

8179

PHILLIPS SOUTHERN ELECTRIC CO., INC.
1822 SOUTH MEAD
WICHITA, KANSAS 67211
316-265-4186, 316-265-1942 FAX

TRANSMITTAL

TO: Cornejo & Sons Construction
2060 E Tulsa
Wichita, Kansas 67216

No.: 5
Date: March 26, 2009
Attn: Bill Wenger

Regarding: Mid-American mast arm and pole/ Anchor bolt certifications

Job #: 08 200 Central & Tyler

=====

We are sending you herewith:

☒ **Attached** ☐ Shop drawings ☐ Prints ☐ Plans ☐ Samples ☐ Copy of Letter
☐ Specifications ☐ Change Order ☒ **Certifications** ☐ Product Data

=====

Copies	Date	No.	Description
3	3/25/09		mast arm and pole/ anchor bolt certs

=====

These are transmitted as checked below:

☐ For approval	☐ Approved as Submitted	☐ Resubmit # ____ copies for approval
☒ For your use	☐ Approved as noted	☐ Submit # ____ copies for distribution
☐ As requested	☐ Returned for corrections	☐ Return # ____ corrected prints
☐ For review and document		
☐ For bids due	2006	

=====

Remarks:

Copy to:

Signed



Patrick Shane Phillips

472-87659



CERTIFICATE OF COMPLIANCE

Date	Project No.	Order No.	Customer's Order No.
December 16, 2008	CENTRAL & TYLER, WICHITA, KS	9902	08-521-1

CUSTOMER: MID AMERICAN SIGNAL INC.

WE CERTIFY THAT THE MATERIALS USED ON THIS PROJECT ARE IN COMPLIANCE WITH THE REQUIREMENTS ON THIS ORDER.

THE MATERIAL USED ON THIS PROJECT WAS PRODUCED IN THE UNITED STATES AND THE ATTACHED CERTIFICATIONS REPRESENT THE MATERIAL USED ON THIS PROJECT.

MATERIAL CERTIFICATIONS:

MATERIAL	SPECIFICATIONS	HEAT NUMBER	GRADE	CYCLE
3 GA TUBE	A595	4188548	A	279
7 GA TUBE	A595	4189358	A	279
3/4" SCH 40	A500	E81353		
1/2" SCH 80	A500	TCP5B46399		
1/4" GUSSET	A36	4157582		
3/8" CLAMP PLATE	A36	8107889		
2" POLE PLATE CHARPY	A36	T1668		
3/4" X 3/4" X 1/8" CLIP	A36	N540863		
1/4" X 1" SUPPORT BAR	A36	E4974		
1/2" X 2-1/2" STL HH FRAME	A529	JG3269		
5/8" STUD - 5/8" ROUND BAR	A36	E2816		
601668 1-1/4" WASHER	F-436	2141028		
502127 2" WASHER	F-436	2131928		
601418 5/8" NUT	A563	S01412		
502523 1-1/4" NUT	A563	M25706		

This Certificate Notarized Only When Required

JENNIFER WAGNER

A Notary Public, do hereby certify that this affidavit was subscribed and sworn to before me by a duly authorized agent of the Union Metal Corporation.

This is to certify that the foregoing data is a true copy of the data furnished to us by the producing mill and from data resulting from tests performed at Union Metal Corporation.

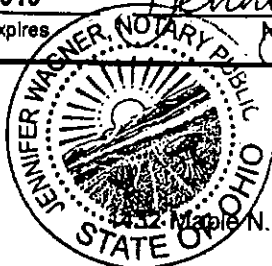
16th day of December, 2008

By

October 17, 2010

My commission expires

Notary Public





QF-308, TEST.A-595,
Rev.2, Certified Test Reports.
grossman.5/16/08

MATERIALS MELTED AND MANUFACTURED IN THE USA

CERTIFIED TEST REPORT

ITEM NO	DIMENSIONS	HEAT NUMBER	ASTM SPEC. NUMBER	DATE	CYCLE NO.	CUSTOMER ORDER NO.	
				12-2-08	279		
ITEM NO	DIMENSIONS	HEAT NUMBER	ASTM SPEC. NUMBER	GRADE	PURCHASE ORDER	MANUFACTURER	
1	11 GAGE		A595	A			
2	7 GAGE						
3	3 GAGE	4188548			18594	ARCELORMITTAL	
4	0 GAGE	4157113			15812	ARCELORMITTAL	

ITEM NO	MECHANICAL TESTS									
	YIELD STRENGTH PSI	ULTIMATE STRENGTH PSI	% ELONG. IN 2"	BEND TEST	%RED AREA	TEST NO				
1										
2										
3	55689	65938	33.0			10593				
4	55195	67885	33.5			10592				

ITEM NO	CHEMICAL ANALYSIS													
	C	Mn	P	S	SI	Cu	Al	NI	Cr	Mo	V	N		
1														
2														
3	.20	.80	.015	.006	.02	.04	.052	.01	.03	.01	.002	.0042		
4	.20	.73	.008	.008	.01	.04	.083	.02	.03	.01	.000	.0025		

This Certificate Notarized Only When Required

I, RENE L. GROSSMAN a Notary Public do Hereby certify that this affidavit was subscribed and sworn to before me by a duly authorized signatory of the Union Metal Corporation.

This is to certify that the foregoing data is a true copy of the data furnished to us by the producing mill and from data resulting from tests performed at Union Metal Corporation.

this 9TH day of DECEMBER, 2008

UNION METAL CORPORATION

January 31, 2010

MY COMMISSION EXPIRES



PRODUCT CERTIFICATION

WORK ORDER LOT NUMBER

FC2870 4188548

ArcelorMittal Cleveland Inc.



SALES ORDER / RLS

411211 / 1

SOLD TO 000786-000

UNION METAL

1935 16TH ST N.E. & HARRISBURG ROAD N.E.

CANTON, OH 44705

USA

Attn: Renee Grossman

CUSTOMER P.O. 18594-11	CUSTOMER PART 3GA62-1/2-UMS28/R0	QUANTITY 41,920 LBS	COILS 1	LADING NO 01268789	SHIPMENT DATE 10/08/2008
SPECIFICATION 0.2470 Min -0.0000/ +0.0260 X 63.0000 + 1.5000 ME(IN) ID 24.0/30.0 OD 60.7/80.0 (IN) CL WT 40000/50000 (LBS) Hot Band Prime Carbon Structural Steel UMS 28 Change Stock- Brandle UEXP					
CERTIFICATION REQUIREMENTS UNION METAL SPEC UM-S28 DTD 10/5/94 SAE-1021 CS STRUCTURAL STEEL					
Chemical					
C 0.2000	Mn 0.8000	P 0.0150	S 0.0060	Si 0.0200	Cu 0.0400
Ni 0.0100	Cr 0.0300	Mo 0.0100	Sn 0.0070	Al 0.0520	
V 0.0020	Cb 0.0000	N 0.0042	B 0.0000	Ti 0.0020	Sb 0.0020
Ca 0.0001					
Origin - Made and Melted in USA					
Tag Numbers					
695849					

I certify that the material listed herein has been inspected and tested in accordance with the methods prescribed in the governing specifications and based upon the results of such inspection and testing had been approved for conformance to the specifications.

Matthew Kremer
QA Manager



QF-308, TEST.A-595,
Rev.2, Certified Test Reports.
grossman.5/16/06

MATERIALS MELTED AND MANUFACTURED IN THE USA

CERTIFIED TEST REPORT

ITEM NO	DIMENSIONS	HEAT NUMBER	ASTM SPEC. NUMBER	DATE	CYCLE NO.	CUSTOMER ORDER NO.
				12-2-08	279	
ITEM NO	DIMENSIONS	HEAT NUMBER	ASTM SPEC. NUMBER	GRADE	PURCHASE ORDER	MANUFACTURER
1	11 GAGE		A595	A		
2	7 GAGE	4189358			18594	ARCELORMITTAL
3	3 GAGE	4188548			18594	ARCELORMITTAL
4	0 GAGE	4157113			15812	ARCELORMITTAL

ITEM NO	MECHANICAL TESTS										
	YIELD STRENGTH PSI	ULTIMATE STRENGTH PSI	% ELONG. IN 2"	BEND TEST	% RED AREA	TEST NO					
1											
2	61828	71195	32.3			10595					
3	55689	65938	33.0			10593					
4	55195	67665	33.5			10592					

ITEM NO	CHEMICAL ANALYSIS													
	C	Mn	P	S	SI	Cu	Al	Ni	Cr	Mo	V	N		
1														
2	.22	.75	.009	.007	.02	.04	.063	.02	.03	.01	.001	.0032		
3	.20	.80	.015	.006	.02	.04	.052	.01	.03	.01	.002	.0042		
4	.20	.73	.008	.008	.01	.04	.063	.02	.03	.01	.000	.0025		

This Certificate Notarized Only When Required

I, JENNIFER WAGNER a Notary Public do Hereby certify that this affidavit was subscribed and sworn to before me by a duly authorized signatory of the Union Metal Corporation.

this 15TH day of DECEMBER, 2008

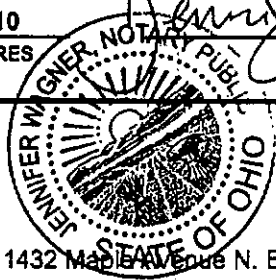
This is to certify that the foregoing data is a true copy of the data furnished to us by the producing mill and from data resulting from tests performed at Union Metal Corporation.

UNION METAL CORPORATION

BY

October 17, 2010

MY COMMISSION EXPIRES



PRODUCT CERTIFICATION

WORK ORDER LOT NUMBER

FC2840 4189358

ArcelorMittal Cleveland Inc.



SALES ORDER / RLS

411162 / 1

SOLD TO 000786-000

UNION METAL

1935 16TH ST N.E. & HARRISBURG ROAD N.E.

CANTON, OH 44705

USA

Attn: Renee Grossman

CUSTOMER P.O. 18594/13	CUSTOMER PART 7GA36-UMS28/R0	QUANTITY 35,890 LBS	COILS 1	LADING NO 01271956	SHIPMENT DATE 10/16/2008
SPECIFICATION 0.1770 Min -0.0000/ +0.0140 X 36.5000 + 1.1250 ME(IN) ID 24.0/30.0 OD 66.2/80.0 (IN) CL WT 29200/36500 (LBS) Hot Band Prime Carbon Structural Steel UMS 28 Change Stock- Brandle UEXP					
CERTIFICATION REQUIREMENTS Union Metal Spec UM-S28 DTD 10/5/94 SAE 1021 Mod Structural Steel					
Chemical					
C 0.2200	Mn 0.7500	P 0.0090	S 0.0070	Si 0.0200	Cu 0.0400
Ni 0.0200	Cr 0.0300	Mo 0.0100	Sn 0.0050	Al 0.0630	
V 0.0010	Cb 0.0000	N 0.0032	B 0.0000	Ti 0.0020	Sb 0.0020
Ca 0.0002					
Origin - Made and Melted in USA					
Tag Numbers					
697334					

I certify that the material listed herein has been inspected and tested in accordance with the methods prescribed in the governing specifications and based upon the results of such inspection and testing had been approved for conformance to the specifications.

Matthew Kremer
QA Manager



Tubular Steel Inc

Since 1963
"Performance you can count on"

Tubular Steel Inc
1031 Executive Parkway Drive
Saint Louis, MO 63141
Phone: (314) 851-9200
Fax: (314) 851-9336

Customer PO: 19247

Union Metal

P O Box 9920

Canton, OH 44711

Fax: 330-456-1720

MTR Recipient: Jim Burand

TSI Sales ID: SO-048508

Date: 10-30-08

Page 1

Cover sheet/Certificate of compliance

** The material listed below was purchased to the stated specification, when marked

** Documents for the material listed below are attached

<u>Size</u>	<u>Item / Customer Part No.</u>	<u>Certification</u>
1.050x0.109	RND CARB WELD AR SO075SCH40-A501	ASTM A500 B AND/OR C

<u>Heat number</u>	<u>Apology status</u>
E81353	

<u>Size</u>	<u>Item / Customer Part No.</u>	<u>Certification</u>
4.500x0.237	RND CARB WELD AR SO400SCH40-A501	ASTM A500 B AND/OR C

<u>Heat number</u>	<u>Apology status</u>
627433	
627597	
615874	
615871	

<u>Size</u>	<u>Item / Customer Part No.</u>	<u>Certification</u>
5.563x0.258	RND CARB WELD AR SO500SCH40-X52	ASTM A500 B AND/OR C

<u>Heat number</u>	<u>Apology status</u>
A17601	

** Material referenced on the test report is certified by the manufacturer to meet the specification indicated under the testing procedures established, including any allowable variance

** Mechanical and chemical properties reported on mill test reports are sample results only and do not represent minimum, maximum, or average values

** Data reported on attached documents has been computer verified to meet the requirements of the specification

BULL MOOSE TUBE
COMPANYBULL MOOSE TUBE GERALD FACILITY
CERTIFICATION OF TESTS05/28/08
Page 2 of 31818 Clarkson Rd.
Chesterfield, Missouri 63017BILL TO Tubular Steel, Inc.
Attn: Accounts Payable
1031 Executive Parkway Drive
St. Louis MO 63141-6361SHIP TO Tubular Steel, Inc.
1700 Tubular Steel Road
St. Louis

IL 62068-1076

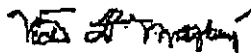
B/L Number 108809

Ship Via

35_F35

1.05" X 0.108 HR X 21' 5"										Order #	247728			
26.7 mm										Purchase Order #	2349			
ASTM A500-03 Grade B Melted & Manufactured in the USA										Item #	135735 0672			
Ticket # = 13047676										P				
C	MN	P	S	AL	SI	CB	CU	CR	NI	VA	YLD psi	TSN psi	ELN %	
.170	.400	.007	.008	.037	.012	0.000	0.000	0.000	0.000	0.000	70169	74915	37	
1.05" X 0.108 HR X 21' 8"										Order #	247728			
26.7 mm										Purchase Order #	2349			
ASTM A500-03 Grade B										Item #	135735 0672			
Ticket # = 13047672										P				
C	MN	P	S	AL	SI	CB	CU	CR	NI	VA	YLD psi	TSN psi	ELN %	
.180	.410	.015	.001	.032	.027	0.000	0.000	0.000	0.000	0.000	71428	77408	30	
1.05" X 0.108 HR X 21' 8"										Order #	247728			
26.7 mm										Purchase Order #	2349			
ASTM A500-03 Grade B										Item #	135735 0672			
Ticket # = 13047670										P				
C	MN	P	S	AL	SI	CB	CU	CR	NI	VA	YLD psi	TSN psi	ELN %	
.050	.390	.020	.008	.028	.020	0.000	0.000	0.000	0.000	0.000	66722	68243	31	
1.05" X 0.108 HR X 21' 5"										Order #	247728			
26.7 mm										Purchase Order #	2349			
ASTM A500-03 Grade B										Item #	135735 0672			
Ticket # = 13047671										P				
C	MN	P	S	AL	SI	CB	CU	CR	NI	VA	YLD psi	TSN psi	ELN %	
.190	.610	.013	.010	.030	.010	0.000	0.000	0.000	0.000	0.000	72968	78858	28	

Shipping Clerk:



THIS WELDED STEEL TUBING IS MANUFACTURED IN THE UNITED STATES OF AMERICA AND HAS BEEN PRODUCED IN ACCORDANCE WITH THE STATED SPECIFICATION. LADLE CHEMISTRIES ARE REPORTED FROM DOCUMENTS PROVIDED BY THE SUPPLYING STEEL MILL. ANY PHYSICAL AND MECHANICAL TESTING RESULTS SHOWN ON THIS CERTIFICATION ARE CORRECT AS CONTAINED IN THE RECORDS OF THE COMPANY.



Tubular Steel Inc

Since 1963
"Performance you can count on"

Tubular Steel Inc
1031 Executive Parkway Drive
Saint Louis, MO 63141
Phone: (314) 851-9200
Fax: (314) 851-9336

Customer PO: 19623

Union Metal

P O Box 9920

Canton, OH 44711

Fax: 330-456-1720

MTR Recipient: Jim Burand

TSI Sales ID: SO-052407

Date: 11-20-08

Page 1

Cover sheet/Certificate of compliance

** The material listed below was purchased to the stated specification, when marked

** Documents for the material listed below are attached

<u>Size</u>	<u>Item / Customer Part No.</u>	<u>Certification</u>
0.840x0.147	RND CARB WELD AR S0050SCH80-A501	

<u>Heat number</u>	<u>Apology status</u>
TCP5B46399	

<u>Size</u>	<u>Item / Customer Part No.</u>	<u>Certification</u>
1.660x0.140	RND CARB WELD AR S0125SCH40-A501	ASTM A500 B AND/OR C

<u>Heat number</u>	<u>Apology status</u>
U61810	

<u>Size</u>	<u>Item / Customer Part No.</u>	<u>Certification</u>
2.375x0.218	RND CARB WELD AR S0200SCH80-A501	ASTM A500 B AND/OR C

<u>Heat number</u>	<u>Apology status</u>
1802245	

<u>Size</u>	<u>Item / Customer Part No.</u>	<u>Certification</u>
1.750x0.188	RND CARB WELD CD D188X0175-A513	

** Material referenced on the test report is certified by the manufacturer to meet the specification indicated under the testing procedures established, including any allowable variance

** Mechanical and chemical properties reported on mill test reports are sample results only and do not represent minimum, maximum, or average values

** Data reported on attached documents has been computer verified to meet the requirements of the specification

03/28/2006 10:18 FAX 724 981 8287

TUBULAR STEEL INC Fax:3148519338
SHARON TUBE LAB

Mar 30 2006 13:39

P.01
0005



Sharon Tube Company

156 Mill Street
PO Box 408
Staunton, PA 16140
(509) 849-8119
(724) 933-1931 (RIN)

PRODUCT CERTIFICATION

HEAT NUMBER
top5b46399
SALES ORDER
151888

SOLD TO

SHIP TO

TUBULAR STEEL
1700 TUBULAR
STAUNTON, IL 62088
USA
Attn: Receiving

TUBULAR STEEL
1700 TUBULAR
STAUNTON, IL 62088
USA
Attn: Receiving

CUSTOMER P.O. 3413	CUSTOMER PART	QUANTITY 192 Pcs	BNDLS LADING NO 2 00002818	SHIPMENT DATE 03/27/2006
SPECIFICATION CSP0840XH80F021 1/2", XH, 801, PE, 21', 0.0", ASTM A53-Type F Grade A				
CERTIFICATION REQUIREMENTS				
Chemical, Ladle Analysis, %				
C .12	Mn .44	P .020	S .016	Si .016
Al .049	Cu .013	Ni .020	Cr .022	Mo .006
V .001				
Sn .001	SVM .055	CE .200		
Pipe Mechanical Test Results				
	Yield, PSI	Tensile, PSI	Elong, 4-2"	Y/T Ratio
B00120/004	34480	54180	48	.636
B00120/005	34480	54180	48	.636
	Hard, HRB	Hydro, PSI	Band Flatten	
	850	Pass		
	850	Pass		
Certified Test Report Type 3.1B in accordance with EN 10201/ISO 10474/DIN 50048. Material has not come in direct contact with mercury, any of its compounds or any mercury bearing devices during the manufactured process, tests or inspections. Material does not contain any polybrominated biphenyls (PBB) or polybrominated diphenyl ethers (PBDE). Welded Steel Pipe Meeting the Requirements of ASTM A53-05 Type F Grade A/ASME SA-53 Type F 2001 Edition, A03 Revision or ASTM A53-05 Type E Grade B/ASME SA-53 Type E Grade B 2001 Edition, A03 Revision. Each length of pipe Hydrostatically Tested. No weld repairs have been performed. Yield strength determined @ 0.2% offset. All bend or flatten tests passed. Manufactured in the U.S.A. End of Certification				

Steven M. Grabert, Manager, Technical Services, being duly sworn according to law, deposes and says that the figures set forth above are correct, as contained in the figures of Sharon Tube Company.

[Signature]



QF-308, TEST A-595,
Rev.1, Certified Test Reports 5yrs.
Sbayala.5/16/01, SbA.UMC.QA

MATERIALS MELTED AND MANUFACTURED IN THE USA

1/4" PLATE MEETS OR EXCEEDS ASTM A36 TESTED TO ASTM A6					CERTIFIED TEST REPORT				
					DATE 10-13-08	CYCLE NO.	CUSTOMER ORDER NO.		
ITEM NO	DIMENSIONS	HEAT NUMBER	ASTM SPEC. NUMBER	GRADE	PURCHASE ORDER	MANUFACTURER			
1	3 GAGE	4157582	A36	A	16265	ARCELORMITTAL			

MECHANICAL TESTS									
SMPL NO	YIELD STRENGTH PSI	ULTIMATE STRENGTH PSI	% ELONG.		BEND TEST	%RED AREA	TEST NO		
			IN 2"	IN 8"					
1	47332	67572	31.0				N/A		
2	46563	66084	32.0				N/A		

CHEMICAL ANALYSIS														
ITEM NO	C	Mn	P	S	SI	Cu	Al	NI	Cr	Mo	V	N		
1	.22	.70	.006	.007	.02	.05	.062	.02	.03	.01	.000	.0035		

This Certificate Notarized Only When Required

I, RENE L. GROSSMAN a Notary Public do Hereby certify that this affidavit was subscribed and sworn to before me by a duly authorized signatory of the Union Metal Corporation.

this 13TH day of OCTOBER, 2008

January 31, 2014
MY COMMISSION EXPIRES

This is to certify that the foregoing data is a true copy of the data furnished to us by the producing mill and from data resulting from tests performed at Union Metal Corporation.

BY: **UNION METAL CORPORATION**



PRODUCT CERTIFICATION

WORK ORDER LOT NUMBER

FB7019 4157582

SALES ORDER / RLS

389908 / 1

ArcelorMittal Cleveland Inc.



SOLD TO 000786-000

UNION METAL

1935 16TH ST N.E. & HARRISBURG ROAD N.E.

CANTON, OH 44705

USA

Attn: Renee Grossman

CUSTOMER P.O. 16265-18	CUSTOMER PART 3GA55-1/2-UMS28/R0	QUANTITY 48,990 LBS	COILS 1	LADING NO 01200751	SHIPMENT DATE 06/18/2008					
SPECIFICATION 0.2470 Min -0.0000/ +0.0240 X 56.0000 + 1.5000 ME(IN) ID 30.0/30.0 OD 63.5/69.3 (IN) CL WT 40000/50000 (LBS) Hot Band Prime Carbon Structural Steel UMS 28 Change Stock- Brandle UEXP										
CERTIFICATION REQUIREMENTS Union Metal Spec UM-S28 DTD 10/5/94 SAE 1021 Mod Structural Steel										
Chemical										
C 0.2200	Mn 0.7000	P 0.0060	S 0.0070	Si 0.0200	Cu 0.0500	Ni 0.0200	Cr 0.0300	Mo 0.0100	Sn 0.0110	Al 0.0620
V 0.0000	Cb 0.0000	N 0.0035	B 0.0001	Ti 0.0010	Sb 0.0030	Ca 0.0003				
Origin - Made and Melted in USA										
Tag Numbers										
657771										

I certify that the material listed herein has been inspected and tested in accordance with the methods prescribed in the governing specifications and based upon the results of such inspection and testing had been approved for conformance to the specifications.

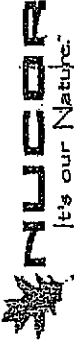
Matthew Kremer
QA Manager

NUCOR
PLATE MILL

P.O. Box 279
Winton, NC 27986
(252) 356-3700

Mill Test Report

Page 1



Issuing Date: 10/16/2008

Vehicle No: 7334

Specification: 0.3750" x 96.000" x 120.000"

ASTM A36-08/ASTM A709 Grade 36-07/ASME SA36-03a

B/L No.: 216368

Load No.: 217370

Our Order No.: 66582/1

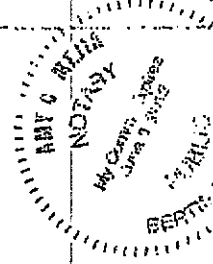
Cust. Order No.: 10-34891-JUN

Sold To: KENILWORTH STEEL
106 EAST MARKET STREET
WARREN, OH 44481

Ship To: Kenilworth Steel
621 Dana
WARREN, OH 44483

Marking:

Heat No	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	AlZ	V	Nb	Ti	N	Ca	B	Sn	CEQ	PCM
8107869	0.17	0.82	0.016	0.003	0.11	0.27	0.07	0.10	0.02	0.007	0.005	0.003	0.002	0.008	0.0001	0.011	0.35	0.24	
Plate Serial No	Tensile Test										Charpy Impacts								
	Pieces	Tons	Dir.	Yield (psi)	Tensile (psi)	Elongation % in 2"	Elongation % in 8"	Dir.	(ft-lbs) 1 shear	(ft-lbs) 2 shear	(ft-lbs) 3 shear	(%) shear	(ft-lbs) Ave.	(%) shear	Temp (°F) Ave.	Size			Mil
8107869-08	15	9.18	T	45,800	71,000	25.8	25.8	H-L	76.9	63.0	60.6	66.8	66.8	40	15	10mm			
8107869-09	22	13.47	T	45,800	71,000	25.8	24.6	H-L	76.9	63.0	60.6	66.8	66.8	40	15	10mm			



Handwritten signature and date 10/17/08

NFCM, T1 and T2, 15R-lbs @ +40 F (20J @ +4 C), H frequency.

Manufactured to fully killed practice by Electric Arc Furnace. Welding or weld repair was not performed on this material.

Mercury has not been used in the direct manufacturing of this material. Produced as continuous cast discrete plate as-rolled, unless otherwise noted in Specification.

Yield by 0.5EUL method unless otherwise specified. Ceq = C+(Mn/6)+(Cr+Mo+V)/5+(Cu+Ni)/15

Pcm = Cr(Si/30)+(Mn/20)+(Cu/20)+(Ni/80)+(Mo/15)+(V/10)+88

Melted and manufactured in the USA, ISO 9001-2000 certified (#12443-0) by SRI Quality System Registrar (#0985-09), PED 97/23/EC 712 Annex 1, Para. 4.3 Compliant.

