#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:

X **Attached** _ Shop drawings _ Prints _ Plans _ Samples _ Copy of Letter
_ Specifications _ Change Order X **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
X **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

472-85654

Union Metal CORPORATION

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	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	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.

16th day of December, 2008

October 17, 2010
My commission expires

Jennifer Wagner
Notary Public

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

JENNIFER WAGNER, NOTARY PUBLIC STATE OF OHIO

Union Metal CORPORATION

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

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	4157113			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

BY

January 31, 2010
MY COMMISSION EXPIRES.

RENE L. GROSSMAN NOTARY PUBLIC STATE OF OHIO

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.

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.	CUSTOMER PART	QUANTITY	COILS	LADING NO	SHIPMENT DATE
18594-11	**3GA62-1/2-UMS28/R0**	**41,920 LBS**	**1**	**01268789**	**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	Mn	P	S	Si	Cu	Ni	Cr	Mo	Sn	Al
0.2000	0.8000	0.0150	0.0060	0.0200	0.0400	0.0100	0.0300	0.0100	0.0070	0.0520

V	Cb	N	B	Ti	Sb	Ca
0.0020	0.0000	0.0042	0.0000	0.0020	0.0020	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

Union Metal
CORPORATION

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	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	.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

October 17, 2010
MY COMMISSION EXPIRES

JENNIFER WAGNER NOTARY PUBLIC STATE OF OHIO

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

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.

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.	CUSTOMER PART	QUANTITY	COILS	LADING NO	SHIPMENT DATE
18594/13	**7GA36-UMS28/R0**	**35,890 LBS**	**1**	**01271956**	**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

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 SOO75SCH40-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 05/28/08
CERTIFICATION OF TESTS Page 2 of 3

BULL MOOSE TUBE COMPANY

1819 Clarkson Rd.
Chesterfield, Missouri 63017

BILL TO Tubular Steel, Inc.
Attn: Accounts Payable
1031 Executive Parkway Drive
St. Louis MO 63141-6351

SHIP TO Tubular Steel, Inc.
1700 Tubular Steel Road
Staunton IL 62088-1076

B/L Number 168509 Ship Via 35_F35

1.05" X 0.109 HR X 21' 5"
26.7 mm
ASTM A500-03 Grade B Melted & Manufactured in the USA
Ladle Analysis and Physicals
Order # 247728
Purchase Order # 2349
Item # 135735 0672
Ticket # = 13047676 Heat # = E81353

C	MN	P	S	AL	SI	CB	CU	CR	NI	VA	P	YLD psi	TSN psi	ELN %
.170	.400	.007	.006	.037	.012	0.000	0.000	0.000	0.000	0.000		70169	74915	37

1.05" X 0.109 HR X 21' 5"
26.7 mm
ASTM A500-03 Grade B
Ladle Analysis and Physicals
Order # 247728
Purchase Order # 2349
Item # 135735 0672
Ticket # = 13047672 Heat # = E81386

C	MN	P	S	AL	SI	CB	CU	CR	NI	VA	P	YLD psi	TSN psi	ELN %
.180	.410	.015	.001	.032	.027	0.000	0.000	0.000	0.000	0.000		71428	77405	30

1.05" X 0.109 HR X 21' 5"
26.7 mm
ASTM A500-03 Grade B
Ladle Analysis and Physicals
Order # 247728
Purchase Order # 2349
Item # 135735 0672
Ticket # = 13047670 Heat # = C45801

C	MN	P	S	AL	SI	CB	CU	CR	NI	VA	P	YLD psi	TSN psi	ELN %
.050	.390	.020	.006	.026	.020	0.000	0.000	0.000	0.000	0.000		66722	68243	31

1.05" X 0.109 HR X 21' 5"
26.7 mm
ASTM A500-03 Grade B
Ladle Analysis and Physicals
Order # 247728
Purchase Order # 2349
Item # 135735 0672
Ticket # = 13047671 Heat # = E81398

