REVISIONS												
NO.	PREVIOUSLY	DATE										
1												
2												
3												
4												
5												

												
235 COMMERCE DR., SOUTH POINT, OH P: 740-377-3354 • F: 740-377-3363												
DRAWN BY <i>GT</i> CHK'D DATE												
PART NAME PART NUMBER												
HANDHOLD HH-125-MC												

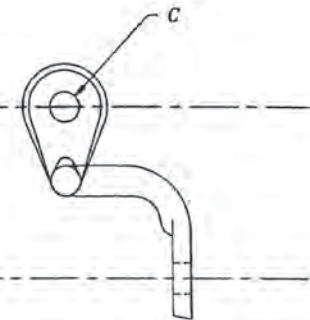


TOLERANCES: UNLESS OTHERWISE NOTED
 DIM $\pm 1/16"$ ANG $\pm 1^\circ$ HOLE DIM $\pm 1/32"$
 HOT FORM 1600° - 1800° F
 NO GOUGES, NICKS, OR CRACKS ALLOWED
 REMOVE ALL LOOSE SCALE AND SHARP EDGES OR FINIS

MATERIAL: 3/4" ROUND IRON ASTM A-576 GRADE 1015-1020

REVISIONS												
NO.	PREVIOUSLY	DATE										
1												
2												
3												
4												
5												

												
235 COMMERCE DR., SOUTH POINT, OH P: 740-377-3354 • F: 740-377-3363												
DRAWN BY <i>GT</i> CHK'D DATE												
PART NAME PART NUMBER												
HANDHOLD HH-126-MC												



DRAWN BY	GT	CHK'D	DATE
----------	----	-------	------

DRAWN BY	GT	CHK'D	DATE
----------	----	-------	------

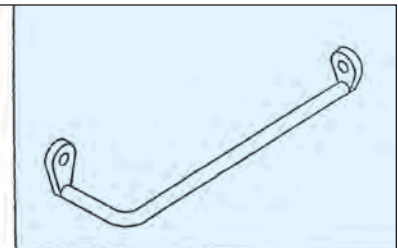
PART NAME	PART NUMBER
-----------	-------------

HANDHOLD	HH-122-MC
----------	-----------

HANDHOLD

HH-127-MC

												1		
												2		
												3		
												4		
A	B	C	D	E	F	G	H	I	J	K		5		



PART NAME	PART NUMBER
-----------	-------------

PART NAME	PART NUMBER
-----------	-------------

HANDHOLD	HH-12B-MC
----------	-----------

HANDHOLD

HH-128-MC

											NO.	PERIOD	DATE
											1		
											2		
											3		
											4		
A	B	C	D	E	F	G	H	I	J	K	L		

TOLERANCES: UNLESS OTHERWISE NOTED
 DIM $\pm 1/16"$ ANG $\pm 1^\circ$ HOLE DIM $\pm 1/32"$
 HOT FORM 1600° - 1800° F
 NO GOUGES, NICKS, OR CRACKS ALLOWED
 REMOVE ALL LOOSE SCALE AND SHARP EDGES OR FINIS

FIRST PCS INSPECTION: _____
 LAST PCS INSPECTION: _____

MATERIAL: 3/4" ROUND STEEL ASTM A-576 GRADE 1015-1020

REVISIONS												
NO.	PREVIOUSLY	DATE										
1												
2												
3												
4												
5												

B	C	D	E	F	G	H	I	J	K
---	---	---	---	---	---	---	---	---	---

235 COMMERCE DR., SOUTH POINT, OH
 P: 740-377-3354 • F: 740-377-3363

DRAWN BY GT CHK'D DATE

PART NAME PART NUMBER HH-129

HANDHOLD REF NUMBER

TOLERANCES: UNLESS OTHERWISE NOTED
 DIM $\pm 1/16"$ ANG $\pm 1^\circ$ HOLE DIM $\pm 1/32"$
 HOT FORM 1600° - 1800° F
 NO GOUGES, NICKS, OR CRACKS ALLOWED
 REMOVE ALL LOOSE SCALE AND SHARP EDGES OR FINIS

MATERIAL: 3/4" ROUND IRON ASTM A-576 GRADE 1015-1020

REVISIONS												
NO.	PREVIOUSLY	DATE										
1												
2												
3												
4												
5												

A	B	C	D	E	F	G	H	I	J	K
---	---	---	---	---	---	---	---	---	---	---

235 COMMERCE DR., SOUTH POINT, OH
 P: 740-377-3354 • F: 740-377-3363

DRAWN BY GT CHK'D DATE

PART NAME PART NUMBER HH-130-MC

HANDHOLD

TOLERANCES: UNLESS OTHERWISE NOTED
 DIM $\pm 1/16"$ ANG $\pm 1^\circ$ HOLE DIM $\pm 1/32"$
 HOT FORM 1600° - 1800° F
 NO GOUGES, NICKS, OR CRACKS ALLOWED
 REMOVE ALL LOOSE SCALE AND SHARP EDGES OR FINIS

MATERIAL: 3/4" ROUND IRON ASTM A-576 GRADE 1015-1020

													REVISIONS		
													NO.	PREVIOUSLY	DATE
													1		
													2		
													3		
													4		
													5		

XCALTOOLS
 235 COMMERCE DR., SOUTH POINT, OH
 P: 740-377-3354 • F: 740-377-3363

DRAWN BY GT	CHK'D	DATE
PART NAME		PART NUMBER
HANDHOLD		HH-131-MC

TOLERANCES: UNLESS OTHERWISE NOTED
 DIM $\pm 1/16"$ ANG $\pm 1^\circ$ HOLE DIM $\pm 1/32"$
 HOT FORM 1600° - 1800° F
 NO GOUGES, NICKS, OR CRACKS ALLOWED
 REMOVE ALL LOOSE SCALE AND SHARP EDGES OR FINIS

MATERIAL: 3/4" ROUND IRON ASTM A-576 GRADE 1015-1020

													REVISIONS		
													NO.	PREVIOUSLY	DATE
													1		
													2		
													3		
													4		
													5		

XCALTOOLS
 235 COMMERCE DR., SOUTH POINT, OH
 P: 740-377-3354 • F: 740-377-3363

DRAWN BY GT	CHK'D	DATE
PART NAME		PART NUMBER
HANDHOLD		HH-132-MC

TOLERANCES: UNLESS OTHERWISE NOTED
 DIM $\pm 1/16"$ ANG $\pm 1^\circ$ HOLE DIM $\pm 1/32"$
 HOT FORM 1600° - 1800° F
 NO GOUGES, NICKS, OR CRACKS ALLOWED
 REMOVE ALL LOOSE SCALE AND SHARP EDGES OR FINIS

MATERIAL: 3/4" ROUND IRON ASTM A-576 GRADE 1015-1020

											REVISIONS		
											NO.	PREVIOUSLY	DATE
											1		
											2		
											3		
											4		
											5		
A	B	C	D	E	F	G	H	I	J	K			

XCALTOOLS

235 COMMERCE DR., SOUTH POINT, OH
 P: 740-377-3354 • F: 740-377-3363

DRAWN BY	CT	CHK'D	DATE
PART NAME	HANDHOLD		PART NUMBER
		HH-133-MC	

TOLERANCES: UNLESS OTHERWISE NOTED
 DIM $\pm 1/16"$ ANG $\pm 1^\circ$ HOLE DIM $\pm 1/32"$
 HOT FORM 1600° - 1800° F
 NO GOUGES, NICKS, OR CRACKS ALLOWED
 REMOVE ALL LOOSE SCALE AND SHARP EDGES OR FINIS

MATERIAL: 3/4" ROUND IRON ASTM A-576 GRADE 1015-1020

											REVISIONS		
											NO.	PREVIOUSLY	DATE
											1		
											2		
											3		
											4		
											5		
A	B	C	D	E	F	G	H	I	J	K			

XCALTOOLS

235 COMMERCE DR., SOUTH POINT, OH
 P: 740-377-3354 • F: 740-377-3363

DRAWN BY	CT	CHK'D	DATE
PART NAME	HANDHOLD		PART NUMBER
		HH-134-MC	

*HH-149-MC
OPTIONAL
HH-139-MC
HH-142-MC*

TOLERANCES: UNLESS OTHERWISE NOTED
 DIM $\pm 1/16"$ ANG $\pm 1^\circ$ HOLE DIM $\pm 1/32"$
 HOT FORM 1600° - 1800° F
 NO GOUGES, NICKS, OR CRACKS ALLOWED
 REMOVE ALL LOOSE SCALE AND SHARP EDGES OR FIN

FIRST PCS INSPECTION: _____
 LAST PCS INSPECTION: _____

MATERIAL: 3/4" ROUND STEEL ASTM A-576 GRADE 1015-1020

REVISIONS												
NO.	PREVIOUSLY	DATE										
1												
2												
3												
4												
5												

235 COMMERCE DR., SOUTH POINT, OH
 P: 740-377-3354 • F: 740-377-3363

DRAWN BY	GT	CHK'D	DATE
PART NAME		PART NUMBER HH-135	
HANDHOLD		REF NUMBER	

TOLERANCES: UNLESS OTHERWISE NOTED
 DIM $\pm 1/16"$ ANG $\pm 1^\circ$ HOLE DIM $\pm 1/32"$
 HOT FORM 1600° - 1800° F
 NO GOUGES, NICKS, OR CRACKS ALLOWED
 REMOVE ALL LOOSE SCALE AND SHARP EDGES OR FIN

MATERIAL: 3/4" ROUND IRON ASTM A-576 GRADE 1015-1020

REVISIONS												
NO.	PREVIOUSLY	DATE										
1												
2												
3												
4												
5												

235 COMMERCE DR., SOUTH POINT, OH
 P: 740-377-3354 • F: 740-377-3363

DRAWN BY	GT	CHK'D	DATE
PART NAME		PART NUMBER HH-136-MC	
HANDHOLD		REF NUMBER	

TOLERANCES: UNLESS OTHERWISE NOTED
 DIM $\pm 1/16"$ ANG $\pm 1^\circ$ HOLE DIM $\pm 1/32"$
 HOT FORM 1600° - 1800° F
 NO GOUGES, NICKS, OR CRACKS ALLOWED
 REMOVE ALL LOOSE SCALE AND SHARP EDGES OR FINS

MATERIAL: 3/4" ROUND IRON ASTM A-576 GRADE 1015-1020

REVISIONS		
NO.	PREVIOUSLY	DATE
1		
2		
3		
4		

DRAWN BY CT		CHK'D	DATE
PART NAME		PART NUMBER	
HANDHOLD		HH-136-MC	

235 COMMERCE DR., SOUTH POINT, OH
 P: 740-377-3354 • F: 740-377-3363

XCALTOOLS

TOLERANCES: UNLESS OTHERWISE NOTED
 DIM $\pm 1/16"$ ANG $\pm 1^\circ$ HOLE DIM $\pm 1/32"$
 HOT FORM 1600° - 1800° F
 NO GOUGES, NICKS, OR CRACKS ALLOWED
 REMOVE ALL LOOSE SCALE AND SHARP EDGES OR FINS

MATERIAL: 3/4" ROUND IRON ASTM A-576 GRADE 1015-1020

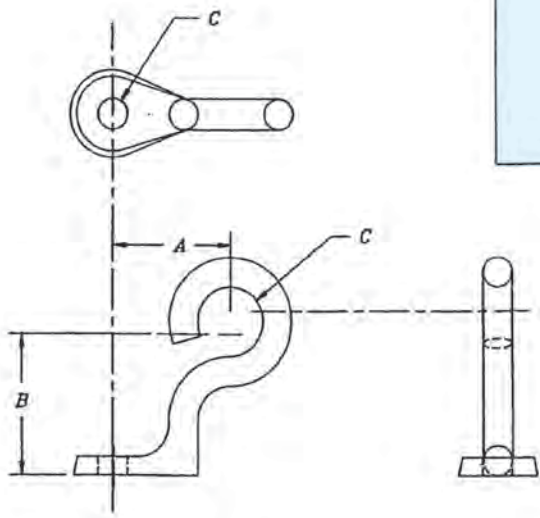
REVISIONS		
NO.	PREVIOUSLY	DATE
1		
2		
3		
4		

DRAWN BY CT		CHK'D	DATE
PART NAME		PART NUMBER	
HANDHOLD		HH-138-MC	

235 COMMERCE DR., SOUTH POINT, OH
 P: 740-377-3354 • F: 740-377-3363

XCALTOOLS





TOLERANCES: UNLESS OTHERWISE NOTED
 DIM $\pm 1/16"$ ANG $\pm 1^\circ$ HOLE DIM $\pm 1/32"$
 HOT FORM 1600° - 1800° F
 NO GOUGES, NICKS, OR CRACKS ALLOWED
 REMOVE ALL LOOSE SCALE AND SHARP EDGES OR FINS

MATERIAL: 3/4" ROUND IRON ASTM A-576 GRADE 1015-1020

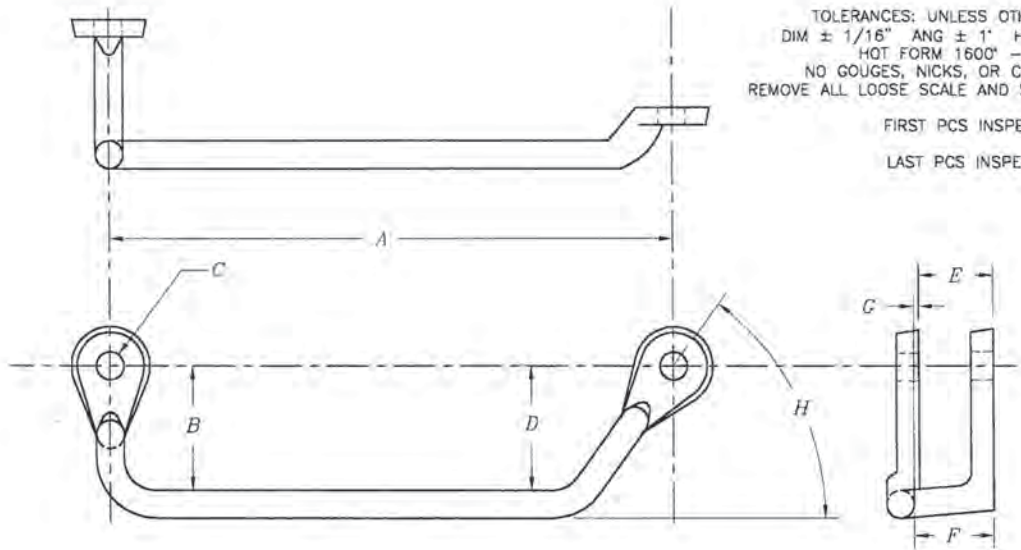
															REVISIONS			 235 COMMERCE DR., SOUTH POINT, OH P: 740-377-3354 • F: 740-377-3363		
															NO.	PREVIOUSLY	DATE			
															1					
															2					
															3					
															4					
															5					
A	B	C	D	E	F	G	H	I	J	K										

DRAWN BY GT	CHK'D	DATE
PART NAME		PART NUMBER
HANDHOLD		HH-139-MC

TOLERANCES: UNLESS OTHERWISE NOTED
 DIM $\pm 1/16"$ ANG $\pm 1^\circ$ HOLE DIM $\pm 1/32"$
 HOT FORM 1600° - 1800° F
 NO GOUGES, NICKS, OR CRACKS ALLOWED
 REMOVE ALL LOOSE SCALE AND SHARP EDGES OR FINS

FIRST PCS INSPECTION: _____

LAST PCS INSPECTION: _____



MATERIAL: 3/4" ROUND STEEL ASTM A-576 GRADE 1015-1020

															REVISIONS			 235 COMMERCE DR., SOUTH POINT, OH P: 740-377-3354 • F: 740-377-3363		
															NO.	PREVIOUSLY	DATE			
															1					
															2					
															3					
															4					
															5					
B	C	D	E	F	G	H	I	J	K											

DRAWN BY GT	CHK'D	DATE
PART NAME		PART NUMBER
HANDHOLD		HH-140
		REF NUMBER

TOLERANCES: UNLESS OTHERWISE NOTED
 DIM $\pm 1/16"$ ANG $\pm 1^\circ$ HOLE DIM $\pm 1/32"$
 HOT FORM 1600° - 1800° F
 NO GOUGES, NICKS, OR CRACKS ALLOWED
 REMOVE ALL LOOSE SCALE AND SHARP EDGES OR FINIS

MATERIAL: 3/4" ROUND IRON ASTM A-576 GRADE 1015-1020

REVISIONS												
NO.	PREVIOUSLY	DATE										
1												
2												
3												
4												
5												

235 COMMERCE DR., SOUTH POINT, OH
 P: 740-377-3354 • F: 740-377-3363

DRAWN BY GT	CHK'D	DATE
PART NAME		PART NUMBER
HANDHOLD		HH-141-MC

TOLERANCES: UNLESS OTHERWISE NOTED
 DIM $\pm 1/16"$ ANG $\pm 1^\circ$ HOLE DIM $\pm 1/32"$
 HOT FORM 1600° - 1800° F
 NO GOUGES, NICKS, OR CRACKS ALLOWED
 REMOVE ALL LOOSE SCALE AND SHARP EDGES OR FINIS

MATERIAL: 3/4" ROUND IRON ASTM A-576 GRADE 1015-1020

REVISIONS												
NO.	PREVIOUSLY	DATE										
1												
2												
3												
4												
5												

235 COMMERCE DR., SOUTH POINT, OH
 P: 740-377-3354 • F: 740-377-3363

DRAWN BY GT	CHK'D	DATE
PART NAME		PART NUMBER
HANDHOLD		HH-142-MC

TOLERANCES: UNLESS OTHERWISE NOTED
 DIM $\pm 1/16"$ ANG $\pm 1^\circ$ HOLE DIM $\pm 1/32"$
 HOT FORM 1600° - 1800° F
 NO GOUGES, NICKS, OR CRACKS ALLOWED
 REMOVE ALL LOOSE SCALE AND SHARP EDGES OR FINIS

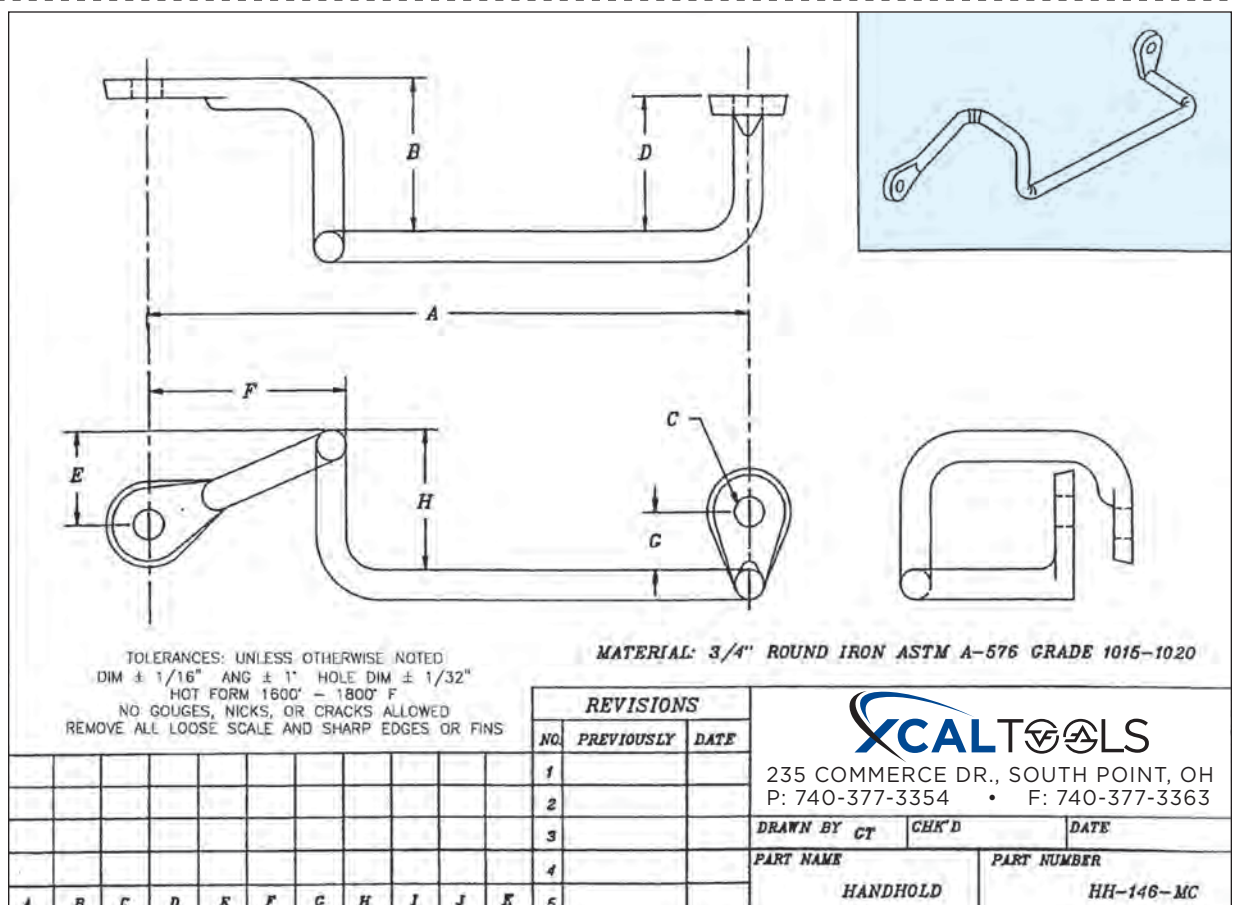
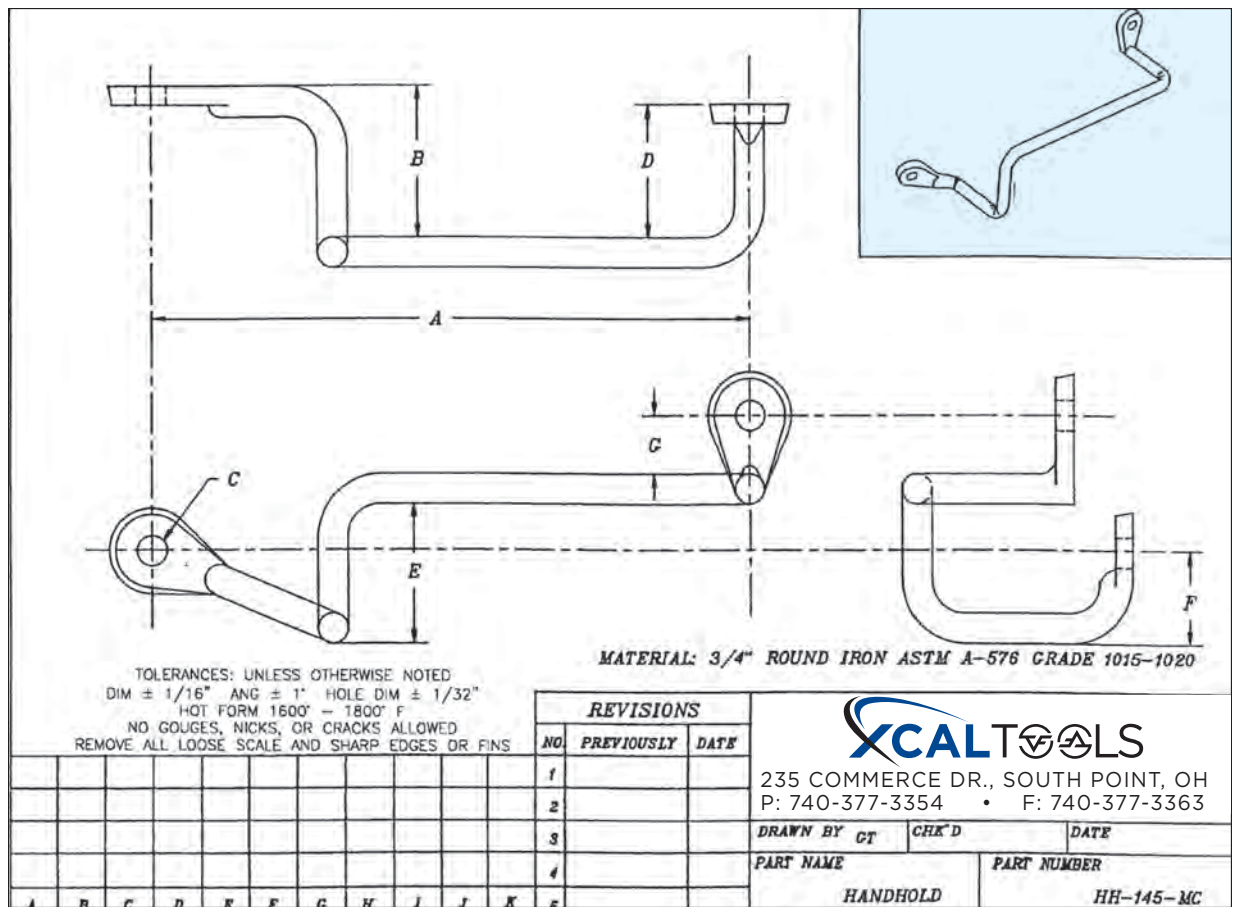
MATERIAL: 3/4" ROUND IRON ASTM A-576 GRADE 1015-1020