DIN 50049 3.1.B/EN 10204 3.1B(2004), DIN EN 10204 3.1(2005) compliant. For ABS grades only. Quality Assurance certificate 05-MMPOA-383

We hereby certify that the contents of this report are accurate and correct. All test results and operations performed by the material manufacturer are in compliance with the applicable specifications, including customer specifications.

Handwritten signature T.A. Deprelis

T.A. Deprelis, Metallurgist

10/16/2008 23:15 PM

TEST CERTIFICATE

SHIP TO:
ARCELORMITTAL PLATE LLC
KENILWORTH STEEL CO
621 DANA ST NE
WARREN OH 44483

PAGE NO: 01 OF 02
FILE NO: 4269-01-12
MILL ORDER NO: 20004-005
MELT NO: T1668
DATE: 09/12/08

SOLD TO:
KENILWORTH STEEL COMPANY
106 EAST MARKET STREET
SUITE 809
WARREN OH 44481

SEND TO:

01-N

PLATE DIMENSIONS / DESCRIPTION

TOTAL QTY	GAUGE	WIDTH	LENGTH	DESCRIPTION	PIECE WEIGHT
3	2"	96"	240"	RECTANGLE	13068#

CUSTOMER INFORMATION

CUSTOMER PO: 09-34848

SPECIFICATION (S)

THIS MATERIAL HAS BEEN MANUFACTURED AND TESTED IN ACCORDANCE WITH PURCHASE ORDER REQUIREMENTS AND SPECIFICATION(S).

ASTM A709-GR36 YR 07
IMPACTS WAIVED ASME SA36 ED 07 & ASTM A36 05
MATERIAL PRODUCED UNDER A CERTIFIED QUALITY MGMT SYSTEM COMPLYING WITH
ISO 9001 ABS-QC CERT. NO. 30130

CHEMICAL COMPOSITION

	C	MN	P	S	CU	SI	NI	CR	MO
MELT:T1668	.18	1.03	.025	.014	.12	.20	.07	.08	.01
MELT:T1668	.004	.027	.001						

TENSILE PROPERTIES

LOC	DIR	YIELD STRENGTH PSI X 100	TENSILE STRENGTH PSI X 100	ELONGATION GAGE LGTH	%
ROT.	TRANS.	363	679	2.00"	32.0
ROT.	TRANS.	430	688	2.00"	28.0

GENERAL INFORMATION

ALL STEEL HAS BEEN MELTED AND MANUFACTURED IN THE U.S.A.
MERCURY OR MERCURY COMPOUNDS ARE NOT USED IN THE
MANUFACTURE OF ARCELORMITTAL PLATE LLC PRODUCTS.

APPROVED AND SUBSCRIBED BEFORE ME
THIS 12th DAY OF DECEMBER 2008

NOTARIAL SEAL
CAROL L. SLODY, NOTARY PUBLIC
COATESVILLE, CHESTER CO. PA
MY COMMISSION EXPIRES MAY 27, 2010

WE HEREBY CERTIFY THE ABOVE
INFORMATION IS CORRECT:

QUALITY ASSURANCE LABORATORY
COATESVILLE, PA 19320

ELINORE ZAPLETNY
SUPERVISOR - TEST REPORTING

A4459C

A3465-3467E

UNOFFICIAL
COPIES AVAILABLE
B/L 6789D

NOTARY

JAS337-301

KENILWORTH STEEL
Attn: GREG REGALIA
Phn: 800-537-5283
Fax: 330-399-2144

12-35108

Universal
CONSIGNMENT
B/K 67840

CHARPY WORKSHEET

Tensile Testing
Metallurgical Laboratory
Phn: 215.641.3290
Fax: 215.641.3291

Size Temp	Pt. lbs	Lat. Exp	Charpy	P/F
7/AA390E 01 Full +40 F	68			PASS
	93			
	25			
	62			
8/AA387E 01 Full +40 F	57			PASS
	48			
	15			
	40			
8/AA439E 01 Full +40 F	44			PASS
	76			
	52			
	57			
4/AA365E 01 Full +40 F	40			PASS
	72			
	75			
	62			
5/AA463E 01 Full +40 F	72			PASS
	54			
	53			
	60			

The above results are preliminary for information purposes only. Certificate Reports will be mailed

1-884

1-714 P-01

1-330-399-3184

FROM: KENILWORTH STEEL INC

DEC 08 '08 08:59



196 Bell Avenue
CARNEGIE, PA 15106

Page 1/ 1

CERTIFICATION OF MATERIAL

CUSTOMER:

UNION METAL CORP
1432 MAPLE AVE NE
CANTON, STARK
OH 44705-1720

SALES ORDER NUMBER: 10779717 000010
CUSTOMER PURCHASE ORDER: 13707
CUSTOMER PART NUMBER:
DELIVERY NUMBER: 81145248 000010

MATERIAL NUMBER: 160000004
INVENTORY DESCRIPTION: ANG A36 .75 X .75 X .125 X 240

FINISHED ITEM DESCRIPTION: CARB ANG A36
0.75" X 0.75" X 0.125" X 240"

HEAT NUMBER(S) SLAB/COIL/TEST NUMBER (if applicable)
N540863

CERTIFICATION

A survey of our material sources has indicated that neither mercury nor radioactive substances is introduced into their products, or is used in any of their processes. While we make no independent tests for mercury or radiation, there is nothing in Ryerson's system which could be expected to introduce contamination of either type.

This document certifies that the material described above was shipped in accordance with your order. The producer of the material has certified to Ryerson that it was produced in accordance with the following spec:

ASTM A36 ASME SA36

Authorized Agent of Ryerson

11/09/2007

010104



Chemical and Physical Test Report
MADE IN CANADA

005837

CAMBRIDGE STEEL MILL
160 ORION PLACE
CAMBRIDGE ON N1T 1R9 CAN
(519) 740-2488

SHIP TO RYERSON TULL 5 CLINTON STREET 314-231-1020 ST LOUIS, MO 63102	INVOICE TO RYERSON TULL PROCUREMENT/CHIC P.O. BOX 8000 A CHICAGO, IL 60680	SHIP DATE 07/21/05 CUST. ACCOUNT NO 40000093
---	---	---

SHAPE & SIZE	GRADE	SPECIFICATION	SALES ORDER	CUST P.O. NUMBER								
A3/4 X 3/4 X 1/8	A36	ASTM A36/A36M-04; CSA-G40.21-300W-98(44W)	5048032-01	3A6642								
HEAT I.D.	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Nb	Sn
N540863	.12	.60	.008	.038	.17	.45	.11	.16	.096	.005	.003	.014

Mechanical Test: Yield 53613 PSI, 369.65 MPa Tensile: 73388 PSI, 505.99 MPa %EI: 24.0/8in, 24.0/200MM

THIS GRADE ALSO MEETS ASME SA36-01 SPECIFICATION

Mechanical Test: Yield 53333 PSI, 367.72 MPa Tensile: 74399 PSI, 512.96 MPa %EI: 24.5/8in, 24.5/200MM

THIS GRADE ALSO MEETS ASME SA36-01 SPECIFICATION

CUST ITEM NUMBER: J0104

SHAPE & SIZE		GRADE		SPECIFICATION												SALES ORDER		CUST P.O. NUMBER	
G2 X 1 X 1/8		A36		ASTM A36/A36M-04; CSA G40.21-300W-98(44W)												5023635-01		3A6310	
HEAT I.D.		C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Nb	Sn						
N541524		.15	.88	.013	.040	.23	.31	.12	.14	.055	.005	.003	.012						

Mechanical Test: Yield 53587 PSI, 369.47 MPa Tensile: 74973 PSI, 516.92 MPa %EI: 27.0/8in, 27.0/200MM

THIS GRADE ALSO MEETS ASME SA36-01 SPECIFICATION

Mechanical Test: Yield 53609 PSI, 369.62 MPa Tensile: 73176 PSI, 504.53 MPa %EI: 21.0/8in, 21.0/200MM

THIS GRADE ALSO MEETS ASME SA36-01 SPECIFICATION

CUST ITEM NUMBER: 010542

JOSEPH T. RYERSON & SONS INC.
RECEIVING DEPARTMENT

JUL 25 2005

Customer Notes

A36: ASTM A36-00A & A709-00A ASME-SA36-97A

This material, including the billets, was produced and manufactured in Canada.

A.J. Turner

Quality Assurance Manager

Mill Group

Mgr. Metallg. Svcs.

CAMBRIDGE STEEL MILL

THE ABOVE FIGURES ARE CERTIFIED EXTRACTS FROM THE ORIGINAL CHEMICAL AND PHYSICAL TEST RECORDS
AS CONTAINED IN THE PERMANENT RECORDS OF COMPANY.

SUBJECT TO INSPECTION

CERTIFIED MILL TEST REPORT

NUCOR

BAR MILL GROUP
NUCOR STEEL AUBURN, INC.

SOLD YOUNGSTOWN PIPE & SUPPLY INC
TO: 4100 LAKE PARK RD
PO BOX 3467
YOUNGSTOWN, OH 44513-0000

SHIP YOUNGSTOWN PIPE
TO: 219 PHELPS ST
YOUNGSTOWN, OH 44512-0000

Ship from:
Nucor Steel - Auburn
25 Quarry Road
Auburn, NY 13021
315-253-4581

Date: 25-Aug-2008
B.L. Number: 352509
Load Number: 102519

Material Safety Data Sheets are available at www.nucorbar.com or by contacting your inside sales representative.

HEAT NUM. *		DESCRIPTION	PHYSICAL TESTS				CHEMICAL TESTS														
			YIELD P.S.I.	TENSILE P.S.I.	ELONG % IN 8"	BEND	WT%	DEF	C	Ni	Mn	Cr	P	Mo	S	V	Si	Co	Cu	Sn	C.E.
PO# =>	83141																				
E4974		Nucor Steel - Auburn Inc	53,200	73,300	23.8%																
E4974		1/4x1" FL 20" A36/44W	367MPa	505MPa																	
		CSA G40.21-98 44W/ASTM A36/A36M-	54,600	73,600	25.0%																
		ASTM A709/A709M-07 GR 36	376MPa	507MPa																	
		ASME SA36-2007 EDITION																			
		ASTM A36/A36M-05																			

YOUNGSTOWN PIPE & SUPPLY INC
PO BOX 3467
YOUNGSTOWN, OH 44513-0000
TEL: 330.783.2700
FAX: 330.783.2700
E-MAIL: info@youngstownpipe.com
WEBSITE: www.youngstownpipe.com
SOLD TO: NUCOR
YOUR P.O. # 352509
YRS CO. # 102519
SIGNED: Jim Biernell
DATE: 8/25/08

I HEREBY CERTIFY THAT THE ABOVE FIGURES ARE CORRECT AS CONTAINED IN THE RECORDS OF THE CORPORATION
ALL MANUFACTURING PROCESSES OF THE STEEL MATERIALS IN THIS PRODUCT, INCLUDING
MELTING HAVE OCCURRED WITHIN THE UNITED STATES. ALL PRODUCTS PRODUCED ARE WELD FREE
EXCEPT WHERE SHOWN OTHERWISE IN THE MATERIAL SPECIFICATION.

QUALITY
MANAGEMENT
Jim Biernell



Steel Dynamics - Roanoke Bar Division
P.O. Box 13948 Roanoke, VA 24038
Office: 540-342-1831 Fax: 540-342-9437

Test and Inspection

YOUNGSTOWN PIPE & SUPPLY INC.
PHONE # 330-783-2700
THESE TESTS REPORTS APPLY TO:
SOLD TO: UNION
YOUR P.O. # 19185
YS&S O.M. # 57383
TESTED BY WOMY

NO. 57743-1
ROANOKE

YOUNGSTOWN PIPE & SUPPLY INC
4100 LAKE PARK RD.
YOUNGSTOWN OH 44513-0000

Date 2/26/08

HEAT NUMBER	SIZE				1-YIELD PT. KSI	ULTIMATE KSI	ELONG 8 IN. TEST	BEND TEST	GRADE	
JG3269	FLATS 1/2 X 2 1/2				54.8	85.4	25.0		A529-50	
PURCHASE ORDER NUMBER	NUMBER PIECES				2-YIELD PT. KSI	ULTIMATE KSI	ELONG 8 IN. TEST	BEND TEST	GRADE	
80640	144 PIECES 20'				52.6	80.7	26.3		A529-50	
HEAT NUMBER	SIZE				1-YIELD PT. MPA	ULTIMATE MPA	ELONG 203mm TEST	BEND TEST	GRADE	
JG3269	FLATS 12.7 X 63.5				377.8	588.8	25.0		A529-50	
PURCHASE ORDER NUMBER	NUMBER PIECES				2-YIELD PT. MPA	ULTIMATE MPA	ELONG 203mm TEST	BEND TEST	GRADE	
80640	144 PIECES 20'				362.7	556.4	26.3		A529-50	
C	MN	S	P	SI	CR	NI	MO	CU	V	NB
.25	1.05	.025	.015	.24	.06	.12	.03	.26	.002	.002

MERCURY, RADIUM OR OTHER ALPHA SOURCE MATERIALS IN ANY FORM HAVE NOT BEEN USED IN THE PRODUCTION OF THIS MATERIAL. NO WELD REPAIR HAS BEEN PERFORMED.

Approved ABS QA Mill. Certificate No. 00NN10108-X.

This material was melted and manufactured in the USA by basic Electric Furnace processes to meet specification: ASTM A529-05 GRADE 50

The tensile values stated in either inch-pound units or SI units are to be regarded as separate as defined in the ASTM scope for this material. Unless a metric specification is ordered, this material has been tested and meets the requirements of the inch-pound ranges.

This is to certify the above to be a true and accurate report as contained in the records of this company.

Engineer of Tests: Charles R. Charlton

Tensile Testing

Metallurgical Laboratory

Phn: 216-641.3290

Fax: 216-641.3291

CHARPY WORKSHEET

JA8310-718

YOUNGSTOWN PIPE & SUPPLY

Attn: MIKE MONTLER

Phn: 330-744-2222

Fax: 330-744-8480

SB 80022-M

Size Temp	Pt. lbs	Lat Exp	Shear	P/F
/8108248 01 2/3 +40 F	59			PASS
	47			
	57			
	54			
	AVG			
/8107521 01 Full +40 F	64			PASS
	20			
	73			
	AVG			
/JG0565 01 2/3 +40 F	28			PASS
	28			
	30			
	19			
	AVG			
/JG3269 01 2/3 +40 F	21			PASS
	21			
	22			
	21			
	AVG			
/A61461 01 1/2 +40 F	58			PASS
	62			
	63			
	AVG			
/8108231 01 Full +40 F	61			FAIL
	6			
	44			
	6			
	AVG			
	19			

YOUNGSTOWN PIPE & SUPPLY INC.
 MACHINE # 330.785.2700
 THESE TESTS REPORTS APPLY TO:
 JALOC M 6747
 12185
 53283
 YOUR P.O. #
 ISSUES O.M. #
 TESTED BY YRS (10/23/08)

The above results are preliminary for information purposes only. Certified Test Reports will be issued.





196 Bell Avenue
CARNEGIE, PA 15106

Page 1/ 1

CERTIFICATION OF MATERIAL

CUSTOMER:

UNION METAL CORP
1432 MAPLE AVE NE
CANTON, STARK
OH 44705-1720

SALES ORDER NUMBER: 11112756 000030
CUSTOMER PURCHASE ORDER: 17447
CUSTOMER PART NUMBER:
DELIVERY NUMBER: 81673096 000020

MATERIAL NUMBER: 160000156
INVENTORY DESCRIPTION:

FINISHED ITEM DESCRIPTION: CARB Bar RD HR A36
0.625" X 240"

HEAT NUMBER(s) SLAB/COIL/TEST NUMBER (if applicable)

E2916

CERTIFICATION

A survey of our material sources has indicated that neither mercury nor radioactive substances is introduced into their products, or is used in any of their processes. While we make no independent tests for mercury or radiation, there is nothing in Ryerson's system which could be expected to introduce contamination of either type.

This document certifies that the material described above was shipped in accordance with your order. The producer of the material has certified to Ryerson that it was produced in accordance with the following spec:

ASTM A36 ASME SA36

07/21/2008

Authorized Agent of Ryerson

5-464205

CERTIFIED TEST REPORT

NUCOR
BAR MILL-AUBURN
NUCOR STEEL AUBURN, INC.

P.O. BOX 2008
QUARRY ROAD
AUBURN, NY 13021

480 pcs. = 9984
HEAT# E2916
DATE SHIPPED 6/11/2008
SHIPMENT# 0316836
SIZE: RD 5/8 20' 0"
ORDER ITEM# 202865/01
SOLD TO: RYERSON TULL-EAST
FAX#EMAIL: 4122766664

CUST. P.O. 4500206939
PART #: 160000156
GRADE : ASTM A36-05/CSA 44W
SPEC A709-06A GR36
SUPP. REQ:
SHIP TO: RYERSON - PITT

CHEMICAL ANALYSIS %

C	MIN	SI	P	S	CU	NI	CR	MO	SN	V	CB	TI	B	N2	O2
150	750	190	014	039	370	0900	140	025	015	000	0020	0010	0002	XXX	XXX

MECHANICAL RESULTS

YIELD	TENSILE	GAUGE	%	BEND	%
K.S.I.	K.S.I.	LENGTH	ELONG	PIN DIA	R.A.
51.50	71.70	8	25.0	.0	.0
52.00	72.90	8	26.2	.0	.0
MPa	MPa	GAUGE	%	BEND	R.A.
		LENGTH	ELONG	PIN DIA	

CHARPY IMPACT TEST

TEMP. F	FT./LB.	SUBSIZE SPECIMEN	SAMPLE

I CERTIFY THESE RESULTS TO BE
CORRECT AS CONTAINED IN THE
RECORDS OF THE COMPANY.

JIM BIERNAT, METALLURGIST
STATE OF NEW YORK
COUNTY OF CAYUGA

Jim Biernat

(print)

AFTER BEING DULY SWORN BY ME,
DECLARES THAT: THESE RESULTS
ARE CORRECT AS CONTAINED IN THE
RECORDS OF NUCOR STEEL AUBURN, INC

Grain Size	Reduction Ratio	As-Rolled Hardness	D.I.	C.F.	C.I.
XXX	XXX	XXX	XXX	.370	XXX

JOMINY END-QUENCH HARDENABILITY RESULTS (HRC)

J1	J2	J3	J4	J5	J6	J7	J8	J9	J10	J11	J12

J13	J14	J15	J16	J18	J20	J22	J24	J26	J28	J30	J32

(sign)

SUBSCRIBED AND SHOWN BEFORE ME

ALL MANUFACTURING PROCESSES FOR THIS STEEL, INCLUDING MELTING FROM SCRAP AND HOT
ROLLING HAVE BEEN PERFORMED IN THE U.S.A. NO WELD REPAIR PERFORMED. STEEL NOT
EXPOSED TO MERCURY OR ANY LIQUID ALLOY WHICH IS LIQUID AT AMBIENT TEMPERATURES.

THIS DAY OF

L.S.

THIS CERTIFICATE IS NOTARIZED ONLY
WHEN REQUESTED

BB/00625
155800

CUSTOMER SPECIAL INSTRUCTIONS:

A36 CERTIFIED TO ASME SA36 1998 EDITION AND
ASTM A709-97A GR.36. THIS WAS PRODUCED UNDER AUBURN
QUALITY PROGRAM AUDITED 5/13/93 BY J.T. RYERSON
CONFORMS TO JTR #0103-T,C-001 & 2150-U STRAND CAST
FROM 5" BLT., SILICON KILLED, REDUCTION RATIO > 8/1



TECHNICAL STAMPING, INC.

50600 E. RUSSELL SCHMIDT BLVD.
CHESTERFIELD TWP., MI 48051
PH(586)948-3285 / FX(586)948-3286

MATERIAL CERTIFICATION

501668

CUSTOMER NAME	CUSTOMER ORDER NUMBER	DATE
---------------	-----------------------	------

Flexalloy Inc.	P218096	2/6/08
----------------	---------	--------

PART NUMBER	CUSTOMER LOT NO.	LOT NUMBER	QUANTITY
-------------	------------------	------------	----------

1-1/4" F436 Hdg	125NWA30G	1207-813H	6,000
-----------------	-----------	-----------	-------

STEEL GRADE	HEAT	C	MN	P	S	SI	AL	REVISION
SAE 1050	2141028	.54	.75	.009	.002	.037	.047	ASTM F-436-04

SPECIFICATION	ACTUAL	GAUGE
---------------	--------	-------

O.D -	2.469 - 2.531	2.503 - 2.505	CALIPER
-------	---------------	---------------	---------

I.D -	1.375 - 1.438	1.387 - 1.390	CALIPER, PIN GAUGE
-------	---------------	---------------	--------------------

THICKNESS-	.136 - .177	0.139	MICROMETER
------------	-------------	-------	------------

FLAT-	Max .010	.005	CALIPER
-------	----------	------	---------

HEAT TREAT -	38 - 45 HRC	40 - 43	
--------------	-------------	---------	--

PLATING-		See Cert	
----------	--	----------	--

OTHER		N / A	
-------	--	-------	--

WE HEARBY CERTIFY THIS PRODUCT WAS PRODUCED UNDER A ISO-9001:2000 QUALITY ASSURANCE SYSTEM. ISO-9001:2000 CERTIFICATION NUMBER-1265 - DATE OF REGIS. JAN. 3, 2003
ALL MATERIALS ARE MADE AND MELTED IN THE U.S.A. THIS PRODUCT WAS MANUFACTURED IN CHESTERFIELD, MICHIGAN, U.S.A. THIS PRODUCT CONFORMS TO ALL REQUIREMENTS
FOR WASHERS AS PRODUCED ACCORDING TO A.S.T.M. F-436-04. THE ABOVE TEST RESULTS APPLY ONLY TO THE ITEMS TESTED. THIS TEST REPORT MUST NOT BE REPRODUCED
EXCEPT IN FULL WITHOUT PRIOR WRITTEN APPROVAL.

AUTHORIZED SIGNATURE

CERTIFIED ISO 9001:2000

4148

INDUSTRIAL STEEL TREATING COMPANY, INC

501668

613 Carroll Street Jackson, MI 49202
P.O. Box 98 Jackson MI, 49204
Voice: 517-787-6312 Fax: 517-787-5441

HEAT TREAT CERTIFICATION

Customer:

TECHNICAL STAMPING, INC.

Attn:

50600 E. RUSSELL SCHMIDT

CHESTERFIELD, MI 48051

Certification Date:

12/20/2007

Page: 1 of 1

**Order Details**

Part Number: F0114

Packing Slip: 4444

Purchase Order:

IST Order Number: 634940-1

Lot Number: 1207-813

Heat Number:

Blue Print Rev:

1279

Material Type:

1030 -1050

Quantity:

40,029

Net Weight:

5,404.0

Part Desc:

WASHER

Comments

4 TUB #401,712,100,523
1395,1528,1557,1610,1652
11117,13026,13377

SPECIFICATIONS

HRC 38 -45

RESULTS

HRC 40 -43

Approval:

Tom Levy - Quality Assurance Supervisor

Contact

Tom Levy - Quality Assurance Supervisor

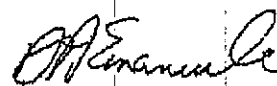
Voice: 517-780-9043 Fax: 517-787-5441

E-Mail: tolevy@indstl.com

This Certification cannot be reproduced except in full, without written authorization from Industrial Steel Treating Company, LLC.

4/48

501668

PAGE 1 of 1		*** W C I S T E E L *** METALLURGICAL SERVICES INC. 1040 PINE AVE. SE WARREN, OHIO 44483-6528		970001																																																						
MELTED AND MANUFACTURED IN USA		PURCHASE ORDER: 11/06/07 004139		SP																																																						
C E R T I F I C A T E O F T E S T S		DATE/INVOICE: 11/28/07 690635314 WCI ORDER: 241 19 20017 02																																																								
SOLD TO: SABRE STEEL INC 23680 RESEARCH DR FARMINGTON HILLS MI 48335		SHIP TO: SABRE STEEL INC C/O VOSS STEEL 7925 BEECH DALY AVE TAYLOR MI 48180																																																								
I certify that the properties of the items tested are true and accurate. Material was sampled, tested and inspected in accordance with the methods prescribed in the governing specifications. Subject material also conforms to the requirements of the governing specifications. This report shall not be reproduced except in full.				D.H. Emanuele President 																																																						
All tests are conducted in-house unless noted with an asterisk.																																																										
Item	Specification and Description			03:15:34																																																						
2	HR SHEET HI-CARBON SAE-1050 AK FG SPECIFIED HARDNESS NON-TEMPER ROLLED REST THICK REST CHEM .136M P008M000 X 37.000 ME X COILS COIL WGT 30000MN/37000MX HEAT-NO 2141028 K925001 COIL NUMBERS <table border="1"> <tr> <td>HEAT-NO</td> <td>C</td> <td>MN</td> <td>P</td> <td>S</td> <td>SI</td> <td>CU</td> <td>NI</td> <td>CR</td> </tr> <tr> <td>2141028</td> <td>.54</td> <td>.75</td> <td>.009</td> <td>.002</td> <td>.037</td> <td>.03</td> <td>.02</td> <td>.05</td> </tr> <tr> <td></td> <td>MO</td> <td>SN</td> <td>AL</td> <td>V</td> <td>CB</td> <td>B</td> <td>TI</td> <td>ZR</td> </tr> <tr> <td></td> <td>.01</td> <td>.002</td> <td>.047</td> <td>.000</td> <td>.000</td> <td>.0000</td> <td>.001</td> <td></td> </tr> <tr> <td></td> <td>CA</td> <td>CE</td> <td>SB</td> <td>H</td> <td>N</td> <td>O</td> <td></td> <td></td> </tr> <tr> <td></td> <td>.0001</td> <td>.000</td> <td>.000</td> <td></td> <td>.0029</td> <td></td> <td></td> <td></td> </tr> </table>			HEAT-NO	C	MN	P	S	SI	CU	NI	CR	2141028	.54	.75	.009	.002	.037	.03	.02	.05		MO	SN	AL	V	CB	B	TI	ZR		.01	.002	.047	.000	.000	.0000	.001			CA	CE	SB	H	N	O				.0001	.000	.000		.0029				
HEAT-NO	C	MN	P	S	SI	CU	NI	CR																																																		
2141028	.54	.75	.009	.002	.037	.03	.02	.05																																																		
	MO	SN	AL	V	CB	B	TI	ZR																																																		
	.01	.002	.047	.000	.000	.0000	.001																																																			
	CA	CE	SB	H	N	O																																																				
	.0001	.000	.000		.0029																																																					
EU	WASHER STOCK																																																									
TI	01 C R/A INFO@SABRESTEEL.COM																																																									
CH	C 50/55 MN 70/90 P 025MX S 010MX AK FINE GRAIN																																																									

501668

ROGERS BROTHERS INC.