C	MN	P	S	AL	SI	CB	CU	CR	NI	VA	P	YLD psi	TSN psi	ELN %
.190	.510	.013	.010	.030	.010	0.000	0.000	0.000	0.000	0.000		72988	78659	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

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
184 Mill Street
PO Box 408
Sharon, PA 16146
(800) 845-8115
(724) 983-1831 (fax)

PRODUCT CERTIFICATION

HEAT NUMBER
tcp5b46399
SALES ORDER
151668

SOLD TO

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

SHIP TO

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

CUSTOMER P.O.	CUSTOMER PART	QUANTITY	BNDLS	LADING NO	SHIPMENT DATE
3413		192 Pcs	2	00002816	03/27/2006

SPECIFICATION **CSP0840XhScPe01**
1/2", XH, Scl, 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	.004	.001

Sn	SVM	CE
.001	.050	.200

Pipe Mechanical Test Results

	Yield,PSI	Tensile,PSI	Elong,4-2"	Y/T Ratio	Hard,HRb	Hydro,PSI	Bend Flatten
B00120/004	54480	54180	48	.636		850	Pass
B00120/005	54480	54180	48	.636		850	Pass

Certified Test Report Type 3.1B in accordance with EN 10204/ISO 10474/DIN 50049. 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.

Union Metal
CORPORATION

MATERIALS MELTED AND MANUFACTURED IN THE USA

CERTIFIED TEST REPORT

1/4" PLATE
MEETS OR EXCEEDS ASTM A36
TESTED TO ASTM A6

DATE	CYCLE NO.	CUSTOMER ORDER NO.
10-13-08		

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. IN 2"	% ELONG. IN 8"	BEND TEST	%RED AREA	TEST NO
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.

UNION METAL CORPORATION

BY: _____

RENE L. GROSSMAN, NOTARY PUBLIC STATE OF OHIO

MY COMMISSION EXPIRES: January 31, 2010

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

PRODUCT CERTIFICATION

WORK ORDER LOT NUMBER
FB7019 4157582

SALES ORDER / RLS
389908 / 1

ArcelorMittal Cleveland Inc.

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.	CUSTOMER PART	QUANTITY	COILS	LADING NO	SHIPMENT DATE
16265-18	**3GA55-1/2-UMS28/R0**	**48,990 LBS**	**1**	**01200751**	**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	Mn	P	S	Si	Cu	Ni	Cr	Mo	Sn	Al
0.2200	0.7000	0.0060	0.0070	0.0200	0.0500	0.0200	0.0300	0.0100	0.0110	0.0620

V	Cb	N	B	Ti	Sb	Ca
0.0000	0.0000	0.0035	0.0001	0.0010	0.0030	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

A6384-64 30E

12-Cus.

BL 47806

NUCOR
PLATE MILL

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

Mill Test Report

Page 1

NUCOR
It's our Nature.

Issuing Date : 10/16/2008 B/L No. : 216368 Load No. : 217370 Our Order No. : 66562/1 Cust. Order No. : 10-34891-UM

Vehicle No: 7334

Specification : 0.3750" x 96.000" x 120.000"
ASTM A36-08/ASTM A709 Grade 36-07/ASME SA36-03a

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

				Tensile Test				Charpy Impacts											
Plate Serial No	Pieces	Tons	Dir.	(psi) Yield	(psi) Tensile	Elongation % in 2"	Elongation % in 8"	Dir.	(ft-lbs) 1	(%) shear	(ft-lbs) 2	(%) shear	(ft-lbs) 3	(%) shear	(ft-lbs) Ave.	(%) shear	Size	Temp (°F)	Min Ave.
8107869-08	15	9.18	T	45,800	71,000		25.8	H-L	76.9		63.0		60.6		66.8		10mm	40	15
			T	43,600	68,200		24.6												
8107869-09	22	13.47	T	45,800	71,000		25.8	H-L	76.9		63.0		60.6		66.8		10mm	40	15
			T	43,600	68,200		24.6												