													REVISIONS			 235 COMMERCE DR., SOUTH POINT, OH P: 740-377-3354 • F: 740-377-3363		
													NO.	PREVIOUSLY	DATE			
													1					
													2					
													3					
													4					
													5					
A	B	C	D	E	F	G	H	I	J	K	L	M				DRAWN BY <i>CT</i> CHK'D DATE		
													PART NAME		PART NUMBER			
													HANDHOLD		HH-143-MC			

TOLERANCES: UNLESS OTHERWISE NOTED
 DIM $\pm 1/16"$ ANG $\pm 1^\circ$ HOLE DIM $\pm 1/32"$
 HOT FORM 1600° - 1800° F
 NO GOUGES, NICKS, OR CRACKS ALLOWED
 REMOVE ALL LOOSE SCALE AND SHARP EDGES OR FINIS

MATERIAL: 3/4" ROUND IRON ASTM A-576 GRADE 1015-1020

													REVISIONS			 235 COMMERCE DR., SOUTH POINT, OH P: 740-377-3354 • F: 740-377-3363		
													NO.	PREVIOUSLY	DATE			
													1					
													2					
													3					
													4					
													5					
A	B	C	D	E	F	G	H	I	J	K	L	M				DRAWN BY <i>CT</i> CHK'D DATE		
													PART NAME		PART NUMBER			
													HANDHOLD		HH-144-MC			



TOLERANCES: UNLESS OTHERWISE NOTED
 DIM $\pm 1/16"$ ANG $\pm 1^\circ$ HOLE DIM $\pm 1/32"$
 HOT FORM 1600° - 1800° F
 NO GOUGES, NICKS, OR CRACKS ALLOWED
 REMOVE ALL LOOSE SCALE AND SHARP EDGES OR FINIS

MATERIAL: 3/4" ROUND IRON ASTM A-576 GRADE 1015-1020

REVISIONS			
NO.	PREVIOUSLY	DATE	
1			
2			
3			
4			

XCALTOOLS
 235 COMMERCE DR., SOUTH POINT, OH
 P: 740-377-3354 • F: 740-377-3363

DRAWN BY	CT	CHK'D	DATE
PART NAME		PART NUMBER	
HANDHOLD		HH-147-MC	

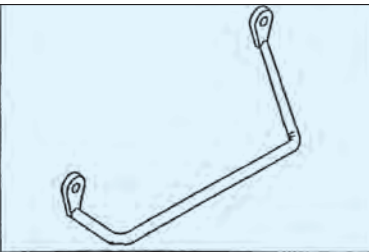
TOLERANCES: UNLESS OTHERWISE NOTED
 DIM $\pm 1/16"$ ANG $\pm 1^\circ$ HOLE DIM $\pm 1/32"$
 HOT FORM 1600° - 1800° F
 NO GOUGES, NICKS, OR CRACKS ALLOWED
 REMOVE ALL LOOSE SCALE AND SHARP EDGES OR FINIS

MATERIAL: 3/4" ROUND IRON ASTM A-576 GRADE 1015-1020

REVISIONS			
NO.	PREVIOUSLY	DATE	
1			
2			
3			
4			

XCALTOOLS
 235 COMMERCE DR., SOUTH POINT, OH
 P: 740-377-3354 • F: 740-377-3363

DRAWN BY	CT	CHK'D	DATE
PART NAME		PART NUMBER	
HANDHOLD		HH-148-MC	



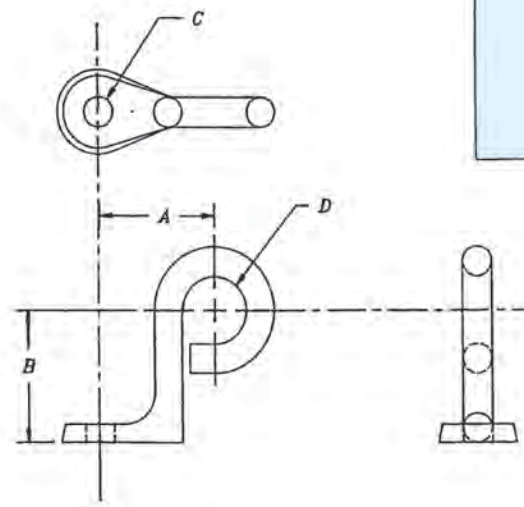
TOLERANCES: UNLESS OTHERWISE NOTED
DIM $\pm 1/16"$ ANG $\pm 1^\circ$ HOLE DIM $\pm 1/32"$
HOT FORM 1600° - 1800° F
NO GOUGES, NICKS, OR CRACKS ALLOWED
~~REMOVE ALL LOOSE SCALE AND SHARP EDGES OR FINIS~~

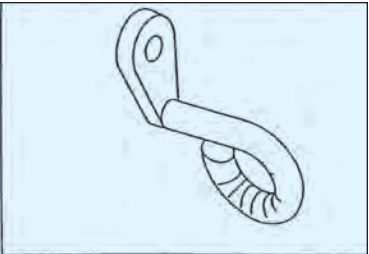


TOLERANCES: UNLESS OTHERWISE NOTED
DIM $\pm 1/16"$ ANG $\pm 1^\circ$ HOLE DIM $\pm 1/32"$
HOT FORM 1600° - 1800° F
NO GOUGES, NICKS, OR CRACKS ALLOWED
REMOVE ALL LOOSE SCALE AND SHARP EDGES OR FINIS

XCAL TOOLS
 10000 COMMERCE DR., SOUTH POINT, OH
 440-377-3354 • F: 740-377-3363

CT	CHK'D	DATE
HANDHOLD		PART NUMBER HH-149-MC





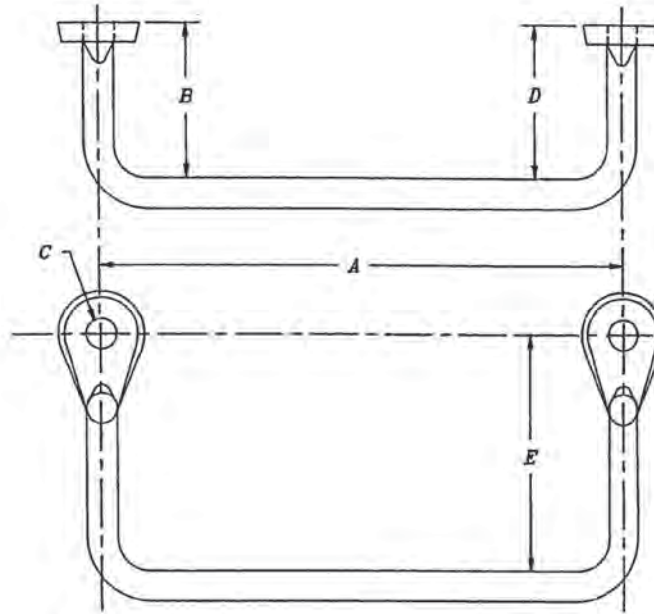
TOLERANCES: UNLESS OTHERWISE NOTED
 DIM $\pm 1/16"$ ANG $\pm 1^\circ$ HOLE DIM $\pm 1/32"$
 HOT FORM 1600° - 1800° F
 NO GOUGES, NICKS, OR CRACKS ALLOWED
 REMOVE ALL LOOSE SCALE AND SHARP EDGES OR FINS

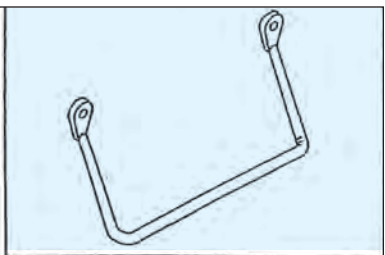
MATERIAL: 3/4" ROUND IRON ASTM A-576 GRADE 1015-1020

REVISIONS		
NO.	PREVIOUSLY	DATE
1		
2		
3		
4		
5		

XCALTOOLS
 235 COMMERCE DR., SOUTH POINT, OH
 P: 740-377-3354 • F: 740-377-3363

DRAWN BY CT	CHK'D	DATE
PART NAME HANDHOLD		PART NUMBER HH-150-MC





TOLERANCES: UNLESS OTHERWISE NOTED
 DIM $\pm 1/16"$ ANG $\pm 1^\circ$ HOLE DIM $\pm 1/32"$
 HOT FORM 1600° - 1800° F
 NO GOUGES, NICKS, OR CRACKS ALLOWED
 REMOVE ALL LOOSE SCALE AND SHARP EDGES OR FINS

MATERIAL: 3/4" ROUND IRON ASTM A-576 GRADE 1015-1020

REVISIONS		
NO.	PREVIOUSLY	DATE
1		
2		
3		
4		
5		

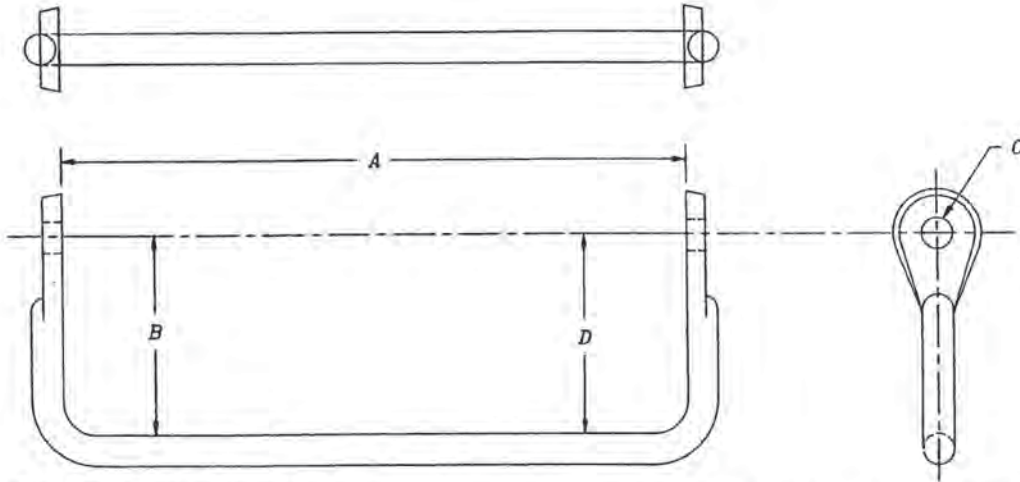
XCALTOOLS
 235 COMMERCE DR., SOUTH POINT, OH
 P: 740-377-3354 • F: 740-377-3363

DRAWN BY CT	CHK'D	DATE
PART NAME HANDHOLD		PART NUMBER HH-151-MC

WWW.XCALTOOLS.COM • P: 740-377-3354 • F: 740-377-3363

XCALTOOLS

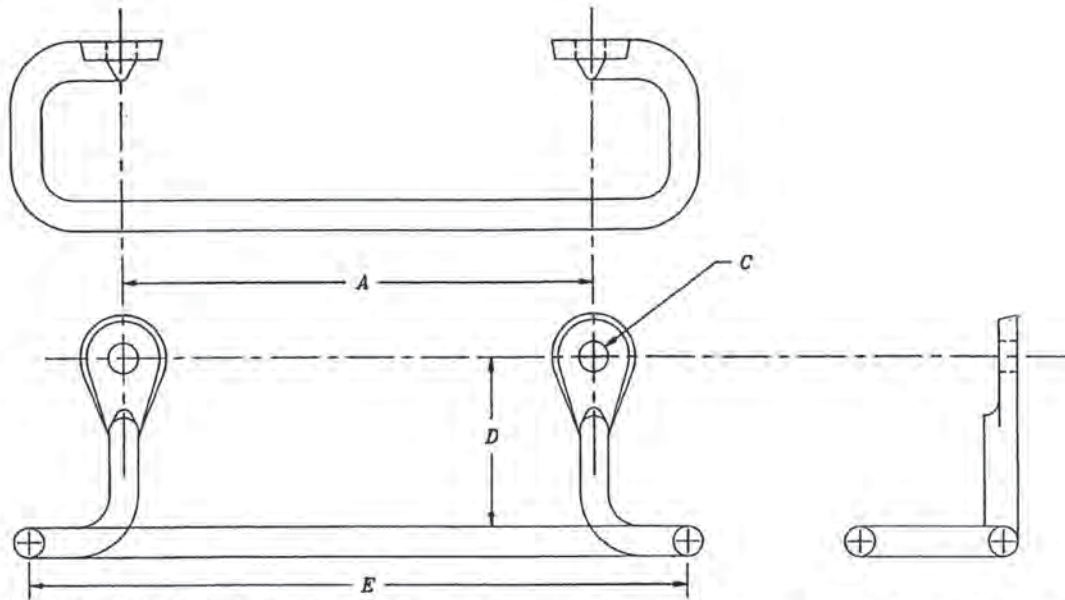
29



TOLERANCES: UNLESS OTHERWISE NOTED
 DIM $\pm 1/16"$ ANG $\pm 1^\circ$ HOLE DIM $\pm 1/32"$
 HOT FORM 1600° - 1800° F
 NO GOUGES, NICKS, OR CRACKS ALLOWED
 REMOVE ALL LOOSE SCALE AND SHARP EDGES OR FINIS

MATERIAL: 3/4" ROUND IRON ASTM A-576 GRADE 1015-1020

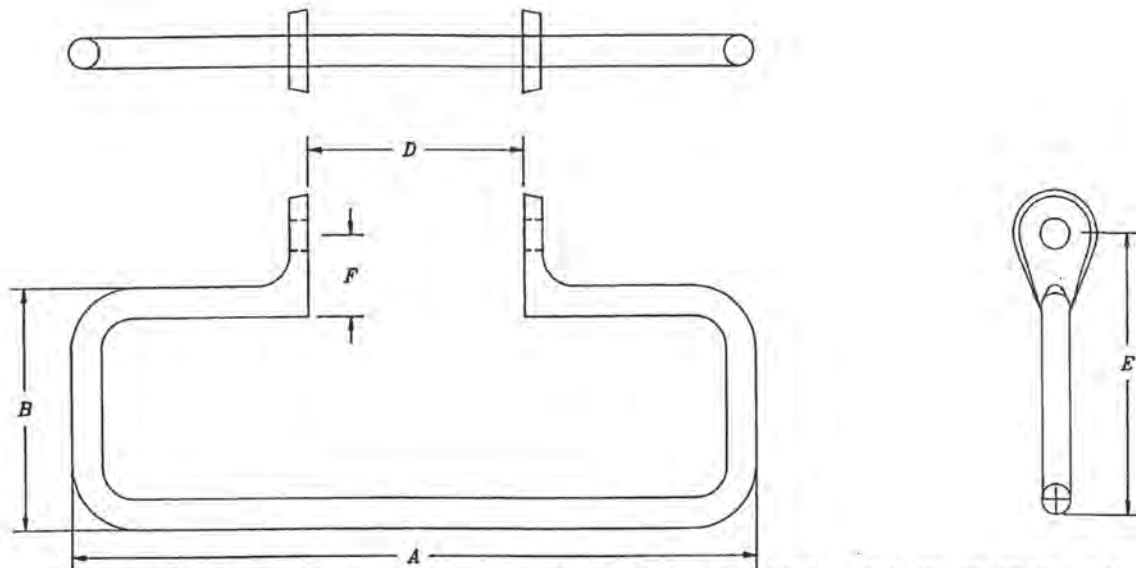
											REVISIONS			 235 COMMERCE DR., SOUTH POINT, OH P: 740-377-3354 • F: 740-377-3363		
											NO.	PREVIOUSLY	DATE			
											1					
											2					
											3					
											4					
											5					
B	C	D	E	F	G	H	I	J	K					DRAWN BY	CT	CHK'D
														PART NAME		PART NUMBER
														HANDHOLD		HH-152-MC



TOLERANCES: UNLESS OTHERWISE NOTED
 DIM $\pm 1/16"$ ANG $\pm 1^\circ$ HOLE DIM $\pm 1/32"$
 HOT FORM 1600° - 1800° F
 NO GOUGES, NICKS, OR CRACKS ALLOWED
 REMOVE ALL LOOSE SCALE AND SHARP EDGES OR FINIS

MATERIAL: 3/4" ROUND IRON ASTM A-576 GRADE 1015-1020

											REVISIONS			 235 COMMERCE DR., SOUTH POINT, OH P: 740-377-3354 • F: 740-377-3363		
											NO.	PREVIOUSLY	DATE			
											1					
											2					
											3					
											4					
											5					
A	B	C	D	E	F	G	H	I	J	K				DRAWN BY	CT	CHK'D
														PART NAME		PART NUMBER
														HANDHOLD		HH-153-MC



TOLERANCES: UNLESS OTHERWISE NOTED
 DIM $\pm 1/16"$ ANG $\pm 1^\circ$ HOLE DIM $\pm 1/32"$
 HOT FORM 1600° - 1800° F
 NO GOUGES, NICKS, OR CRACKS ALLOWED
 REMOVE ALL LOOSE SCALE AND SHARP EDGES OR FINS

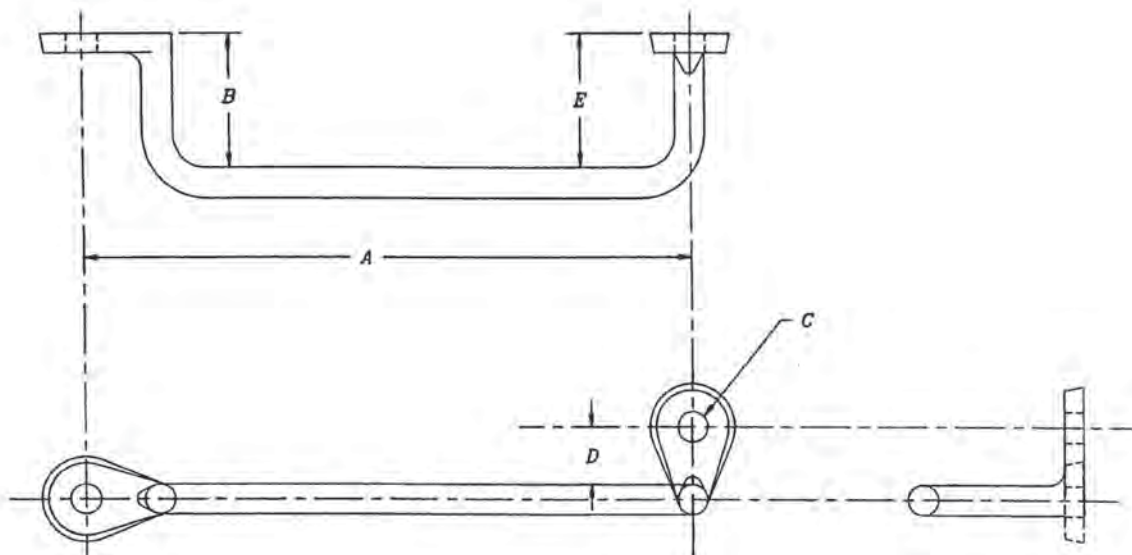
MATERIAL: 3/4" ROUND IRON ASTM A-576 GRADE 1015-1020

													REVISIONS		
													NO.	PREVIOUSLY	DATE
													1		
													2		
													3		
													4		
													5		
A	B	C	D	E	F	G	H	I	J	K					

XCALTOOLS

235 COMMERCE DR., SOUTH POINT, OH
 P: 740-377-3354 • F: 740-377-3363

DRAWN BY GT	CHK'D	DATE
PART NAME HANDHOLD		PART NUMBER HH-154-MC



TOLERANCES: UNLESS OTHERWISE NOTED
 DIM $\pm 1/16"$ ANG $\pm 1^\circ$ HOLE DIM $\pm 1/32"$
 HOT FORM 1600° - 1800° F
 NO GOUGES, NICKS, OR CRACKS ALLOWED
 REMOVE ALL LOOSE SCALE AND SHARP EDGES OR FINS

MATERIAL: 3/4" ROUND IRON ASTM A-576 GRADE 1015-1020

													REVISIONS		
													NO.	PREVIOUSLY	DATE
													1		
													2		
													3		
													4		
													5		
B	C	D	E	F	G	H	I	J	K						

XCALTOOLS

235 COMMERCE DR., SOUTH POINT, OH
 P: 740-377-3354 • F: 740-377-3363

DRAWN BY GT	CHK'D	DATE
PART NAME HANDHOLD		PART NUMBER HH-155-MC

TOLERANCES: UNLESS OTHERWISE NOTED
 DIM $\pm 1/16"$ ANG $\pm 1^\circ$ HOLE DIM $\pm 1/32"$
 HOT FORM 1600° - 1800° F
 NO GOUGES, NICKS, OR CRACKS ALLOWED
 REMOVE ALL LOOSE SCALE AND SHARP EDGES OR FINIS