HOT DIP
GALVANIZING

February 1, 2008

Technical Stamping
50600 E. Russell Schmidt
Chesterfield TWP, MI 48051

To Whom It May Concern:

This is to certify that the hot dip galvanizing of the following washers on your Purchase Order number 1522 conforms to specification ASTM A-153. The following sizes and lot numbers comply with the coating, workmanship, finish, and appearance requirements of ASTM F2329 specifications.

PIECES	PART# & SIZE	LOT NUMBER	AVERAGE ZINC COATING IN MILS.
267,768	RU0058 5/8"	0108-842	3.31
23,767	RU0100 1"	0108-845	5.13
55,463	F0058 5/8"	1106-425	4.55
105,725	F0078 7/8"	1207-834	3.44
50,368	F0078 7/8"	1207-816	3.05
31,132	F0114 1-1/4"	1207-813	2.95

This certification in no way implies anything other than the quality of our hot dip galvanizing as it pertains to your order.

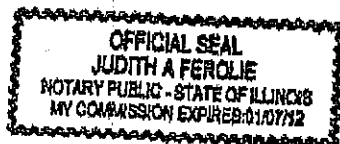
Yours very truly,

ROGERS BROTHERS INC.

Lorraine P. Shelburne
Vice President

SUBSCRIBED AND SWORN
BEFORE ME THIS 1ST
DAY OF JANUARY 2008, AD

NOTARY PUBLIC





TECHNICAL STAMPING, INC.

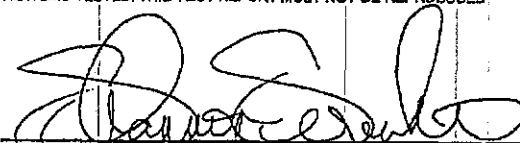
50600 E. RUSSELL SCHMIDT BLVD.
CHESTERFIELD TWP., MI 48051
PH(586)948-3285 / FX(586)948-3286

MATERIAL CERTIFICATION

502127

CUSTOMER NAME		CUSTOMER ORDER NUMBER		DATE				
Flexalloy Inc.		P232929		8/13/08				
PART NUMBER	CUSTOMER LOT NO.	LOT NUMBER		QUANTITY				
2 " F436 Hdg	200NWA30G	0508-023H		1,020				
STEEL GRADE	HEAT	C	MN	P	S	SI	AL	REVISION
SAE 1050	2131928	.53	.79	.014	.003	.037	.057	ASTM F-436-04
SPECIFICATION		ACTUAL		GAUGE				
O.D - 3.688 - 3.812		3.729 - 3.732		CALIPER				
I.D - 2.125 - 2.188		2.154 - 2.157		CALIPER, PIN GAUGE				
THICKNESS- .178 - .195		.190		MICROMETER				
FLAT- Max .010		.005		CALIPER				
HEAT TREAT - 38 - 45 HRC		41 - 43						
PLATING-		See Cert						
OTHER		N/A						

WE HEREBY CERTIFY THIS PRODUCT WAS PRODUCED UNDER A ISO-9001:2000 QUALITY ASSURANCE SYSTEM. ISO-9001:2000 CERTIFICATION NUMBER-1265 - DATE OF REGIS. JAN. 3, 2003
ALL MATERIALS ARE MADE AND MELTED IN THE U.S.A. THIS PRODUCT WAS MANUFACTURED IN CHESTERFIELD, MICHIGAN, U.S.A. THIS PRODUCT CONFORMS TO ALL REQUIREMENTS
FOR WASHERS AS PRODUCED ACCORDING TO A.S.T.M. F-436-04. THE ABOVE TEST RESULTS APPLY ONLY TO THE ITEMS TESTED. THIS TEST REPORT MUST NOT BE REPRODUCED
EXCEPT IN FULL WITHOUT PRIOR WRITTEN APPROVAL


AUTHORIZED SIGNATURE

CERTIFIED ISO 9001:2000

4329

INDUSTRIAL STEEL TREATING COMPANY, INC

613 Carroll Street Jackson, MI 49202
P.O. Box 98 Jackson MI, 49204
Voice: 517-787-6312 Fax: 517-787-5441

502127

HEAT TREAT CERTIFICATION

Customer:

TECHNICAL STAMPING, INC.

Attn:

50600 E. RUSSELL SCHMIDT

CHESTERFIELD, MI 48051

Certification Date:

05/07/2008

Page: 1 of 1



Order Details

Part Number: F0200

Packing Slip: 4512

Purchase Order:

IST Order Number: 694460-1

Lot Number: 0508023

Heat Number: 2131928

Blue Print Rev: 1279

Material Type: 1030 - 1050

Quantity: 3,496

Net Weight: 1,346.0

Part Desc: WASHER

Comments: 1 TUB #820
4319,4446,9039,2276,90012
92759

SPECIFICATIONS

HRC 38 - 45

RESULTS

HRC 41 - 43

Approval:

Tom Levy - Quality Assurance Supervisor

Contact:

Tom Levy - Quality Assurance Supervisor

Voice: 517-780-9043 Fax: 517-787-5441

E-Mail: tolevy@indstl.com

This Certification cannot be reproduced except in full, without written authorization from Industrial Steel Treating Company, LLC.

4329

502127

PAGE 1 of 1		*** WCI STEEL *** METALLURGICAL SERVICES INC. 1040 PINE AVE. SE WARREN, OHIO 44463-6528		760602																																																																																																													
MELTED AND MANUFACTURED IN USA		PURCHASE ORDER: 01/11/08 004183-5																																																																																																															
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SOLD TO: SABRE STEEL INC 23680 RESEARCH DR FARMINGTON HILLS MI 48335		SHIP TO: SABRE STEEL INC C/O VOSS STEEL 7925 BEECH DALY AVE TAYLOR MI 48180																																																																																																															
I certify that the properties of the items tested are true and accurate. Material was sampled, tested and inspected in accordance with the methods prescribed in the governing specifications. Subject material also conforms to the requirements of the governing specifications. This report shall not be reproduced except in full.				D.H. Emanuele President 																																																																																																													
All tests are conducted in-house unless noted with an asterisk.																																																																																																																	
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ROGERS BROTHERS INC.

HOT DIP
GALVANIZING

July 18, 2008

Technical Stamping
50600 E. Russell Schmidt
Chesterfield TWP, MI 48051

To Whom It May Concern:

This is to certify that the hot dip galvanizing of the following washers on your Purchase Order number 1529 conforms to specification ASTM A-153. The following sizes and lot numbers comply with the coating, workmanship, finish, and appearance requirements of ASTM F2329 specifications.

<u>PIECES</u>	<u>PART# & SIZE</u>	<u>LOT NUMBER</u>	<u>AVERAGE ZINC COATING IN MILS.</u>
39,272	BBW-S00 1-3/4"	0108-868	3.92
257,500	F0012 1/2"	0508-029	3.33
52,750	F0012 1/2"	0508-027	3.28
45,250	F0058 5/8"	0508-061	3.46
79,600	F0100 1"	0408-009	3.47
12,480	F0134 1-3/4"	0508-048	2.99
5,400	F0200 2"	0508-023	3.96
6,715	F0112 1-1/2"	0408-008	2.95
47,375	F0078 7/8"	0608-083	3.28
65,875	F0034 3/4"	0508-068	3.52

This certification in no way implies anything other than the quality of our hot dip galvanizing as it pertains to your order.

Yours very truly,

ROGERS BROTHERS INC.

Lorraine P. Shelburne

Lorraine P. Shelburne
Vice President

LPS:dl

SUBSCRIBED AND SWORN
BEFORE ME THIS 18TH
DAY OF JULY 2008, AD

Judith A. Ferolie
NOTARY PUBLIC

OFFICIAL SEAL
JUDITH A FEROLIE
NOTARY PUBLIC - STATE OF ILLINOIS
MY COMMISSION EXPIRES: 01/07/12

INSPECTION CERTIFICATE



UNYTITE, INC.

One Unytite Drive
Peru, Illinois 61354

815-224-2221 — FAX# 815-224-3434

Customer	Specification	Size	Lot No.	Date
DALLAS PASTER, INC. 501 AVENUE M GRAND PRAIRIE, TEXAS 75050	ASTM A-363 GRADE DH HEAVY HEX NUT	H.D.G. 5/8-11 UNC 0.020" BLUE DYE	ACB21	Apr. 12, '06

Mechanical properties tested in accordance to ASTM F606/F606M, ASTM A370, ASTM E18

Chemical Composition (%)														Shape & Dimension	
Mill Maker	Material Size	Heat No.	Spec.	C	Si	Mn	P	S	Cu	Ni	Cr	Mo			
REP	CARBON			0.20 0.55	-	0.60	0.040	0.050	-	-	-	-		ANSI B18.2.2 GOOD	
	STEEL	S01412		0.21	0.23	0.70	0.011	0.009	0.01	0.02	1.00	0.18		ANSI B1.1 CLASS 2B GOOD	
Mechanical Property Inspection															
Item	Proof Load	Cone Stripping	Hardness	Hardness		Absorbed Energy		Heat Treatment							
Spec.	33,900	-	24-38	H _A 8 • HB		J • kg/m • ft/lbf		T: MIN. 800° F							
	lb	kN • kgf • lbf	.H _A C												
	n	n													
Results	Results	Results	27.5 27.4 27.8 29.0 29.0					Q: FORGING Q (W.Q.) T: 1004° F/45M. (W.C.)							
	GOOD	-	28.1	Hardness Treatment		After 24 H _A X °F (°C)		Q: Quenching T: Tempering ST: Solution Treatment							
Remarks:										" DH U"					
										Production Quantity 22,750 pcs.					

UML # 501418

Chief of Quality Assurance Section

Material used for the nut was melted and manufactured in the USA. The nut was manufactured in the USA to the above specification.

We hereby certify that the material described has been manufactured and inspected satisfactorily with the requirement of the above specification.

[Signature]



REPUBLIC TECHNOLOGIES
INTERNATIONAL
LORAIN HOT ROLLED BAR PLANT
1907 E 28th Street
Lorain, OH 44055

REPUBLIC TECHNOLOGIES
INTERNATIONAL, LORAIN HOT
ROLLED BAR PLANT IS
QIS-8000 REGISTERED



In the Field of
Chemical Testing
Only Certified
#246.01 Valid to
October 31, 2001

UMC# 501418

METALLURGICAL TEST REPORT

Sales Order No.: E116459	Delivery No. (BOL):	Vehicle ID(Carrier):	Purchase Order No.: 20421	P.O. Date: 12/28/1999
Mail To: 242038900 UNYTITE INC ATTN: JEFF DINELLI ONE UNYTITE DRIVE PERU, IL. 61354-9710			Sold To: 242038000 UNYTITE INC ONE UNYTITE DRIVE PERU, IL. 61354-9710 Ship To: 242038001 UNYTITE INC ONE UNYTITE DRIVE PERU, IL. 61354-9710	
Specification (BC) C.18/23 MN.60/85 P.030 MAX S.030 MAX SL15/35 CU.30 MAX NI.25 MAX CR.90/1.20 MO.15/30 FINE GRAIN COLD WORKING QUALITY PEEL & BURNISH REPORT JOMINY CLEANLINESS TENSILE FOR INFO ONLY				Customer Information 4120

MATERIAL INFORMATION

Item No. Material No. Material Description
000001 0015213 0.859"

Heat
S01412

HEAT CHEMISTRY ANALYSIS

Type: Bloom cast

Elem

Elem	Result	UOM
C	0.21	%
Mn	0.70	%
P	0.011	%
S	0.009	%
Si	0.23	%
Cu	0.010	%
Ni	0.02	%
Cr	1.00	%
Mo	0.179	%
Sb	0.001	%
Al	0.035	%
V	0.003	%
Cb	0.001	%

C.S.N Determined by methods defined in ASTM E1019-94.

Pd and Bi Determined by methods defined in ASTM E2065-95.

All other elements determined by methods defined in ASTM E405-99.

DI VALUE

2.13 (Calculation utilizes 3 significant decimals for each element)

AUSTENITIC GRAIN SIZE *

Austenitic Grain Size 5 or Finer Based on Total Aluminum equal to or greater than 0.020% per ASTM A29-93a.

END QUENCH HARDENABILITY TEST RESULTS *

Austenitize Temperature 1700 degs. F

Cool Test

J.P.L.

J-1

J-2

J-3

J-4

J-5

J-6

J-7

J-8

J-9

J-10

J-11

J-12

J-13

J-14

J-15

J-16

J-18

J-20

Result

43

43

39

34

30

29

27

26

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24

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UOM

HRC

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Jominy hardenability determined by methods defined in ASTM A255-96.

JK CLEANLINESS - AVG RESULTS *

AT	=	1.7
AR	=	0.0
BT	=	0.7
BH	=	0.0
CT	=	0.0
CH	=	0.0
DT	=	0.5
DH	=	0.0

Microcleanliness determined by methods defined in ASTM E45-97 Method A.

This is to certify that the product described herein was manufactured, sampled, tested and/or inspected in accordance with the specifications and quality requirements for such purposes. The results in this report are applicable only to the items described herein and are correct as contained in the records of the company. Results indicated with an asterisk (*) are not covered under the scope of accreditation. Results indicated by two asterisks (**) were performed by a non-accredited third party laboratory and are not certified by Republic Technologies International. Republic Technologies International certifies that this product was tested and manufactured in the USA.

Prepared by the office of: James C. Cash, Director, Quality Assurance Bar Rolled Bar Division, dated: 04/06/2000

This Report May Not Be Reproduced Except in Full

UQ5020 Rev A 2/1/99



REPUBLIC TECHNOLOGIES
INTERNATIONAL
LORAIN HOT ROLLED BAR
PLANT

REPUBLIC TECHNOLOGIES
INTERNATIONAL, LORAIN HOT
ROLLED BAR PLANT IS
QS-9000 REGISTERED



UMC# 501418

Sales Order No.: 8116459	Delivery No. (BOL):	Vehicle ID(Carrier):	Purchase Order No.: 20421	P.O.Date: 12/28/1999
-----------------------------	---------------------	----------------------	------------------------------	-------------------------

AS ROLLED TENSILE *

Type	Min	Max	Avg. Uom
Tensile Strength	103500	103500	103500 PSI
Elongation in 2"	27.0	27.0	27.0 %
Elongation in 8"	12.0	12.0	12.0 %
Reduction of Area	46.2	46.2	46.0 %

Mechanical properties determined by methods defined in ASTM E8-99 and ASTM A370-97a.

REDUCTION RATIO

277.25:1 Bloom Cast

This is to certify that the product described herein was manufactured, sampled, tested and/or inspected in accordance with the specifications and quality requirements in each respect. The results in this report are applicable only to the items described herein and are correct as determined in the records of the company. Results indicated with an asterisk (*) are not covered under the scope of accreditation. Results indicated by two asterisks (**) were performed by a not accredited third party laboratory and are not certified by Republic Technologies International. Republic Technologies International certifies that this product was tested and manufactured in the USA.
Prepared by the office of: James C. Cook, Director, Quality Assurance Hot Rolled Bar Division.
Date: 04/26/2000

This Report May Not Be Reproduced Except In Full
UQ5020 Rev A 2/1/99

James C. Cook

UMC# 501418

Universal Galvanizing, Inc.
107 Didion Drive
St. Peters, Missouri 63376
(636) 970-2272

CERTIFICATE OF COMPLIANCE
FOR HOT DIP GALVANIZING

CUSTOMER : Unytite, Inc.
DATE : April 03, 2006
ORDER NO : 35757
LOT NO. : AC821
ITEM : A563 DH HHN Nut
SIZE : 5/8-11 0.031

WE HEREBY CERTIFY THAT THE ABOVE SIZE AND LOT
NUMBER WHICH WAS HOT DIP GALVANIZED IN OUR PLANT
MEET THE SPECIFICATIONS OF ASTM-A153 CLASS C.

AVERAGE THICKNESS OF ZINC COATING : 4.3 MILS

David Gehris
David Gehris, QUALITY CONTROL

- Specializing in Hot Dip Galvanizing -

INSPECTION CERTIFICATE

Customer	Specification	Size	Lot No.	Date
	ASTM A-363 GRADE DH HEAVY HEX NUT	H.D.G. 1-1/4-7 UNC 0.024" BLUE HYE	KT041	Sep. 26, '07



UNYTITE, INC.
One Unytite Drive
Peru, Illinois 61354
815-224-2221 — FAX# 815-224-3434

Mechanical properties tested in accordance to ASTM F606/F606M, ASTM A370, ASTM E18

Chemical Composition													
Milli Maker	Material Size	Heat No.	Spec	C	Si	Mn	P	S	Cu	Ni	Cr	Mo	(%)
ALSTEEL	CARBON			0.55		0.60	0.040	0.050					
	STEEL	M25706		0.46	0.26	0.81	0.010	0.033	0.12	0.05	0.11	0.02	
Mechanical Property Inspection													
Item	Proof Load	Cone Stripping	Hardness	Hardness	Absorbed Energy	Heat Treatment							
Spec.	145,350		24-38			T: MIN. 800 F							
	lb	kn • kgf • lbf	H _A C	H _A B • HB	J • kgfm • ftlb								
Results	5		28.7 30.0 29.8 29.7 29.3			Q: FORGING Q (W.Q.) T: 1193 F/45M. (W.C.)							
			29.5			Q: Quenching T: Tempering ST: Solution Treatment							
	GOOD			After 24 HrX	°F (°C)								
						Remarks: * DH U=							
						Production Quantity 21,454 pcs.							

Material used for the nut was melted and manufactured in the USA. The nut was manufactured in the USA to the above specification.

We hereby certify that the material described has been manufactured and inspected satisfactorily with the requirement of the above specification.

Chief of Quality Assurance Section

[Signature]

5025205

MACSTEEL®

Quanex

502523

MacSteelONE JACKSON SQUARE
SUITE 500
JACKSON, MICHIGAN 49201

CERTIFIED MATERIAL TEST REPORT

CUSTOMER ORDER NUMBER	CUSTOMER PART NUMBER	HEAT NUMBER	WORK ORDER NUMBER	DATE
P001787	B1045SC15625	M25706	210547 101	9/06/07

REPORT TO
TRACI
UNYTITE, INC.ONE UNYTITE DRIVE
PERU, IL 61354-9710

SHIP TO

UNYTITE, INC.

ONE UNYTITE DRIVE
PERU, IL 61354

ORDERED

GRADE	SIZE	LENGTH
1045	1 9/16" RND	24' 10 1/2"

CUSTOMER SPECIFICATIONS
SAE 1045; ASTM E381-01

CHEMICAL ANALYSIS - (BAR AVERAGE)

C	Mn	P	S	Si	Ni	Cr	Mo	Cu	Sn	Al
0.45	0.81	0.010	0.033	0.26	0.05	0.11	0.02	0.12	0.006	0.003
V	Nb									
0.065	0.001									

GRAIN SIZE

SPECIFICATION ASTM E112

FINE GRAIN 5-8

MACROCLEANLINESS

SPECIFICATION ASTM E381

PLATE I

PLATE II

	S	R	C
AVERAGE	1	1	1

NONE

DECARB

SPECIFICATION ASTM E1077

F

TOTAL= 0.006

PAGE 1

We certify that these data are correct and in compliance with specified requirements.

MacSteel Monroe
3000 East Front Street
Monroe, MI 48161
Quality Assurance Representative

CONTINUED ON PAGE 2

ROGERS BROTHERS INC.

HOT DIP
GALVANIZING

September 25, 2007

Unytite, Inc.
Unytite Quality Department
One Unytite Drive
Peru, IL 61354

To Whom It May Concern:

This is to certify that the hot dip galvanizing of the following material on your Purchase Order number 1995 conforms to specification ASTM A-153.

10 Containers	1-1/4" A563 DH HHN	Lot#KT031	3.80 Avg. Mils.
10 Containers	1-1/4" A563 DH HHN	Lot#KT041	3.52 Avg. Mils.

This certification in no way implies anything other than the quality of our hot dip galvanizing as it pertains to your order.

Yours very truly,

ROGERS BROTHERS INC.

Lorraine P. Shelburne

Lorraine P. Shelburne
Vice President

SUBSCRIBED AND SWORN
BEFORE ME THIS 25TH
DAY OF SEPTEMBER 2007, AD

Judith A. Ferolie
NOTARY PUBLIC





CERTIFICATE OF COMPLIANCE

Date	Project No.	Order No.	Customer's Order No.
December 16, 2008	CENTRAL & TYLER, WICHITA, KS	9902	08-521-1

CUSTOMER: MID AMERICAN SIGNAL INC.

WE CERTIFY THAT THE MATERIALS USED ON THIS PROJECT ARE IN COMPLIANCE WITH THE REQUIREMENTS ON THIS ORDER.

THE MATERIAL USED ON THIS PROJECT WAS PRODUCED IN THE UNITED STATES AND THE ATTACHED CERTIFICATIONS REPRESENT THE MATERIAL USED ON THIS PROJECT.

MATERIAL CERTIFICATIONS:

MATERIAL	SPECIFICATIONS	HEAT NUMBER	GRADE	CYCLE
3 GA TUBE	A595	4188548	A	279
7 GA TUBE	A595	4189358	A	279
3/4" SCH 40	A500	E81353		
1/2" SCH 80	A500	TCP5B48399		
1/4" GUSSET	A36	4157582		
3/8" CLAMP PLATE	A36	8107869		
2" POLE PLATE CHARPY	A36	T1668		
3/4" X 3/4" X 1/8" CLIP	A36	N540863		
1/4" X 1" SUPPORT BAR	A36	E4974		
1/2" X 2-1/2" STL HH FRAME	A529	JG3269		
5/8" STUD - 5/8" ROUND BAR	A36	E2916		
501668 1-1/4" WASHER	F-436	2141028		
502127 2" WASHER	F-436	2131928		
501418 5/8" NUT	A583	S01412		
502523 1-1/4" NUT	A563	M25706		

This Certificate Notarized Only When Required

JENNIFER WAGNER

A Notary Public, do hereby certify that this affidavit was subscribed and sworn to before me by a duly authorized agent of the Union Metal Corporation.

This is to certify that the foregoing data is a true copy of the data furnished to us by the producing mill and from data resulting from tests performed at Union Metal Corporation.

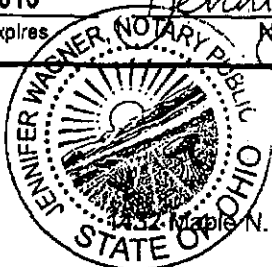
16th day of December 2008

By

October 17, 2010

My commission expires

Notary Public





QF-308, TEST A-595,
Rev.2, Certified Test Reports.
grossman.5/16/06

MATERIALS MELTED AND MANUFACTURED IN THE USA

CERTIFIED TEST REPORT

					DATE	CYCLE NO.	CUSTOMER ORDER NO.
					12-2-08	279	
ITEM NO	DIMENSIONS	HEAT NUMBER	ASTM SPEC. NUMBER	GRADE	PURCHASE ORDER	MANUFACTURER	
1	11 GAGE		A595	A			
2	7 GAGE						
3	3 GAGE	4188548			18594	ARCELORMITTAL	
4	0 GAGE	4167113			15812	ARCELORMITTAL	

MECHANICAL TESTS									
ITEM NO	YIELD STRENGTH PSI	ULTIMATE STRENGTH PSI	% ELONG. IN 2"	BEND TEST	% RED AREA	TEST NO			
1									
2									
3	55689	65938	33.0			10593			
4	55195	67665	33.5			10592			

CHEMICAL ANALYSIS													
ITEM NO	C	Mn	P	S	SI	Cu	Al	NI	Cr	Mo	V	N	
1													
2													
3	.20	.80	.015	.006	.02	.04	.052	.01	.03	.01	.002	.0042	
4	.20	.73	.008	.008	.01	.04	.063	.02	.03	.01	.000	.0025	

This Certificate Notarized Only When Required

I, RENE L. GROSSMAN a Notary Public do Hereby
certify that this affidavit was subscribed and sworn to before me
by a duly authorized signatory of the Union Metal Corporation.

this 9TH day of DECEMBER, 2008

This is to certify that the foregoing data is a true copy of the
data furnished to us by the producing mill and from data
resulting from tests performed at Union Metal Corporation.

UNION METAL CORPORATION

January 31, 2010
MY COMMISSION EXPIRES



PRODUCT CERTIFICATION

WORK ORDER LOT NUMBER

FC2870 4188548

ArcelorMittal Cleveland Inc.

SALES ORDER / RLS

411211 / 1



SOLD TO 000786-000

UNION METAL

1935 16TH ST N.E. & HARRISBURG ROAD N.E.

CANTON, OH 44705

USA

Attn: Renee Grossman

CUSTOMER P.O. 18594-11	CUSTOMER PART 3GA62-1/2-UMS28/R0	QUANTITY 41,920 LBS	COILS 1	LADING NO 01268789	SHIPMENT DATE 10/08/2008					
SPECIFICATION 0.2470 Min -0.0000/ +0.0260 X 63.0000 + 1.5000 ME(IN) ID 24.0/30.0 OD 60.7/80.0 (IN) CL WT 40000/50000 (LBS) Hot Band Prime Carbon Structural Steel UMS 28 Change Stock- Brandle UEXP										
CERTIFICATION REQUIREMENTS UNION METAL SPEC UM-S28 DTD 10/5/94 SAE-1021 CS STRUCTURAL STEEL										
Chemical										
C 0.2000	Mn 0.8000	P 0.0150	S 0.0060	Si 0.0200	Cu 0.0400	Ni 0.0100	Cr 0.0300	Mo 0.0100	Sn 0.0070	Al 0.0520
V 0.0020	Cb 0.0000	N 0.0042	B 0.0000	Ti 0.0020	Sb 0.0020	Ca 0.0001				
Origin - Made and Melted in USA										
Tag Numbers										
695849										

I certify that the material listed herein has been inspected and tested in accordance with the methods prescribed in the governing specifications and based upon the results of such inspection and testing had been approved for conformance to the specifications.