AMY C REESE
NOTARY
My Comm. Expires
June 3 2012
WARREN COUNTY, NC

10/17/08

NFCM, T1 and T2, 15ft-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 = C+(Si/30)+(Mn/20)+(Cu/20)+(Ni/60)+(Cr/20)+(Mo/15)+(V/10)+5B

Melted and manufactured in the USA. ISO 9001-2000 certified (#12443-0) by SRI Quality System Registrar (#0985-09). PED 97/23/EC 7/2 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 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. Depretis

T. A. Depretis, Metallurgist

10/16/2008 2:31:15 PM

TEST CERTIFICATE

ARCELORMITTAL PLATE LLC

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

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

SEND TO:

01-N

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

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-QE CERT. NO. 30130

CHEMICAL COMPOSITION

	C	MN	P	S	CU	SI	NI	CR	MO
MELT:T1668 (2)	.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 9TH DAY OF DECEMBER 2008

NOTARY PUBLIC

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 Zaplitny

SUPERVISOR - TEST REPORTING
ELINORE ZAPLITNY

A41SE A36/5-3461E
WORKMETAL CORP
ASSIGNMENT
BL 6789

Tensile Testing
Metallurical Laboratory
Phn: 216.641.3290
Fax: 216.641.3291

CHARPY WORKSHEET

JA8337-301

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

12-35108

	Size	Temp	Ft_lbs	Lat Exp	%Shear	P/F
7/A4390E 01	Full	+40 F	68			PASS
			93			
			25			
		Avg	62			
8/A4387E 01	Full	+40 F	57			PASS
		—	48			
			15			
		Avg	40			
8/A4439E 01	Full	+40 F	44			PASS
			76			
			52			
		Avg	57			
4/A4365E 01	Full	+40 F	40			PASS
			72			
			75			
		Avg	62			
5/A4633E 01	Full	+40 F	72			PASS
			54			
			53			
		Avg	60			

Union Metal
Consignment
B/L 67840

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

-1204

DEC 05 '08 09:59 FROM:KENILWORTH STEEL INC T-714 P.01 F-684 1-330-399-9184

RYERSON
196 Bell Avenue
CARNEGIE, PA 15106

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

11/09/2007

Authorized Agent of Ryerson

010104

GERDAU AMERISTEEL 005837

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

Chemical and Physical Test Report

MADE IN CANADA

SHIP TO	INVOICE TO	SHIP DATE
RYERSON TULL 5 CLINTON STREET 314-231-1020 ST LOUIS, MO 63102	RYERSON TULL PROCUREMENT/CHIC P.O. BOX 8000 A CHICAGO, IL 60680	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 %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: 10104

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.	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Nb	Sn
N541524	.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 & SON, 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 TO: YOUNGSTOWN PIPE & SUPPLY INC
4100 LAKE PARK RD
PO BOX 3467
YOUNGSTOWN, OH 44513-0000

SHIP TO: YOUNGSTOWN PIPE
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.

NBMG-06 May 16, 2008

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 / Cb	Cu / Sn	C.E.
PO# =>	83141												
E4974	Nucor Steel - Auburn Inc	53,200	73,300	23.8%			.17	.76	.014	.040	.18	.31	.35
E4974	1/4x1" FL 20'	367MPa	505MPa				.08	.11	.026	0.00	.002		
	A36/44W	54,600	73,600	25.0%									
	CSA G40.21-98 44W/ASTM A36/A36M-	376MPa	507MPa										
	ASTM A709/A709M-07 GR 36												
	ASME SA36-2007 EDITION												
	ASTM A36/A36M-05												

YOUNGSTOWN PIPE & SUPPLY INC.
PHONE# 330.783.2700
THESE TESTS REPORTS APPLY TO:
SOLD TO: Welan Metal
YOUR P.O. # 18823
YS&S O.M. # 56143
SIGNED BY YP&S

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 [illegible] PRODUCTION OR [illegible] OF THIS MATERIAL.