MATERIAL: 3/4" ROUND IRON ASTM A-576 GRADE 1015-1020

											REVISIONS		
											NO.	PREVIOUSLY	DATE
											1		
											2		
											3		
											4		
											5		

DRAWN BY CT		CHK'D	DATE
PART NAME		PART NUMBER	
HANDHOLD		HH-156-MC	

XCALTOOLS
 235 COMMERCE DR., SOUTH POINT, OH
 P: 740-377-3354 • F: 740-377-3363

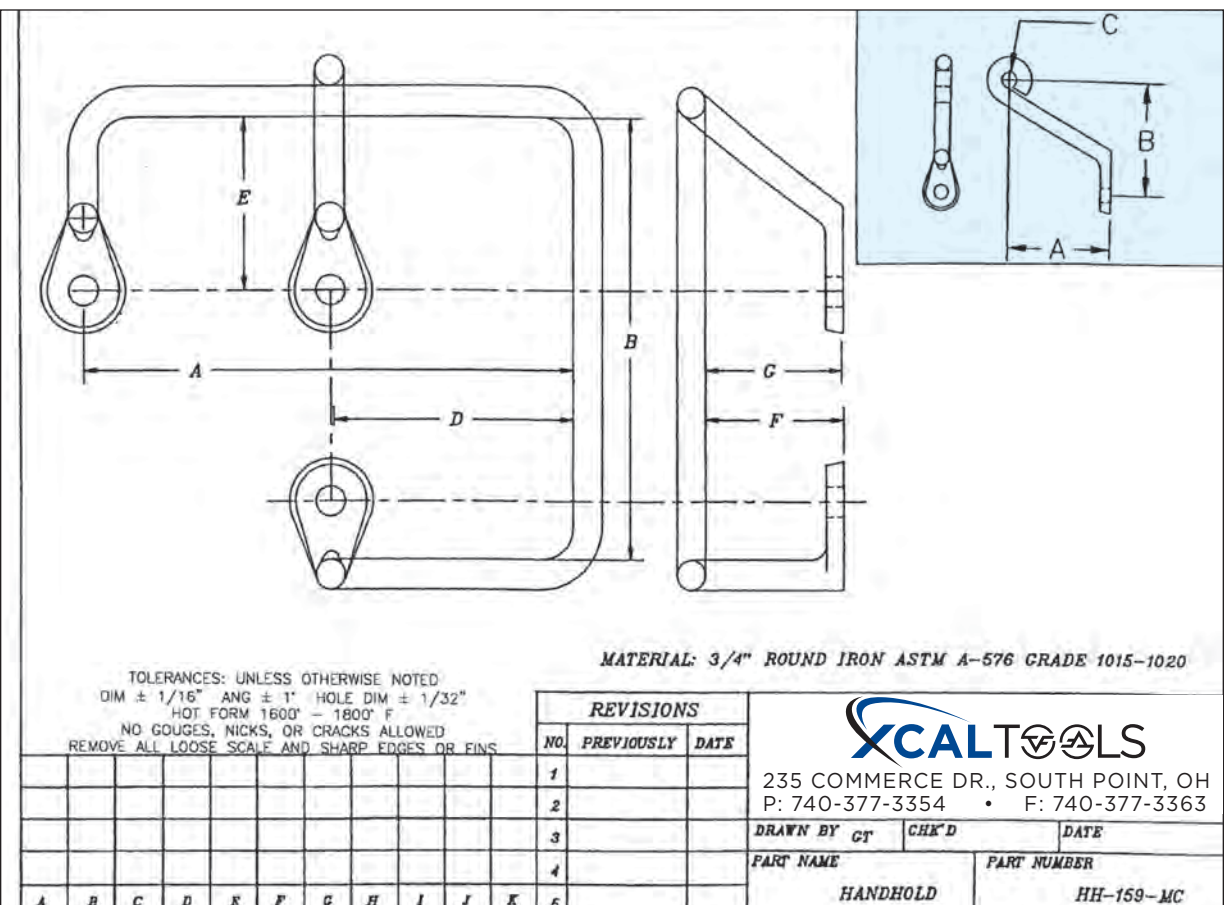
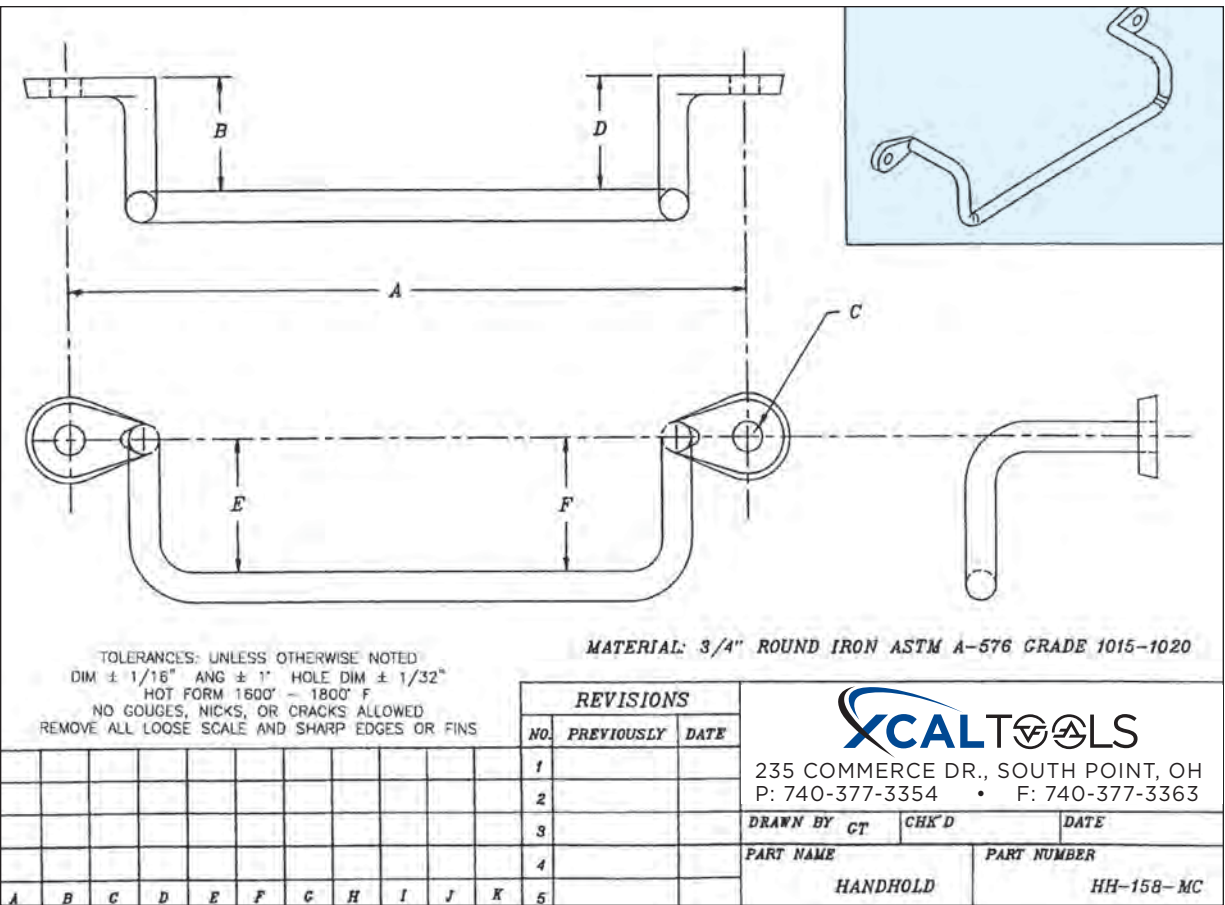
TOLERANCES: UNLESS OTHERWISE NOTED
 DIM $\pm 1/16"$ ANG $\pm 1^\circ$ HOLE DIM $\pm 1/32"$
 HOT FORM 1600° - 1800° F
 NO GOUGES, NICKS, OR CRACKS ALLOWED
 REMOVE ALL LOOSE SCALE AND SHARP EDGES OR FINIS

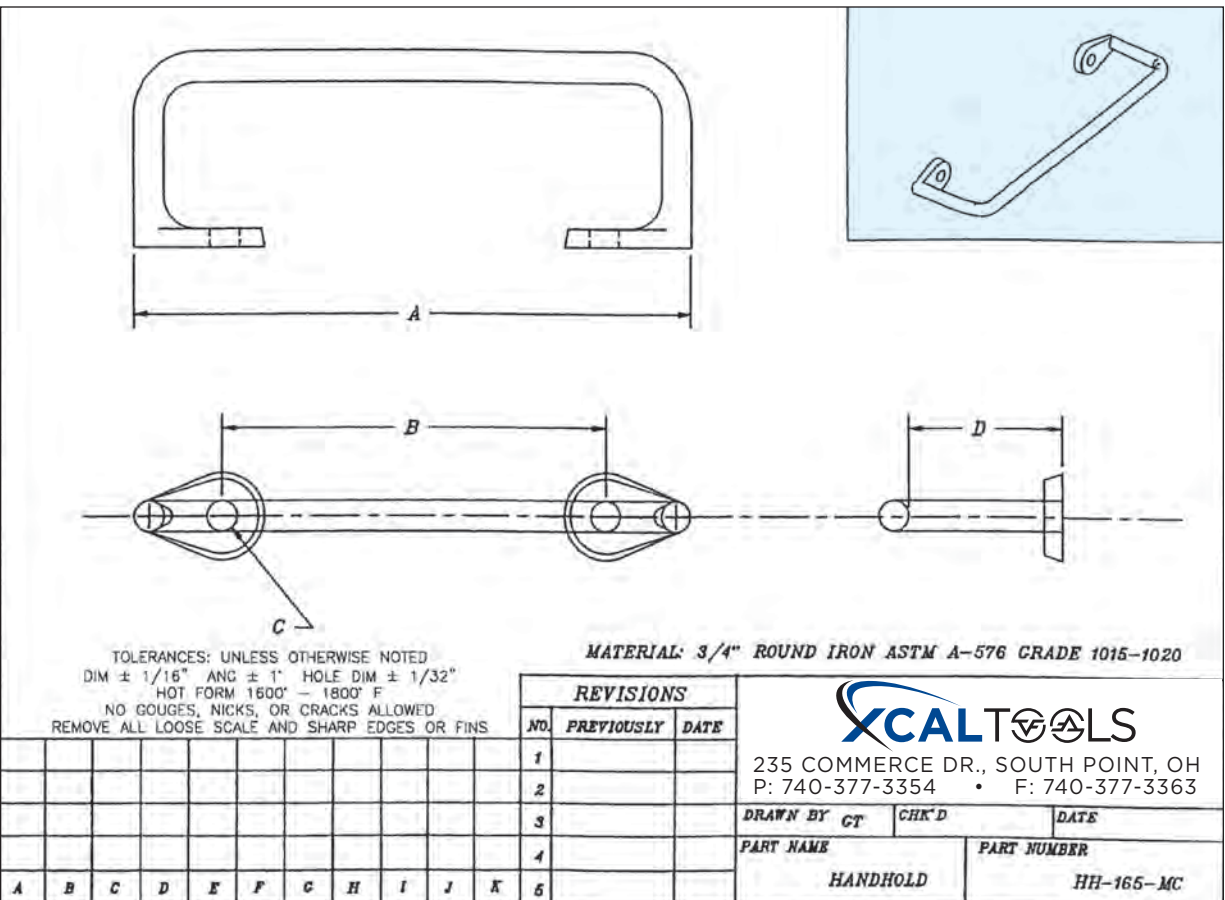
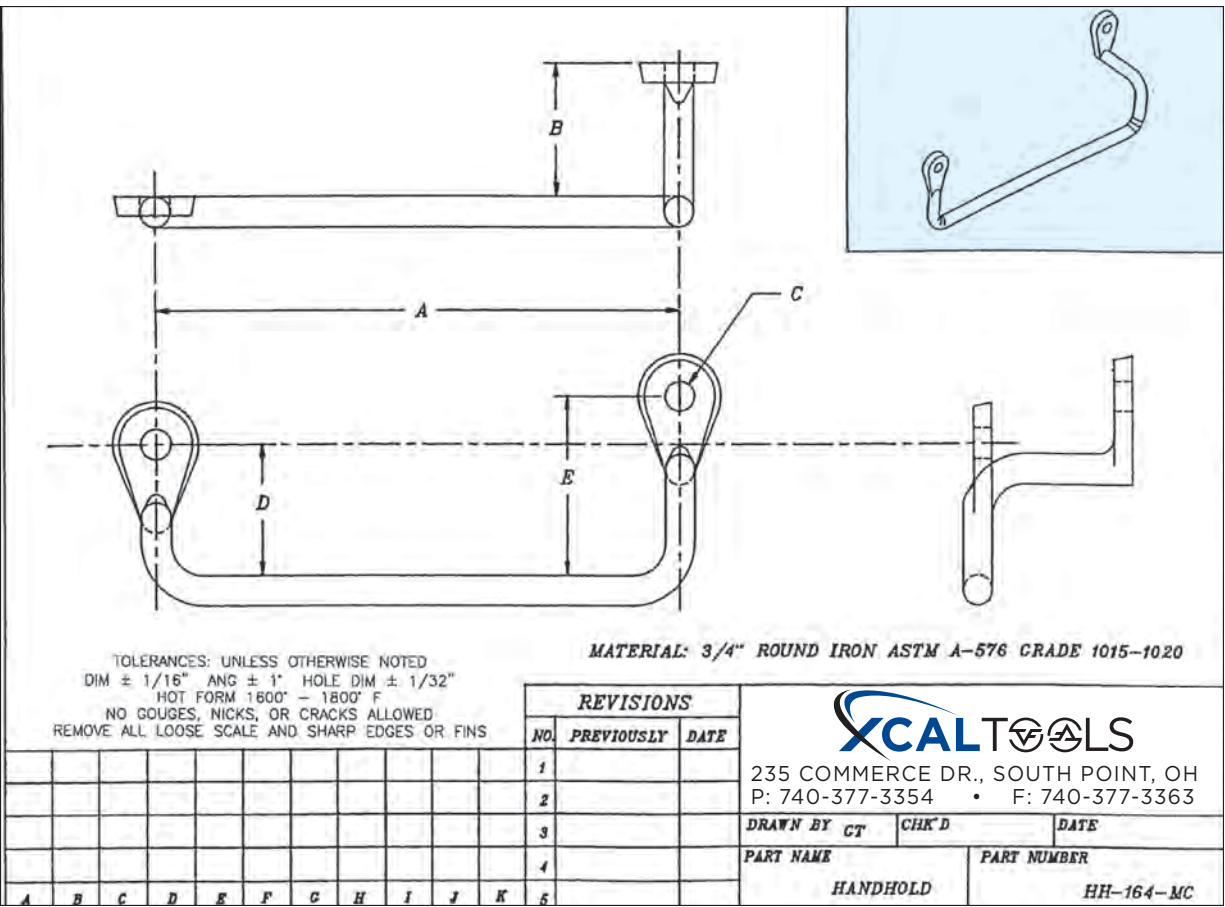
MATERIAL: 3/4" ROUND IRON ASTM A-576 GRADE 1015-1020

											REVISIONS		
											NO.	PREVIOUSLY	DATE
											1		
											2		
											3		
											4		
											5		

DRAWN BY CT		CHK'D	DATE
PART NAME		PART NUMBER	
HANDHOLD		HH-157-MC	

XCALTOOLS
 235 COMMERCE DR., SOUTH POINT, OH
 P: 740-377-3354 • F: 740-377-3363





TOLERANCES: UNLESS OTHERWISE NOTED
 DIM $\pm 1/16"$ ANG $\pm 1^\circ$ HOLE DIM $\pm 1/32"$
 HOT FORM 1600° - 1800° F
 NO GOUGES, NICKS, OR CRACKS ALLOWED
 REMOVE ALL LOOSE SCALE AND SHARP EDGES OR FINIS

MATERIAL: 3/4" ROUND IRON ASTM A-576 GRADE 1015-1020

REVISIONS				
NO.	PREVIOUSLY	DATE		
1				
2				
3				
4				
5				

XCALTOOLS
 235 COMMERCE DR., SOUTH POINT, OH
 P: 740-377-3354 • F: 740-377-3363

DRAWN BY	GT	CHK'D	DATE
PART NAME		PART NUMBER	
HANDHOLD		HH-166-MC	

TOLERANCES: UNLESS OTHERWISE NOTED
 DIM $\pm 1/16"$ ANG $\pm 1^\circ$ HOLE DIM $\pm 1/32"$
 HOT FORM 1600° - 1800° F
 NO GOUGES, NICKS, OR CRACKS ALLOWED
 REMOVE ALL LOOSE SCALE AND SHARP EDGES OR FINIS

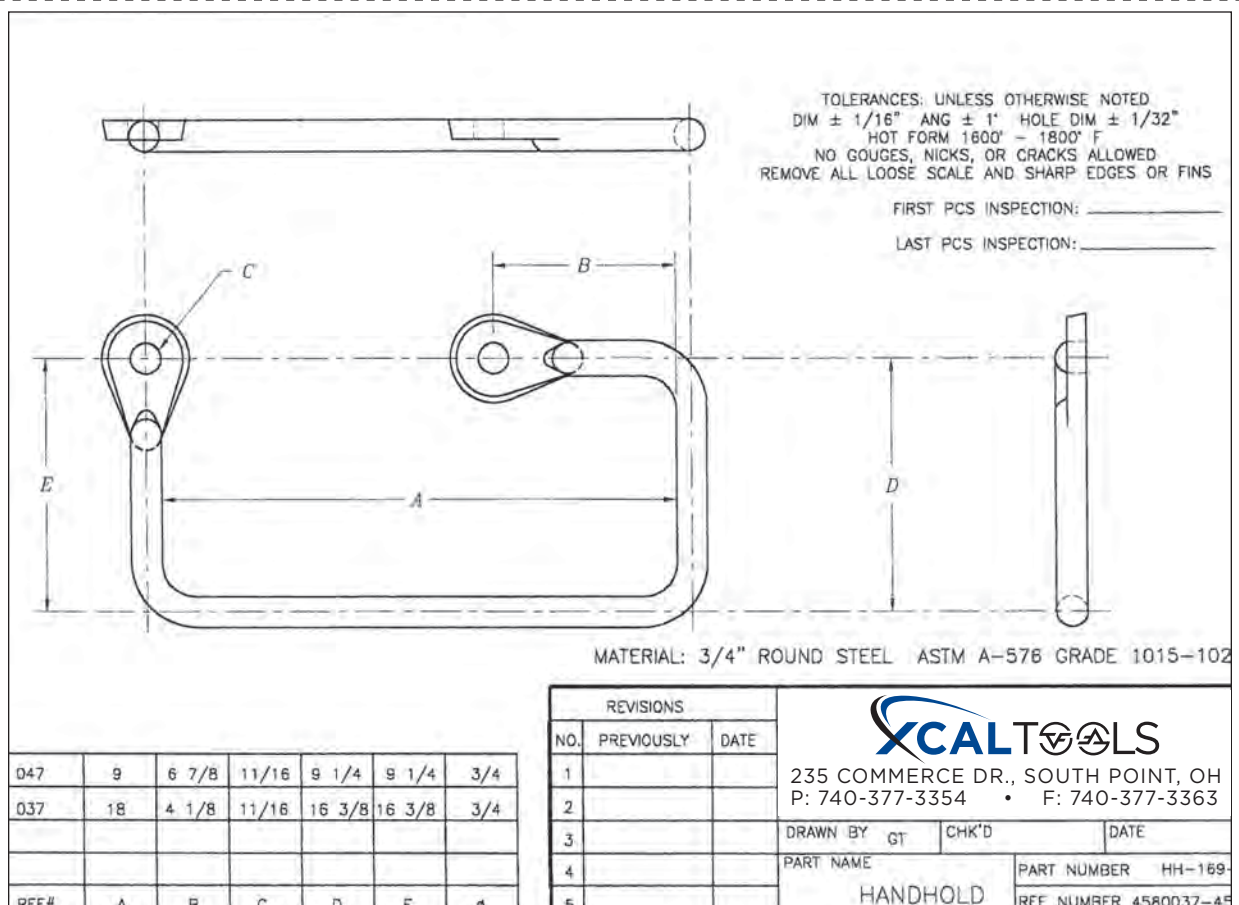
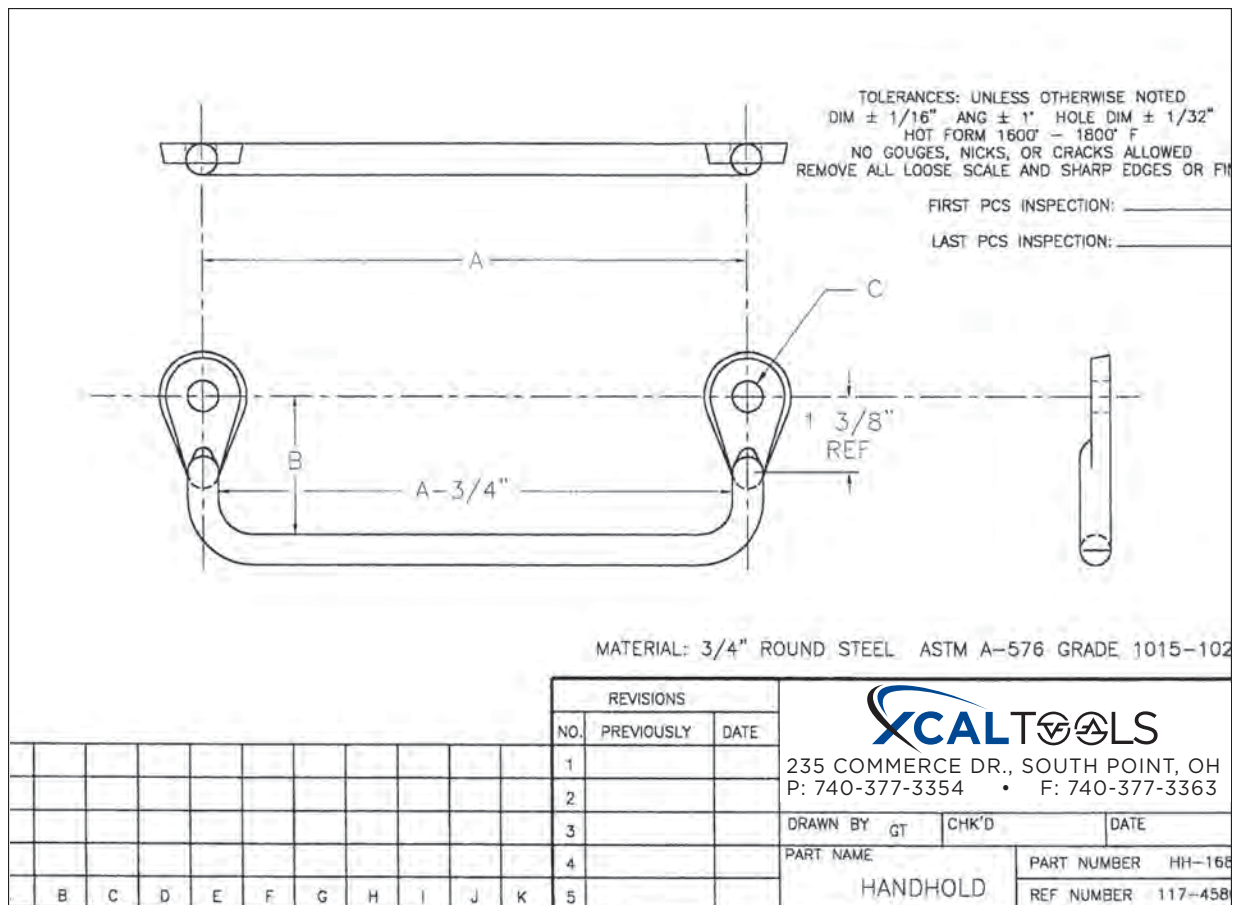
FIRST PCS INSPECTION: _____
 LAST PCS INSPECTION: _____