Matthew Kremer
QA Manager



QF-308, TEST.A-595,
Rev.2, Certified Test Reports.
grossman.5/16/06

MATERIALS MELTED AND MANUFACTURED IN THE USA

CERTIFIED TEST REPORT

ITEM NO	DIMENSIONS	HEAT NUMBER	ASTM SPEC. NUMBER	GRADE	DATE 12-2-08	CYCLE NO. 279	CUSTOMER ORDER NO.
1	11 GAGE						
2	7 GAGE	4189358	A595	A		18594	ARCELORMITTAL
3	3 GAGE	4188548				18594	ARCELORMITTAL
4	0 GAGE	4167113				15812	ARCELORMITTAL

ITEM NO	MECHANICAL TESTS						
	YIELD STRENGTH PSI	ULTIMATE STRENGTH PSI	% ELONG. IN 2"	BEND TEST	%RED AREA	TEST NO	
1							
2	61828	71195	32.3			10595	
3	55689	65938	33.0			10593	
4	55195	67665	33.5			10592	

ITEM NO	CHEMICAL ANALYSIS											
	C	Mn	P	S	SI	Cu	Al	Ni	Cr	Mo	V	N
1												
2	.22	.75	.009	.007	.02	.04	.063	.02	.03	.01	.001	.0032
3	.20	.80	.015	.006	.02	.04	.052	.01	.03	.01	.002	.0042
4	.20	.73	.008	.008	.01	.04	.063	.02	.03	.01	.000	.0025

This Certificate Notarized Only When Required

I, JENNIFER WAGNER a Notary Public do Hereby
certify that this affidavit was subscribed and sworn to before me
by a duly authorized signatory of the Union Metal Corporation.

this 15TH day of DECEMBER, 2008

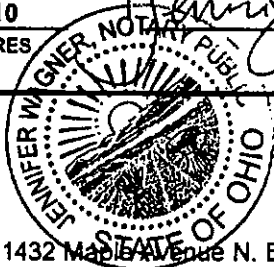
This is to certify that the foregoing data is a true copy of the
data furnished to us by the producing mill and from data
resulting from tests performed at Union Metal Corporation.

UNION METAL CORPORATION

BY

October 17, 2010

MY COMMISSION EXPIRES



PRODUCT CERTIFICATION

WORK ORDER LOT NUMBER

FC2840 4189358

ArcelorMittal Cleveland Inc.



SALES ORDER / RLS

411162 / 1

SOLD TO 000786-000

UNION METAL

1935 16TH ST N.E. & HARRISBURG ROAD N.E.

CANTON, OH 44705

USA

Attn: Renee Grossman

CUSTOMER P.O. 18594/13	CUSTOMER PART 7GA36-UMS28/R0	QUANTITY 35,890 LBS	COILS 1	LADING NO 01271956	SHIPMENT DATE 10/16/2008					
SPECIFICATION 0.1770 Min -0.0000/ +0.0140 X 36.5000 + 1.1250 ME(IN) ID 24.0/30.0 OD 66.2/80.0 (IN) CL WT 29200/36500 (LBS) Hot Band Prime Carbon Structural Steel UMS 28 Change Stock- Brandle UEXP										
CERTIFICATION REQUIREMENTS Union Metal Spec UM-S28 DTD 10/5/94 SAE 1021 Mod Structural Steel										
Chemical										
C 0.2200	Mn 0.7500	P 0.0090	S 0.0070	Si 0.0200	Cu 0.0400	Ni 0.0200	Cr 0.0300	Mo 0.0100	Sn 0.0050	Al 0.0630
V 0.0010	Cb 0.0000	N 0.0032	B 0.0000	Ti 0.0020	Sb 0.0020	Ca 0.0002				
Origin - Made and Melted in USA										
Tag Numbers										
697334										

I certify that the material listed herein has been inspected and tested in accordance with the methods prescribed in the governing specifications and based upon the results of such inspection and testing had been approved for conformance to the specifications.

Matthew Kremer
QA Manager



Tubular Steel Inc

Since 1963
"Performance you can count on"

Tubular Steel Inc
1031 Executive Parkway Drive
Saint Louis, MO 63141
Phone: (314) 851-9200
Fax: (314) 851-9336

Customer PO: 19247

Union Metal

P O Box 9920

Canton, OH 44711

Fax: 330-456-1720

MTR Recipient: Jim Burand

TSI Sales ID: SO-048508

Date: 10-30-08

Page 1

Cover sheet/Certificate of compliance

** The material listed below was purchased to the stated specification, when marked

** Documents for the material listed below are attached

Size	Item / Customer Part No.	Certification
1.050x0.109	RND CARB WELD AR SO075SCH40-A501	ASTM A500 B AND/OR C

Heat number	Apology status
E81353	

Size	Item / Customer Part No.	Certification
4.500x0.237	RND CARB WELD AR SO400SCH40-A501	ASTM A500 B AND/OR C

Heat number	Apology status
627433	
627597	
615874	
615871	

Size	Item / Customer Part No.	Certification
5.563x0.258	RND CARB WELD AR SO500SCH40-X52	ASTM A500 B AND/OR C

Heat number	Apology status
A17601	

** Material referenced on the test report is certified by the manufacturer to meet the specification indicated under the testing procedures established, including any allowable variance

** Mechanical and chemical properties reported on mill test reports are sample results only and do not represent minimum, maximum, or average values

** Data reported on attached documents has been computer verified to meet the requirements of the specification

BULL MOOSE TUBE GERALD FACILITY
CERTIFICATION OF TESTS

05/28/08

Page 2 of 3

BULL MOOSE TUBE
COMPANY1818 Clarkson Rd.
Chesterfield, Missouri 63017BILL TO Tubular Steel, Inc.
Attn: Accounts Payable
1031 Executive Parkway Drive
St. Louis MO 63141-6361SHIP TO Tubular Steel, Inc.
1700 Tubular Steel Road
St. Louis

IL 62088-1076

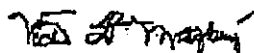
B/L Number 168809

Ship Via

35_F35

1.05" X 0.109 HR X 21' 5"										Order #		247728				
26.7 mm										Purchase Order #		2349				
ASTM A500-03 Grade B Melted & Manufactured in the USA										Item #		135735 0672				
Ticket # = 13047676										P						
Heat # = E81833										NI		VA		YLD psi	TSN psi	ELN %
C	MN	P	S	AL	SI	CB	CU	CR								
.170	.400	.007	.008	.037	.012	0.000	0.000	0.000	0.000	0.000	0.000	70168	74915	37		
1.05" X 0.109 HR X 21' 5"										Order #		247728				
26.7 mm										Purchase Order #		2349				
ASTM A500-03 Grade B										Item #		135735 0672				
Ticket # = 13047672										P						
Heat # = E81385										NI		VA		YLD psi	TSN psi	ELN %
C	MN	P	S	AL	SI	CB	CU	CR								
.180	.410	.015	.001	.032	.027	0.000	0.000	0.000	0.000	0.000	0.000	71428	77408	30		
1.05" X 0.109 HR X 21' 5"										Order #		247728				
26.7 mm										Purchase Order #		2349				
ASTM A500-03 Grade B										Item #		135735 0672				
Ticket # = 13047670										P						
Heat # = C45801										NI		VA		YLD psi	TSN psi	ELN %
C	MN	P	S	AL	SI	CB	CU	CR								
.050	.390	.020	.008	.028	.020	0.000	0.000	0.000	0.000	0.000	0.000	66722	68243	31		
1.05" X 0.109 HR X 21' 5"										Order #		247728				
26.7 mm										Purchase Order #		2349				
ASTM A500-03 Grade B										Item #		135735 0672				
Ticket # = 13047671										P						
Heat # = E81398										NI		VA		YLD psi	TSN psi	ELN %
C	MN	P	S	AL	SI	CB	CU	CR								
.190	.610	.013	.010	.030	.010	0.000	0.000	0.000	0.000	0.000	0.000	72888	78858	28		

Shipping Clerk:



THIS WELDED STEEL TUBING IS MANUFACTURED IN THE UNITED STATES OF AMERICA AND HAS BEEN PRODUCED IN ACCORDANCE WITH THE STATED SPECIFICATION. LADLE CHEMISTRIES ARE REPORTED FROM DOCUMENTS PROVIDED BY THE SUPPLYING STEEL MILL. ANY PHYSICAL AND MECHANICAL TESTING RESULTS SHOWN ON THIS CERTIFICATION ARE CORRECT AS CONTAINED IN THE RECORDS OF THE COMPANY.



Tubular Steel Inc

Since 1963
"Performance you can count on"

Tubular Steel Inc
1031 Executive Parkway Drive
Saint Louis, MO 63141
Phone: (314) 851-9200
Fax: (314) 851-9336

Customer PO: 19623
Union Metal
P O Box 9920
Canton, OH 44711

Fax: 330-456-1720
MTR Recipient: Jim Burand

TSI Sales ID: SO-052407
Date: 11-20-08

Page 1

Cover sheet/Certificate of compliance

- ** The material listed below was purchased to the stated specification, when marked
- ** Documents for the material listed below are attached

Size	Item / Customer Part No.	Certification
0.840x0.147	RND CARB WELD AR S0050SCH80-A501	

Heat number	Apology status
TCP5B46399	

Size	Item / Customer Part No.	Certification
1.660x0.140	RND CARB WELD AR S0125SCH40-A501	ASTM A500 B AND/OR C

Heat number	Apology status
U61810	

Size	Item / Customer Part No.	Certification
2.375x0.218	RND CARB WELD AR S0200SCH80-A501	ASTM A500 B AND/OR C

Heat number	Apology status
1802245	

Size	Item / Customer Part No.	Certification
1.750x0.188	RND CARB WELD CD D188X0175-A513	

** Material referenced on the test report is certified by the manufacturer to meet the specification indicated under the testing procedures established, including any allowable variance

** Mechanical and chemical properties reported on mill test reports are sample results only and do not represent minimum, maximum, or average values

** Data reported on attached documents has been computer verified to meet the requirements of the specification



Sharon Tube Company

154 MILL STREET
PO Box 408
SHARON, PA 16143
(800) 348-8119
(724) 961-1031 (RIN)

PRODUCT CERTIFICATION

HEAT NUMBER
tcp5b46389
SALES ORDER
161688

SOLD TO

SHIP TO

TUBULAR STEEL
1700 TUBULAR
STAUNTON, IL 62088
USA
Attn: Receiving

TUBULAR STEEL
1700 TUBULAR
STAUNTON, IL 62088
USA
Attn: Receiving

CUSTOMER P.O. 2413	CUSTOMER PART	QUANTITY 192 Pcs	BNDLS 2	LADING NO 00002818	SHIPMENT DATE 03/27/2006					
SPECIFICATION CSP0840XhSePe21 1/2", XH, SeI, PE, 21", 0.0", ASTM A53-Type F Grade A										
CERTIFICATION REQUIREMENTS										
Chemical, Ladle Analysis, %										
C	Mn	P	S	Si	Al	Cu	Ni	Cr	Mo	V
.12	.44	.020	.016	.016	.049	.013	.020	.022	.006	.001
Sn	SUM	CH								
.001	.050	.200								
Pipe Mechanical Test Results										
	Yield, PSI	Tensile, PSI	Elong, 4-2"	Y/T Ratio	Hard, HB	Hydro, PSI	Seal	Flatten		
B00120/004	34480	54180	48	.636		850	Pass			
B00120/005	34480	54180	48	.636		850	Pass			
Certified Test Report Type 3.1B in accordance with EN 10201/ISO 16474/DIN 50448. Material has not come in direct contact with mercury, any of its compounds or any mercury bearing devices during the manufactured process, tests or inspections. Material does not contain any polybrominated biphenyls (PBB) or polybrominated diphenyl ethers (PBDE). Welded Steel Pipe Meeting the Requirements of ASTM A53-05 Type F Grade A/ASME SA-53 Type F 2001 Edition, A03 Revision or ASTM A53-05 Type E Grade B/ASME SA-53 Type E Grade B 2001 Edition, A03 Revision. Each length of pipe Hydrostatically Tested. No weld repairs have been performed. Yield strength determined @ 0.2% offset. All bend or flatten tests passed. Manufactured in the U.S.A.										
End of Certification										

Steven M. Grabart, Manager, Technical Services, being duly sworn according to law, deposes and says that the figures set forth above are correct, as contained in the figures of Sharon Tube Company.

[Signature]



QF-308, TEST.A-595,
Rev.1, Certified Test Reports. 5yrs.
Sbayala.5/16/01, SbA.UMC.QA

MATERIALS MELTED AND MANUFACTURED IN THE USA

1/4" PLATE MEETS OR EXCEEDS ASTM A36 TESTED TO ASTM A6					CERTIFIED TEST REPORT	
DATE 10-13-08					CYCLE NO.	CUSTOMER ORDER NO.

ITEM NO	DIMENSIONS	HEAT NUMBER	ASTM SPEC. NUMBER	GRADE	PURCHASE ORDER	MANUFACTURER
1	3 GAGE	4157582	A36	A	16265	ARCELORMITTAL

SMPL NO	MECHANICAL TESTS											
	YIELD STRENGTH PSI	ULTIMATE STRENGTH PSI	% ELONG.		BEND TEST	%RED AREA	TEST NO					
			IN 2"	IN 8"								
1	47332	67572	31.0				N/A					
2	46563	66084	32.0				N/A					

ITEM NO	CHEMICAL ANALYSIS												
	C	Mn	P	S	SI	Cu	Al	NI	Cr	Mo	V	N	
1	.22	.70	.006	.007	.02	.05	.062	.02	.03	.01	.000	.0035	

This Certificate Notarized Only When Required

I, RENE L. GROSSMAN a Notary Public do Hereby
certify that this affidavit was subscribed and sworn to before me
by a duly authorized signatory of the Union Metal Corporation.

this 13TH day of OCTOBER, 2008

This is to certify that the foregoing data is a true copy of the
data furnished to us by the producing mill and from data
resulting from tests performed at Union Metal Corporation.

UNION METAL CORPORATION

January 31, 2010
MY COMMISSION EXPIRES



PRODUCT CERTIFICATION

WORK ORDER LOT NUMBER

FB7019 4157582

ArcelorMittal Cleveland Inc.

SALES ORDER / RLS

389908 / 1



ArcelorMittal

SOLD TO 000786-000

UNION METAL

1935 16TH ST N.E. & HARRISBURG ROAD N.E.

CANTON, OH 44705

USA

Attn: Renee Grossman

CUSTOMER P.O. 16265-18	CUSTOMER PART 3GA55-1/2-UMS28/R0	QUANTITY 48,990 LBS	COILS 1	LADING NO 01200751	SHIPMENT DATE 06/18/2008					
SPECIFICATION 0.2470 Min -0.0000/ +0.0240 X 56.0000 + 1.5000 ME(IN) ID 30.0/30.0 OD 63.5/69.3 (IN) CL WT 40000/50000 (LBS) Hot Band Prime Carbon Structural Steel UMS 28 Change Stock- Brandle UEXP										
CERTIFICATION REQUIREMENTS Union Metal Spec UM-S28 DTD 10/5/94 SAE 1021 Mod Structural Steel										
Chemical										
C 0.2200	Mn 0.7000	P 0.0060	S 0.0070	Si 0.0200	Cu 0.0500	Ni 0.0200	Cr 0.0300	Mo 0.0100	Sn 0.0110	Al 0.0620
V 0.0000	Cb 0.0000	N 0.0035	B 0.0001	Ti 0.0010	Sb 0.0030	Ca 0.0003				
Origin - Made and Melted in USA										
Tag Numbers										
657771										

I certify that the material listed herein has been inspected and tested in accordance with the methods prescribed in the governing specifications and based upon the results of such inspection and testing had been approved for conformance to the specifications.

Matthew Kremer
QA Manager

NUCOR

PLATE MILL

P.O. Box 279
Winton, NC 27986
(252) 366-3700

Mill Test Report

Page 1

NUCOR
It's our Nature.

Issuing Date : 10/16/2008

Vehicle No: 7334

Specification : 0.3750" x 96.000" x 120.000"

ASTM A36-08/ASTM A709 Grade 36-07/ASME SA36-03a

B/L No. : 216368

Load No. : 217370

Our Order No. : 865824

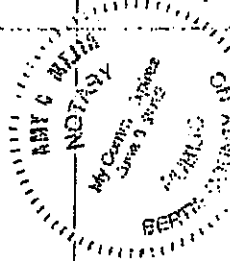
Cust. Order No. : 10-34891-JUN

Sold To : KENILWORTH STEEL
106 EAST MARKET STREET
WARREN, OH 44481

Ship To : Kenilworth Steel
621 Dana
WARREN, OH 44483

Marking :

Heat No	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	Alz	V	Nb	Ti	N	Ca	B	Sn	CEQ	PCM		
8107869	0.17	0.82	0.016	0.003	0.11	0.27	0.07	0.10	0.02	0.007	0.005	0.003	0.002		0.0008	0.0001	0.011	0.35	0.24		
Plate Serial No	Tensile Test								Charpy Impacts										Temp (°F)	Ave.	Min
	Pieces	Tons	Dir.	Yield	(psi)	Tensile	Elongation % in 2"	Elongation % in 8"	Dir.	(ft-lbs)	(%) shear	(ft-lbs)	(%) shear	(ft-lbs)	(%) shear	(ft-lbs)	(%) shear	Size			
8107869-08	15	9.18	T	45,800	71,000		25.8	24.6	H-L	76.9	63.0	60.6	66.8	10mm	40	15					
8107869-09	22	13.47	T	45,800	71,000		25.8	24.6	H-L	76.9	63.0	60.6	66.8	10mm	40	16					



NFCM, T1 and T2, 15K-lbs @ +40 F (20J @ +4 C), H frequency. ;

Manufactured to fully killed practice by Electric Arc Furnace. Welding or weld repair was not performed on this material.

Mercury has not been used in the direct manufacturing of this material. Produced as continuous cast discrete plate as-rolled, unless

otherwise noted in Specification.

Yield by 0.5EUL method unless otherwise specified. $C_{eq} = C + (Mn/16) + ((Cr+Mo+V)/5) + ((Cu+Ni)/16)$

$P_{cm} = C + (Si/30) + (Mn/20) + (Cu/20) + (Ni/60) + (Cr/20) + (V/10) + (B)$

Melted and manufactured in the USA. ISO 9001-2000 certified (#12443-0) by SRI Quality System Registrar (#0985-09). PED 97/23/EC 712 Annex 1, Para. 4.3 Compliant.

DIN 50048 3.1.B/EN 10204 3.1B(2004), DIN EN 10204 3.1(2006) compliant. For ABS grades only, Quality Assurance certificate 08-MMPQA-383

We hereby certify that the contents of this report are accurate and correct. All test results and operations performed by the material manufacturer are in compliance with the applicable specifications, including customer specifications.

T.A. Deprellis

T. A. Deprellis, Metallurgist

10/16/2008 2:37:15 PM

TEST CERTIFICATE

SHIP TO:
ARCELORMITTAL PLATE LLC
KENILWORTH STEEL CO
621 DANA ST NE
WARREN OH 44483

PAGE NO: 01 OF 02
FILE NO: 4269-01-12
MILL ORDER NO: 20004-005
MELT NO: T1668
DATE: 09/12/08

SOLD TO:
KENILWORTH STEEL COMPANY
106 EAST MARKET STREET
SUITE 809
WARREN OH 44481

SEND TO:

01-N

PLATE DIMENSIONS / DESCRIPTION

TOTAL QTY	GAUGE	WIDTH	LENGTH	DESCRIPTION	PIECE WEIGHT
3	2"	96"	240"	RECTANGLE	13068#

CUSTOMER INFORMATION

CUSTOMER PO: 09-34848

SPECIFICATION (S)

THIS MATERIAL HAS BEEN MANUFACTURED AND TESTED IN ACCORDANCE WITH PURCHASE ORDER REQUIREMENTS AND SPECIFICATION(S).

ASTM A709-GR36 YR 07
IMPACTS WAIVED ASME SA36 ED 07 & ASTM A36 05
MATERIAL PRODUCED UNDER A CERTIFIED QUALITY MGMT SYSTEM COMPLYING WITH
ISO 9001 ABS-QR CERT. NO. 30130

CHEMICAL COMPOSITION

	C	MN	P	S	CU	SI	NI	CR	MO
MELT: T1668	.18	1.03	.025	.014	.12	.20	.07	.08	.01
MELT: T1668	V	AL	CB						
	.004	.027	.001						

TENSILE PROPERTIES

LOC	DIR	YIELD STRENGTH PSI X 100	TENSILE STRENGTH PSI X 100	ELONGATION GAGE LGTH	%
BOT.	TRANS.	363	679	2.00"	32.0
BOT.	TRANS.	430	688	2.00"	28.0

GENERAL INFORMATION

ALL STEEL HAS BEEN MELTED AND MANUFACTURED IN THE U.S.A.
MERCURY OR MERCURY COMPOUNDS ARE NOT USED IN THE
MANUFACTURE OF ARCELORMITTAL PLATE LLC PRODUCTS.

NOTARY

AFFIRMED AND SUBSCRIBED BEFORE ME
THIS 12th DAY OF NOVEMBER 2008

NOTARY PUBLIC

WE HEREBY CERTIFY THE ABOVE
INFORMATION IS CORRECT:

QUALITY ASSURANCE LABORATORY
COATESVILLE, PA 19320

NOTARIAL SEAL
CAROL L. SLODY, NOTARY PUBLIC
COATESVILLE, CHESTER CO., PA
MY COMMISSION EXPIRES MAY 27, 2010

ELINORE ZAPLITNY
SUPERVISOR - TEST REPORTING
ELINORE ZAPLITNY

A4492C

A3465-3467E

UNUSUAL
CONSISTENT
B/L 6789D

T-664

Tensile Testing
Metallurgical LaboratoryPhn: 216.641.3290
Fax: 216.641.3291

CHARPY WORKSHEET

JAB337-301

KESWILWORTH STEEL
Attn: GREG REGALIA
Phn: 800-537-5283
Fax: 330-399-2144

12-35108

Size Temp	Pt. lbs	Lat. Exp	Wshear	V/F
7/2A4390E 01 Full +40 F	68			PASS
	93			
	25			
	62			
8/2A4387E 01 Pull +40 F	57			PASS
	48			
	15			
	40			
8/2A4439E 01 Pull +40 F	44			PASS
	76			
	52			
	57			
4/2A4361E 01 Pull +40 F	40			PASS
	72			
	75			
	62			
5/2A4631E 01 Pull +40 F	72			PASS
	54			
	53			
	60			

Universal
Consignment
BL 67810

The above results are preliminary for information purposes only. Certification Report will be mailed

-1204

page 1

DEC 08 '08 09:59 FROM: KENILWORTH STEEL INC



196 Bell Avenue
CARNEGIE, PA 15106

Page 1/ 1

CERTIFICATION OF MATERIAL

CUSTOMER:

UNION METAL CORP
1432 MAPLE AVE NE
CANTON, STARK
OH 44705-1720

SALES ORDER NUMBER: 10779717 000010
CUSTOMER PURCHASE ORDER: 13707
CUSTOMER PART NUMBER:
DELIVERY NUMBER: 81145248 000010

MATERIAL NUMBER: 160000004
INVENTORY DESCRIPTION: ANG A36 .75 X .75 X .125 X 240

FINISHED ITEM DESCRIPTION: CARB ANG A36
0.75" X 0.75" X 0.125" X 240"

HEAT NUMBER(S) SLAB/COIL/TEST NUMBER (if applicable)

N540863

CERTIFICATION

A survey of our material sources has indicated that neither mercury nor radioactive substances is introduced into their products, or is used in any of their processes. While we make no independent tests for mercury or radiation, there is nothing in Ryerson's system which could be expected to introduce contamination of either type.

This document certifies that the material described above was shipped in accordance with your order. The producer of the material has certified to Ryerson that it was produced in accordance with the following spec:

ASTM A36 ASME SA36

Authorized Agent of Ryerson

11/09/2007

010104



Chemical and Physical Test Report

005837

CAMBRIDGE STEEL MILL
160 ORION PLACE
CAMBRIDGE ON N1T 1R9 CAN
(519) 740-2488

MADE IN CANADA

SHIP TO RYERSON TULL 5 CLINTON STREET 314-231-1020 ST LOUIS, MO 63102	INVOICE TO RYERSON TULL PROCUREMENT/CHIC P.O. BOX 8000 A CHICAGO, IL 60680	SHIP DATE 07/21/05	CUST. ACCOUNT NO 40000093
---	---	-----------------------	------------------------------

SHAPE & SIZE	GRADE	SPECIFICATION	SALES ORDER	CUST P.O. NUMBER
A3/4 X 3/4 X 1/8	A36	ASTM A36/A36M-04; CSA-G40.21-300W-98(44W)	5048032-01	346642
HEAT I.D. N540863	C	Mn P S Si Cu Ni Cr Mo V Nb Sn		
	.12	.60 .008 .038 .17 .45 .11 .16 .096 .005 .003 .014		

Mechanical Test: Yield 53613 PSI, 369.65 MPA Tensile: 73388 PSI, 505.99 MPA %EL: 24.0/8in, 24.0/200MM
THIS GRADE ALSO MEETS ASME SA36-01 SPECIFICATION
Mechanical Test: Yield 53333 PSI, 367.72 MPA Tensile: 74399 PSI, 512.96 MPA %EL: 24.5/8in, 24.5/200MM
THIS GRADE ALSO MEETS ASME SA36-01 SPECIFICATION
CUST ITEM NUMBER: J0104

SHAPE & SIZE	GRADE	SPECIFICATION	SALES ORDER	CUST P.O. NUMBER
C2 X 1 X 1/8	A36	ASTM A36/A36M-04; CSA-G40.21-300W-98(44W)	5023635-01	346310
HEAT I.D. N541524	C	Mn P S Si Cu Ni Cr Mo V Nb Sn		
	.15	.68 .013 .040 .23 .31 .12 .14 .055 .005 .003 .012		

Mechanical Test: Yield 53587 PSI, 369.47 MPA Tensile: 74973 PSI, 516.92 MPA %EL: 27.0/8in, 27.0/200MM
THIS GRADE ALSO MEETS ASME SA36-01 SPECIFICATION
Mechanical Test: Yield 53609 PSI, 369.62 MPA Tensile: 73176 PSI, 504.53 MPA %EL: 21.0/8in, 21.0/200MM
THIS GRADE ALSO MEETS ASME SA36-01 SPECIFICATION
CUST ITEM NUMBER: 010542

JOSEPH T. RYERSON & SONS INC.
RECEIVING DEPARTMENT

JUL 25 2005

SUBJECT TO INSPECTION

Customer Notes
A36: ASTM A36-00A & A709-00A ASME-SA36-97A
This material, including the billets, was produced and manufactured in Canada.
A.J. Turner
Quality Assurance Manager
MBI Group

THE ABOVE FIGURES ARE CERTIFIED EXTRACTS FROM THE ORIGINAL CHEMICAL AND PHYSICAL TEST RECORDS AS CONTAINED IN THE PERMANENT RECORDS OF COMPANY.