QUALITY ASSURANCE - Jim Biernat

10/06/08 15:42 FAX 330 783 2865 YOUNGSTOWN PIPE 003

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

Steel Dynamics®
Roanoke Bar Division

Test and Inspection Report NO. 57743-1

ROANOKE

YOUNGSTOWN PIPE & SUPPLY INC
PHONE# 330.783.2700
THESE TESTS REPORTS APPLY TO:
SOLD TO: Union Alloy 19185
YOUR P.O.# 57383
Y&S O.M.# 100044
ASSIGNED BY Y&S

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
Metallurical Laboratory
Phn: 216.641.3290
Fax: 216.641.3291

CHARPY WORKSHEET

JA8310-718

YOUNGSTOWN PIPE & SU
Attn: MIKE MONTLER
Phn: 330-744-2222
Fax: 330-744-8480

SB 80072-M

	Size	Temp	Ft_lbs	Lat Exp	%Shear	P/F
/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			
/A6L861 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: UNION ELEVATOR
YOUR P.O.# 19185 57383
Y&S O.M.# 1000147
ACCEPTED BY Y&S

Nov. 12. 2008 3:12PM YP&S Plate Division No. 1336 P. 1/1

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

-1107

RYERSON
196 Bell Avenue
CARNEGIE, PA 15106

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

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

CERTIFIED TEST REPORT

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	%
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	
		LENGTH	ELONG	PIN. DIA	R.A.

CHARPY IMPACT TEST

TEMP. F	FT./LB.	SUBSIZE SPECIMEN SAMPLE

Grain Size	Reduction Ratio	As Rolled Hardness	D.I	C.E	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

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

JIM BIERNAT, METALLURGIST
STATE OF NEW YORK SS.
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

(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

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

BB/00625
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 - 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

ISO/TS 16949:2002 Registered IST

Order Details

Part Number:	F0114	Blue Print Rev:	1279
Packing Slip:	4444	Material Type:	1030 -1050
Purchase Order:		Quantity:	40,029
IST Order Number:	634940-1	Net Weight:	5,404.0
Lot Number:	1207-813	Part Desc:	WASHER
Heat Number:		Comments	4 TUB #401,712,100,523 1395,1528,1557,1610,1652 11117,13026,13377

SPECIFICATIONS	RESULTS
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.

4148

S01668

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

PAGE 1 of 1

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

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 FG SPECIFIED HARDNESS NON-TEMPER ROLLED REST THICK REST CHEM	
2	.136M P008M000 X 37.000 ME X COILS COIL WGT 30000MN/37000MX	
	HEAT-NO 2141028 K925001 COIL NUMBERS	

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

S01668

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
105,726	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

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

ROGERS BROTHERS, INC. 1925 KISHWAUKEE STREET, ROCKFORD, ILLINOIS 61104-6197 PHONE: 815/966-5132 FAX: 815/965-3755
E-MAIL: rogersbros@rworld.com

5 02127

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.	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 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

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

S02127

HEAT TREAT CERTIFICATION

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

Certification Date:
05/07/2008

Page: 1 of 1

ISO/TS 16949:2002 Registered IST

Order Details

Part Number:	F0200	Blue Print Rev:	1279
Packing Slip:	4512	Material Type:	1030 -1050
Purchase Order:		Quantity:	3,496
IST Order Number:	694460-1	Net Weight:	1,346.0
Lot Number:	0508-023	Part Desc:	WASHER
Heat Number:	2131928	Comments:	1 TUB #820 4319,4446,9039,2276,90012 92759

SPECIFICATIONS	RESULTS
HRC 38 - 45	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

5021/27

760602

PAGE 1 of 1

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

MELTED AND MANUFACTURED IN USA

PURCHASE ORDER:
01/11/08 004183-5

C E R T I F I C A T E
O F T E S T S

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.

03:15:28

Item	Specification and Description
	HR SHEET HI-CARBON SAE-1050 AK FG SPECIFIED HARDNESS NON-TEMPER ROLLED RESC THICK RESC CHEM T/R
1	.189M P010M000 X 39.000 ME X COILS COIL WGT 30000MN/39000MX

COIL NUMBERS

HEAT-NO
2131928 C186101
2142175 C186401

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	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			

EO WASHER STOCK

TI 01 C R/A
INFO@SABRESTEEL.COM

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

5o2127

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.