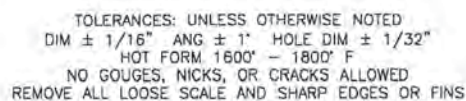
MATERIAL: 3/4" ROUND STEEL ASTM A-576 GRADE 1015-1020

REVISIONS				
NO.	PREVIOUSLY	DATE		
1				
2				
3				
4				
5				

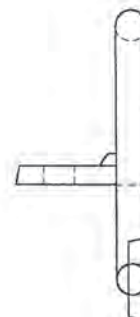
XCALTOOLS
 235 COMMERCE DR., SOUTH POINT, OH
 P: 740-377-3354 • F: 740-377-3363

DRAWN BY	GT	CHK'D	DATE
PART NAME		PART NUMBER	
HANDHOLD		HH-167	
		REF NUMBER	





LAST PCS INSPECTION: _____



MATERIAL: 3/4" ROUND STEEL ASTM A-576 GRADE 1015-102

REVISIONS		
NO.	PREVIOUSLY	DATE
1		
2		
3		
4		
5		



235 COMMERCE DR., SOUTH POINT, OH
P: 740-377-3354 • F: 740-377-3363

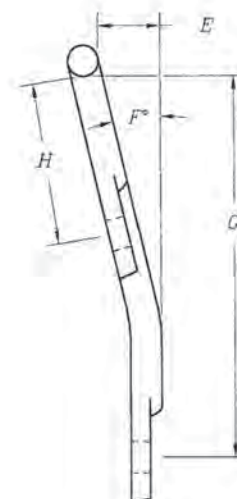
DRAWN BY	GT	CHK'D	DATE
----------	----	-------	------

PART NAME	PART NUMBER	HH-170
-----------	-------------	--------

HANDHOLD

PART NUMBER	HH-170
-------------	--------

REF NUMBER 4580010-45



TOLERANCES: UNLESS OTHERWISE NOTED
DIM $\pm 1/16"$ ANG $\pm 1^\circ$ HOLE DIM $\pm 1/32"$
HOT FORM 1600° - 1800° F
NO GOUGES, NICKS, OR CRACKS ALLOWED
MOVE ALL LOOSE SCALE AND SHARP EDGES OR FINIS

LAST PCS INSPECTION: _____

MATERIAL: 3/4" ROUND STEEL ASTM A-576 GRADE 1015-102

REVISIONS		
NO.	PREVIOUSLY	DATE
1		
2		
3		
4		
5		



235 COMMERCE DR., SOUTH POINT, OH
P: 740-377-3354 • F: 740-377-3363

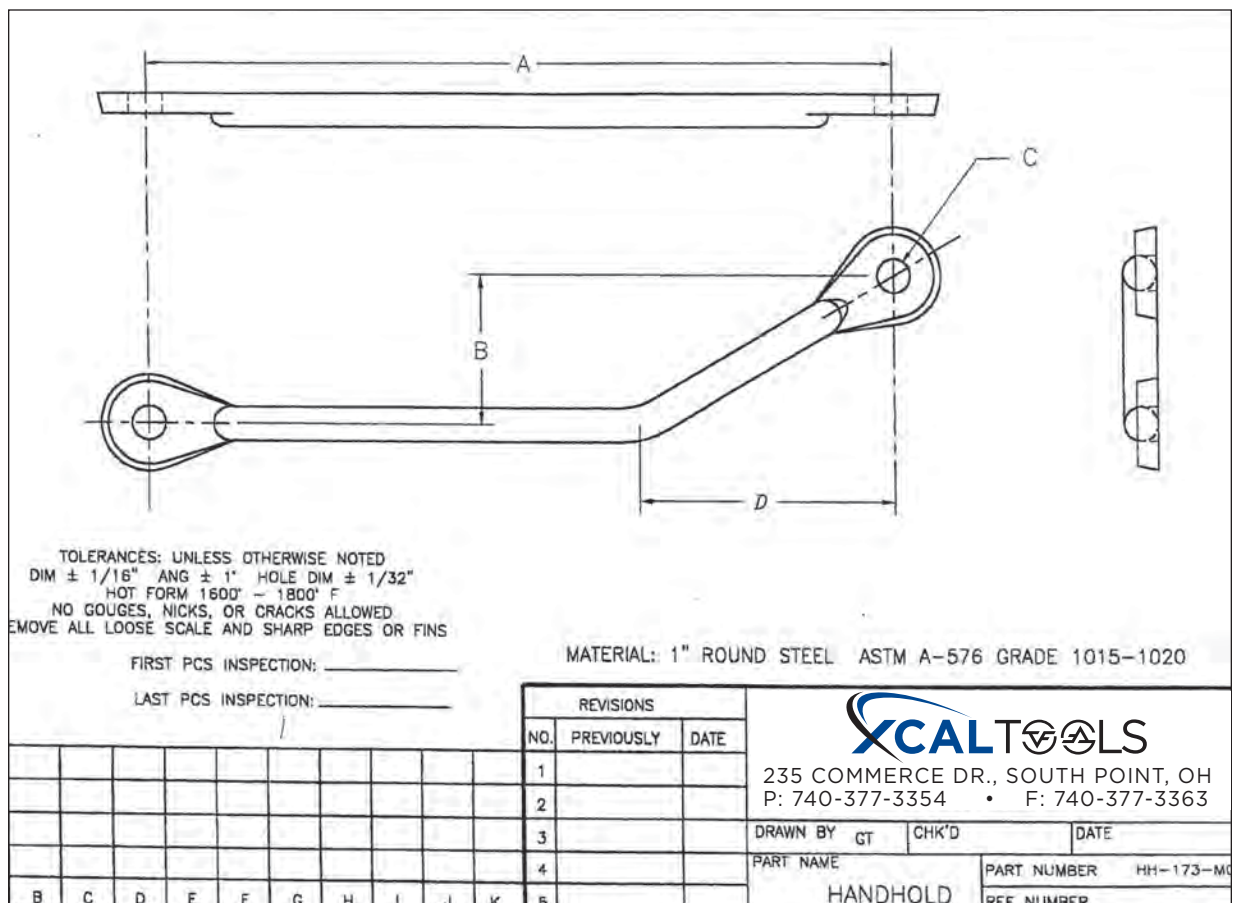
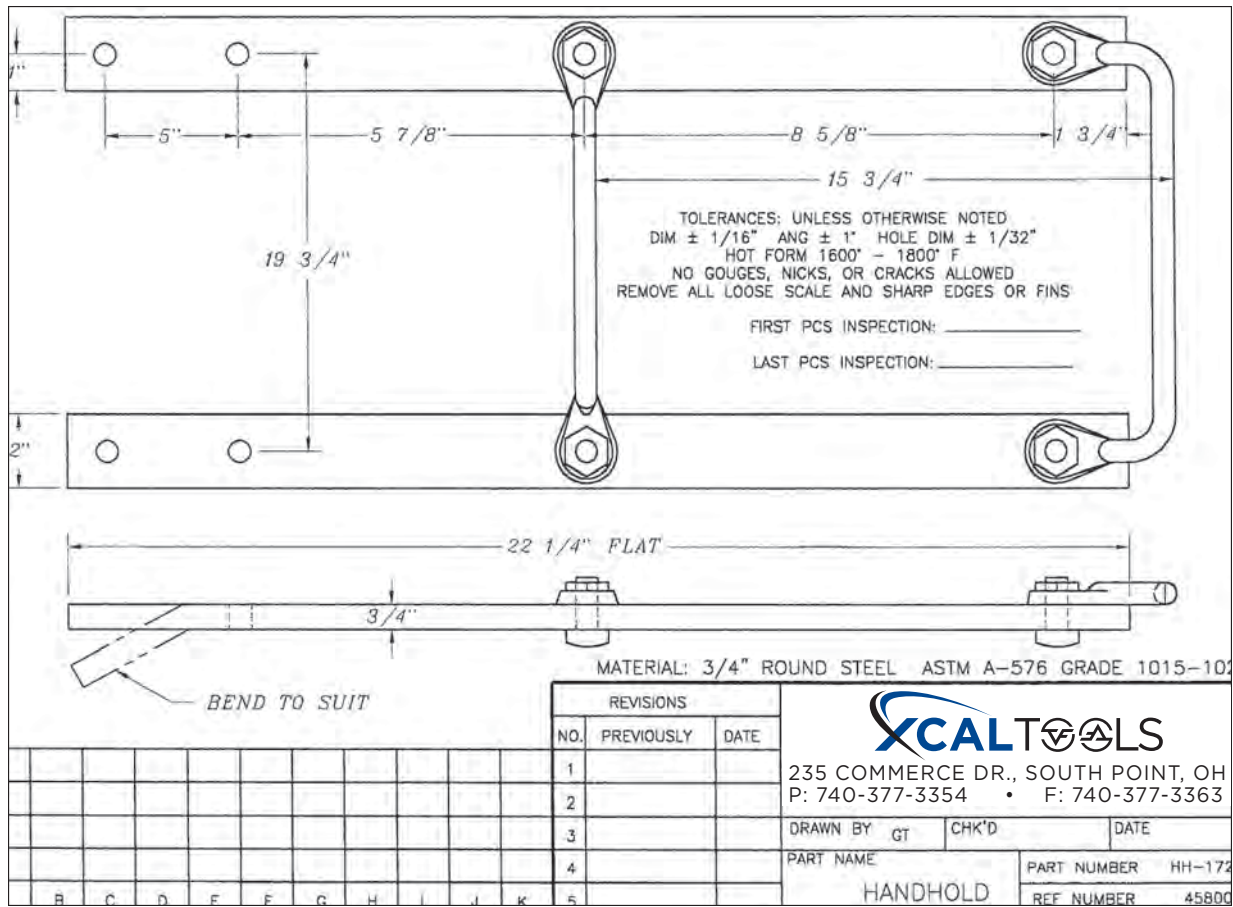
DRAWN BY	GT	CHK'D	DATE
----------	----	-------	------

PART NAME	PART NUMBER	HH-171
-----------	-------------	--------

HANDHOLD

PART NUMBER	HH-171
-------------	--------

REF NUMBER 4580039-45



TOLERANCES: UNLESS OTHERWISE NOTED
 DIM $\pm 1/16"$ ANG $\pm 1^\circ$ HOLE DIM $\pm 1/32"$
 HOT FORM 1600° - 1800° F
 NO GOUGES, NICKS, OR CRACKS ALLOWED
 REMOVE ALL LOOSE SCALE AND SHARP EDGES OR FINS

FIRST PCS INSPECTION: _____
 LAST PCS INSPECTION: _____

MATERIAL: 3/4" ROUND STEEL ASTM A-576 GRADE 1015-1020

													REVISIONS		
													NO.	PREVIOUSLY	DATE
													1		
													2		
													3		
													4		
													5		

235 COMMERCE DR., SOUTH POINT, OH P: 740-377-3354 • F: 740-377-3363													DRAWN BY		GT	CHK'D	DATE	
													PART NAME			PART NUMBER		
													HANDHOLD			HH-174-MC		
																REF NUMBER		

TOLERANCES: UNLESS OTHERWISE NOTED
 DIM $\pm 1/16"$ ANG $\pm 1^\circ$ HOLE DIM $\pm 1/32"$
 HOT FORM 1600° - 1800° F
 NO GOUGES, NICKS, OR CRACKS ALLOWED
 REMOVE ALL LOOSE SCALE AND SHARP EDGES OR FINS

FIRST PCS INSPECTION: _____
 LAST PCS INSPECTION: _____

MATERIAL: 3/4" ROUND STEEL ASTM A-576 GRADE 1015-1020

													REVISIONS		
													NO.	PREVIOUSLY	DATE
													1		
													2		
													3		
													4		
													5		

235 COMMERCE DR., SOUTH POINT, OH P: 740-377-3354 • F: 740-377-3363													DRAWN BY		GT	CHK'D	DATE	
													PART NAME			PART NUMBER		
													HANDHOLD			HH-175-MC		
																REF NUMBER		

TOLERANCES: UNLESS OTHERWISE NOTED
 DIM $\pm 1/16"$ ANG $\pm 1^\circ$ HOLE DIM $\pm 1/32"$
 HOT FORM 1600° - 1800° F
 NO GOUGES, NICKS, OR CRACKS ALLOWED
 REMOVE ALL LOOSE SCALE AND SHARP EDGES OR FINIS

FIRST PCS INSPECTION: _____
 LAST PCS INSPECTION: _____

MATERIAL: 3/4" ROUND STEEL ASTM A-576 GRADE 1015-1020

REVISIONS												
NO.	PREVIOUSLY	DATE										
1												
2												
3												
4												
5												

A	B	C	D	E	F	G	H	I	J	K
---	---	---	---	---	---	---	---	---	---	---

235 COMMERCE DR., SOUTH POINT, OH
 P: 740-377-3354 • F: 740-377-3363

DRAWN BY GT CHK'D _____ DATE _____

PART NAME _____ PART NUMBER HH-176-MC

HANDHOLD REF NUMBER _____

TOLERANCES: UNLESS OTHERWISE NOTED
 DIM $\pm 1/16"$ ANG $\pm 1^\circ$ HOLE DIM $\pm 1/32"$
 HOT FORM 1600° - 1800° F
 NO GOUGES, NICKS, OR CRACKS ALLOWED
 REMOVE ALL LOOSE SCALE AND SHARP EDGES OR FINIS

FIRST PCS INSPECTION: _____
 LAST PCS INSPECTION: _____

MATERIAL: 3/4" ROUND STEEL ASTM A-576 GRADE 1015-1020

REVISIONS												
NO.	PREVIOUSLY	DATE										
1												
2												
3												
4												
5												

B	C	D	E	F	G	H	I	J	K
---	---	---	---	---	---	---	---	---	---

235 COMMERCE DR., SOUTH POINT, OH
 P: 740-377-3354 • F: 740-377-3363

DRAWN BY GT CHK'D _____ DATE _____

PART NAME _____ PART NUMBER HH-177-MC

HANDHOLD REF NUMBER _____

TOLERANCES: UNLESS OTHERWISE NOTED
 DIM $\pm 1/16"$ ANG $\pm 1^\circ$ HOLE DIM $\pm 1/32"$
 HOT FORM 1600° - 1800° F
 NO GOUGES, NICKS, OR CRACKS ALLOWED
 REMOVE ALL LOOSE SCALE AND SHARP EDGES OR FINIS

FIRST PCS INSPECTION: _____
 LAST PCS INSPECTION: _____

MATERIAL: 3/4" ROUND STEEL ASTM A-576 GRADE 1015-1020

REVISIONS										
NO.	PREVIOUSLY	DATE								
1										
2										
3										
4										
5										

235 COMMERCE DR., SOUTH POINT, OH
 P: 740-377-3354 • F: 740-377-3363

DRAWN BY GT	CHK'D	DATE
PART NAME HANDHOLD		PART NUMBER HH-178-MC
		REF NUMBER

CP-T1E

MATERIAL: 1 3/4" ϕ x 15" A36

THE INFORMATION DISCLOSED HEREIN WAS ORIGINATED BY AND IS PROPERTY OF SWEENEY'S INC AND, EXCEPT FOR USES WHICH MAY BE EXPRESSLY GRANTED, SWEENEY'S INC RESERVES ALL PATENT, PROPRIETARY, DESIGN, USE, SALE, MANUFACTURING, & REPRODUCTION RIGHTS IN AND TO SAID INFORMATION AND THIS DOCUMENT.

ES	ENG	MFG	Q.A.
----	-----	-----	------

TOLERANCES (EXCEPT AS NOTED)

DECIMAL $\pm .005$

FRACTIONAL $\pm 1/64$

ANGULAR $\pm 1^\circ$

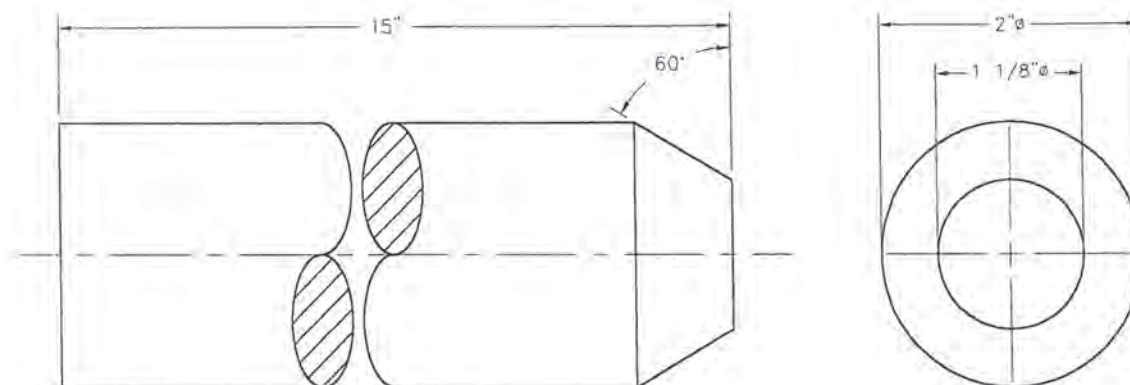
REVISIONS		
NO.	PREVIOUSLY	DATE
1		
2		
3		
4		
5		

235 COMMERCE DR., SOUTH POINT, OH

CENTER PIN
w/TAPER ON ONE END ONLY

DRAWN BY GT	SCALE FULL	MATERIAL A36
CHK'D	DATE 4/18/00	DRAWING NO.
REDRAWN BY	REDRAWN DATE	J4

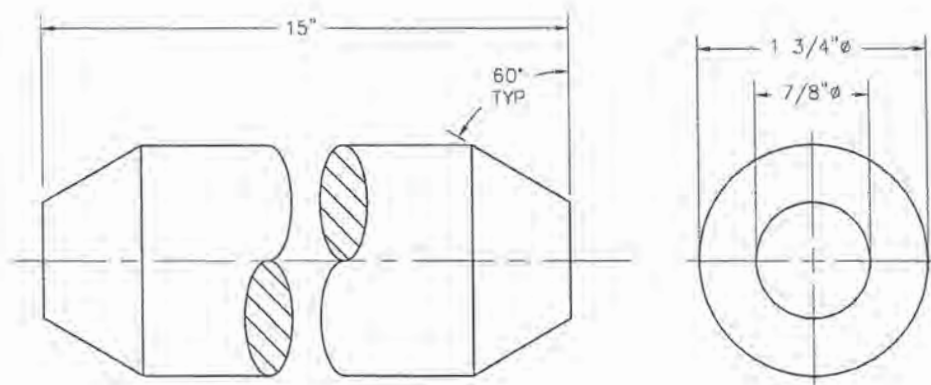
CP-T1E-



△ MATERIAL: 2"Ø ASTM 576, GRADE 1018-1020 x 15"

THE INFORMATION DISCLOSED HEREIN WAS ORIGINATED BY AND IS PROPERTY OF McSWEENEY'S INC AND, EXCEPT FOR USES WHICH MAY BE EXPRESSLY GRANTED, McSWEENEY'S INC RESERVES ALL PATENT, PROPRIETARY, DESIGN, USE, SALE, MANUFACTURING, & REPRODUCTION RIGHTS IN AND TO SAID INFORMATION AND THIS DOCUMENT.				TOLERANCES (EXCEPT AS NOTED)		REVISIONS			 235 COMMERCE DR., SOUTH POINT, OH				
						NO.	PREVIOUSLY	DATE					
				DECIMAL ± .005			WAS A36 PER JERRY K	2-3-04 GT	CENTER PIN 2"Ø w/TAPER ON ONE END ONLY				
							2						
				FRACTIONAL ± 1/64		3		DRAWN BY	GT	SCALE	FULL	MATERIAL	A
						4		CHK'D		DATE	4/25/02	DRAWING NO.	
SALES	ENG	MFG	Q.A.	ANGULAR ± 1 da	5		REDRAWN BY	REDRAWN DATE	J4-				

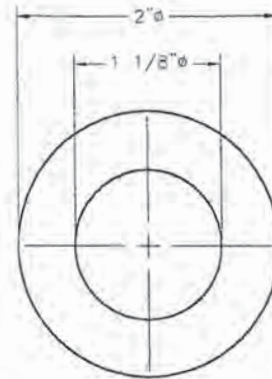
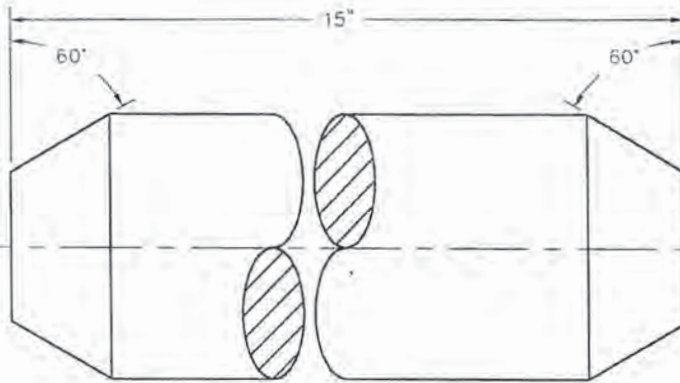
CP-T2E



MATERIAL: 1 3/4"Ø x 15" A36

THE INFORMATION DISCLOSED HEREIN WAS ORIGINATED BY AND IS PROPERTY OF McSWEENEY'S INC AND, EXCEPT FOR USES WHICH MAY BE EXPRESSLY GRANTED, McSWEENEY'S INC RESERVES ALL PATENT, PROPRIETARY, DESIGN, USE, SALE, MANUFACTURING, & REPRODUCTION RIGHTS IN AND TO SAID INFORMATION AND THIS DOCUMENT.				TOLERANCES (EXCEPT AS NOTED)		REVISIONS			 235 COMMERCE DR., SOUTH POINT, OH					
						NO.	PREVIOUSLY	DATE						
				DECIMAL ± .005		1			CENTER PIN w/TAPER ON BOTH ENDS					
						2								
				FRACTIONAL ± 1/64		3			DRAWN BY	GT	SCALE	FULL	MATERIAL	A36
						4			CHK'D		DATE	4/20/00	DRAWING NO.	
LES	ENG	MFG	Q.A.	ANGULAR ± 1 dg		5			REDRAWN BY	REDRAWN DATE	J11			

CP-T2E-2

MATERIAL: 2" ϕ x 15" A36

THE INFORMATION DISCLOSED HEREIN WAS ORIGINATED BY AND IS PROPERTY OF MCSWEENEY'S INC AND, EXCEPT FOR USES WHICH MAY BE EXPRESSLY GRANTED, MCSWEENEY'S INC RESERVES ALL PATENT, PROPRIETARY, DESIGN, USE, SALE, MANUFACTURING, & REPRODUCTION RIGHTS IN AND TO SAID INFORMATION AND THIS DOCUMENT.