Eric Hand
Mgr. Metallurg. Svcs.
CAMBRIDGE STEEL MILL

SOLD YOUNGSTOWN PIPE & SUPPLY INC
TO: 4100 LAKE PARK RD
 YOUNGSTOWN, OH 44513-0000

SHIP YOUNGSTOWN PIPE
TO: 219 PHELPS ST
 YOUNGSTOWN, OH 44512-0000

NUCOR
BAR MILL GROUP
NUCOR STEEL AUBURN, INC.

CERTIFIED MILL TEST REPORT

Ship from:
 Nucor Steel - Auburn
 25 Quarry Road
 Auburn, NY 13021
 315-253-4561

Date: 25-Aug-2008
B.L. Number: 352509
Load Number: 102519

Material Safety Data Sheets are available at www.nucorbar.com or by contacting your inside sales representative.

HEAT NUM. *		DESCRIPTION	PHYSICAL TESTS				CHEMICAL TESTS														
			YIELD P.S.I.	TENSILE P.S.I.	ELONG % IN 8"	BEND	WT%	DEF	C	Fe	Mn	Cr	P	Mo	S	V	Si	Cu	Co	Sn	C.E.
PO# =>		83141	53,200	73,300	23.8%				.17	.76	.014	.040	.18	.31	.35						
E4974	Nucor Steel - Auburn Inc		367MPa	505MPa																	
E4974	1/4x1" FL 20" A36/44W		54,600	73,600	25.0%				.08	.11	.026	0.00	.002								
	CSA G40.21-98 44W/ASTM A36/A36M- ASTM A709/A709M-07 GR 36		376MPa	507MPa																	
	ASME SA36-2007 EDITION ASTM A36/A36M-05																				

YOUNGSTOWN PIPE & SUPPLY INC.
 YOUNGSTOWN, OH 44513-0000
 THESE TESTS REPORTS ARE FREE
 SOLD TO: [Signature]
 YOUR P.O. # [Signature]
 YSES OF 11-12-05
 SIGNED

I HEREBY CERTIFY THAT THE ABOVE FIGURES ARE CORRECT AS CONTAINED IN THE RECORDS OF THE CORPORATION
 ALL MANUFACTURING PROCESSES OF THE STEEL MATERIALS IN THIS PRODUCT INCLUDING
 MELTING HAVE OCCURRED WITHIN THE UNITED STATES. ALL PRODUCTS PRODUCED ARE WELD FREE
 MINIMUM 1/16" MAX. INCL. UNLESS OTHERWISE SPECIFIED OR OTHERWISE INDICATED

QUALITY
 Jtm Blernal



Steel Dynamics - Roanoke Bar Division
P.O. Box 13948 Roanoke, VA 24038
Office: 540-342-1831 Fax: 540-342-9437

Test and Inspection

YOUNGSTOWN PIPE & SUPPLY INC.
PHONE # 330-183-2700
THESE TESTS REPORTS APPLY TO:
SOLD TO: UNION
YOUR P.O. # 1985
YES S.O.M. # 57383
SIGNED BY WOMY

NO. 57743-1
ROANOKE

YOUNGSTOWN PIPE & SUPPLY INC
4100 LAKE PARK RD.
YOUNGSTOWN OH 44513-0000

Date 2/26/06

HEAT NUMBER		SIZE		1-YIELD Pt. KSI		ULTIMATE KSI		ELONG BEND 8 IN. TEST		GRADE	
JG3269		FLATS 1/2 X 2 1/2		54.8		85.4		25.0		A529-50	
PURCHASE ORDER NUMBER		NUMBER PIECES		2-YIELD PT. KSI		ULTIMATE KSI		ELONG BEND 8 IN. TEST		GRADE	
80640		144 PIECES 20'		52.6		80.7		26.3		A529-50	
HEAT NUMBER		SIZE		1-YIELD Pt. MPA		ULTIMATE MPA		ELONG BEND 203mm TEST		GRADE	
JG3269		FLATS 12.7 X 63.5		377.8		588.8		25.0		A529-50	
PURCHASE ORDER NUMBER		NUMBER PIECES		2-YIELD PT. MPA		ULTIMATE MPA		ELONG BEND 203mm TEST		GRADE	
80640		144 PIECES 20'		362.7		556.4		26.3		A529-50	
C	MN	S	P	SI	CR	NI	MO	CU	V	NB	
.25	1.05	.025	.015	.24	.06	.12	.03	.26	.002	.002	

MERCURY, RADIUM OR OTHER ALPHA SOURCE MATERIALS IN ANY FORM HAVE NOT BEEN USED IN THE PRODUCTION OF THIS MATERIAL. NO WELD REPAIR HAS BEEN PERFORMED.

Approved ABS QA Mill. Certificate No. 00NN10108-X.

This material was melted and manufactured in the USA by basic Electric Furnace processes to meet specification: ASTM A529-05 GRADE 50

The tensile values stated in either inch-pound units or SI units are to be regarded as separate as defined in the ASTM scope for this material. Unless a metric specification is ordered, this material has been tested and meets the requirements of the inch-pound ranges.

This is to certify the above to be a true and accurate report as contained in the records of this company.

Engineer of Tests: Charles R. Charlton

Tensile Testing
Metallurgical Laboratory
Phn: 216-641.3290
Fax: 216-641.3291

CHARPY WORKSHEET

YOUNGSTOWN PIPE & SUPPLY INC.
Attn: MIKE MONTER
Phn: 330-744-2222
Fax: 330-744-8480

No. 1336

SB 80022-M

Size Temp	Pt. lbs	Iac Exp	Whear	P/Y
/8108248-01 2/3 +40 F	59			PASS
	47			
	57			
Avg	54			
/8107521 01 Full +40 F	64			PASS
	20			
	73			
Avg	52			
/JG0565 01 2/3 +40 F	28			PASS
	28			
	30			
Avg	29			
/JG3269 01 2/3 +40 F	21			PASS
	21			
	22			
Avg	21			
/A61861 01 1/2 +40 F	58			PASS
	62			
	63			
Avg	61			
/8108231 01 Full +40 F	6			FAIL
	44			
	6			
Avg	19			

YOUNGSTOWN PIPE & SUPPLY INC.
PHONE# 330.783.2700
THESE TESTS REPORTS APPLY TO:
SOLD TO: UJA JLOU ALG24C
OUR P.O. # 16185-383
ISSUED BY YP&S (Monter)
FOLD TO: 16185-383

Nov. 12. 2008 3:12PM YP&S Plate Division



Ifc above results are preliminary for information purposes only. Certified test reports will be mailed.



196 Ball Avenue
Carnegie, PA 15106

CERTIFICATION OF MATERIAL

UNION METAL CORP
1432 MAPLE AVE NE
CANTON, STARK
OH 44705-1720

11112756 000030

17447

81673096 000020

160000156

SALES ORDER NUMBER:
CUSTOMER PURCHASE ORDER:
CUSTOMER PART NUMBER:
DELIVERY NUMBER:
MATERIAL NUMBER:
INVENTORY DESCRIPTION:

FINISHED ITEM DESCRIPTION: CARB Bar RD HR A36
0.625" X 240"

HEAT NUMBER (s) SLAB/COIL/TEST NUMBER (if applicable)

E2916

CUSTOMER:

CERTIFICATION

A survey of our material sources has indicated that neither mercury nor radioactive substances is introduced into their products, or is used in any of their processes. While we make no independent tests for mercury or radiation, there is nothing in Ryerson's system which could be expected to introduce contamination of either type.

This document certifies that the material described above was shipped in accordance with your order. The producer of the material has certified to Ryerson that it was produced in accordance with the following spec:

ASTM A36
ASME SA36

Authorized Agent of Ryerson

John C. Ryan

07/21/2008

155800

501668



TECHNICAL STAMPING, INC.
 50600 E. RUSSELL SCHMIDT BLVD.
 CHESTERFIELD TWP., MI 48051
 PH(586)948-3285 / FX(586)948-3286

MATERIAL
 CERTIFICATION

CUSTOMER NAME: _____ CUSTOMER ORDER NUMBER: _____ DATE: _____

Flexalloy Inc. P218096 2/6/08

PART NUMBER: _____ LOT NUMBER: _____ QUANTITY: _____

1-1/4" F436 Hdg 125NWA30G 1207-813H 6,000

STEEL GRADE: HEAT: C: MN: P: S: SI: AL: REVISION:

SAE 1050 2141028 .54 .75 .009 .002 .037 .047 ASTM F-436-04

SPECIFICATION ACTUAL GAUGE

O.D. - 2.469 - 2.531 2.503 - 2.505 CALIPER

I.D. - 1.375 - 1.438 1.387 - 1.390 CALIPER, PIN GAUGE

THICKNESS - .136 - .177 0.139 MICROMETER

FLAT - Max .010 .005 CALIPER

HEAT TREAT - 38 - 45 HRC 40 - 43

PLATING - See Cert

OTHER N/A

WE HEREBY CERTIFY THIS PRODUCT WAS PRODUCED UNDER A ISO-9001:2000 QUALITY ASSURANCE SYSTEM. ISO-9001:2000 CERTIFICATION NUMBER-1265 - DATE OF REGIS. JAN. 3, 2003
 ALL MATERIALS ARE MADE AND MELTED IN THE U.S.A. THIS PRODUCT WAS MANUFACTURED IN CHESTERFIELD, MICHIGAN, U.S.A. THIS PRODUCT CONFORMS TO ALL REQUIREMENTS FOR WASHERS AS PRODUCED ACCORDING TO A.S.T.M. F-436-04. THE ABOVE TEST RESULTS APPLY ONLY TO THE ITEMS TESTED. THIS TEST REPORT MUST NOT BE REPRODUCED EXCEPT IN FULL WITHOUT PRIOR WRITTEN APPROVAL.

[Signature]
 AUTHORIZED SIGNATURE

CERTIFIED ISO 9001:2000

4148

INDUSTRIAL STEEL TREATING COMPANY, INC

501668

613 Carroll Street Jackson, MI 49202
P.O. Box 98 Jackson MI, 49204
Voice: 517-787-6312 Fax: 517-787-5441

HEAT TREAT CERTIFICATION

Customer

TECHNICAL STAMPING, INC.
Attn:
50600 E. RUSSELL SCHMIDT
CHESTERFIELD, MI 48051

Page: 1 of 1

12/20/2007

Certification Date:



Order Details

Part Number

F0114

Packing Slip

4444

Purchase Order

IST Order Number 6349404

Lot Number

1207813

Heat Number

Blue Print Rev

1279

Material Type

1030 -1050

Quantity

40,028

Net Weight

5,404.0

Part Desc:

WASHER

Comments

4 TUB #401, 712, 100, 523
1395, 1528, 1557, 1610, 1652
11117, 13026, 13377

SPECIFICATIONS

HRC 38 - 45

HRC 40 - 43

Approval:

Tom Levy

Tom Levy - Quality Assurance Supervisor

Contact

Tom Levy - Quality Assurance Supervisor
Voice: 517-780-9043 Fax: 517-787-5441
E-Mail: tolevy@indstl.com

This Certification cannot be reproduced except in full, without written authorization from Industrial Steel Treating Company, LLC.

501668

4/1/8

970001

METALLURGICAL SERVICES INC.
1040 FINE AVE. SE
WARREN, OHIO 44483-6528

PAGE 1 OF 1

MELTED AND MANUFACTURED IN USA

CERTIFICATE OF TESTS

DATE/INVOICE: 11/28/07 690635314
MCI ORDER: 241 19 20017 02

SHIP TO:
SABRE STEEL INC
C/O VOSS STEEL
7925 BECH DARY AVE
TAYLOR MI 48180

SOLD TO:
SABRE STEEL INC
2368C RESEARCH DR
FARMINGTON HILLS MI 48335

I certify that the properties of the items tested are true and accurate. Material was sampled, tested and inspected in accordance with the methods prescribed in the governing specifications. Subject material also conforms to the requirements of the governing specifications. This report shall not be reproduced except in full.

D.H. Emanuele

All tests are conducted in-house unless noted with an asterisk.

Item Specification and Description

03:15:34

HR SHEET HI-CARBON SAE-1050 AK TG
SPECIFIED HARDNESS NON-TEMPER ROLLED
REST THICK REST CHEM

2 .136M B008M000 X 37.000 ME X COILS
COIL WGT 30000MM/37000MM

HEAT-NO 2141028 K925001

COIL NUMBERS

HEAT-NO	2141028	HEAT-NO	2141028
C	.54	CA	.0001
MO	.01	CE	.000
SN	.002	SE	.000
AL	.047	H	.000
P	.009	V	.000
S	.002	CS	.037
SI	.03	CU	.02
NI	.02	TI	.001
CR	.05	ZR	.05

BU WASHER STOCK

TI 01 C R/A

INFO@SABRESTEEL.COM

CH C 50/55 MN 70/90 P 025MX S 010MX AK FINE GRAIN

501668

HOT DIP GALVANIZING



ROGERS BROTHERS INC.

February 1, 2008

Technical Stamping
50600 E. Russell Schmidt
Chesapeake TWP, MT 48051

To Whom It May Concern:

This is to certify that the hot dip galvanizing of the following washers on your Purchase Order number 1522 conforms to specification ASTM A-153. The following sizes and lot numbers comply with the coating, workmanship, finish, and appearance requirements of ASTM F2329 specifications.

PIECES	PART# & SIZE	LOT NUMBER	AVERAGE ZINC COATING IN MILS.
267,768	RJ0058 5/8"	0108-842	3.31
23,767	RJ0100 1"	0108-845	5.13
55,463	R0058 5/8"	1106-425	4.55
105,726	R0078 7/8"	1207-834	3.44
50,368	R0078 7/8"	1207-816	3.05
31,132	R0114 1-1/4"	1207-813	2.95

This certification in no way implies anything other than the quality of our hot dip galvanizing as it pertains to your order.

Yours very truly,

ROGERS BROTHERS INC.

Lorraine P. Shelburne

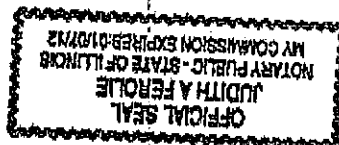
Lorraine P. Shelburne

Vice President

SUBSCRIBED AND SWORN
BEFORE ME THIS 1ST
DAY OF JANUARY 2008, AD

Judith A. Ferrelle

NOTARY PUBLIC



502127



TECHNICAL STAMPING, INC.

MATERIAL
CERTIFICATION

50600 E. RUSSELL SCHMIDT BLVD.
CHESTERFIELD TWP, MI 48051
PH(586)948-3285 / FX(586)948-3286

CUSTOMER NAME		CUSTOMER ORDER NUMBER		DATE
Flexalloy Inc.		P232929		8/13/08
PART NUMBER	LOT NUMBER		QUANTITY	
2" F436 Hdg	0508-023H		1,020	

2" F436 Hdg	200NW A30G	0508-023H	1,020
STEEL GRADE	HEAT	C	MN
		P	S
		SI	AL
			REVISION
SAE 1050	2131928	.53	.79
		.014	.003
		.037	.057
			ASTM A-436-04

SPECIFICATION		ACTUAL		GAUGE
---------------	--	--------	--	-------

O.D. -	3.688 - 3.812	3.729 - 3.732	CALIPER
I.D. -	2.125 - 2.188	2.154 - 2.157	CALIPER, PIN GAUGE
THICKNESS-	.178 - .195	.190	MICROMETER
FLAT-	Max .010	.005	CALIPER
HEAT TREAT -	38 - 45 HRC	41 - 43	
PLATING-		See Cert	
OTHER		N/A	

WE HEREBY CERTIFY THIS PRODUCT WAS PRODUCED UNDER A ISO-9001:2000 QUALITY ASSURANCE SYSTEM. ISO-9001:2000 CERTIFICATION NUMBER-1265 - DATE OF REGIS. JAN. 9, 2003
ALL MATERIALS ARE MADE AND MELTED IN THE U.S.A. THIS PRODUCT WAS MANUFACTURED IN CHESTERFIELD, MICHIGAN, U.S.A. THIS PRODUCT CONFORMS TO ALL REQUIREMENTS
FOR WASHERS AS PRODUCED ACCORDING TO A.S.T.M. F-436-04. THE ABOVE TEST RESULTS APPLY ONLY TO THE ITEMS TESTED. THIS TEST REPORT MUST NOT BE REPRODUCED
EXCEPT IN FULL WITHOUT PRIOR WRITTEN APPROVAL

[Signature]
AUTHORIZED SIGNATURE

CERTIFIED ISO 9001:2000

INDUSTRIAL STEEL TREATING COMPANY, INC.

613 Carroll Street Jackson, MI 49202
P.O. Box 98 Jackson MI, 49204
Voice: 517-787-6312 Fax: 517-787-6441

502127

HEAT TREAT CERTIFICATION

Certification Date:

05/07/2008

Page 1 of 1



Customer:

TECHNICAL STAMPING, INC.
Attn: 50600 E. RUSSELL SCHMIDT
CHESTERFIELD, MI 48051

Order Details

Part Number: F0200

Packing Slip: 4512

Purchase Order:

IST Order Number: 694460-1

Lot Number: 0508-023

Heat Number: 2131928

Blue Print Rev: 1279

Material Type: 1030-1050

Quantity: 3,496

Net Weight: 1,346.0

Part Desc: WASHER

1 TUB #820

4319,4446,9039,2276,90012

92759

RESULTS

HRC 41-43

HRC 38-45

Approval:

Tom Levy

Tom Levy - Quality Assurance Supervisor

Contact

Tom Levy - Quality Assurance Supervisor
Voice: 517-780-9043 Fax: 517-787-6441

E-Mail: tolevy@indst.com

This Certification cannot be reproduced except in full, without written authorization from Industrial Steel Treating Company, LLC.

*** T E E L S I D M ***

104C PINE AVE. SE
WARREN, OHIO 44403-6528

PURCHASE ORDER: 01/11/08 004183-E

DATE/INVOICE: 03/13/08 690639653
MCI ORDER: 241 19 22227 01

SHIP TO:
SABRE STEEL INC
C/O VOSS STEEL
7925 BEECH DATE AVE
TAYLOR MI 48180

D. H. Emanuele
President

Handwritten signature

03:15:28

HR SHEET MI-CARBON SAE-1050 AK FG
SPECIFIED HARDNESS NON-TEMPER ROLLED
REST THICK REST CHEM T/R
1.89M P010M30C X 39.30C ME X COILS
COIL WGT 30C00MN/39000MX

HEAT-NO
22131928
HEAT-NO
22142175
C186101
C186401

[illegible]

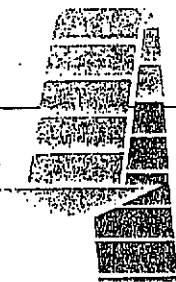
ED WASHBURN	STOCK
-------------	-------

TEL 01 C 3/A
INFC@SABRES/TEL.COM

CHIC 50/55 MN 70/90 2 025MX S 010MX AK FINE GRAIN

502127

HOT DIP GALVANIZING



ROGERS BROTHERS INC.

July 18, 2008

Technical Stamping
50600 E. Russell Schmidt
Chesterfield TWP, MI 48051

To Whom It May Concern:

This is to certify that the hot dip galvanizing of the following washers on your Purchase Order number 1529 conforms to specification ASTM A-153. The following sizes and lot numbers comply with the coating, workmanship, finish, and appearance requirements of ASTM F2329 specifications.

PIECES	PART# & SIZE	LOT NUMBER	AVERAGE ZINC COATING IN MILS.
39,272	BBW-S00 1-3/4"	0108-868	3.92
257,500	F0012 1/2"	0508-029	3.33
52,750	F0012 1/4"	0508-027	3.28
45,250	F0058 5/8"	0508-061	3.46
79,600	F0100 1"	0408-009	3.47
12,480	F0134 1-3/4"	0508-048	2.99
5,400	F0200 2"	0508-023	3.96
6,715	F0112 1-1/2"	0408-008	2.95
47,375	F0078 7/8"	0608-083	3.28
65,875	F0034 3/4"	0508-068	3.52

This certification in no way implies anything other than the quality of our hot dip galvanizing as it pertains to your order.

Yours very truly,

ROGERS BROTHERS INC.

Lorraine P. Schellum

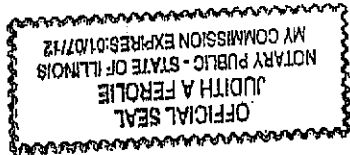
Lorraine P. Schellum
Vice President

LPS:dl

SUBSCRIBED AND SWORN
BEFORE ME THIS 18TH
DAY OF JULY 2008, AD

Judith A Ferolie

NOTARY PUBLIC



INSPECTION CERTIFICATE

p.2

Customer	Specification	Size	Lot No.	Date
DALLAS FASTENER, INC. 1041 AVENUE M GRAND PRAIRIE, TEXAS 75040	ASTM A-36 GRADE DH HEAVY HEX NUT	R.D.G. 5/8-11 UNC 0.020" BLUE DYE	ACB21	Apr. 12, '06

Mechanical properties tested in accordance to ASTM F606/F606M, ASTM A370, ASTM E18

UNYTITE, INC.
One Unytite Drive
Peru, Illinois 61354
815-224-2221 — FAX# 815-224-3434

Chemical Composition

Mill Maker	Material Size	Heat Spec. No.	C	SI	Mn	P	S	Cu	Ni	Cr	Mo	
			0.20 0.55	-	MIN. 0.60	MAX. 0.040	MAX. 0.050	-	-	-	-	-
REP	CARBON											
	STEEL	S01412	0.21	0.23	0.70	0.011	0.009	0.01	0.02	1.00	0.18	-

Mechanical Property Inspection

Item	Proof Load	Cone Stripping	Hardness	Hardness	Absorbed Energy	Heat Treatment	Shape & Dimension	Inspection
Spec.	33,900	-	24-38	-	-	T: MIN. 800° F	ANSI B18.2.2	GOOD
	1bl	KN • kgf • 1bl	.HRC	HA8 • HB	1 • kgm • ftlb		Inspection	GOOD
Results	n	n	27.5 27.4 27.18 29.0 29.0	28.1		Q: FORGING Q (W.Q.) T: 1004° F/45M. (W.C.)	Inspection	GOOD
Results	GOOD	-		Hardness Treatment		Q: Quenching T: Tempering ST: Solution Treatment	Inspection	GOOD

Jean Margherio
OFFICIAL SEAL
JEAN MARGHERIO
NOTARY PUBLIC - STATE OF ILLINOIS
MY COMMISSION EXPIRES 10/18/09
04-12-06

Material used for the nut was melted and manufactured in the USA. The nut was manufactured in the USA to the above specification.

We hereby certify that the material described has been manufactured and inspected satisfactorily with the requirement of the above specification.

Chief of Quality Assurance Section

UMC # 501418

UWMC# 501418

This Report May Not Be Reproduced Except in Full
UNSC020 Rev A 2/1/99

It is to certify that the product described herein was manufactured, sampled, tested and/or inspected in accordance with the specifications and quality requirements in such respect. The results in this report are furnished only to the purchaser and are not to be used for any other purpose. Further, the product is not to be used for any other purpose than that for which it was intended. Republic Technology International, Inc. and its subsidiaries are not responsible for any damage or injury to persons or property resulting from the use of the product described herein. Republic Technology International, Inc. and its subsidiaries are not responsible for any damage or injury to persons or property resulting from the use of the product described herein.

Microhardness determined by methods defined in ASTM E45-97 Method A

Item	Value
DT	0.0
DT	0.5
CH	0.0
CT	0.0
BH	0.0
BT	0.7
AT	0.0
AT	1.7

JK CLEANLINESS - AVG RESULTS

Jointly hardness determined by methods defined in ASTM A255-96

Item	Value
HRC	21
HRC	21
HRC	22
HRC	22
HRC	22
HRC	22
HRC	23
HRC	24
HRC	24
HRC	25
HRC	25
HRC	26
HRC	27
HRC	27
HRC	29
HRC	30
HRC	34
HRC	39
HRC	43
HRC	43
UOM	UOM

END QUENCH HARDENABILITY TEST RESULTS

Austenitizing Temperature 1700 degs. F

Austenitic Grain Size 5 or Finer Based on Total Aluminum equal to or greater than 0.020% per ASTM A255-96

AUSTENITIC GRAIN SIZE

2.13 (Calculation utilizes 3 significant decimals for each element)

DI VALUE

All other elements determined by methods defined in ASTM E208-97

CSN Determined by methods defined in ASTM E208-97

Element	Value
Co	0.001
V	0.005
Al	0.035
Si	0.001
Mn	0.179
Cr	1.00
Ni	0.02
Cu	0.010
Si	0.23
S	0.009
P	0.011
Mn	0.70
C	0.21

HEAT CHEMISTRY ANALYSIS

Type: Bloom cast

Element

Result

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REPUBLIC TECHNOLOGIES
INTERNATIONAL
LORAIN HOT ROLLED BAR
PLANT

REPUBLIC TECHNOLOGIES
INTERNATIONAL, LORAIN HOT
ROLLED BAR PLANT IS
OS-9000 REGISTERED



UML# 501418

Sales Order No.: 8116459	Delivery No. (BOL):	Vehicle ID(Carrier):	Purchase Order No.: 30421	P.O.Date: 12/28/1999
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AS ROLLED TENSILE *

Type	Min	Max	Avg. Uom
Tensile Strength	103500	103500	103500 PSI
Elongation in 2"	27.0	27.0	27.0 %
Elongation in 8"	12.0	12.0	12.0 %
Reduction of Area	46.2	46.2	46.0 %

Mechanical properties determined by methods defined in ASTM E8-99 and ASTM A370-97a.