PIECES	PART# & SIZE	LOT NUMBER	AVERAGE ZINC COATING IN MILS.
39,272	BBW-S00 1-3/4"	0108-868	3.92
257,500	F0012 ½"	0508-029	3.33
52,750	F0012 ½"	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 ¾"	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

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

Judith A Ferolie
NOTARY PUBLIC

ROGERS BROTHERS, INC. 1925 KISHWAUKEE STREET, ROCKFORD, ILLINOIS 61104-5197 PHONE: 815/965-5132 FAX: 815/965-3765
E-MAIL - rogersbros@rworld.com

INSPECTION CERTIFICATE

Customer	Specification	Size	Lot No.	Date
DALLAS FASTENER, INC. 1041 AVENUE M GRAND PRAIRIE, TEXAS 75050	ASTM A-563 GRADE DH HEAVY HEX NUT	H.D.G. 5/8-11 UNC 0.020" BLUE DYE	ACB21	Apr. 12,'06

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 (%)

Mill Maker	Material Size	Heat No. / Spec.	C	Si	Mn	P	S	Cu	Ni	Cr	Mo	
			0.20		MIN.	MAX.	MAX.					
REP	CARBON		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	-

Shape & Dimension Inspection	ANSI B18.2.2 GOOD
Thread Precision Inspection	ANSI B1.1 CLASS 2B GOOD
Appearance Inspection	GOOD

Mechanical Property Inspection

Item	Proof Load	Cone Stripping	Hardness	Hardness	Absorbed Energy
Spec.	33,900 lbf	- kN • kgf • lbf	24-38 .HxC	HaB • HB	J • kgfm • ftlbf
	n	n			
Results	5	-	27.5 27.4 27.8 29.0 29.0 28.1		
	Results	Results			
	GOOD	-		Hardness Treatment After 24 Hr.X °F (°C)	

Heat Treatment

T:MIN.800° F

Q:FORGING Q (W.Q.)

T:1004° F/45M. (W.C.

Q : Quenching
T : Tempering
ST : Solution Treatment

Remarks:

" DH U"

Production Quantity
22,750 pcs.

UMC # 501418

OFFICIAL SEAL
JEAN MARGHERIO
NOTARY PUBLIC - STATE OF ILLINOIS
MY COMMISSION EXPIRES:10/18/09

Jean Margherio at 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

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 #245.01 Valid to October 31, 2001

UMC # 501418

METALLURGICAL TEST REPORT

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

Mail To: 242038000
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	Customer Information
(BC) C.18/.23 MN.60/.85 P.030 MAX S.030 MAX SI.15/.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 POR INFO ONLY	4120

MATERIAL INFORMATION

Item No.	Material No.	Material Description	Heat
000001	0015213	0.859"	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	%
Sn	0.001	%
Al	0.035	%
V	0.005	%
Cb	0.001	%

C,S,N Determined by methods defined in ASTM E1019-94.
Pb and Bi Determined by methods defined in ASTM E1965-95.
All other elements determined by methods defined in ASTM E415-99.

DILATED

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
Cast Test

J.Pt.	Result	UOM
J-1	43	HRC
J-2	43	HRC
J-3	39	HRC
J-4	34	HRC
J-5	30	HRC
J-6	29	HRC
J-7	27	HRC
J-8	26	HRC
J-9	25	HRC
J-10	25	HRC
J-11	24	HRC
J-12	23	HRC
J-13	22	HRC
J-14	22	HRC
J-15	22	HRC
J-16	22	HRC
J-18	21	HRC
J-20	21	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 fulfills requirements in each respect. 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 melted and manufactured in the USA.
Prepared by the office of: James C. Cash, 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

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.:	Delivery No. (BOL):	Vehicle ID(Carrier):	Purchase Order No.:	P.O.Date:
8116459			20421	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 applic requirements in each respect. 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 as 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 melted and manufactured in the USA.