TOLERANCES
(EXCEPT
AS
NOTED)DECIMAL
 $\pm .005$ FRACTIONAL
 $\pm 1/64$ ANGULAR
 $\pm 1 \text{ dg}$

REVISIONS

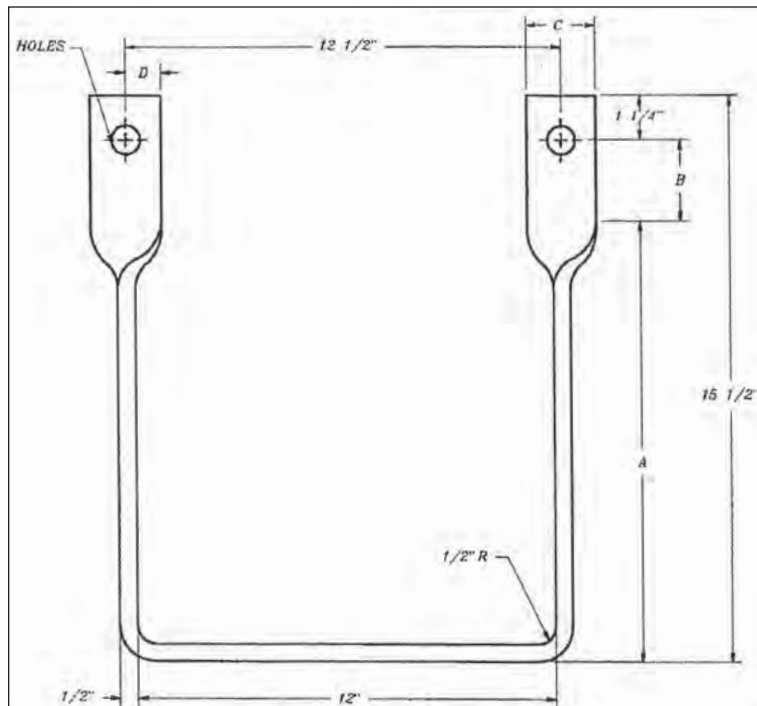
NO.	PREVIOUSLY	DATE
1		
2		
3		
4		
5		

235 COMMERCE DR.,
SOUTH POINT, OHCENTER PIN 2" ϕ
w/TAPER ON BOTH ENDS

DRAWN BY	GT	SCALE	FULL	MATERIAL	A36
CHK'D		DATE	4/25/02	DRAWING NO.	
REDRAWN BY		REDRAWN DATE			

LES	ENG	MFG	Q.A.
-----	-----	-----	------

J11-1

NOTE: OTHER DESIGN
AVAILABLE ON 1

MATERIAL: 1/2 "x 2" A576 - GR 1016 - 1020 STEEL

13"	1 1/4"	2"	1"
13"	1 1/4"	2 1/2"	1 1/4"
12"	2 1/4"	2 1/2"	1 1/4"
DIM "A"	DIM "B"	DIM "C"	DIM "D"

TOLERANCES
(EXCEPT
AS
NOTED)DECIMAL
 $\pm .005$ FRACTIONAL
 $\pm 1/64$ ANGULAR
 $\pm 1 \text{ dg}$

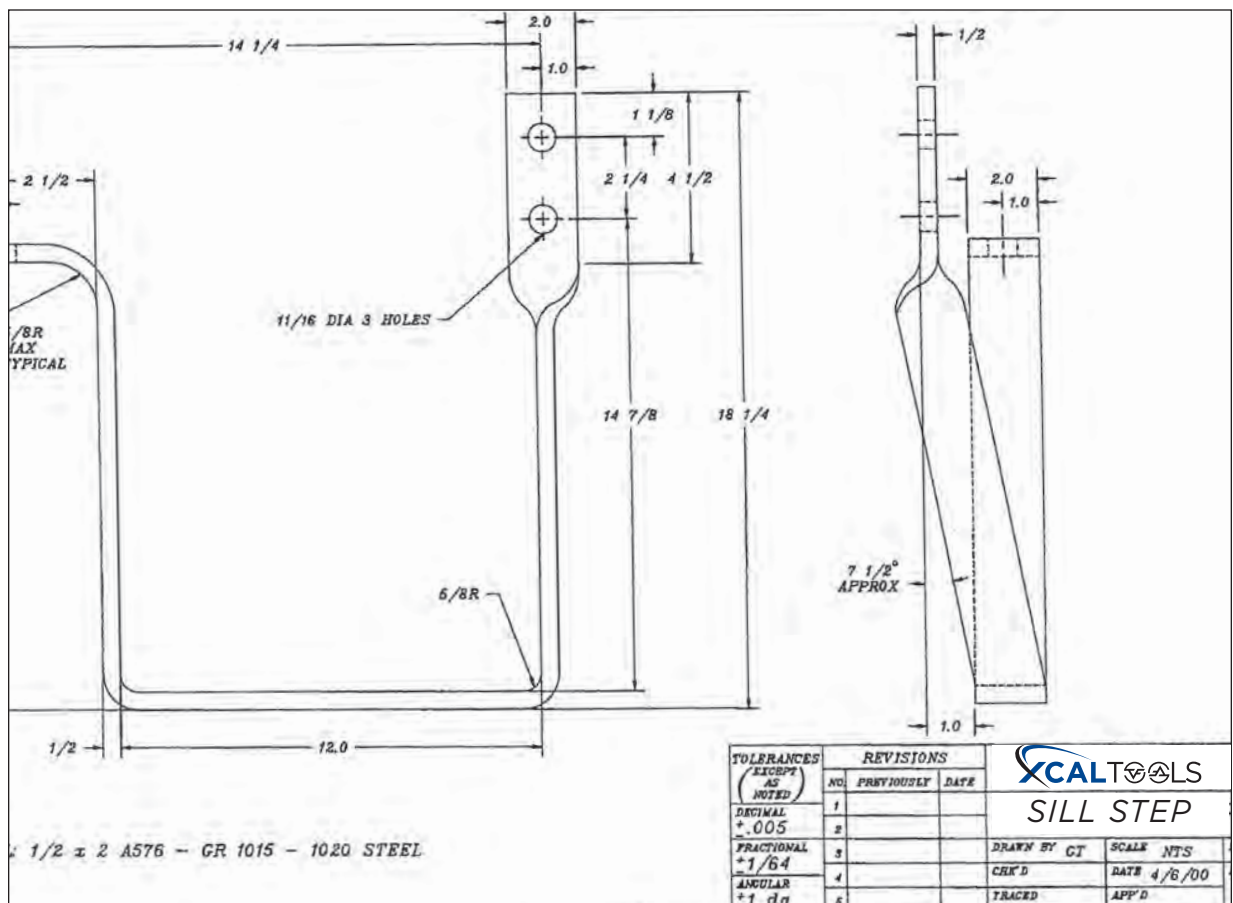
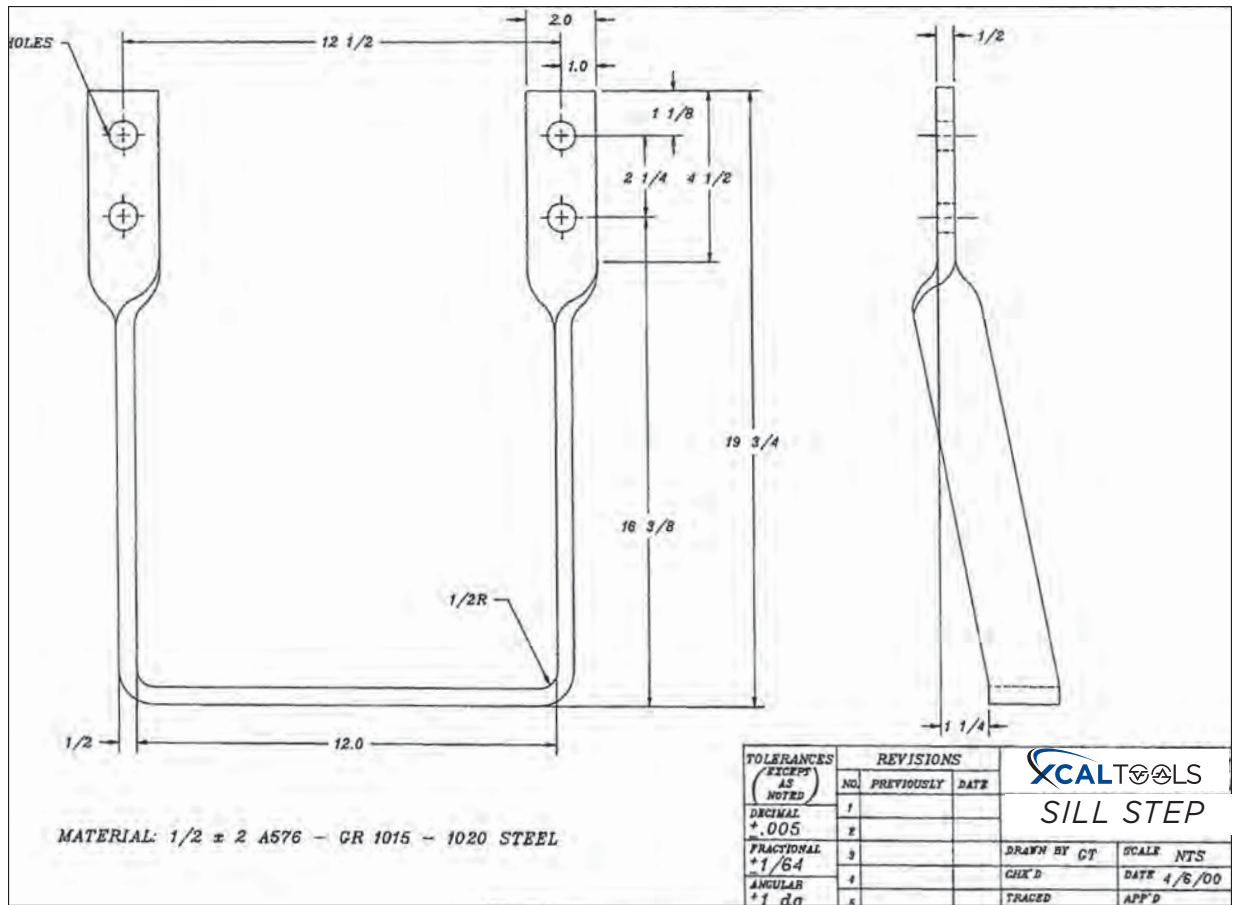
REVISIONS

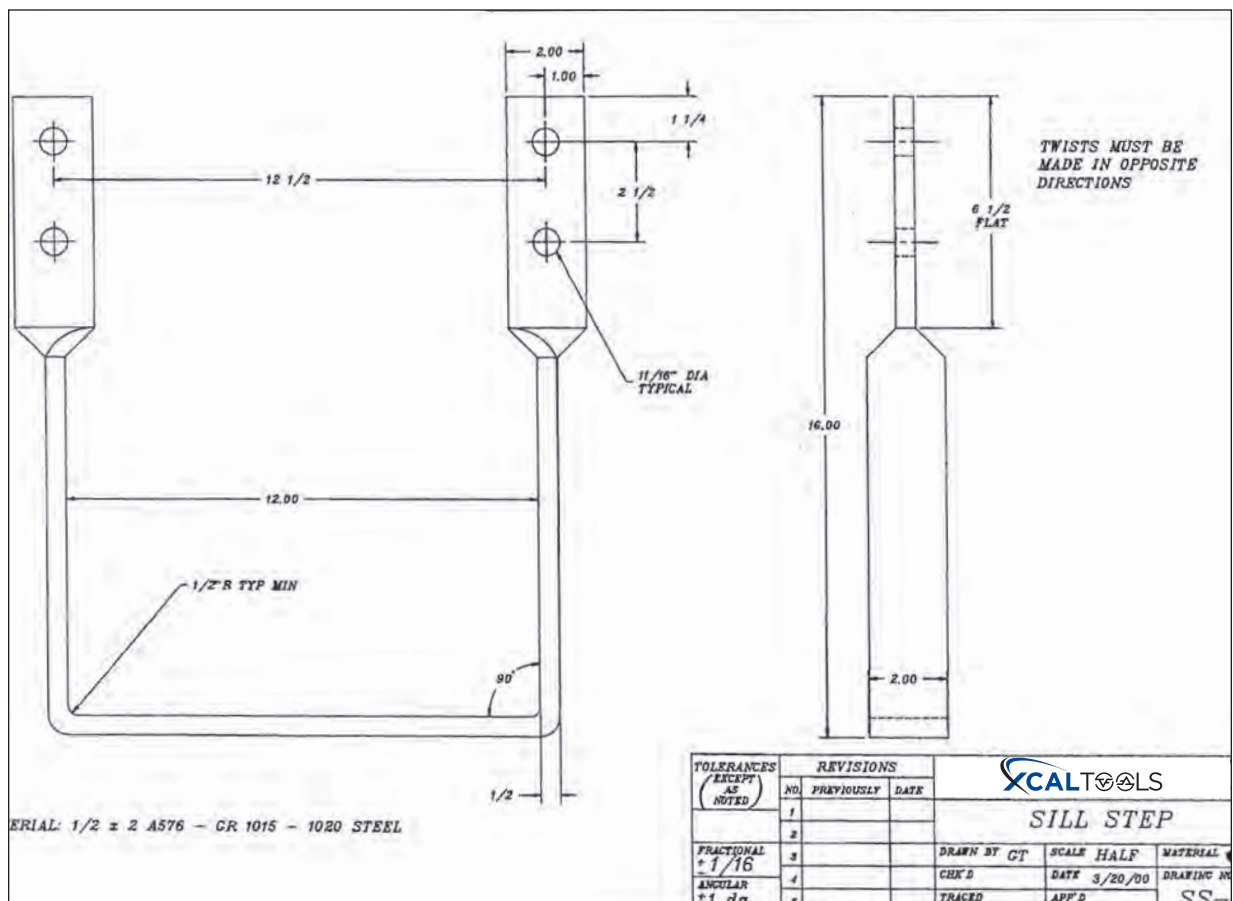
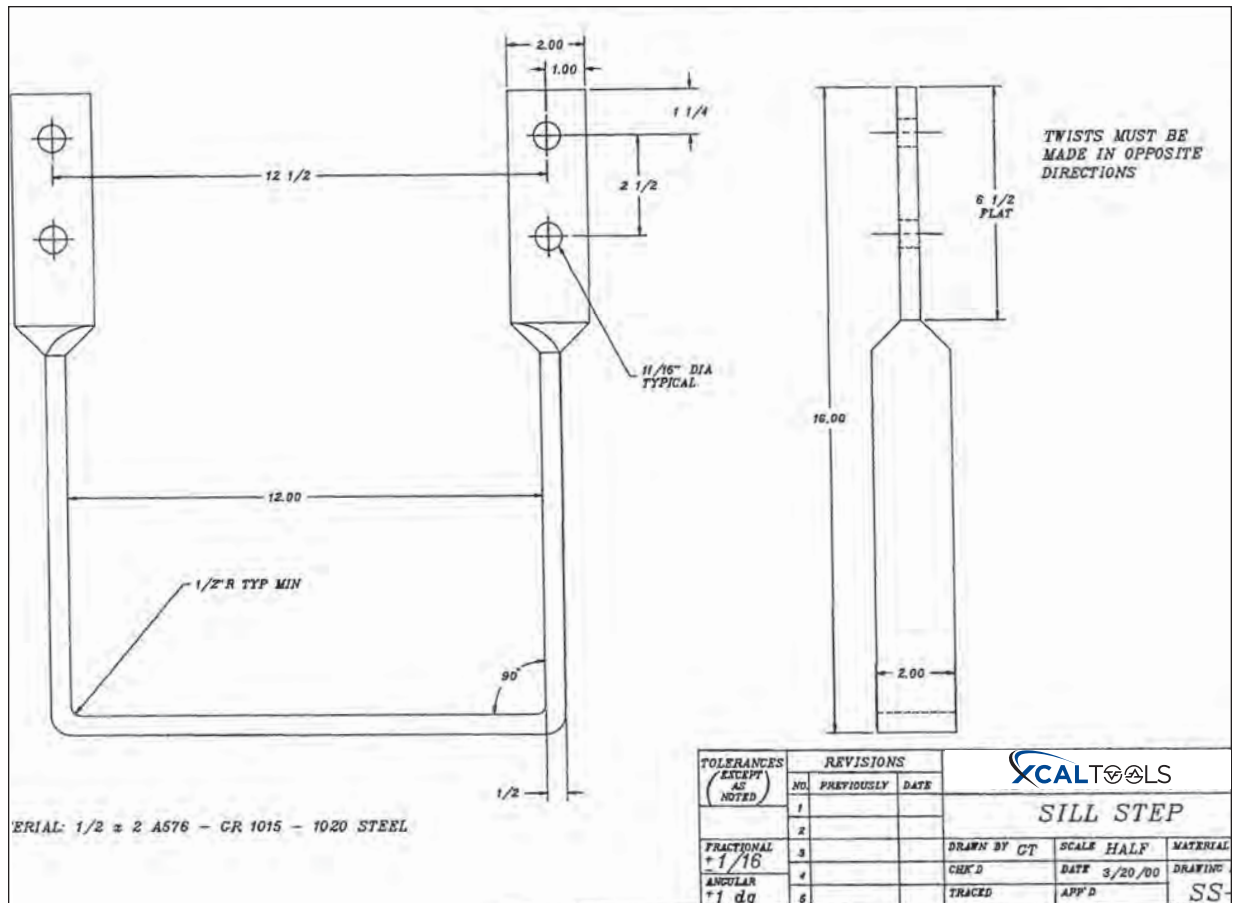
NO.	PREVIOUSLY	DATE
1		
2		
3		
4		
5		

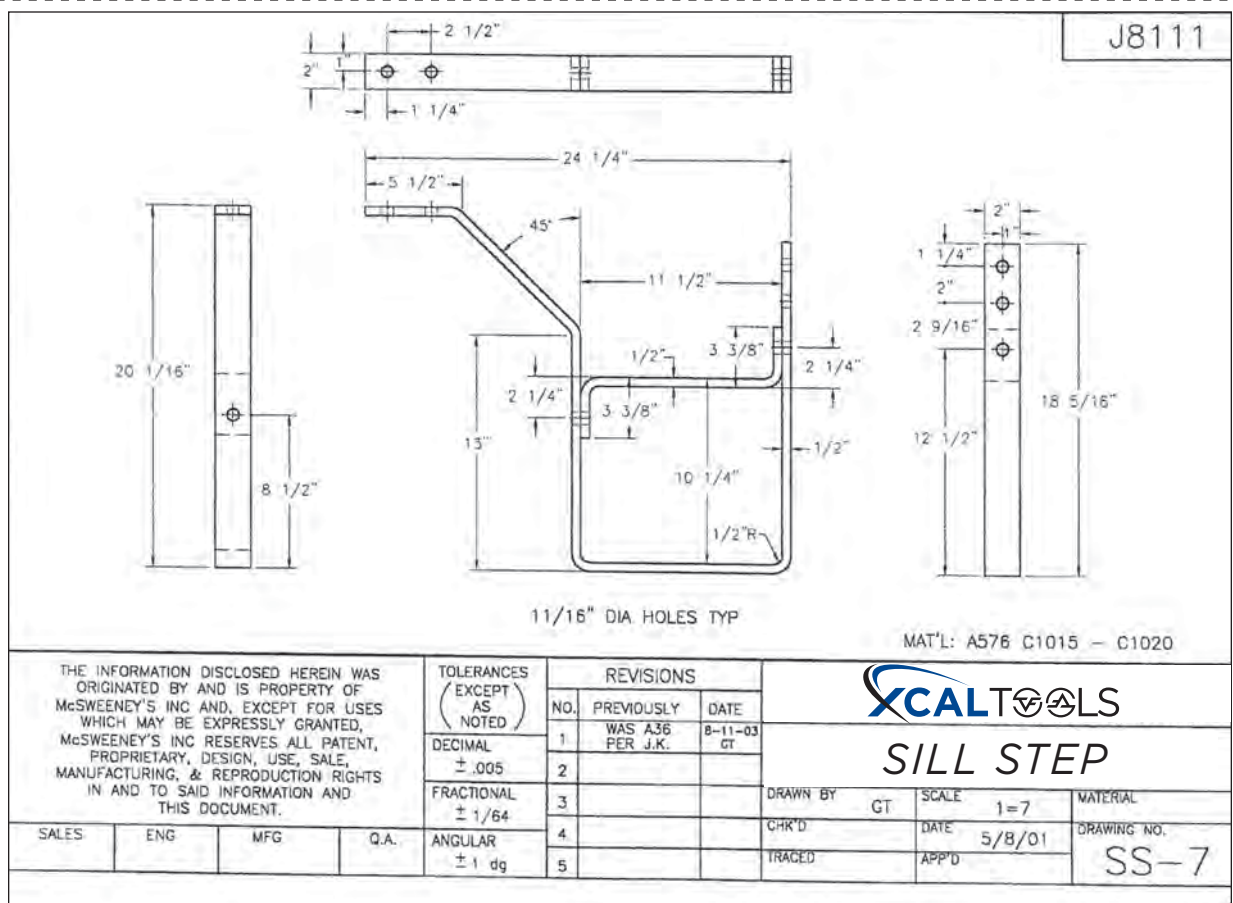
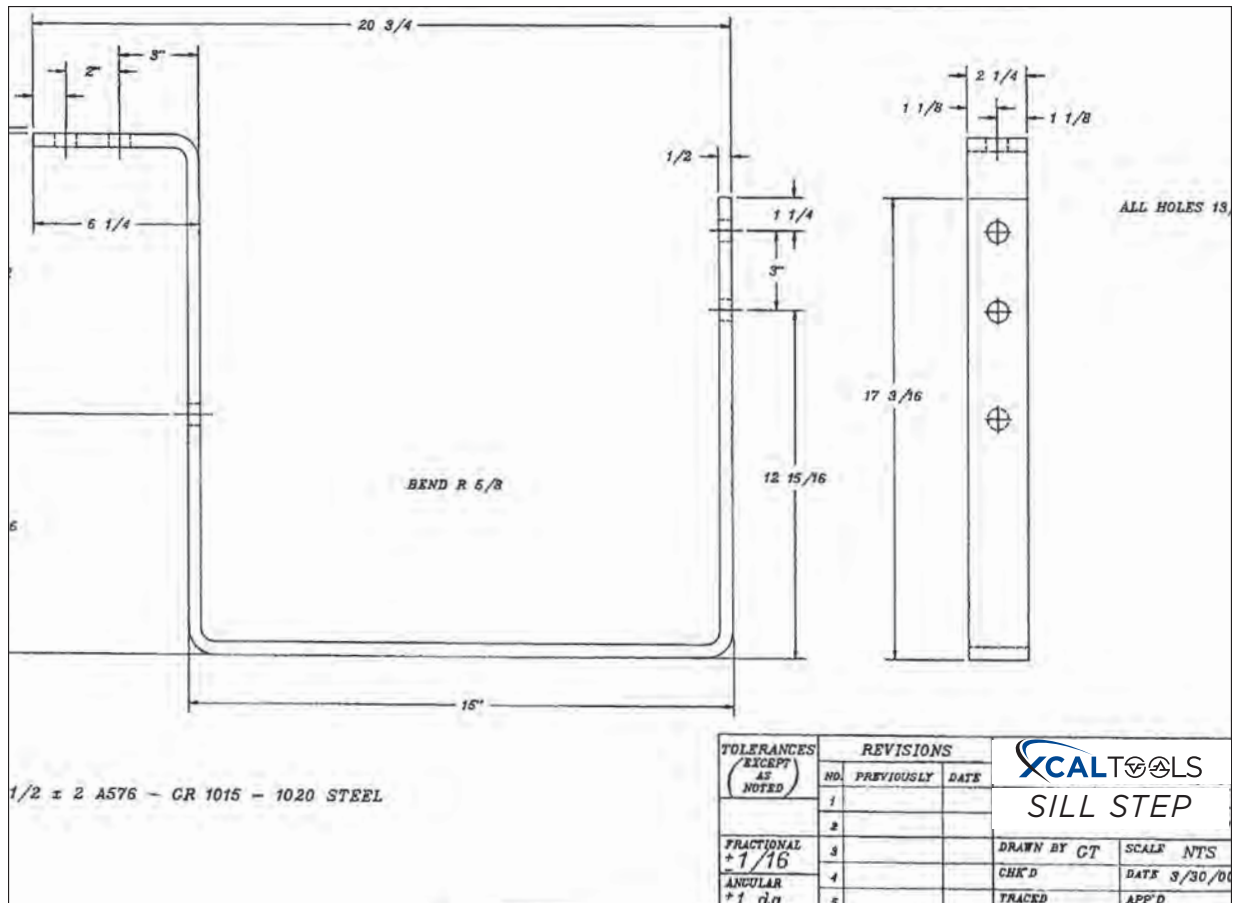