REDUCTION RATIO

277.23:1 Bloom Cast

This is to certify that the product described herein was manufactured, sampled, tested and/or inspected in accordance with the specifications and quality requirements in each respect. The results in this report are applicable only to the items described herein and are current as contained in the records of the company. Results indicated with an asterisk (*) are not covered under the scope of accreditation. Results indicated by two asterisks (**) were performed by a non accredited third party laboratory and are not certified by Republic Technologies International. Republic Technologies International certifies that this product was tested and manufactured in the USA.
Prepared by the office of: James C. Cash, Director, Quality Assurance Hot Rolled Bar Division.
Date: 04/06/2000

This Report May Not Be Reproduced Except in Full
UQ5020 Rev A 2/1/99

James C. Cash

UMC# 501418

Universal Galvanizing, Inc.
107 Didion Drive
St. Peters, Missouri 63376
(636) 970-2272

CERTIFICATE OF COMPLIANCE
FOR HOT DIP GALVANIZING

CUSTOMER : Unytite, Inc.
DATE : April 03, 2006
ORDER NO : 35757
LOT NO. : AC821
ITEM : A563 DH HHN Nut
SIZE : 5/8-11 0.031

WE HEREBY CERTIFY THAT THE ABOVE SIZE AND LOT
NUMBER WHICH WAS HOT DIP GALVANIZED IN OUR PLANT
MEET THE SPECIFICATIONS OF ASTM-A153 CLASS C.

AVERAGE THICKNESS OF ZINC COATING : 4.3 MILS

David Gehris
David Gehris, QUALITY CONTROL

- Specializing in Hot Dip Galvanizing -

INSPECTION CERTIFICATE

Customer	Specification	Size	Lot No.	Date
	ASTM A-563 GRADE DH HEAVY HEX NUT	H.D.G. 1-1/4-7 UNC 0.024" BLUE DYE	KT041	Sep. 26, '07



UNYTITE, INC.
One Unytite Drive
Peru, Illinois 61354
815-224-2221 — FAX# 815-224-3434

Mechanical properties tested in accordance to ASTM F606M, ASTM A370, ASTM E18

Chemical Composition												Shape & Dimension		
Mill Maker	Material Size	Heat No.	Spec.	C	Si	Mn	P	S	Cu	Ni	Cr	Mo	Inspection	ANSI B18.2.2
				MIN.	MAX.	MIN.	MAX.	MAX.						
STEEL	CARBON	M25706		0.55	0.26	0.81	0.010	0.033	0.12	0.05	0.11	0.02	Thread Precision Inspection	ANSI B1.1 CLASS 2B GOOD
Mechanical Property Inspection												Appearance Inspection	GOOD	
Item	Proof Load	Cone Stripping	Hardness	Hardness				Absorbed Energy				Heat Treatment		Remarks:
Spec.	145,350 lbf	-	24-38	H _A C				H _A B • H _B				T: MIN. 800 F		
Results	5	-	28.7 30.0 29.8 29.7 29.3									Q: FORGING Q (W.Q.) T: 1193 F/45M. (W.C.)		" DH U"
Results	GOOD	-	29.5	Hardness Treatment.				After 24 Hr.X °F (°C)				Q: Quenching T: Tempering ST: Solution Treatment		Production Quantity 21,454 pcs.

Material used for the nut was melted and manufactured in the USA. The nut was manufactured in the USA to the above specification.

We hereby certify that the material described has been manufactured and inspected satisfactorily with the requirement of the above specification.

Chief of Quality Assurance Section

[Signature]

502523

MACSTEEL®

Quanex

502523

MacSteelONE JACKSON SQUARE
SUITE 500
JACKSON, MICHIGAN 48201**CERTIFIED MATERIAL TEST REPORT**

CUSTOMER ORDER NUMBER	CUSTOMER PART NUMBER	HEAT NUMBER	WORK ORDER NUMBER	DATE
P001787	B1045SC15625	M25706	210547 101	9/06/07

REPORT TO
TRACI
UNYTITE, INC.ONE UNYTITE DRIVE
PERU, IL 61354-9710

SHIP TO

UNYTITE, INC.

ONE UNYTITE DRIVE
PERU, IL 61354**ORDERED**

GRADE	SIZE	LENGTH
1045	1 9/16" RND	24' 10 1/2"

CUSTOMER SPECIFICATIONS
SAE 1045; ASTM E381-01**CHEMICAL ANALYSIS - (BAR AVERAGE)**

C	Mn	P	S	Si	Ni	Cr	Mo	Cu	Sn	Al
0.46	0.81	0.010	0.033	0.26	0.05	0.11	0.02	0.12	0.006	0.003
V	Nb									
0.065	0.001									

GRAIN SIZE SPECIFICATION ASTM E112 FINE GRAIN 5-8

MACROCLEANLINESS SPECIFICATION ASTM E381

PLATE I

PLATE II

AVERAGE	S	R	C	
	1	1	1	NONE

DECARB SPECIFICATION ASTM E1077

F TOTAL= 0.006

PAGE 1

We certify that these data are correct and in compliance with specified requirements.

MacSteel Monroe
3000 East Front Street
Monroe, MI 48161
Quality Assurance Representative

CONTINUED ON PAGE 2

MACSTEEL®

Quanex

MacSteelONE JACKSON SQUARE
SUITE 500
JACKSON, MICHIGAN 49201**CERTIFIED MATERIAL TEST REPORT**

CUSTOMER ORDER NUMBER	CUSTOMER PART NUMBER	HEAT NUMBER	WORK ORDER NUMBER	DATE
P001787	B1045SC15625	M25706	210547 101	9/06/07

REPORT TO
TRACI
UNYTITE, INC.ONE UNYTITE DRIVE
PERU, IL 61354-9710

SHIP TO

UNYTITE, INC.

ONE UNYTITE DRIVE
PERU, IL 61354**ORDERED**

GRADE	SIZE	LENGTH
1045	1 9/16" RND	24' 10 1/2"

SAE 1045; ASTM E381-01

REDUCTION RATIO

RATIO= 18.8 TO 1.0

** MATERIAL 100% MELTED AND MANUFACTURED IN THE U.S.A. BY THE ELECTRIC ARC FURNACE AND CONTINUOUS CASTING METHOD. THE PRODUCT HAS NOT BEEN REPAIRED BY WELDING AND THIS MATERIAL HAS NOT BEEN EXPOSED TO MERCURY OR TO ANY OTHER METAL ALLOY THAT IS LIQUID AT AMBIENT TEMPERATURES DURING PROCESSING OR WHILE IN OUR POSSESSION. **

PAGE 2 OF 2

We certify that these data are correct and in compliance with specified requirements.

MacSteel Monroe
3000 East Front Street
Monroe, NJ 48161
Quality Assurance Representative

ROGERS BROTHERS INC.

HOT DIP
GALVANIZING

September 25, 2007

Unytite, Inc.
Unytite Quality Department
One Unytite Drive
Peru, IL 61354

To Whom It May Concern:

This is to certify that the hot dip galvanizing of the following material on your Purchase Order number 1995 conforms to specification ASTM A-153.

10 Containers	1-1/4" A563 DH HHN	Lot#KT031	3.80 Avg. Mils.
10 Containers	1-1/4" A563 DH HHN	Lot#KT041	3.52 Avg. Mils.

This certification in no way implies anything other than the quality of our hot dip galvanizing as it pertains to your order.

Yours very truly,

ROGERS BROTHERS INC.

Lorraine P. Shelburne

Lorraine P. Shelburne
Vice President

SUBSCRIBED AND SWORN
BEFORE ME THIS 25TH
DAY OF SEPTEMBER 2007, AD

Judith A. Ferolie
NOTARY PUBLIC





CERTIFICATE OF COMPLIANCE

Date	Project No.	Order No.	Customer's Order No.
December 16, 2008	CENTRAL & TYLER, WICHITA, KS	9902	08-521-1

CUSTOMER: MID AMERICAN SIGNAL INC.

WE CERTIFY THAT THE MATERIALS USED ON THIS PROJECT ARE IN COMPLIANCE WITH THE REQUIREMENTS ON THIS ORDER.

THE MATERIAL USED ON THIS PROJECT WAS PRODUCED IN THE UNITED STATES AND THE ATTACHED CERTIFICATIONS REPRESENT THE MATERIAL USED ON THIS PROJECT.

MATERIAL CERTIFICATIONS:

MATERIAL	SPECIFICATIONS	HEAT NUMBER	GRADE	CYCLE
3 GA TUBE	A595	4188548	A	279
7 GA TUBE	A595	4189358	A	279
3/4" SCH 40	A500	E81353		
1/2" SCH 80	A500	TCP5B46399		
1/4" GUSSET	A36	4157582		
3/8" CLAMP PLATE	A36	8107889		
2" POLE PLATE CHARPY	A36	T1668		
3/4" X 3/4" X 1/8" CLIP	A36	N540883		
1/4" X 1" SUPPORT BAR	A36	E4974		
1/2" X 2-1/2" STL HH FRAME	A529	JG3269		
5/8" STUD - 5/8" ROUND BAR	A36	E2916		
501668 1-1/4" WASHER	F-436	2141028		
502127 2" WASHER	F-436	2131928		
501418 5/8" NUT	A583	S01412		
502523 1-1/4" NUT	A563	M25706		

This Certificate Notarized Only When Required

JENNIFER WAGNER

A Notary Public, do hereby certify that this affidavit was subscribed and sworn to before me by a duly authorized agent of the Union Metal Corporation.

This is to certify that the foregoing data is a true copy of the data furnished to us by the producing mill and from data resulting from tests performed at Union Metal Corporation

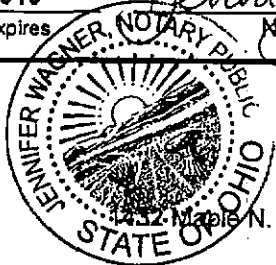
16th day of December, 2008

By

October 17, 2010

My commission expires

Notary Public





QF-308, TEST.A-595,
Rev.2, Certified Test Reports.
grossman.5/16/06

MATERIALS MELTED AND MANUFACTURED IN THE USA

CERTIFIED TEST REPORT

ITEM NO	DIMENSIONS	HEAT NUMBER	ASTM SPEC. NUMBER	DATE	CYCLE NO.	CUSTOMER ORDER NO.
				12-2-08	279	
ITEM NO	DIMENSIONS	HEAT NUMBER	ASTM SPEC. NUMBER	GRADE	PURCHASE ORDER	MANUFACTURER
1	11 GAGE		A595	A		
2	7 GAGE					
3	3 GAGE	4188548			18594	ARCELORMITTAL
4	0 GAGE	4157113			15812	ARCELORMITTAL

ITEM NO	MECHANICAL TESTS									
	YIELD STRENGTH	ULTIMATE STRENGTH	% ELONG.	BEND TEST	% RED AREA	TEST NO				
	PSI	PSI	IN 2"							
1										
2										
3	55689	65938	33.0			10593				
4	55195	67665	33.5			10592				

ITEM NO	CHEMICAL ANALYSIS												
	C	Mn	P	S	Si	Cu	Al	Ni	Cr	Mo	V	N	
1													
2													
3	.20	.80	.015	.006	.02	.04	.052	.01	.03	.01	.002	.0042	
4	.20	.73	.008	.008	.01	.04	.063	.02	.03	.01	.000	.0025	

This Certificate Notarized Only When Required

I, RENE L. GROSSMAN a Notary Public do Hereby
certify that this affidavit was subscribed and sworn to before me
by a duly authorized signatory of the Union Metal Corporation.

this 9TH day of DECEMBER, 2008

This is to certify that the foregoing data is a true copy of the
data furnished to us by the producing mill and from data
resulting from tests performed at Union Metal Corporation.

UNION METAL CORPORATION

January 31, 2010
MY COMMISSION EXPIRES



1432 Maple Avenue N. E., Canton, OH 44705 (330) 456-7653 • (330) 456-0163

PRODUCT CERTIFICATION

WORK ORDER LOT NUMBER

FC2870 4188548

SALES ORDER / RLS

411211 / 1

ArcelorMittal Cleveland Inc.



SOLD TO 000786-000

UNION METAL

1935 16TH ST N.E. & HARRISBURG ROAD N.E.

CANTON, OH 44705

USA

Attn: Renee Grossman

CUSTOMER P.O. 18594-11	CUSTOMER PART 3GA62-1/2-UMS28/R0	QUANTITY 41,920 LBS	COILS 1	LADING NO 01268789	SHIPMENT DATE 10/08/2008					
SPECIFICATION 0.2470 Min -0.0000/ +0.0260 X 63.0000 + 1.5000 ME(IN) ID 24.0/30.0 OD 60.7/80.0 (IN) CL WT 40000/50000 (LBS) Hot Band Prime Carbon Structural Steel UMS 28 Change Stock- Brandle UEXP										
CERTIFICATION REQUIREMENTS UNION METAL SPEC UM-S28 DTD 10/5/94 SAE-1021 CS STRUCTURAL STEEL										
Chemical										
C 0.2000	Mn 0.8000	P 0.0150	S 0.0060	Si 0.0200	Cu 0.0400	Ni 0.0100	Cr 0.0300	Mo 0.0100	Sn 0.0070	Al 0.0520
V 0.0020	Cb 0.0000	N 0.0042	B 0.0000	Ti 0.0020	Sb 0.0020	Ca 0.0001				
Origin - Made and Melted in USA										
Tag Numbers										
695849										

I certify that the material listed herein has been inspected and tested in accordance with the methods prescribed in the governing specifications and based upon the results of such inspection and testing had been approved for conformance to the specifications.

Matthew Kremer
QA Manager



QF-308, TEST A-595,
Rev.2, Certified Test Reports.
grossman.5/16/06

MATERIALS MELTED AND MANUFACTURED IN THE USA

CERTIFIED TEST REPORT

				DATE 12-2-08	CYCLE NO. 279	CUSTOMER ORDER NO.
ITEM NO	DIMENSIONS	HEAT NUMBER	ASTM SPEC. NUMBER	GRADE	PURCHASE ORDER	MANUFACTURER
1	11 GAGE		A595	A		
2	7 GAGE	4189358			18594	ARCELORMITTAL
3	3 GAGE	4188548			18594	ARCELORMITTAL
4	0 GAGE	4157113			15812	ARCELORMITTAL

MECHANICAL TESTS						
ITEM NO	YIELD STRENGTH PSI	ULTIMATE STRENGTH PSI	% ELONG. IN 2"	BEND TEST	% RED AREA	TEST NO
1						
2	61828	71195	32.3			10595
3	55689	65938	33.0			10593
4	55195	67665	33.5			10592

CHEMICAL ANALYSIS													
ITEM NO	C	Mn	P	S	SI	Cu	Al	NI	Cr	Mo	V	N	
1													
2	.22	.75	.009	.007	.02	.04	.063	.02	.03	.01	.001	.0032	
3	.20	.80	.015	.008	.02	.04	.052	.01	.03	.01	.002	.0042	
4	.20	.73	.008	.008	.01	.04	.063	.02	.03	.01	.000	.0025	

This Certificate Notarized Only When Required

I, JENNIFER WAGNER a Notary Public do Hereby
certify that this affidavit was subscribed and sworn to before me
by a duly authorized signatory of the Union Metal Corporation.

this 15TH day of DECEMBER, 2008

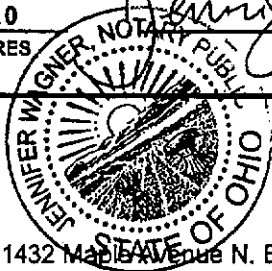
This is to certify that the foregoing data is a true copy of the
data furnished to us by the producing mill and from data
resulting from tests performed at Union Metal Corporation.

UNION METAL CORPORATION

BY

October 17, 2010

MY COMMISSION EXPIRES



1432 Maple Avenue N. E., Canton, OH 44705 (330) 456-7653 • (330) 456-0163

PRODUCT CERTIFICATION

WORK ORDER LOT NUMBER

FC2840 4189358

SALES ORDER / RLS

411162 / 1

ArcelorMittal Cleveland Inc.



SOLD TO 000786-000

UNION METAL

1935 16TH ST N.E. & HARRISBURG ROAD N.E.

CANTON, OH 44705

USA

Attn: Renee Grossman

CUSTOMER P.O. 18594/13	CUSTOMER PART 7GA36-UMS28/R0	QUANTITY 35,890 LBS	COILS 1	LADING NO 01271956	SHIPMENT DATE 10/16/2008					
SPECIFICATION 0.1770 Min -0.0000/ +0.0140 X 36.5000 + 1.1250 ME(IN) ID 24.0/30.0 OD 66.2/80.0 (IN) CL WT 29200/36500 (LBS) Hot Band Prime Carbon Structural Steel UMS 28 Change Stock- Brandle UEXP										
CERTIFICATION REQUIREMENTS Union Metal Spec UM-S28 DTD 10/5/94 SAE 1021 Mod Structural Steel										
Chemical										
C	Mn	P	S	Si	Cu	Ni	Cr	Mo	Sn	Al
0.2200	0.7500	0.0090	0.0070	0.0200	0.0400	0.0200	0.0300	0.0100	0.0050	0.0630
V	Cb	N	B	Ti	Sb	Ca				
0.0010	0.0000	0.0032	0.0000	0.0020	0.0020	0.0002				
Origin - Made and Melted in USA										
Tag Numbers										
697334										

I certify that the material listed herein has been inspected and tested in accordance with the methods prescribed in the governing specifications and based upon the results of such inspection and testing had been approved for conformance to the specifications.

Matthew Kremer
QA Manager



Tubular Steel Inc

Since 1963
"Performance you can count on"

Tubular Steel Inc
1031 Executive Parkway Drive
Saint Louis, MO 63141
Phone: (314) 851-9200
Fax: (314) 851-9336

Customer PO: 19247

Union Metal

P O Box 9920

Canton, OH 44711

Fax: 330-456-1720

MTR Recipient: Jim Burand

TSI Sales ID: SO-048508

Date: 10-30-08

Page 1

Cover sheet/Certificate of compliance

** The material listed below was purchased to the stated specification, when marked

** Documents for the material listed below are attached

Size	Item / Customer Part No.	Certification
1.050x0.109	RND CARB WELD AR SOQ75SCH40-A501	ASTM A500 B AND/OR C

Heat number	Apology status
E81353	

Size	Item / Customer Part No.	Certification
4.500x0.237	RND CARB WELD AR SO400SCH40-A501	ASTM A500 B AND/OR C

Heat number	Apology status
627433	
627597	
615874	
615871	

Size	Item / Customer Part No.	Certification
5.563x0.258	RND CARB WELD AR SO500SCH40-X52	ASTM A500 B AND/OR C

Heat number	Apology status
A17601	

** Material referenced on the test report is certified by the manufacturer to meet the specification indicated under the testing procedures established, including any allowable variance

** Mechanical and chemical properties reported on mill test reports are sample results only and do not represent minimum, maximum, or average values

** Data reported on attached documents has been computer verified to meet the requirements of the specification

BULL MOOSE TUBE
COMPANYBULL MOOSE TUBE GERALD FACILITY
CERTIFICATION OF TESTS05/28/08
Page 2 of 31819 Clarkson Rd.
Chesterfield, Missouri 63017BILL TO Tubular Steel, Inc.
Attn: Accounts Payable
1831 Executive Parkway Drive
St. Louis MO 63141-6361SHIP TO Tubular Steel, Inc.
1700 Tubular Steel Road
St. Louis MO 63141-6361

IL 62088-1076

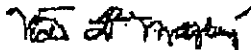
B/L Number 168809

Ship Via

35_F35

1.05" X 0.109 HR X 21' 5"										Order #	247728			
26.7 mm										Purchase Order #	2349			
ASTM A500-03 Grade B Melted & Manufactured in the USA										Item #	135735 0672			
Ticket # = 13047676 Heat # = E81853										P				
C	MN	P	S	AL	SI	CB	CU	CR	NI	VA	YLD psi	TSN psi	ELN #	
.170	.400	.007	.008	.037	.012	0.000	0.000	0.000	0.000	0.000	70169	74915	37	
1.05" X 0.108 HR X 21' 5"										Order #	247728			
26.7 mm										Purchase Order #	2349			
ASTM A500-03 Grade B										Item #	135735 0672			
Ticket # = 13047672 Heat # = E81385										P				
C	MN	P	S	AL	SI	CB	CU	CR	NI	VA	YLD psi	TSN psi	ELN #	
.160	.410	.015	.001	.092	.027	0.000	0.000	0.000	0.000	0.000	71428	77408	30	
1.05" X 0.109 HR X 21' 5"										Order #	247728			
26.7 mm										Purchase Order #	2349			
ASTM A500-03 Grade B										Item #	135735 0672			
Ticket # = 13047670 Heat # = C45801										P				
C	MN	P	S	AL	SI	CB	CU	CR	NI	VA	YLD psi	TSN psi	ELN #	
.050	.390	.020	.008	.028	.020	0.000	0.000	0.000	0.000	0.000	66722	68243	31	
1.05" X 0.109 HR X 21' 5"										Order #	247728			
26.7 mm										Purchase Order #	2349			
ASTM A500-03 Grade B										Item #	135735 0672			
Ticket # = 13047671 Heat # = E81396										P				
C	MN	P	S	AL	SI	CB	CU	CR	NI	VA	YLD psi	TSN psi	ELN #	
.190	.510	.013	.010	.030	.010	0.000	0.000	0.000	0.000	0.000	72886	78858	26	

Shipping Clerk:



THIS WELDED STEEL TUBING IS MANUFACTURED IN THE UNITED STATES OF AMERICA AND HAS BEEN PRODUCED IN ACCORDANCE WITH THE STATED SPECIFICATION. LADLE CHEMISTRIES ARE REPORTED FROM DOCUMENTS PROVIDED BY THE SUPPLYING STEEL MILL. ANY PHYSICAL AND MECHANICAL TESTING RESULTS SHOWN ON THIS CERTIFICATION ARE CORRECT AS CONTAINED IN THE RECORDS OF THE COMPANY.



Tubular Steel Inc

Since 1963
"Performance you can count on"

Tubular Steel Inc
1031 Executive Parkway Drive
Saint Louis, MO 63141
Phone: (314) 851-9200
Fax: (314) 851-9336

Customer PO: 19623
Union Metal
P O Box 9920
Canton, OH 44711

Fax: 330-456-1720
MTR Recipient: Jim Burand

TSI Sales ID: SO-052407
Date: 11-20-08

Page 1

Cover sheet/Certificate of compliance

- ** The material listed below was purchased to the stated specification, when marked
- ** Documents for the material listed below are attached

<u>Size</u>	<u>Item / Customer Part No.</u>	<u>Certification</u>
0.840x0.147	RND CARB WELD AR S0050SCH80-A501	

<u>Heat number</u>	<u>Apology status</u>
TCP5B46399	

<u>Size</u>	<u>Item / Customer Part No.</u>	<u>Certification</u>
1.660x0.140	RND CARB WELD AR S0125SCH40-A501	ASTM A500 B AND/OR C

<u>Heat number</u>	<u>Apology status</u>
U61810	

<u>Size</u>	<u>Item / Customer Part No.</u>	<u>Certification</u>
2.375x0.218	RND CARB WELD AR S0200SCH80-A501	ASTM A500 B AND/OR C

<u>Heat number</u>	<u>Apology status</u>
1802245	

<u>Size</u>	<u>Item / Customer Part No.</u>	<u>Certification</u>
1.750x0.188	RND CARB WELD CD D188X0175-A513	

** Material referenced on the test report is certified by the manufacturer to meet the specification indicated under the testing procedures established, including any allowable variance

** Mechanical and chemical properties reported on mill test reports are sample results only and do not represent minimum, maximum, or average values

** Data reported on attached documents has been computer verified to meet the requirements of the specification

03/28/2008 10:18 FAX 724 961 8267

TUBULAR STEEL INC Fax:3148519338
SHARON TUBE LAB

Mar 30 2008 13:39

P.01
0008



Sharon Tube Company

184 MILL CROSSL
PO Box 408
Staunton, PA 19163
(610) 349-1117
(724) 961-1031 (TOLL)

PRODUCT CERTIFICATION

HEAT NUMBER
top5b46399
SALES ORDER
151588

SOLD TO

SHIP TO

TUBULAR STEEL
1700 TUBULAR
STAUNTON, IL 62088
USA
Attn: Receiving

TUBULAR STEEL
1700 TUBULAR
STAUNTON, IL 62088
USA
Attn: Receiving

CUSTOMER P.O. 3413	CUSTOMER PART	QUANTITY 182 Pcs	BNDLS 2	LADING NO 00002818	SHIPMENT DATE 03/27/2008
SPECIFICATION CSP0840XhSoPe21 1/2", XH, SoL PE, 21', 0.0", ASTM A53-Type F Grade A					
CERTIFICATION REQUIREMENTS					
Chemical, Ladle Analysis, %					
C .12	Mn .44	P .020	S .015	Si .015	Al .045
Cu .013	Ni .020	Cr .022	Mo .004	V .001	
Pipe Mechanical Test Results					
	Yield, PSI	Tensile, PSI	Elong, 4-2"	Y/T Ratio	Hard, HB
300120/004	34480	54180	48	.636	850 Pass
300120/005	34480	54180	48	.636	850 Pass
Certified Test Report Type 3.1B in accordance with EN 10201/ISO 10474/DIN 9048. Material has not come in direct contact with mercury, any of its compounds or any mercury bearing devices during the manufactured process, tests or inspections. Material does not contain any polybrominated biphenyls (PBB) or polybrominated diphenyl ethers (PBDE).					
Welded Steel Pipe Meeting the Requirements of ASTM A53-05 Type F Grade A/ASME SA-53 Type F 2001 Edition, A03 Revision or ASTM A53-05 Type E Grade B/ASME SA-53 Type E Grade B 2001 Edition, A03 Revision. Each length of pipe Hydrostatically Tested. No weld repairs have been performed. Yield strength determined at 0.2% offset. All bend or flatten tests passed. Manufactured in the U.S.A.					
End of Certification					

Steven M. Grabert, Manager, Technical Services, being duly sworn according to law, deposes and says that the figures set forth above are correct, as contained in the figures of Sharon Tube Company.