Prepared by the office of: James C. Cash, Director, Quality Assurance Hot Rolled Bar Division, dated: 04/05/2000

This Report May Not Be Reproduced Except In Full

UQS020 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

Dave Gehris/mk

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 F606/F606M, ASTM A370, ASTM E18

Chemical Composition (%)

Mill Maker	Material Size	Heat No. / Spec.	C	Si	Mn	P	S	Cu	Ni	Cr	Mo	
			0.20		MIN.	MAX.	MAX.					
MCSTEEL	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
Spec.	145,350 lbf	- kN • kgf • lbf	24-38 HxC	HxB • HB	J • kgfm • ftlbf
	n	n			
Results	5	-	28.7 30.0 29.8 29.7 29.3 29.5		
	Results	Results			
	GOOD	-		Hardness Treatment After 24 Hr.X °F (°C)	

Heat Treatment

T:MIN.800 F

Q:FORGING Q (W.Q.)

T:1193 F/45M. (W.C.

Q : Quenching
T : Tempering
ST : Solution Treatment

Shape & Dimension	ANSI B18.2.2
Inspection	GOOD
Thread Precision	ANSI B1.1 CLASS 2B
Inspection	GOOD
Appearance Inspection	GOOD

Remarks:

" DH U"

Production Quantity
21,454 pcs.

OFFICIAL SEAL
JEAN MARGHERIO
NOTARY PUBLIC - STATE OF ILLINOIS
MY COMMISSION EXPIRES:10/18/09

11-16-07

52523

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

502523

MACSTEEL®
Quanex

MacSteel
ONE 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
0.46	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
	S	R	C	
AVERAGE	1	1	1	NONE

DECARB SPECIFICATION ASTM E1077

F TOTAL= 0.006

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

502523

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

OFFICIAL SEAL
JUDITH A FEROLIE
NOTARY PUBLIC - STATE OF ILLINOIS
MY COMMISSION EXPIRES:01/07/08

ROGERS BROTHERS, INC. 1925 KISHWAUKEE STREET, ROCKFORD, ILLINOIS 61104-5197 PHONE: 815/965-5132 FAX: 815/965-3765
E-MAIL: rogersbros@rworld.com

Union Metal CORPORATION

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	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	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.

16th day of December, 2008

October 17, 2010
My commission expires

Notary Public

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

JENNIFER WAGNER NOTARY PUBLIC STATE OF OHIO

Union Metal CORPORATION

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	4157113			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

RENE L. GROSSMAN NOTARY PUBLIC STATE OF OHIO

MY COMMISSION EXPIRES January 31, 2010

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

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.

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.	CUSTOMER PART	QUANTITY	COILS	LADING NO	SHIPMENT DATE
18594-11	**3GA62-1/2-UMS28/R0**	**41,920 LBS**	**1**	**01268789**	**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	Mn	P	S	Si	Cu	Ni	Cr	Mo	Sn	Al
0.2000	0.8000	0.0150	0.0060	0.0200	0.0400	0.0100	0.0300	0.0100	0.0070	0.0520

V	Cb	N	B	Ti	Sb	Ca
0.0020	0.0000	0.0042	0.0000	0.0020	0.0020	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

Union Metal
CORPORATION

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	4189358			18594	ARCELORMITTAL
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	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	.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

October 17, 2010
MY COMMISSION EXPIRES

JENNIFER WAGNER, NOTARY PUBLIC STATE OF OHIO

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

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.