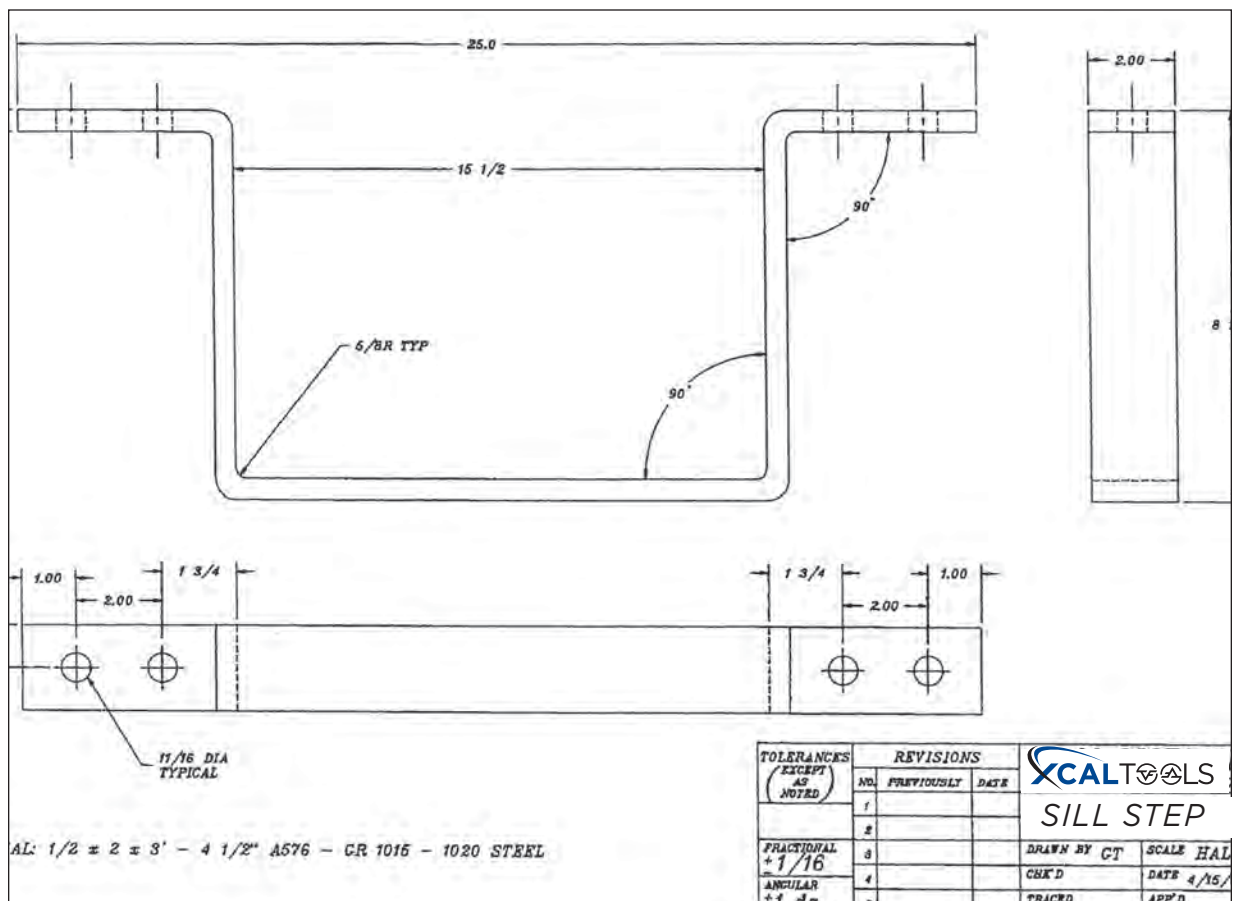
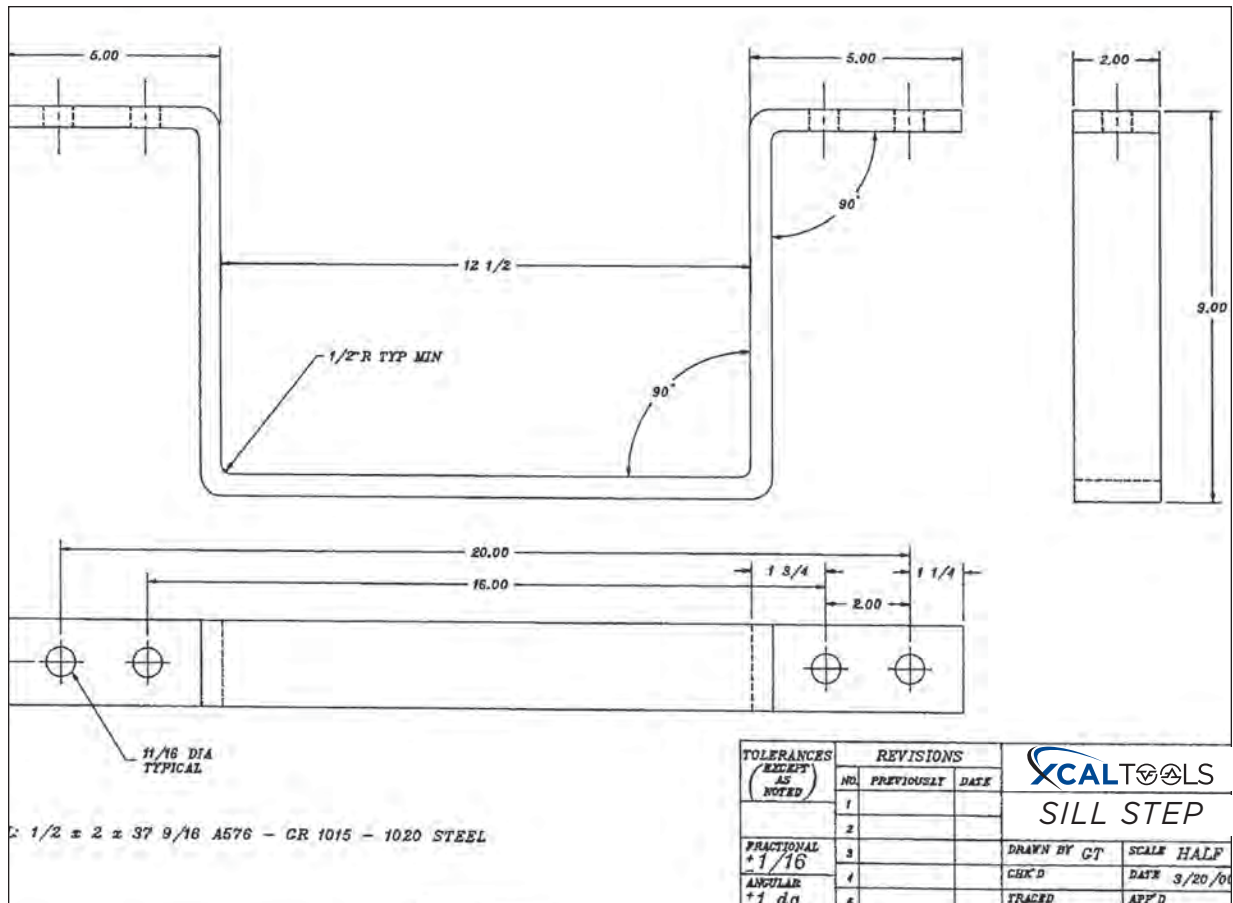
SILL STEP

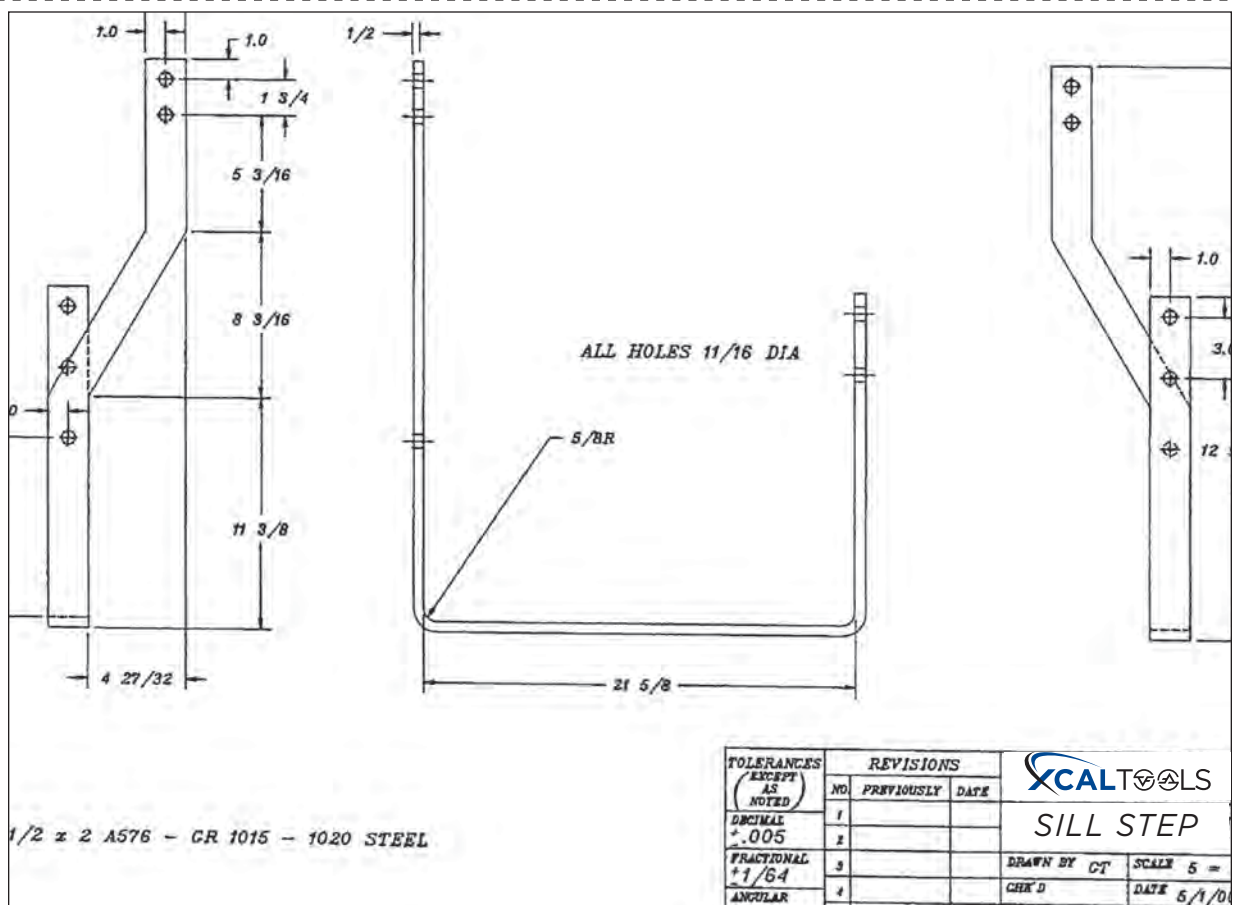
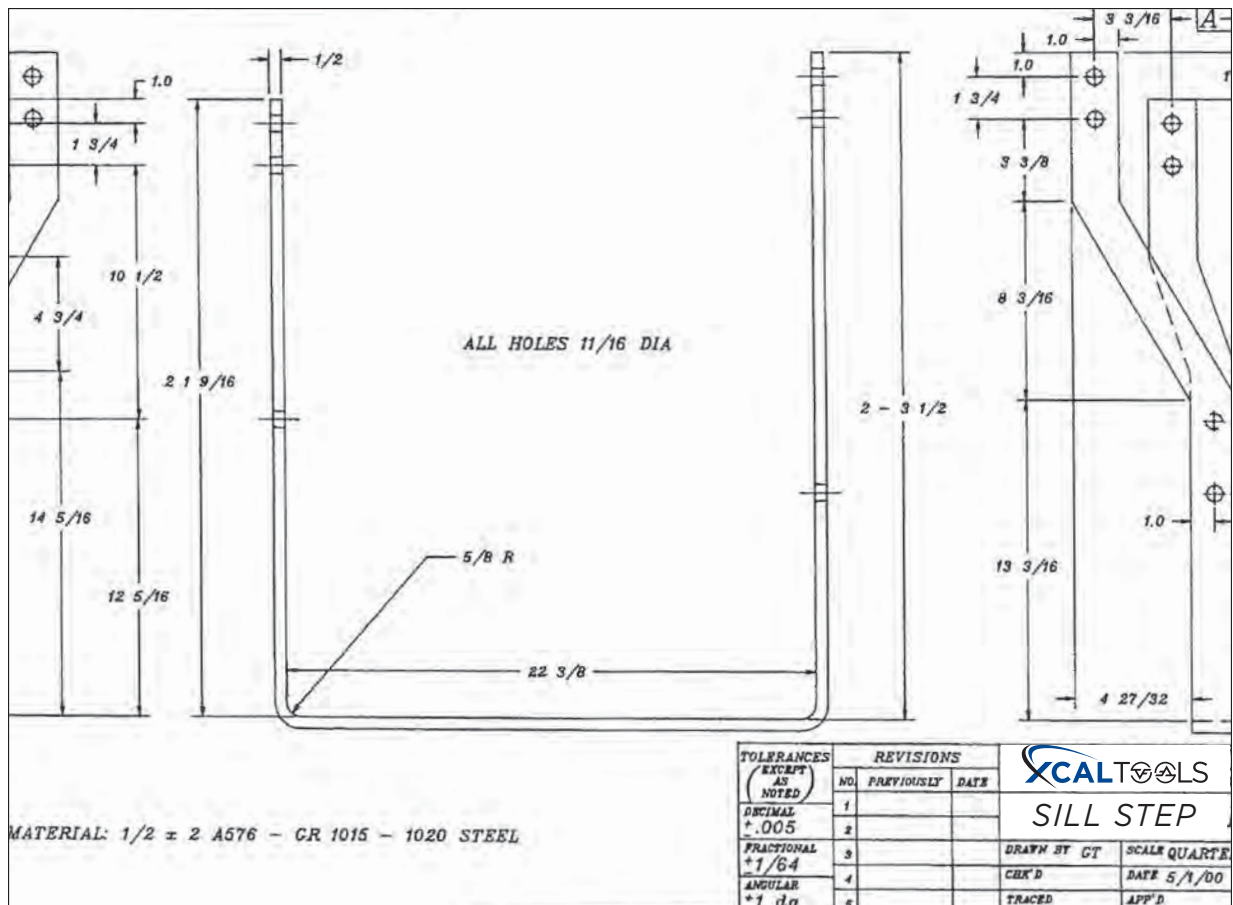
DRAWN BY	GT	SCALE	NTS
CHK'D		DATE	4/6/00
TRACED		APP'D	

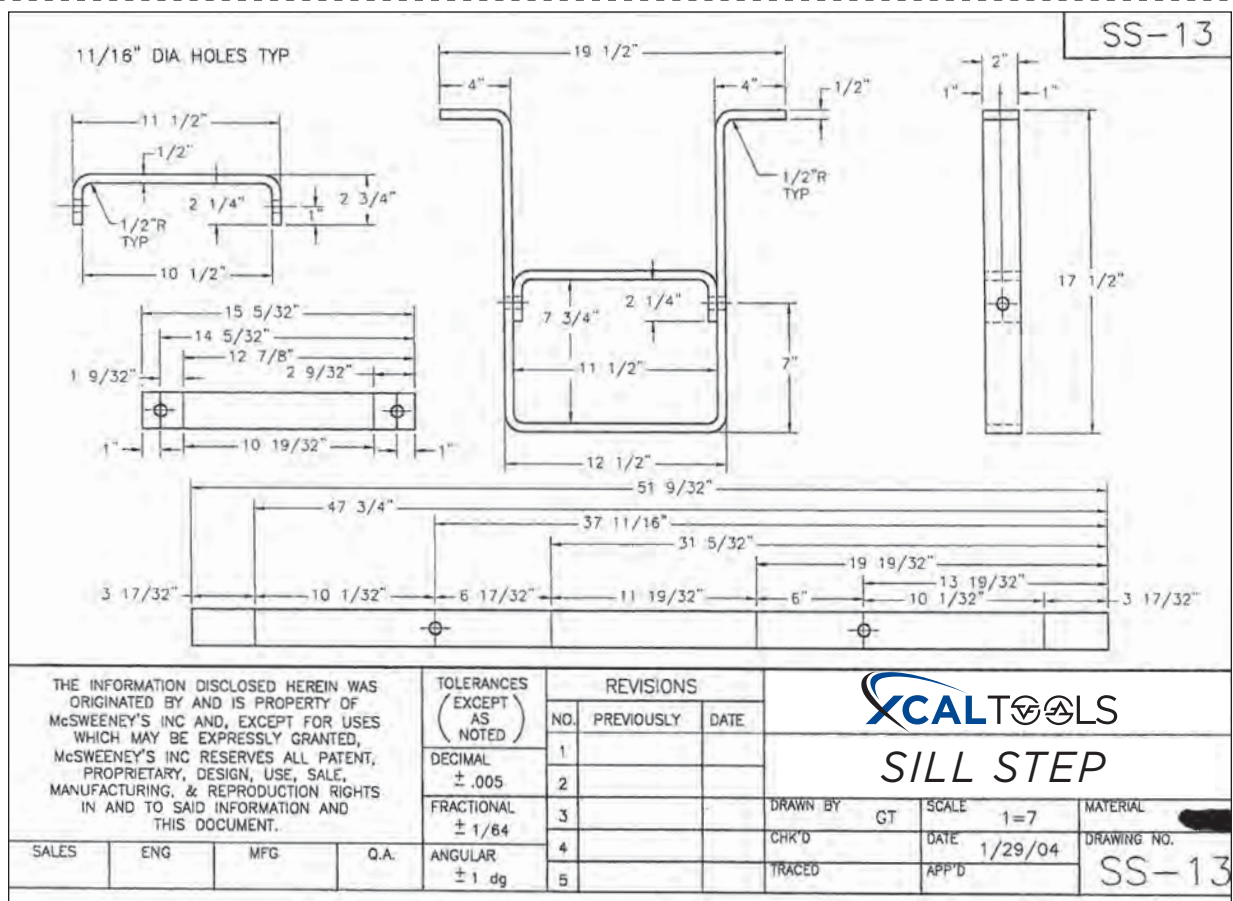
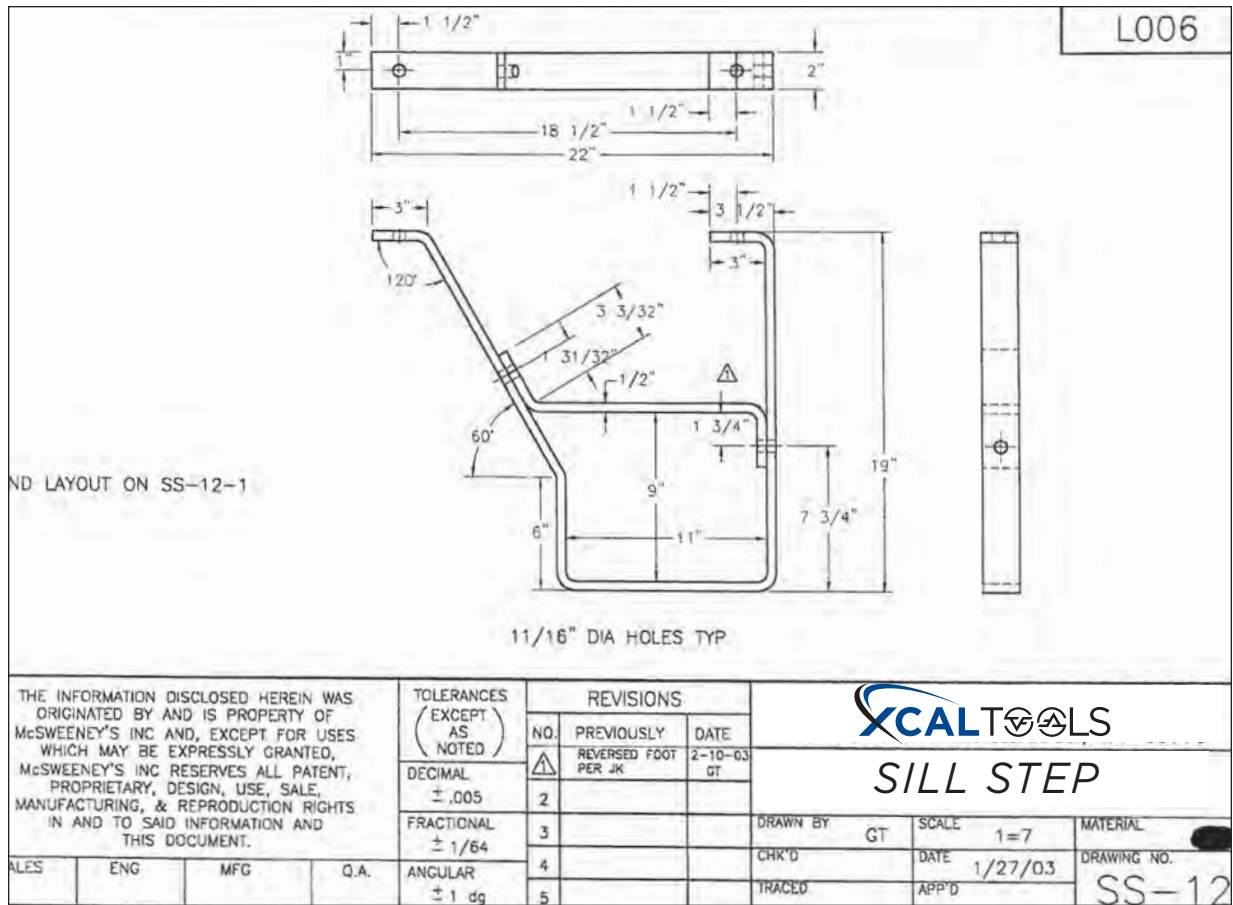