[Signature]



QF-308, TEST A-595,
Rev.1, Certified Test Reports 5yrs.
Sbayala.5/16/01, SbA.UMC.QA

MATERIALS MELTED AND MANUFACTURED IN THE USA

1/4" PLATE MEETS OR EXCEEDS ASTM A36 TESTED TO ASTM A6					CERTIFIED TEST REPORT				
					DATE 10-13-08	CYCLE NO.	CUSTOMER ORDER NO.		
ITEM NO	DIMENSIONS	HEAT NUMBER	ASTM SPEC. NUMBER	GRADE	PURCHASE ORDER	MANUFACTURER			
1	3 GAGE	4157582	A36	A	16265	ARCELORMITTAL			

MECHANICAL TESTS									
SMPL NO	YIELD STRENGTH PSI	ULTIMATE STRENGTH PSI	% ELONG.		BEND TEST	%RED AREA	TEST NO		
			IN 2"	IN 8"					
1	47332	67572	31.0				N/A		
2	46563	66084	32.0				N/A		

CHEMICAL ANALYSIS														
ITEM NO	C	Mn	P	S	SI	Cu	Al	NI	Cr	Mo	V	N		
1	.22	.70	.006	.007	.02	.05	.062	.02	.03	.01	.000	.0035		

This Certificate Notarized Only When Required

I, RENE L. GROSSMAN a Notary Public do Hereby
certify that this affidavit was subscribed and sworn to before me
by a duly authorized signatory of the Union Metal Corporation.

this 13TH day of OCTOBER, 2008

This is to certify that the foregoing data is a true copy of the
data furnished to us by the producing mill and from data
resulting from tests performed at Union Metal Corporation.

January 31, 2015
MY COMMISSION EXPIRES

BY: **UNION METAL CORPORATION**



PRODUCT CERTIFICATION

WORK ORDER LOT NUMBER

FB7019 4157582

SALES ORDER / RLS

389908 / 1

ArcelorMittal Cleveland Inc.



SOLD TO 000786-000

UNION METAL

1935 16TH ST N.E. & HARRISBURG ROAD N.E.

CANTON, OH 44705

USA

Attn: Renee Grossman

CUSTOMER P.O. 16265-18	CUSTOMER PART 3GA55-1/2-UMS28/R0	QUANTITY 48,990 LBS	COILS 1	LADING NO 01200751	SHIPMENT DATE 06/18/2008					
SPECIFICATION 0.2470 Min -0.0000/ +0.0240 X 56.0000 + 1.5000 ME(IN) ID 30.0/30.0 OD 63.5/69.3 (IN) CL WT 40000/50000 (LBS) Hot Band Prime Carbon Structural Steel UMS 28 Change Stock- Brandle UEXP										
CERTIFICATION REQUIREMENTS Union Metal Spec UM-S28 DTD 10/5/94 SAE 1021 Mod Structural Steel										
Chemical										
C 0.2200	Mn 0.7000	P 0.0060	S 0.0070	Si 0.0200	Cu 0.0500	Ni 0.0200	Cr 0.0300	Mo 0.0100	Sn 0.0110	Al 0.0620
V 0.0000	Cb 0.0000	N 0.0035	B 0.0001	Ti 0.0010	Sb 0.0030	Ca 0.0003				
Origin - Made and Melted in USA										
Tag Numbers										
657771										

I certify that the material listed herein has been inspected and tested in accordance with the methods prescribed in the governing specifications and based upon the results of such inspection and testing had been approved for conformance to the specifications.

Matthew Kremer
QA Manager

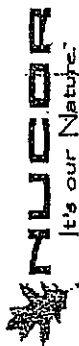
NUCOR

PLATE MILL

P.O. Box 279
Winston, NC 27986
(252) 366-3700

Mill Test Report

Page 1



Issuing Date: 10/16/2008

Vehicle No: 7334

Specification: 0.3750" x 96.000" x 120.000"

ASTM A36-08/ASTM A709 Grade 36-07/ASME SA36-03a

B/L No.: 216368

Load No.: 217370

Our Order No.: 685821

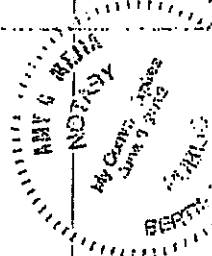
Cust. Order No.: 10-34891-UM

Sold To: KENILWORTH STEEL
106 EAST MARKET STREET
WARREN, OH 44481

Ship To: Kenilworth Steel
621 Dana
WARREN, OH 44483

Marking:

Heat No	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	Alz	V	Nb	Ti	N	Ca	B	Sn	CEQ	PCM	
8107869	0.17	0.82	0.016	0.003	0.11	0.27	0.07	0.10	0.02	0.007	0.005	0.003	0.002		0.0008	0.0001	0.011	0.35	0.24	
Plate Serial No	Tensile Test										Charpy Impacts									
	Pieces	Tons	Dir.	Yield	(psi)	Tensile	Elongation % in 2"	Elongation % in 8"	Dir.	(ft-lbs) 1 shear	(ft-lbs) 2 shear	(ft-lbs) 3 shear	(ft-lbs) shear Ave.	(%) shear	(ft-lbs) shear Ave.	(%) shear	Size	Temp (°F)	Mil Avg.	
8107869-08	15	9.18	T	45,800	71,000	68,200	25.8	24.6	H-L	76.9	63.0	60.6	66.8	66.8	66.8	66.8	10mm	40	15	
8107869-09	22	13.47	T	45,800	71,000	68,200	25.8	24.6	H-L	76.9	63.0	60.6	66.8	66.8	66.8	66.8	10mm	40	15	



Handwritten signature and date: 10/17/08

NFCM, T1 and T2, 16ft-lbs @ +40 F (20J @ +4 C), H frequency.

Manufactured to fully killed practice by Electric Arc Furnace. Welding or weld repair was not performed on this material.

Mercury has not been used in the direct manufacturing of this material. Produced as continuous cast discrete plate as-cold, unless otherwise noted in Specification.

Yield by 0.5EUL method unless otherwise specified. $Ceq = C + (Mn/16) + ((Cr + Mo + V)/5) + ((Cu + Ni)/16)$

Pcm = $C + (Si/30) + (Mn/20) + (Cu/20) + (Ni/80) + (Cr/20) + (Mo/16) + (V/10) + 5B$

Melted and manufactured in the USA. ISO 9001:2000 certified (#12443-0) by BRI Quality System Registrar (#0985-09). PED 97/23/EC 7/2 Annex 1, Para. 4.3 Compliant.

10/16/2008 2:31:15 PM

T. A. Deprella, Metallurgist

TEST CERTIFICATE

SHIP TO: ARCELORMITTAL PLATE LLC
 KENILWORTH STEEL CO
 621 DANA ST NE
 WARREN OH 44483

PAGE NO: 01 OF 02
 FILE NO: 4269-01-12
 ORDER NO: 20004-005
 MELT NO: T1668
 DATE: 09/12/08

SOLD TO: KENILWORTH STEEL COMPANY
 106 EAST MARKET STREET
 SUITE 809
 WARREN OH 44481

SEND TO:

01-N

PLATE DIMENSIONS / DESCRIPTION

TOTAL QTY	GAUGE	WIDTH	LENGTH	DESCRIPTION	PIECE WEIGHT
3	2"	96"	240"	RECTANGLE	13068#

CUSTOMER INFORMATION

CUSTOMER PO: 09-34848

SPECIFICATION (S)

THIS MATERIAL HAS BEEN MANUFACTURED AND TESTED IN ACCORDANCE WITH PURCHASE ORDER REQUIREMENTS AND SPECIFICATION(S).

ASTM A709-GR36 YR 07
 IMPACTS WAIVED ASME SA36 ED 07 & ASTM A36 05
 MATERIAL PRODUCED UNDER A CERTIFIED QUALITY MGMT SYSTEM COMPLYING WITH
 ISO 9001 ABS-QR CERT. NO. 30130

CHEMICAL COMPOSITION

	C	MN	P	S	CU	SI	NI	CR	MO
MELT:T1668	.18	1.03	.025	.014	.12	.20	.07	.08	.01
MELT:T1668	.004	.027	.001						

TENSILE PROPERTIES

LOC	DIR	YIELD STRENGTH PSI X 100	TENSILE STRENGTH PSI X 100	ELONGATION GAGE LGTH	%
ROT.	TRANS.	363	673	2.00"	32.0
ROT.	TRANS.	430	698	2.00"	28.0

GENERAL INFORMATION

ALL STEEL HAS BEEN MELTED AND MANUFACTURED IN THE U.S.A.
 MERCURY OR MERCURY COMPOUNDS ARE NOT USED IN THE
 MANUFACTURE OF ARCELORMITTAL PLATE LLC PRODUCTS.

NOTARY
 AFFIRMED AND SUBSCRIBED BEFORE ME
 THIS 12th DAY OF DECEMBER 2008

NOTARY PUBLIC

WE HEREBY CERTIFY THE ABOVE
 INFORMATION IS CORRECT:

QUALITY ASSURANCE LABORATORY
 COATESVILLE, PA 19320

NOTARIAL SEAL
 CAROL L. GLODY, NOTARY PUBLIC
 COATESVILLE, CHESTER CO. PA
 MY COMMISSION EXPIRES MAY 27, 2010

ELINORE ZAPLETNY
 SUPERVISOR - TEST REPORTING
 ELINORE ZAPLETNY

A4439E

A3465-3467E

UNOFFICIAL
 COPIES ONLY
 B/L 67840

T-684

Tensile Testing

Metallurgical Laboratory

Phn: 216.641.3290

Fax: 216.641.3291

CHARPY WORKSHEET

JAB337-301

KENILWORTH STEEL
Attn: GREG REGALIA
Phn: 800-537-5283
Fax: 330-399-2144

12-35108

Size	Temp	Pt. lbs	Lat Exp	Shear	P/F
7/AA390E 01	Full	+40 F	68		PASS
			93		
			25		
		AVG	62		
8/AA387E 01	Full	+40 F	57		PASS
			48		
			15		
		AVG	40		
8/AA439E 01	Full	+40 F	44		PASS
			76		
			52		
		AVG	57		
4/AA365E 01	Full	+40 F	40		PASS
			72		
			75		
		AVG	62		
5/AA631E 01	Full	+40 F	72		PASS
			54		
			53		
		AVG	60		

Union Metal
Consignment
BL 67840

The above results are preliminary for information purposes only. Certified Test Reports will be mailed

FROM: KENILWORTH STEEL INC

DEC 05 '08 08:59



196 Bell Avenue
CARNEGIE, PA 15106

Page 1/ 1

CERTIFICATION OF MATERIAL

CUSTOMER: UNION METAL CORP
1432 MAPLE AVE NE
CANTON, STARK
OH 44705-1720

SALES ORDER NUMBER: 10779717 000010
CUSTOMER PURCHASE ORDER: 13707
CUSTOMER PART NUMBER:
DELIVERY NUMBER: 81145248 000010

MATERIAL NUMBER: 160000004
INVENTORY DESCRIPTION: ANG A36 .75 X .75 X .125 X 240

FINISHED ITEM DESCRIPTION: CARB ANG A36
0.75" X 0.75" X 0.125" X 240"

HEAT NUMBER(s) N540863 **SLAB/COIL/TEST NUMBER (if applicable)**

CERTIFICATION

A survey of our material sources has indicated that neither mercury nor radioactive substances is introduced into their products, or is used in any of their processes. While we make no independent tests for mercury or radiation, there is nothing in Ryerson's system which could be expected to introduce contamination of either type.

This document certifies that the material described above was shipped in accordance with your order. The producer of the material has certified to Ryerson that it was produced in accordance with the following spec:

ASTM A36 ASME SA36

Authorized Agent of Ryerson

11/09/2007

010104



CAMBRIDGE STEEL MILL
160 ORION PLACE
CAMBRIDGE ON N1T 1R9 CAN
(519) 740-2488

Chemical and Physical Test Report
MADE IN CANADA

005837

SHIP TO RYERSON TULL 5 CLINTON STREET 314-231-1020 ST LOUIS, MO 63102	INVOICE TO RYERSON TULL PROCUREMENT/CHIC P.O. BOX 8000 A CHICAGO, IL 60680	SHIP DATE 07/21/05	CUST. ACCOUNT NO 40000093
---	---	-----------------------	------------------------------

SHAPE & SIZE	GRADE	SPECIFICATION	SALES ORDER	CUST P.O. NUMBER
A3/4 X 3/4 X 1/8	A36	ASTM A36/A36M-04; CSA-G40.21-300W-98(44W)	5048032-01	3A6842
HEAT I.D. N540863	C	Mn P S Si Cu Ni Cr Mo V Nb Sn		
	.12	.60 .008 .038 .17 .45 .11 .16 .096 .005 .003 .014		

Mechanical Test: Yield 53613 PSI, 369.65 MPA Tensile: 73388 PSI, 505.99 MPA %El: 24.0/8in, 24.0/200MM

THIS GRADE ALSO MEETS ASME SA36-01 SPECIFICATION

Mechanical Test: Yield 53333 PSI, 367.72 MPA Tensile: 74399 PSI, 512.96 MPA %El: 24.5/8in, 24.5/200MM

THIS GRADE ALSO MEETS ASME SA36-01 SPECIFICATION

CUST ITEM NUMBER: J0104

SHAPE & SIZE	GRADE	SPECIFICATION	SALES ORDER	CUST P.O. NUMBER
C2 X 1 X 1/8	A36	ASTM A36/A36M-04; CSA-G40.21-300W-98(44W)	5023635-01	3A6310
HEAT I.D. N541524	C	Mn P S Si Cu Ni Cr Mo V Nb Sn		
	.15	.68 .013 .040 .23 .31 .12 .14 .055 .005 .003 .012		

Mechanical Test: Yield 53587 PSI, 369.47 MPA Tensile: 74973 PSI, 516.92 MPA %El: 27.0/8in, 27.0/200MM

THIS GRADE ALSO MEETS ASME SA36-01 SPECIFICATION

Mechanical Test: Yield 53609 PSI, 369.62 MPA Tensile: 73176 PSI, 504.53 MPA %El: 21.0/8in, 21.0/200MM

THIS GRADE ALSO MEETS ASME SA36-01 SPECIFICATION

CUST ITEM NUMBER: 010542

JOSEPH T. RYERSON & SONS, INC.
RECEIVING DEPARTMENT

JUL 25 2005

SUBJECT TO INSPECTION

Customer Notes

A36: ASTM A36-00A & A709-00A ASME-SA36-97A

This material, including the billets, was produced and manufactured in Canada.

A.J. Turner

Quality Assurance Manager

Mill Group

THE ABOVE FIGURES ARE CERTIFIED EXTRACTS FROM THE ORIGINAL CHEMICAL AND PHYSICAL TEST RECORDS
AS CONTAINED IN THE PERMANENT RECORDS OF COMPANY.

Mgr. Metallurg. Svcs.

CAMBRIDGE STEEL MILL

SOLD YOUNGSTOWN PIPE & SUPPLY INC
4100 LAKE PARK RD
TO: PO BOX 3467
YOUNGSTOWN, OH 44513-0000

SHIP YOUNGSTOWN PIPE
219 PHELPS ST
TO: YOUNGSTOWN, OH 44512-0000

NUCOR
BAR MILL GROUP
NUCOR STEEL AUBURN, INC.

CERTIFIED MILL TEST REPORT

Ship from:

Nucor Steel - Auburn
25 Quarry Road
Auburn, NY 13021
315-253-4561

Date: 25-Aug-2008
B.L. Number: 352509
Load Number: 102519

Material Safety Data Sheets are available at www.nucorbar.com or by contacting your inside sales representative.

HEAT NUM. *	DESCRIPTION	PHYSICAL TESTS				CHEMICAL TESTS														
		YIELD P.S.I.	TENSILE P.S.I.	ELONG % IN 8"	BEND	WT%	DEF	C	Ni	Mn	Cr	P	Mo	S	V	Si	Co	Cu	Sn	C.E.
PO# =>	83141																			
E4974	Nucor Steel - Auburn Inc	53,200	73,300	23.8%				.17	.76	.014	.014	.040	.18	.31	.35					
E4974	14x1" FL 20" A36/44W	367MPa	505MPa					.08	.11	.026	.026	0.00	.002							
	CSA G40.21-98 44W/ASTM A36/A36M-	54,600	73,600	25.0%																
	ASTM A709/A709M-07 GR 36	376MPa	507MPa																	
	ASME SA36-2007 EDITION																			
	ASTM A36/A36M-05																			

NRMC-01 May 16, 2008

YOUNGSTOWN PIPE & SUPPLY INC
PO BOX 3467
YOUNGSTOWN, OH 44513-0000
TEL: 315-253-4561
FAX: 315-253-4562
E-MAIL: info@youngstownpipe.com
WWW.YOUNGSTOWNPIPE.COM

I HEREBY CERTIFY THAT THE ABOVE FIGURES ARE CORRECT AS CONTAINED IN THE RECORDS OF THE CORPORATION.
ALL MANUFACTURING PROCESSES OF THE STEEL MATERIALS IN THIS PRODUCT, INCLUDING
MELTING, HAVE OCCURRED WITHIN THE UNITED STATES. ALL PRODUCTS PRODUCED ARE WELD FREE
EXCEPT WHERE SHOWN OTHERWISE. THIS PRODUCT IS NOT TO BE USED FOR STRUCTURAL PURPOSES.

QUALITY
JIM BIENEL



Steel Dynamics - Roanoke Bar Division
P.O. Box 13948 Roanoke, VA 24038
Office: 540-342-1831 Fax: 540-342-9437

Test and Inspection

YOUNGSTOWN PIPE & SUPPLY INC.
PHONE # 330-783-2700
THESE TESTS REPORTS APPLY TO:
SOLD TO: Union
YOUR P.O. # 1985
VS&S O.M. # 57383
SIGNED BY WBS

NO. 57743-1

ROANOKE

YOUNGSTOWN PIPE & SUPPLY INC
4100 LAKE PARK RD.
YOUNGSTOWN OH 44513-0000

Date 2/26/08

HEAT NUMBER	SIZE					1-YIELD Pt. KSI	ULTIMATE KSI	ELONG 8 IN.	BEND TEST	GRADE
JG3269	FLATS	1/2 X 2 1/2				54.8	85.4	25.0		A529-50
PURCHASE ORDER NUMBER		NUMBER PIECES				2-YIELD PT. KSI	ULTIMATE KSI	ELONG 8 IN.	BEND TEST	GRADE
80640		144 PIECES 20'				52.6	80.7	26.3		A529-50
HEAT NUMBER	SIZE					1-YIELD Pt. MPA	ULTIMATE MPA	ELONG 203mm	BEND TEST	GRADE
JG3269	FLATS	12.7 X 63.5				377.8	588.8	25.0		A529-50
PURCHASE ORDER NUMBER		NUMBER PIECES				2-YIELD PT. MPA	ULTIMATE MPA	ELONG 203mm	BEND TEST	GRADE
80640		144 PIECES 20'				362.7	556.4	26.3		A529-50
C	MN	S	P	SI	CR	NI	MO	CU	V	NB
.25	1.05	.025	.015	.24	.06	.12	.03	.26	.002	.002

MERCURY, RADIUM OR OTHER ALPHA SOURCE MATERIALS IN ANY FORM HAVE NOT BEEN USED IN THE PRODUCTION OF THIS MATERIAL. NO WELD REPAIR HAS BEEN PERFORMED.

Approved ABS QA Mill. Certificate No. 00NN10108-X.

This material was melted and manufactured in the USA by basic Electric Furnace processes to meet specification: ASTM A529-05 GRADE 50

The tensile values stated in either inch-pound units or SI units are to be regarded as separate as defined in the ASTM scope for this material. Unless a metric specification is ordered, this material has been tested and meets the requirements of the inch-pound ranges.

This is to certify the above to be a true and accurate report as contained in the records of this company.

Engineer of Tests: Charles R. Charlton

Tensile Testing.

Metallurgical Laboratory.
Phn: 216-541-3290
Fax: 216-541-3291

JA8310-718
YOUNGSTOWN PIPE & SUPPLY
Attn: MIKE MONTLER
Phn: 330-744-2222
Fax: 330-744-8480

W-22008 85

Y.M.C.

STOCKS
6072
T.O.

PORTS AREA

[illegible]

~~CONFIDENTIAL~~

TOURIST # 5880

SECRET

1

Figure 1. A schematic diagram of the experimental setup. The subject is seated in a chair, viewing a screen displaying a target (a red dot) and a starting point (a green dot). The subject's hand is positioned at the starting point, and the distance between the starting point and the target is indicated by a horizontal line. The subject is instructed to move their hand from the starting point to the target.

-1107 page 1

The above results are preliminary for informational purposes only. Certified Test Reports will be mailed



Page 1

-2207

Test results are preliminary for information purposes only. Certified Test Reports will be mailed.



196 Bell Avenue
CARNEGIE, PA 15106

Page 1/ 1

CERTIFICATION OF MATERIAL

CUSTOMER: UNION METAL CORP
1432 MAPLE AVE NE
CANTON, STARK
OH 44705-1720

SALES ORDER NUMBER: 11112756 000030
CUSTOMER PURCHASE ORDER: 17447
CUSTOMER PART NUMBER:
DELIVERY NUMBER: 81673096 000020

MATERIAL NUMBER: 160000156
INVENTORY DESCRIPTION:

FINISHED ITEM DESCRIPTION: CARB Bar RD HR A36
0.625" X 240"

HEAT NUMBER(s)	SLAB/COIL/TEST NUMBER (if applicable)
E2916	

CERTIFICATION

A survey of our material sources has indicated that neither mercury nor radioactive substances is introduced into their products, or is used in any of their processes. While we make no independent tests for mercury or radiation, there is nothing in Ryerson's system which could be expected to introduce contamination of either type.

This document certifies that the material described above was shipped in accordance with your order. The producer of the material has certified to Ryerson that it was produced in accordance with the following spec:

ASTM A36 ASME SA36

07/21/2008

Authorized Agent of Ryerson

5-464205

CERTIFIED TEST REPORT

480 pcs. = 9984
HEAT# E2916
DATE SHIPPED 6/11/2008
SHIPMENT# 0316836
SIZE: RD 5/8 20' 0"
ORDER ITEM# 202865/01
SOLD TO: RYERSON TULL-EAST
FAX#EMAIL: 4122766664

NUCOR
BAR MILL-AUBURN
NUCOR STEEL AUBURN, INC.
P.O. BOX 2008
QUARRY ROAD
AUBURN, NY 13021

CUST. P.O. 4500206939
PART #: 160000156
GRADE: ASTM A36-05/CSA 44W
SPEC A709-06A GR36
SUPP. REQ:
SHIP TO: RYERSON - PITT

CHEMICAL ANALYSIS %

C	MN	SI	P	S	CU	NI	CR	MO	SN	V	CB	TI	B	N2	O2
150	750	190	014	039	370	0900	140	025	015	000	0020	0010	0002	XXX	XXX

MECHANICAL RESULTS

YIELD	TENSILE	GAUGE	%	BEND	FIN. DIA	R.A.
K.S.I.	K.S.I.	LENGTH	ELONG	IN. DIA		
51.50	71.70	8	25.0	.0		.0
52.00	72.90	8	26.2	.0		.0
MPa	MPa	GAUGE	%	BEND	FIN. DIA	R.A.
		LENGTH	ELONG			

CHARPY IMPACT TEST

TEMP. F	FT./LB.	SUBSIZE SPECIMEN	SAMPLE

Grain Size

Reduction Ratio

As-Rolled Hardness

D.I.

C.F.

C.I.

XXX

XXX

XXX

370

XXX

JOMINY END-QUENCH HARDENABILITY RESULTS (HRC)

J1	J2	J3	J4	J5	J6	J7	J8	J9	J10	J11	J12

J13	J14	J15	J16	J18	J20	J22	J24	J26	J28	J30	J32

I CERTIFY THESE RESULTS TO BE
CORRECT AS CONTAINED IN THE
RECORDS OF THE COMPANY.

JIM BIERNAT, METALLURGIST
STATE OF NEW YORK
COUNTY OF CAYUGA

Jim Biernat

(print)

AFTER BEING DULY SWORN BY ME,
DECLARES THAT: THESE RESULTS
ARE CORRECT AS CONTAINED IN THE
RECORDS OF NUCOR STEEL AUBURN, INC

James H. Biernat

(sign)

SUBSCRIBED AND SHOWN BEFORE ME

ALL MANUFACTURING PROCESSES FOR THIS STEEL, INCLUDING MELTING FROM SCRAP AND HOT
ROLLING HAVE BEEN PERFORMED IN THE U.S.A. NO WELD REPAIR PERFORMED; STEEL NOT
EXPOSED TO MERCURY OR ANY LIQUID ALLOY WHICH IS LIQUID AT AMBIENT TEMPERATURES.

THIS DAY OF

L.S.

THIS CERTIFICATE IS NOTARIZED ONLY
WHEN REQUESTED

BB/00625
155800

CUSTOMER SPECIAL INSTRUCTIONS:

A36 CERTIFIED TO ASME SA36 1998 EDITION AND
ASTM A709-97A GR.36. THIS WAS PRODUCED UNDER AUBURN
QUALITY PROGRAM AUDITED 5/13/93 BY J.T. RYERSON
CONFORMS TO JTR #0103-T, C-001 & 2150-U STRAND CAST
FROM 5" BLT., SILICON KILLED, REDUCTION RATIO > 8/1



TECHNICAL STAMPING, INC.

50600 E. RUSSELL SCHMIDT BLVD.
CHESTERFIELD TWP., MI 48051
PH(586)948-3285 / FX(586)948-3286

MATERIAL CERTIFICATION

501668

CUSTOMER NAME		CUSTOMER ORDER NUMBER				DATE		
Flexalloy Inc.		P218096				2/6/08		
PART NUMBER		CUSTOMER LOT NO.		LOT NUMBER		QUANTITY		
1-1/4" F436 Hdg		125NWA30G		1207-813H		6,000		
STEEL GRADE	HEAT	C	MN	P	S	SI	AL	REVISION
SAE 1050	2141028	.54	.75	.009	.002	.037	.047	ASTM F-436-04
SPECIFICATION		ACTUAL				GAUGE		
O.D -		2.469 - 2.531		2.503 - 2.505		CALIPER		
I.D -		1.375 - 1.438		1.387 - 1.390		CALIPER, PIN GAUGE		
THICKNESS-		.136 - .177		0.139		MICROMETER		
FLAT-		Max .010		.005		CALIPER		
HEAT TREAT -		38 - 45 HRC		40 - 43				
PLATING-				See Cert				
OTHER				N / A				

WE HEREBY CERTIFY THIS PRODUCT WAS PRODUCED UNDER A ISO-9001:2000 QUALITY ASSURANCE SYSTEM. ISO-9001:2000 CERTIFICATION NUMBER-1265 - DATE OF REGIS. JAN. 3, 2003
ALL MATERIALS ARE MADE AND MELTED IN THE U.S.A. THIS PRODUCT WAS MANUFACTURED IN CHESTERFIELD, MICHIGAN, U.S.A. THIS PRODUCT CONFORMS TO ALL REQUIREMENTS
FOR WASHERS AS PRODUCED ACCORDING TO A.S.T.M. F-436-04. THE ABOVE TEST RESULTS APPLY ONLY TO THE ITEMS TESTED. THIS TEST REPORT MUST NOT BE REPRODUCED
EXCEPT IN FULL WITHOUT PRIOR WRITTEN APPROVAL.

AUTHORIZED SIGNATURE

CERTIFIED ISO 9001:2000

4148

INDUSTRIAL STEEL TREATING COMPANY, INC

501668

613 Carroll Street Jackson, MI 49202

P.O. Box 98 Jackson MI, 49204

Voice: 517-787-6312 Fax: 517-787-5441

HEAT TREAT CERTIFICATION

Customer:

TECHNICAL STAMPING, INC.

Attn:

50600 E. RUSSELL SCHMIDT

CHESTERFIELD, MI 48051

Certification Date:

12/20/2007

Page: 1 of 1



Order Details

Part Number: F0114

Packing Slip: 4444

Purchase Order:

IST Order Number: 634940-1

Lot Number: 1207-813

Heat Number:

Blue Print Rev:

1279

Material Type:

1030 -1050

Quantity:

40,029

Net Weight:

5,404.0

Part Desc:

WASHER

Comments

4 TUB #401,712,100,523
1395,1528,1557,1610,1652
11117,13026,13377

SPECIFICATIONS

HRC 38 -45

RESULTS

HRC 40 -43

Approval:

Tom Levy - Quality Assurance Supervisor

Contact

Tom Levy - Quality Assurance Supervisor

Voice: 517-780-9043 Fax: 517-787-5441

E-Mail: tolevy@indstl.com

This Certification cannot be reproduced except in full, without written authorization from Industrial Steel Treating Company, LLC.

4/48

501668

PAGE 1 of 1

*** W C I S T E E L ***
 METALLURGICAL SERVICES INC.
 1040 PINE AVE. SE
 WARREN, OHIO 44483-6528

970001

MELTED AND MANUFACTURED IN USA

PURCHASE ORDER:

11/06/07 004139

SP

C E R T I F I C A T E
O F T E S T SDATE/INVOICE: 11/26/07 690635314
WCI ORDER: 241 19 20017 02

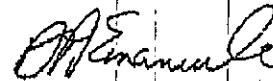
SOLD TO:

SABRE STEEL INC
23680 RESEARCH DR
FARMINGTON HILLS MI 48335

SHIP TO:

SABRE STEEL INC
C/O VOSS STEEL
7925 BEECH DALY AVE
TAYLOR MI 48180

I certify that the properties of the items tested are true and accurate. Material was sampled, tested and inspected in accordance with the methods prescribed in the governing specifications. Subject material also conforms to the requirements of the governing specifications.
 This report shall not be reproduced except in full.

D.H. Emanuele
President

All tests are conducted in-house unless noted with an asterisk.

Item	Specification and Description	
	HR SHEET HI-CARBON SAE-1050 AK FG SPECIFIED HARDNESS NON-TEMPER ROLLED REST THICK REST CHEM	03:15:34
2	.136M P008M000 X 37.000 ME X COILS COIL WGT .30000MN/37000MX	
	HEAT-NO 2141028 K925001	COIL NUMBERS
	HEAT-NO 2141028	C .54 MN .75 P .009 S .002 SI .037 CU .03 NI .02 CR .05 MO .01 SN .002 AL .047 V .000 CB .000 B .000 TI .001 ZR CA .0001 CE .000 SE .000 H N .0029 O
	EU WASHER STOCK	
	TI 01 C R/A INFO@SABRESTEEL.COM	
	CH C 50/55 MN 70/90 P 025MX S 010MX AK FINE GRAIN	

501668

ROGERS BROTHERS INC.

HOT DIP
GALVANIZING

February 1, 2008

Technical Stamping
50600 E. Russell Schmidt
Chesterfield TWP, MI 48051

To Whom It May Concern:

This is to certify that the hot dip galvanizing of the following washers on your Purchase Order number 1522 conforms to specification ASTM A-153. The following sizes and lot numbers comply with the coating, workmanship, finish, and appearance requirements of ASTM F2329 specifications.

PIECES	PART# & SIZE	LOT NUMBER	AVERAGE ZINC COATING IN MILS.
267,768	RJ0058 5/8"	0108-842	3.31
23,767	RJ0100 1"	0108-845	5.13
55,463	F0058 5/8"	1106-425	4.55
105,726	F0078 7/8"	1207-834	3.44
50,368	F0078 7/8"	1207-816	3.05
31,132	F0114 1-1/4"	1207-813	2.95

This certification in no way implies anything other than the quality of our hot dip galvanizing as it pertains to your order.

Yours very truly,

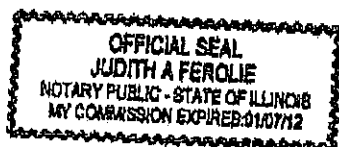
ROGERS BROTHERS INC.

Lorraine P. Shelburne

Lorraine P. Shelburne
Vice President

SUBSCRIBED AND SWORN
BEFORE ME THIS 1ST
DAY OF JANUARY 2008, AD

Judith A. Ferolie
NOTARY PUBLIC



4324

INDUSTRIAL STEEL TREATING COMPANY, INC

613 Carroll Street Jackson, MI 49202
P.O. Box 98 Jackson MI, 49204
Voice: 517-787-6312 Fax: 517-787-5441

502127

HEAT TREAT CERTIFICATION

Customer:
TECHNICAL STAMPING, INC.
Attn:
50600 E. RUSSELL SCHMIDT
CHESTERFIELD, MI 48051

Certification Date:

05/07/2008

Page: 1 of 1



Order Details

Part Number: F0200
Packing Slip: 4512
Purchase Order:
IST Order Number: 694460-1
Lot Number: 0508-023
Heat Number: 2131928

Blue Print Rev: 1279
Material Type: 1030-1050
Quantity: 3,496
Net Weight: 1,346.0
Part Desc: WASHER
Comments: 1 TUB #820
4319,4446,9039,2276,90012
92759

SPECIFICATIONS

HRC 38 - 45

RESULTS

HRC 41 - 43

Approval:

Tom Levy - Quality Assurance Supervisor

Contact

Tom Levy - Quality Assurance Supervisor
Voice: 517-780-9043 Fax: 517-787-5441
E-Mail: tolevy@indstl.com

This Certification cannot be reproduced except in full, without written authorization from Industrial Steel Treating Company, LLC.

4329

502127

*** WCI STEEL *** METALLURGICAL SERVICES INC. 104C PINE AVE. SE WARREN, OHIO 44483-6528		760602																																																																																																												
PAGE 1 of 1																																																																																																														
MELTED AND MANUFACTURED IN USA		PURCHASE ORDER: 01/11/08 004183-5																																																																																																												
CERTIFICATE OF TESTS		DATE/INVOICE: 03/19/08 690639653 WCI ORDER: 241 19 22227 01																																																																																																												
SOLD TO: SABRE STEEL INC 23680 RESEARCH DR FARMINGTON HILLS MI 48335		SHIP TO: SABRE STEEL INC C/O VOSS STEEL 7925 BEECH DALY AVE TAYLOR MI 48180																																																																																																												
I certify that the properties of the items tested are true and accurate. Material was sampled, tested and inspected in accordance with the methods prescribed in the governing specifications. Subject material also conforms to the requirements of the governing specifications. This report shall not be reproduced except in full.		D.H. Emanuele President 																																																																																																												
All tests are conducted in-house unless noted with an asterisk.																																																																																																														
Item	Specification and Description	03:15:28																																																																																																												
1	HR SHEET HI-CARBON SAE-1050 AK FG SPECIFIED HARDNESS NON-TEMPER ROLLED REST THICK REST CHEM T/R .189M P010M000 X 39.300 ME X COILS COIL WGT 30000MN/39000MX HEAT-NO 2131928 C186101 2142175 C386401 COIL NUMBERS <table border="1"> <thead> <tr> <th>HEAT-NO</th> <th>C</th> <th>MN</th> <th>P</th> <th>S</th> <th>SI</th> <th>CU</th> <th>NI</th> <th>CR</th> </tr> </thead> <tbody> <tr> <td>2131928</td> <td>.53</td> <td>.79</td> <td>.014</td> <td>.003</td> <td>.037</td> <td>.05</td> <td>.03</td> <td>.06</td> </tr> <tr> <td></td> <td>MO</td> <td>SN</td> <td>AL</td> <td>V</td> <td>CB</td> <td>B</td> <td>TI</td> <td>ZR</td> </tr> <tr> <td></td> <td>.01</td> <td>.005</td> <td>.057</td> <td>.000</td> <td>.000</td> <td>.0000</td> <td>.001</td> <td></td> </tr> <tr> <td></td> <td>CA</td> <td>CE</td> <td>SB</td> <td>H</td> <td>N</td> <td>O</td> <td></td> <td></td> </tr> <tr> <td></td> <td>.0018</td> <td>.000</td> <td>.002</td> <td></td> <td>.0036</td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td>C</td> <td>MN</td> <td>P</td> <td>S <td>SI</td> <td>CU</td> <td>NI</td> <td>CR</td> </td></tr> <tr> <td>2142175</td> <td>.51</td> <td>.79</td> <td>.007</td> <td>.004</td> <td>.036</td> <td>.05</td> <td>.04</td> <td>.06</td> </tr> <tr> <td></td> <td>MO</td> <td>SN</td> <td>AL</td> <td>V</td> <td>CB</td> <td>B</td> <td>TI</td> <td>ZR</td> </tr> <tr> <td></td> <td>.01</td> <td>.005</td> <td>.048</td> <td>.000</td> <td>.000</td> <td>.0000</td> <td>.001</td> <td></td> </tr> <tr> <td></td> <td>CA</td> <td>CE</td> <td>SB</td> <td>H</td> <td>N</td> <td>O</td> <td></td> <td></td> </tr> <tr> <td></td> <td>.0001</td> <td>.000</td> <td>.001</td> <td></td> <td>.0032</td> <td></td> <td></td> <td></td> </tr> </tbody> </table> ED WASHER STOCK TI 01 C R/A INFO@SABRESTEEL.COM CH C 50/55 MN 70/90 P 025MX S 010MX AK FINE GRAIN	HEAT-NO	C	MN	P	S	SI	CU	NI	CR	2131928	.53	.79	.014	.003	.037	.05	.03	.06		MO	SN	AL	V	CB	B	TI	ZR		.01	.005	.057	.000	.000	.0000	.001			CA	CE	SB	H	N	O				.0018	.000	.002		.0036					C	MN	P	S <td>SI</td> <td>CU</td> <td>NI</td> <td>CR</td>	SI	CU	NI	CR	2142175	.51	.79	.007	.004	.036	.05	.04	.06		MO	SN	AL	V	CB	B	TI	ZR		.01	.005	.048	.000	.000	.0000	.001			CA	CE	SB	H	N	O				.0001	.000	.001		.0032				
HEAT-NO	C	MN	P	S	SI	CU	NI	CR																																																																																																						
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	.0001	.000	.001		.0032																																																																																																									

ROGERS BROTHERS INC.

HOT DIP
GALVANIZING

July 18, 2008

Technical Stamping
50600 E. Russell Schmidt
Chesterfield TWP, MI 48051

To Whom It May Concern:

This is to certify that the hot dip galvanizing of the following washers on your Purchase Order number 1529 conforms to specification ASTM A-153. The following sizes and lot numbers comply with the coating, workmanship, finish, and appearance requirements of ASTM F2329 specifications.

<u>PIECES</u>	<u>PART# & SIZE</u>	<u>LOT NUMBER</u>	<u>AVERAGE ZINC COATING IN MILS.</u>
39,272	BBW-S00 1-3/4"	0108-868	3.92
257,500	F0012 1/2"	0508-029	3.33
52,750	F0012 1/2"	0508-027	3.28
45,250	F0058 5/8"	0508-061	3.46
79,600	F0100 1"	0408-009	3.47
12,480	F0134 1-3/4"	0508-048	2.99
5,400	F0200 2"	0508-023	3.96
6,715	F0112 1-1/2"	0408-008	2.95
47,375	F0078 7/8"	0608-083	3.28
65,875	F0034 3/4"	0508-068	3.52

This certification in no way implies anything other than the quality of our hot dip galvanizing as it pertains to your order.

Yours very truly,

ROGERS BROTHERS INC.

Lorraine P. Shelburne

Lorraine P. Shelburne
Vice President

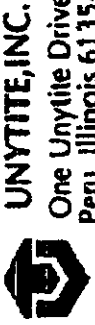
LPS:dl

SUBSCRIBED AND SWORN
BEFORE ME THIS 18TH
DAY OF JULY 2008, AD

Judith A. Ferolie
NOTARY PUBLIC

OFFICIAL SEAL
JUDITH A FEROLIE
NOTARY PUBLIC - STATE OF ILLINOIS
MY COMMISSION EXPIRES: 01/07/12

INSPECTION CERTIFICATE



UNYITE, INC.
One Unyite Drive
Peru, Illinois 61354
815-224-2221 — FAX# 815-224-3434

Customer	Specification	Size	Lot No.	Date
DALLAS FASTENER, INC. 1001 AVENUE M GRAND PRAIRIE, TEXAS 75049	ASTM A-563 GRADE DH HEAVY HEX NUT	H-D.G. 5/8-11 UNC 0.020" BLUE DYE	ACB21	Apr. 12, '06

Mechanical properties tested in accordance to ASTM F606/F606M, ASTM A370, ASTM E18

Chemical Composition (%)											
Mill Maker	Material Size	Heat No.	C	Si	Mn	P	S	Cu	Ni	Cr	Mo
REP	CARBON		0.20 0.55	-	0.60	0.040	0.050	-	-	-	-
	STEEL	S01412	0.21	0.23	0.70	0.011	0.009	0.01	0.02	1.00	0.18
Mechanical Property Inspection											
Item	Proof Load	Cone Stripping	Hardness	Hardness	Absorbed Energy		Heat Treatment				
Spec	33,900	-	24-38				T: MIN. 800° F				
	lb	KN • kgf • lbf	.HAC	HAB • HB	J • kgm • ftlb						
Results	5	n	27.5 27.4 27.8 29.0 29.0				Q: FORGING Q (W.Q.) T: 1004° F / 15M. (W.C.)				
	Results	Results	28.1				Q: Quenching T: Tempering ST: Solution Treatment				
	GOOD	-		After 24 HrX °F (°C)							

Material used for the nut was melted and manufactured in the USA. The nut was manufactured in the USA to the above specification.

We hereby certify that the material described has been manufactured and inspected satisfactorily with the requirement of the above specification.

Chief of Quality Assurance Section

[Signature]

UMC # 501418



REPUBLIC TECHNOLOGIES
INTERNATIONAL
LORAIN HOT ROLLED BAR PLANT
1807 E 28th Street
Lorain, OH 44055

REPUBLIC TECHNOLOGIES
INTERNATIONAL, LORAIN HOT
ROLLED BAR PLANT IS
QS-9000 REGISTERED



In the Field of
Chemical Testing
Only Certificate
#242.01 Valid to
October 31, 2001

UMC # 501418

METALLURGICAL TEST REPORT

Sales Order No.: B116459	Delivery No. (BOL):	Vehicle ID(Carrier):	Purchase Order No.: 20421	P.O. Date: 12/28/1999
Mail To: 242038900 UNYTITE INC ATTN: JEFF DINELLI ONE UNYTITE DRIVE PERU, IL 61354-9710			Sold To: 242038000 UNYTITE INC ONE UNYTITE DRIVE PERU, IL 61354-9710 Ship To: 242038001 UNYTITE INC ONE UNYTITE DRIVE PERU, IL 61354-9710	
Specification (BC) C.18/23 MN.60/85 P.030 MAX S.030 MAX SL15/35 CU.30 MAX NI.25 MAX CR.98/1.20 MO.15/30 FINE GRAIN COLD WORKING QUALITY PEEL & BURNISH REPORT JOMINY CLEANLINESS TENSILE FOR INFO ONLY			Customer Information 4120	

MATERIAL INFORMATION

Item No. Material No. Material Description
000001 0013213 0.859"

Heat
S01412

HEAT CHEMISTRY ANALYSIS

Type: Bloom cast

Elem	Result	UOM
C	0.21	%
Mn	0.70	%
P	0.011	%
S	0.009	%
Si	0.23	%
Cu	0.010	%
Ni	0.02	%
Cr	1.00	%
Mo	0.179	%
Se	0.001	%
Al	0.035	%
V	0.005	%
Co	0.001	%

C, S, N Determined by methods defined in ASTM E1019-94.

Pb and Bi Determined by methods defined in ASTM E2085-95.

All other elements determined by methods defined in ASTM E475-99.

DI VALUE

2.13 (Calculation utilizes 3 significant decimals from each element)

AUSTENITIC GRAIN SIZE *

Austenitic Grain Size 5 or Finer Based on Total Aluminum equal to or greater than 0.020% per ASTM A29-93a.

END QUENCH HARDENABILITY TEST RESULTS *

Austenitize Temperature 1700 degs. F

Test Test

J-Pt.

J-1

J-2

J-3

J-4

J-5

J-6

J-7

J-8

J-9

J-10

J-11

J-12

J-13

J-14

J-15

J-16

J-18

J-20

Result

43

43

39

34

30

29

27

26

25

25

24

23

22

22

22

22

21

21

UOM

HRC

HRC

HRC

HRC

HRC

HRC

HRC

HRC

HRC

HRC

HRC

HRC

HRC

HRC

HRC

HRC

HRC

Jominy hardenability determined by methods defined in ASTM A255-96.

JK CLEANLINESS - AVG RESULTS *

AT	=	1.7
AH	=	0.0
BT	=	0.7
BH	=	0.0
CT	=	0.0
CH	=	0.0
DT	=	0.5
DH	=	0.0

Microcleanliness determined by methods defined in ASTM E45-97 Method A.

This is to certify that the product described herein was manufactured, sampled, tested and/or inspected in accordance with the specifications and quality requirements to such extent. The results in this report are applicable only to the items described herein and are correct as contained in the records of the company. Results indicated with an asterisk (*) are not covered under the scope of accreditation. Analysis indicated by two asterisks (**) were performed by a non-accredited third party laboratory and are not certified by Republic Technologies International. Republic Technologies International certifies that this product was prepared by the office of James C. Cook, Director, Quality Assurance Hot Rolled Bar Division, dated 04/06/2000.

This Report May Not Be Reproduced Except in Full
UQS020 Rev A 2/1/99

James C. Cook



REPUBLIC TECHNOLOGIES
INTERNATIONAL
LORAIN HOT ROLLED BAR
PLANT

REPUBLIC TECHNOLOGIES
INTERNATIONAL LORAIN HOT
ROLLED BAR PLANT IS
QS-9000 REGISTERED



UML# 501418

Sales Order No.: 8116459	Delivery No. (BOL):	Vehicle ID(Carrier):	Purchase Order No.: 20421	P.O.Date: 12/28/1999
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AS ROLLED TENSILE *

Type	Min	Max	Avg. Utem
Tensile Strength	103500	103500	103500 PSI
Elongation in 2"	27.0	27.0	27.0 %
Elongation in 8"	12.0	12.0	12.0 %
Reduction of Area	46.2	46.2	46.0 %

Mechanical properties determined by methods defined in ASTM E8-99 and ASTM A370-97a.

REDUCTION RATIO

277.25:1 Bloom Cast

This is to certify that the product described herein was manufactured, sampled, tested and/or inspected in accordance with the specifications and test requirements in each respect. The results in this report are applicable only to the items described herein and are correct at the time of the company. Results indicated with an asterisk (*) are not covered under the scope of accreditation. Results indicated by two asterisks (**) were performed by a non-accredited third party laboratory and are not certified by Republic Technologies International. Republic Technologies International certifies that this product was tested and manufactured in the USA.

Prepared by the office of: James C. Cash, Director, Quality Assurance Hot Rolled Bar Division, dated: 04/06/2000

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UQ25020 Rev A 2/1/99

James C. Cash

Page 2 of 2

UMC # 501418

Universal Galvanizing, Inc.
107 Didion Drive
St. Peters, Missouri 63376
(636) 970-2272

CERTIFICATE OF COMPLIANCE
FOR HOT DIP GALVANIZING

CUSTOMER : Unytite, Inc.
DATE : April 03, 2006
ORDER NO : 35757
LOT NO. : AC821
ITEM : A563 DH HHN Nut
SIZE : 5/8-11 0.031

WE HEREBY CERTIFY THAT THE ABOVE SIZE AND LOT
NUMBER WHICH WAS HOT DIP GALVANIZED IN OUR PLANT
MEET THE SPECIFICATIONS OF ASTM-A153 CLASS C.

AVERAGE THICKNESS OF ZINC COATING : 4.3 MILS

David Gehris
David Gehris, QUALITY CONTROL

- Specializing in Hot Dip Galvanizing -

MACSTEEL®

Quanex

502523

MacSteelONE JACKSON SQUARE
SUITE 500
JACKSON, MICHIGAN 49201**CERTIFIED MATERIAL TEST REPORT**

CUSTOMER ORDER NUMBER	CUSTOMER PART NUMBER	HEAT NUMBER	WORK ORDER NUMBER	DATE
P001787	B1045SC15625	M25706	210547 101	9/06/07

REPORT TO
TRACI
UNYTITE, INC.ONE UNYTITE DRIVE
PERU, IL 61354-9710

SHIP TO

UNYTITE, INC.
ONE UNYTITE DRIVE
PERU, IL 61354**ORDERED**

GRADE	SIZE	LENGTH
1045	1 9/16" RND	24' 10 1/2"

SAB 1045; ASTM E381-01

CUSTOMER SPECIFICATIONS**CHEMICAL ANALYSIS - (BAR AVERAGE)**

C	Mn	P	S	Si	Ni	Cr	Mo	Cu	Sn	Al
0.45	0.81	0.010	0.033	0.26	0.05	0.11	0.02	0.12	0.006	0.003
V	Nb									
0.065	0.001									

GRAIN SIZE SPECIFICATION ASTM E112 FINE GRAIN 5-8

MACROCLEANLINESS SPECIFICATION ASTM E381

PLATE I**PLATE II**

AVERAGE	S	R	C	NONE
	1	1	1	

DECARB SPECIFICATION ASTM E1077

F TOTAL= 0.006

PAGE 1

We certify that these data are correct and in compliance with specified requirements.

MacSteel Monroe
3000 East Front Street
Monroe, MI 48161*Chris Latta*
Quality Assurance Representative

CONTINUED ON PAGE 2

MACSTEEL®

Quanex

MacSteelONE JACKSON SQUARE
SUITE 500
JACKSON, MICHIGAN 49201**CERTIFIED MATERIAL TEST REPORT**

CUSTOMER ORDER NUMBER	CUSTOMER PART NUMBER	HEAT NUMBER	WORK ORDER NUMBER	DATE
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REPORT TO
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PERU, IL 61354-9710

SHIP TO

UNYTITE, INC.

ONE UNYTITE DRIVE
PERU, IL 61354**ORDERED**

GRADE	SIZE	LENGTH
1045	1 9/16" RND	24' 10 1/2"

CUSTOMER SPECIFICATIONS

SAE 1045; ASTM E381-01

REDUCTION RATIO

RATIO= 18.8 TO 1.0

** MATERIAL 100% MELTED AND MANUFACTURED IN THE U.S.A. BY THE ELECTRIC ARC FURNACE AND CONTINUOUS CASTING METHOD. THE PRODUCT HAS NOT BEEN REPAIRED BY WELDING AND THIS MATERIAL HAS NOT BEEN EXPOSED TO MERCURY OR TO ANY OTHER METAL ALLOY THAT IS LIQUID AT AMBIENT TEMPERATURES DURING PROCESSING OR WHILE IN OUR POSSESSION. **

PAGE 2 OF 2

We certify that these data are correct and in compliance with specified requirements.

MacSteel Monroe
3000 East Front Street
Monroe, MI 48161
Quality Assurance Representative

ROGERS BROTHERS INC.

HOT DIP
GALVANIZING

September 25, 2007

Unytite, Inc.
Unytite Quality Department
One Unytite Drive
Peru, IL 61354

To Whom It May Concern:

This is to certify that the hot dip galvanizing of the following material on your Purchase Order number 1995 conforms to specification ASTM A-153.

10 Containers	1-1/4" A563 DH HHN	Lot#KT031	3.80 Avg. Mils.
10 Containers	1-1/4" A563 DH HHN	Lot#KT041	3.52 Avg. Mils.

This certification in no way implies anything other than the quality of our hot dip galvanizing as it pertains to your order.

Yours very truly,

ROGERS BROTHERS INC.

Lorraine P. Shelburne

Lorraine P. Shelburne
Vice President

SUBSCRIBED AND SWORN
BEFORE ME THIS 25TH
DAY OF SEPTEMBER 2007, AD

Judith A. Ferolie
NOTARY PUBLIC