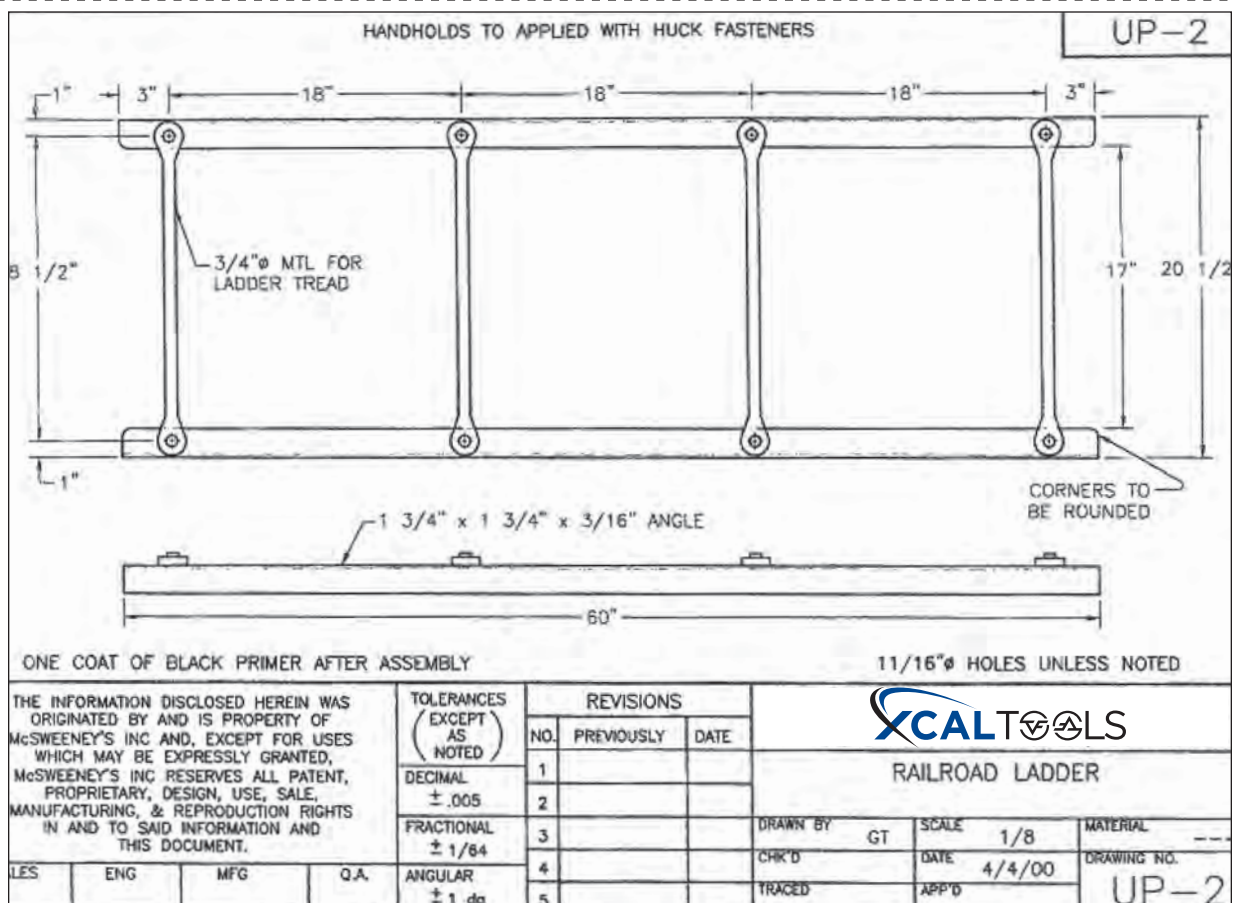
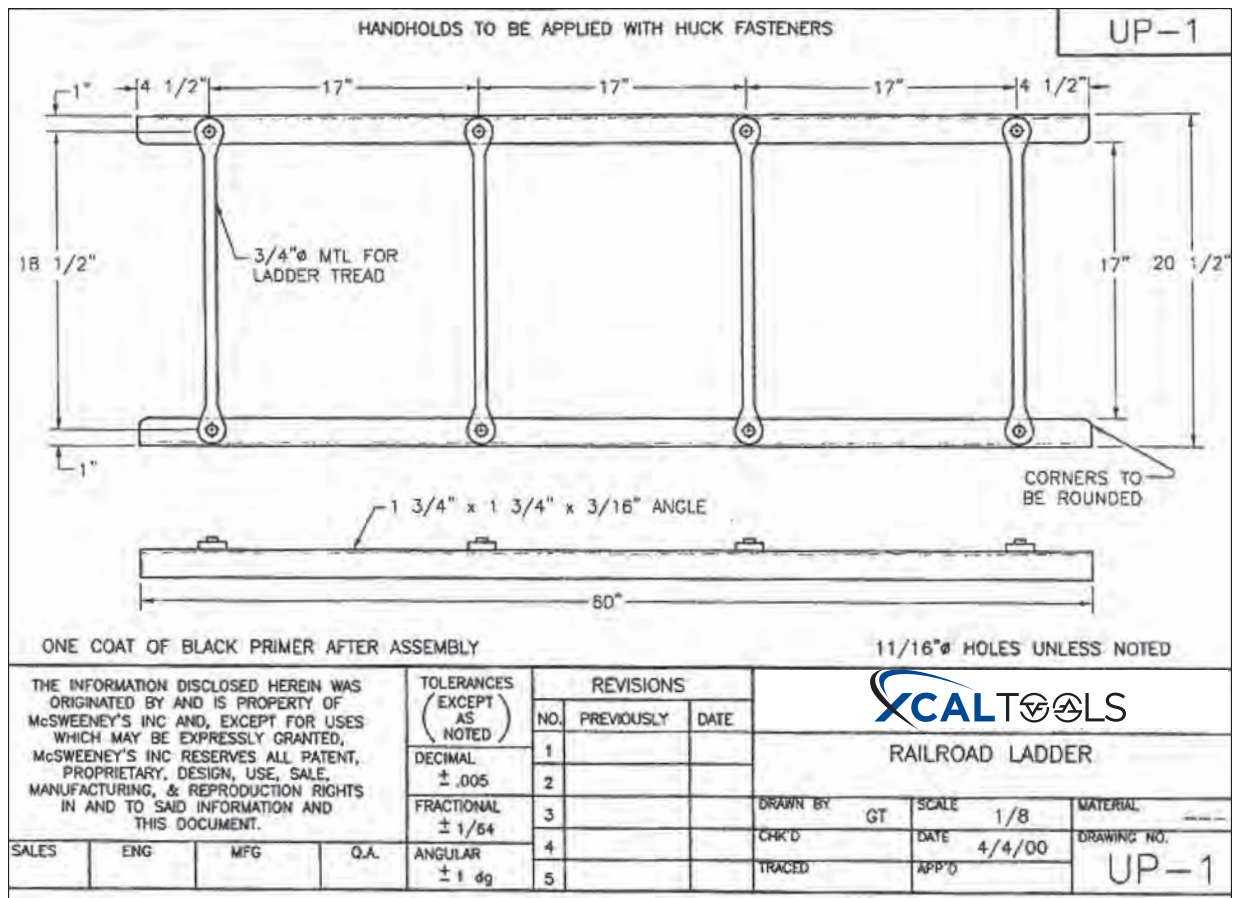


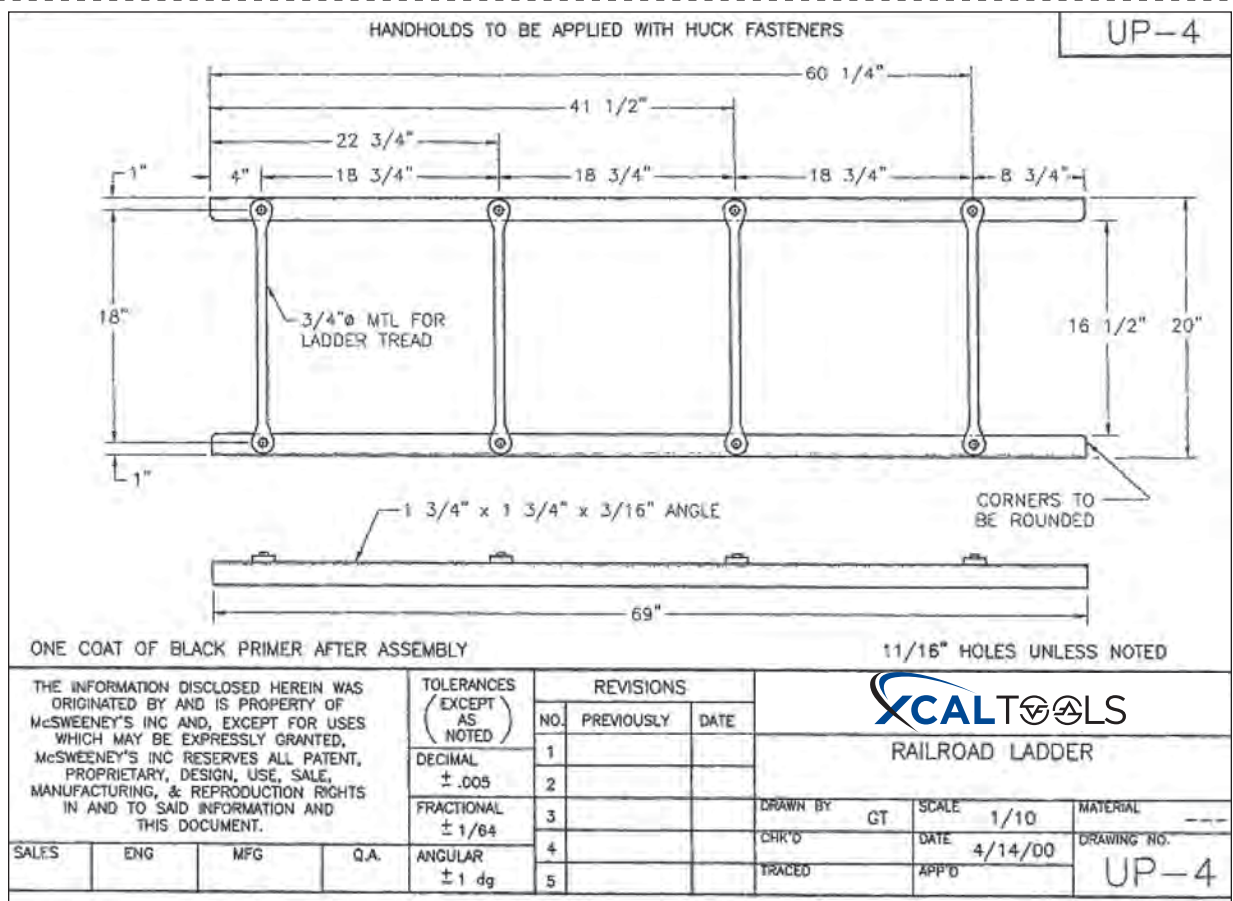
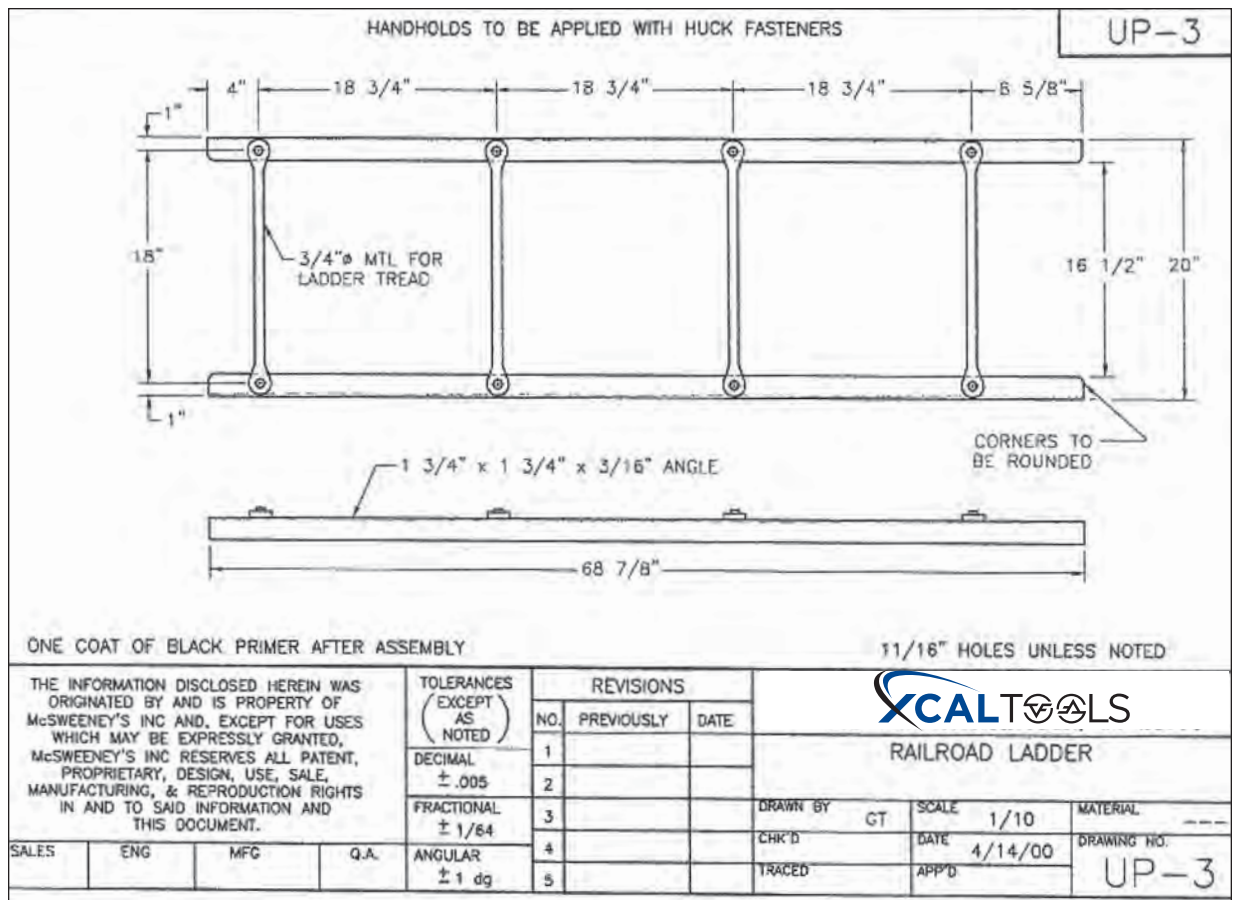


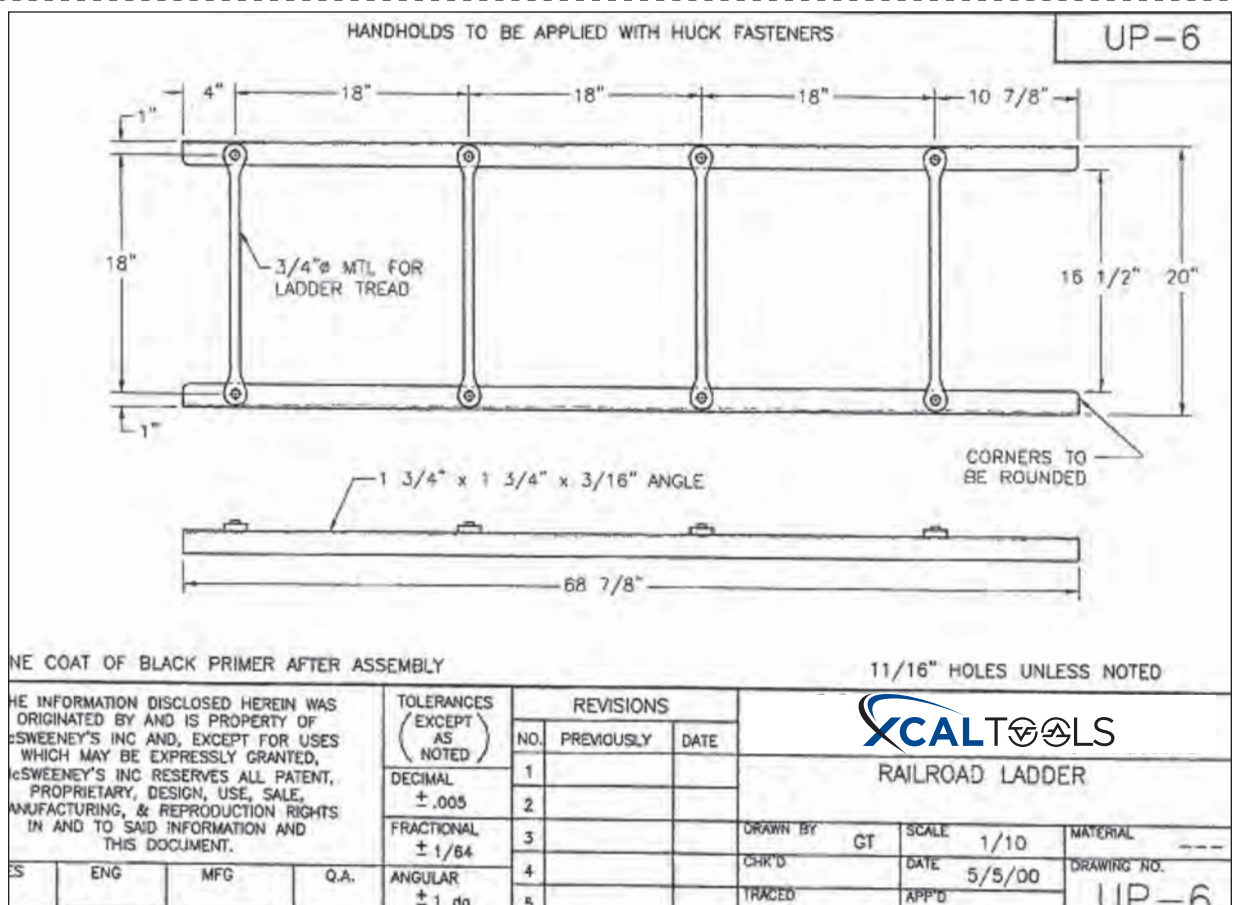
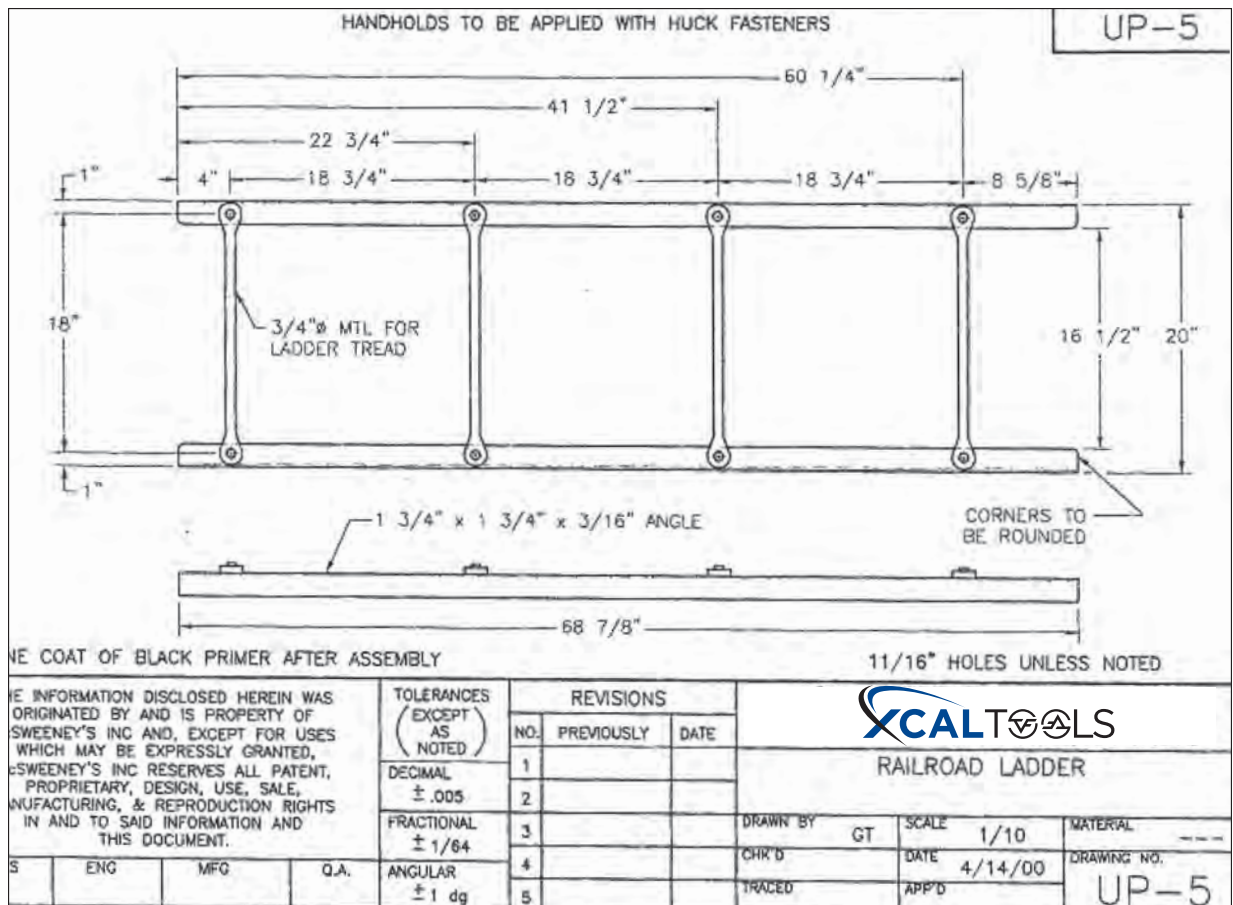


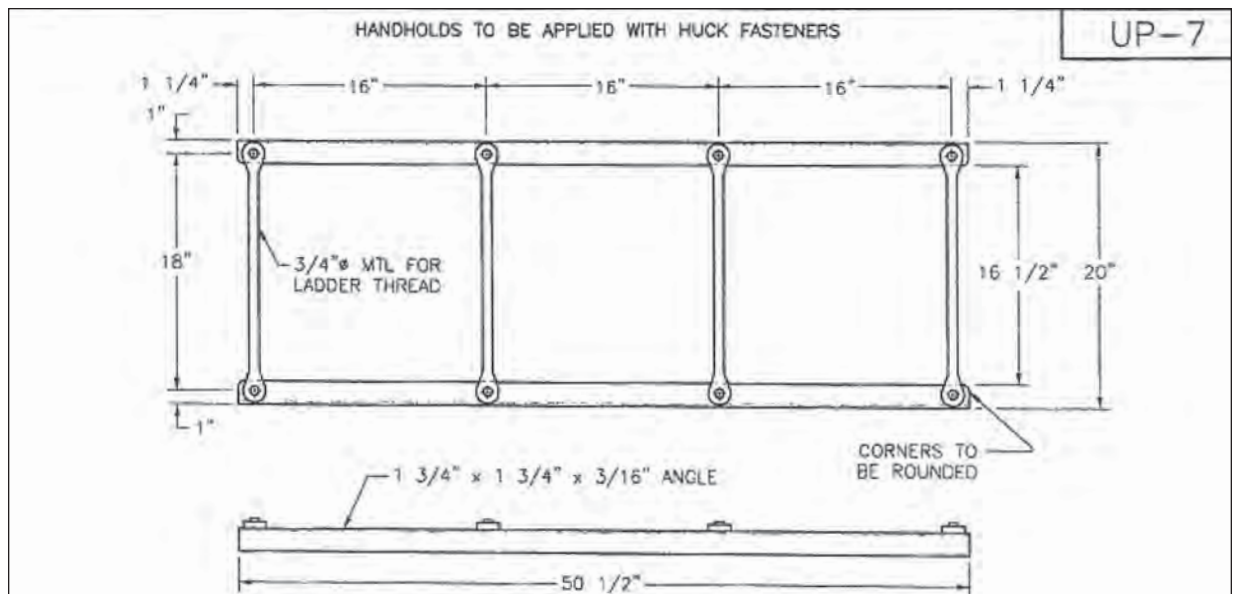








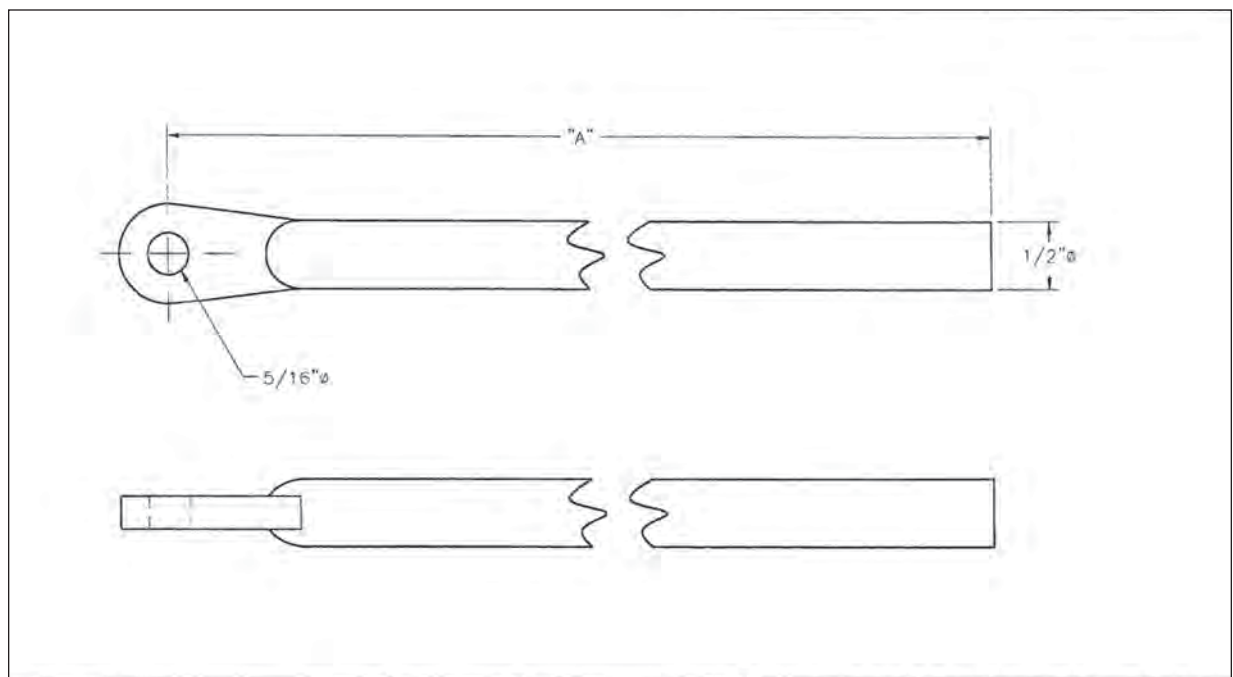




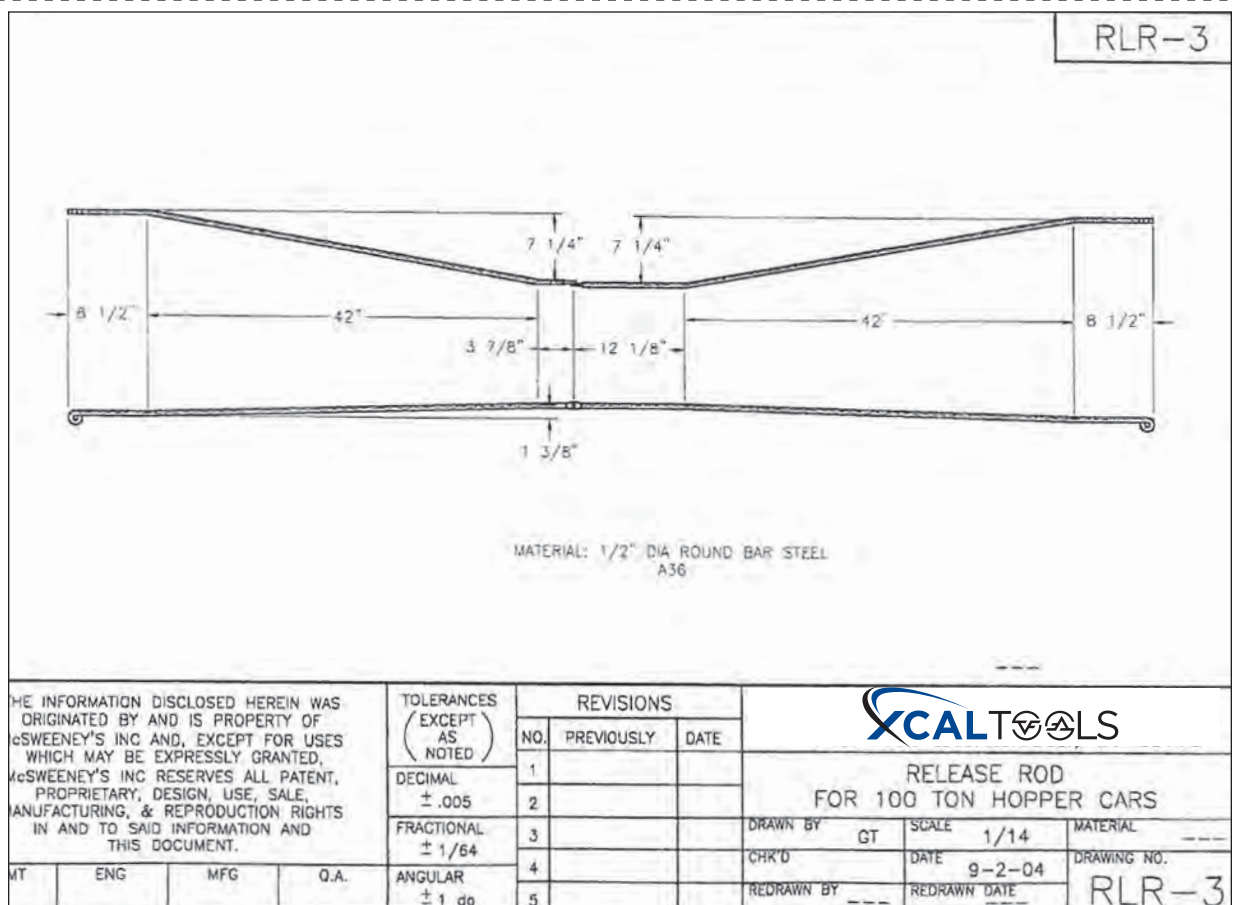
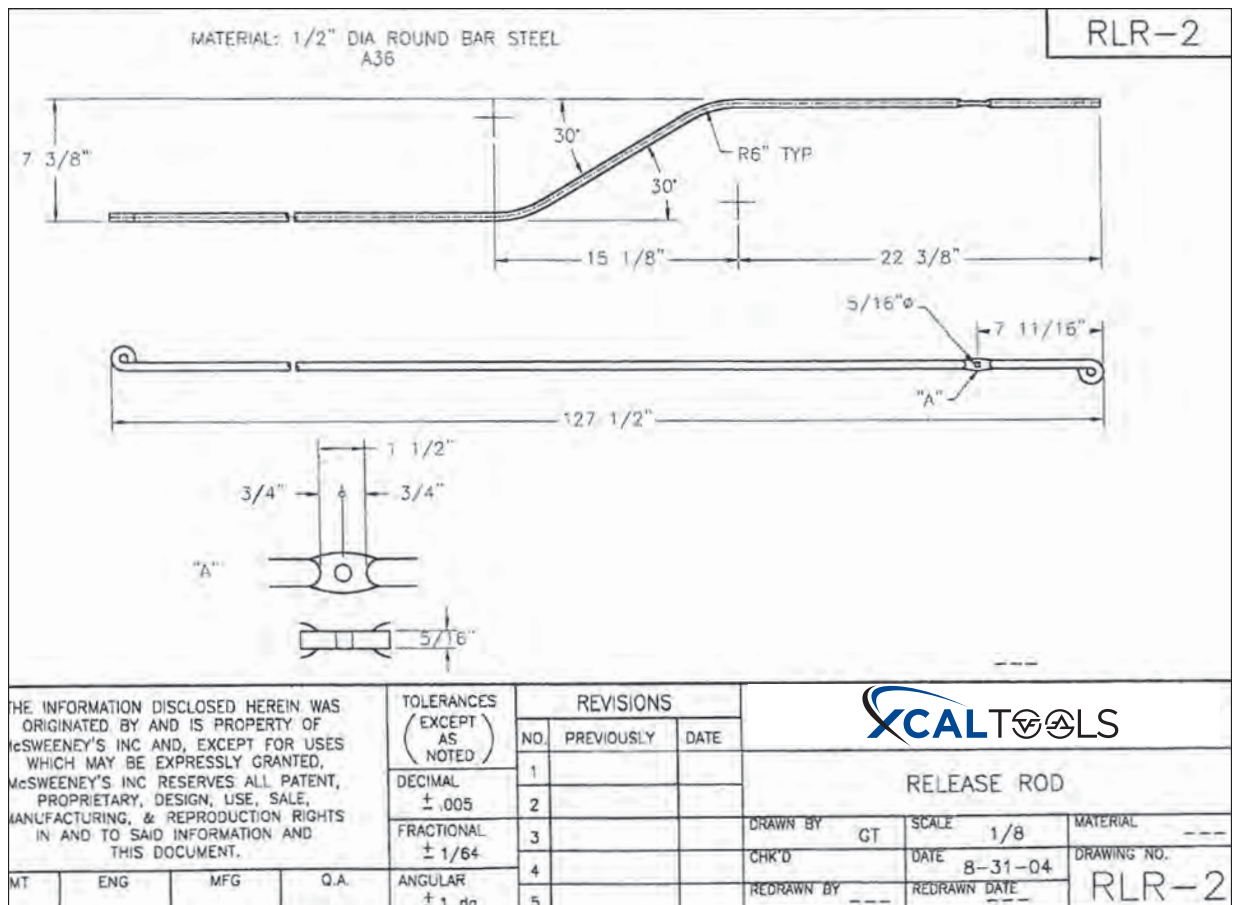
ONE COAT OF BLACK PRIMER AFTER ASSEMBLY

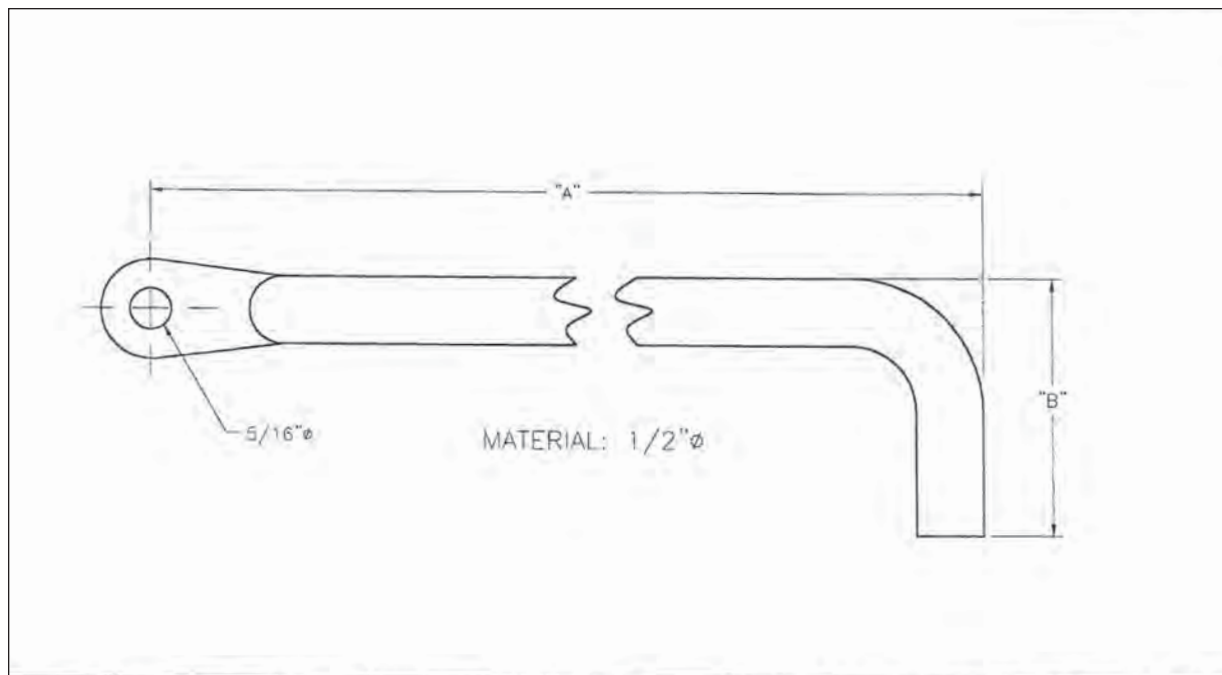
11/16" HOLES UNLESS NOTED

THE INFORMATION DISCLOSED HEREIN WAS ORIGINATED BY AND IS PROPERTY OF McSWEENEY'S INC AND, EXCEPT FOR USES WHICH MAY BE EXPRESSLY GRANTED, McSWEENEY'S INC RESERVES ALL PATENT, PROPRIETARY, DESIGN, USE, SALE, MANUFACTURING, & REPRODUCTION RIGHTS IN AND TO SAID INFORMATION AND THIS DOCUMENT.				TOLERANCES (EXCEPT AS NOTED)			REVISIONS			XCALTOOLS		
				DECIMAL ± .005	NO.	PREVIOUSLY	DATE					
				FRACTIONAL ± 1/64	4							
LES	ENG	MFG	Q.A.	ANGULAR ± 1 dg	5							

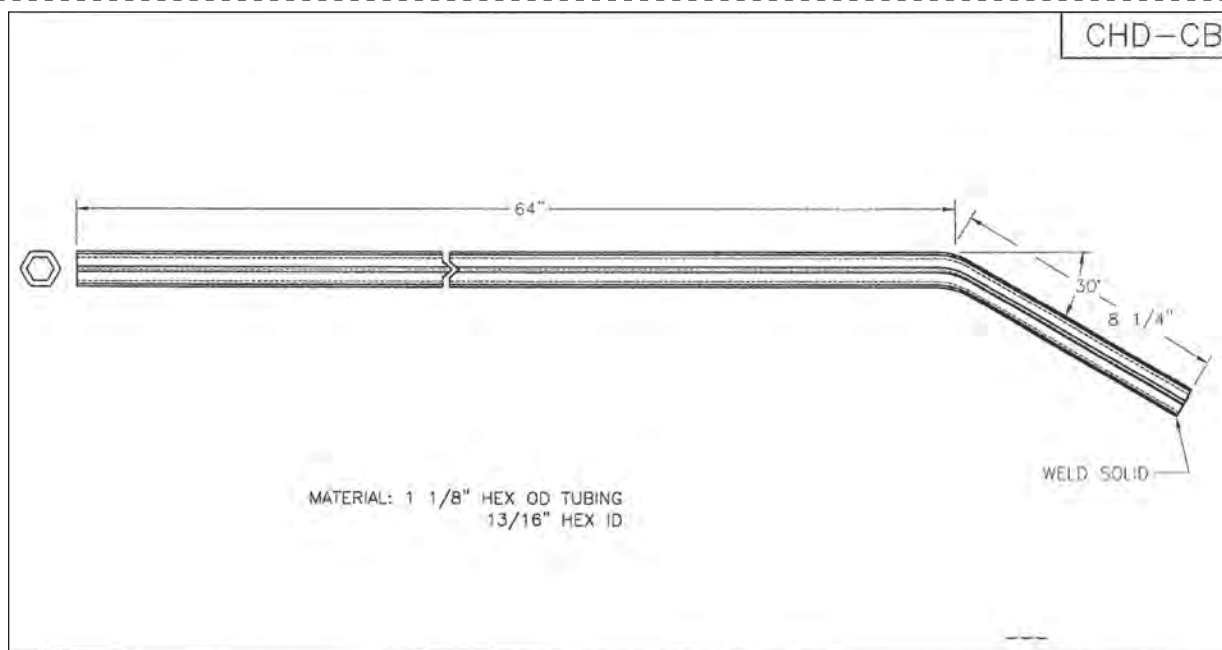


THE INFORMATION DISCLOSED HEREIN WAS ORIGINATED BY AND IS PROPERTY OF McSWEENEY'S INC AND, EXCEPT FOR USES WHICH MAY BE EXPRESSLY GRANTED, McSWEENEY'S INC RESERVES ALL PATENT, PROPRIETARY, DESIGN, USE, SALE, MANUFACTURING, & REPRODUCTION RIGHTS IN AND TO SAID INFORMATION AND THIS DOCUMENT.				TOLERANCES (EXCEPT AS NOTED)			REVISIONS			XCALTOOLS		
				DECIMAL ± .005	NO.	PREVIOUSLY	DATE					
				FRACTIONAL ± 1/64	4							
MT	ENG	MFG	Q.A.	ANGULAR ± 1 dg	5							





THE INFORMATION DISCLOSED HEREIN WAS ORIGINATED BY AND IS PROPERTY OF SWEENEY'S INC AND, EXCEPT FOR USES WHICH MAY BE EXPRESSLY GRANTED, SWEENEY'S INC RESERVES ALL PATENT, PROPRIETARY, DESIGN, USE, SALE, MANUFACTURING, & REPRODUCTION RIGHTS IN AND TO SAID INFORMATION AND THIS DOCUMENT.				TOLERANCES (EXCEPT AS NOTED)	REVISIONS						
					NO.	PREVIOUSLY	DATE				
				DECIMAL ± .005	3	1			RELEASE ROD		
						2					
				FRACTIONAL ± 1/64	4	3			DRAWN BY	GT	SCALE
5			CHK'D				DATE	8-27-04	DRAWING NO.		
ENG	MFG	Q.A.	ANGULAR ± 1 dg			REDRAWN BY	---	REDRAWN DATE		RLR-4	



THE INFORMATION DISCLOSED HEREIN WAS ORIGINATED BY AND IS PROPERTY OF McSWEENEY'S INC AND, EXCEPT FOR USES WHICH MAY BE EXPRESSLY GRANTED, McSWEENEY'S INC RESERVES ALL PATENT, PROPRIETARY, DESIGN, USE, SALE, MANUFACTURING, & REPRODUCTION RIGHTS IN AND TO SAID INFORMATION AND THIS DOCUMENT.				TOLERANCES (EXCEPT AS NOTED)		REVISIONS			 COAL HOPPER DOOR CLOSING BAR								
						NO.	PREVIOUSLY	DATE									
				DECIMAL ± .005	1			DRAWN BY					GT	SCALE	1/4	MATERIAL	---
					2												
				FRACTIONAL ± 1/64	3			CHK'D						DATE	9-14-04	DRAWING NO.	A3339
4																	
MGMT	ENG	MFG	Q.A.	ANGULAR ± 1 dg	5			REDRAWN BY	---	REDRAWN DATE	---						

NOTES

NOTES



235 COMMERCE DRIVE
SOUTH POINT, OH USA
(740)-377-3354

WWW.XCALTOOLS.COM



*Quality Products
from Quality People*

*100% Proudly Made
in the U.S.A.*