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.	CUSTOMER PART	QUANTITY	COILS	LADING NO	SHIPMENT DATE
18594/13	**7GA36-UMS28/R0**	**35,890 LBS**	**1**	**01271956**	**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

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 SOO75SCH40-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 05/28/08
CERTIFICATION OF TESTS Page 2 of 3

BULL MOOSE TUBE COMPANY

1819 Clarkson Rd.
Chesterfield, Missouri 63017

BILL TO Tubular Steel, Inc.
Attn: Accounts Payable
1031 Executive Parkway Drive
St. Louis MO 63141-6351

SHIP TO Tubular Steel, Inc.
1700 Tubular Steel Road
Staunton IL 62088-1076

B/L Number 168509 Ship Via 35_F35

1.05" X 0.109 HR X 21' 5"
26.7 mm
ASTM A500-03 Grade B
Ladle Analysis and Physicals
Melted & Manufactured in the USA
Order # 247728
Purchase Order # 2349
Item # 135736 0672
Ticket # = 13047676 Heat # = E81853

C	MN	P	S	AL	SI	CB	CU	CR	NI	P 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 0.109 HR X 21' 5"
26.7 mm
ASTM A500-03 Grade B
Ladle Analysis and Physicals
Order # 247728
Purchase Order # 2349
Item # 135735 0672
Ticket # = 13047672 Heat # = E81385

C	MN	P	S	AL	SI	CB	CU	CR	NI	P VA	YLD psi	TSN psi	ELN %
.160	.410	.015	.001	.032	.027	0.000	0.000	0.000	0.000	0.000	71428	77408	30

1.05" X 0.109 HR X 21' 5"
26.7 mm
ASTM A500-03 Grade B
Ladle Analysis and Physicals
Order # 247728
Purchase Order # 2349
Item # 135736 0672
Ticket # = 13047670 Heat # = C45801

C	MN	P	S	AL	SI	CB	CU	CR	NI	P VA	YLD psi	TSN psi	ELN %
.050	.390	.020	.006	.028	.020	0.000	0.000	0.000	0.000	0.000	66722	68243	31

1.05" X 0.109 HR X 21' 5"
26.7 mm
ASTM A500-03 Grade B
Ladle Analysis and Physicals
Order # 247728
Purchase Order # 2349
Item # 135735 0672
Ticket # = 13047671 Heat # = E81396

C	MN	P	S	AL	SI	CB	CU	CR	NI	P VA	YLD psi	TSN psi	ELN %
.190	.610	.013	.010	.030	.010	0.000	0.000	0.000	0.000	0.000	72988	78859	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

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
184 Mill Street
PO Box 408
Sharon, PA 16146
(800) 345-8116
(724) 983-1931 (fax)

PRODUCT CERTIFICATION

HEAT NUMBER
tcp5b46399
SALES ORDER
151668

SOLD TO

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

SHIP TO

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

CUSTOMER P.O.	CUSTOMER PART	QUANTITY	BNDLS	LADING NO	SHIPMENT DATE
2413		192 Pcs	2	00002816	03/27/2006

SPECIFICATION **CSP0840XhScPe31**
1/2", XH, Sol, 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	.004	.001

Sn	SUM	CE
.001	.050	.200

Pipe Mechanical Test Results

	Yield,PSI	Tensile,PSI	Elong,%-2"	Y/T Ratio	Hard,HRb	Hydro,PSI	Bend 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 10204/ISO 10474/DIN 50049. 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.

Union Metal
CORPORATION

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

CERTIFIED TEST REPORT

1/4" PLATE
MEETS OR EXCEEDS ASTM A36
TESTED TO ASTM A6

DATE	CYCLE NO.	CUSTOMER ORDER NO.
10-13-08		

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. IN 2"	% ELONG. IN 8"	BEND TEST	%RED AREA	TEST NO
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

RENE L. GROSSMAN, NOTARY PUBLIC
STATE OF OHIO

January 31, 2010
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.

UNION METAL CORPORATION

BY:

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

PRODUCT CERTIFICATION

WORK ORDER LOT NUMBER
FB7019 4157582

SALES ORDER / RLS
389908 / 1

ArcelorMittal Cleveland Inc.

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.	CUSTOMER PART	QUANTITY	COILS	LADING NO	SHIPMENT DATE
16265-18	**3GA55-1/2-UMS28/R0**	**48,990 LBS**	**1**	**01200751**	**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	Mn	P	S	Si	Cu	Ni	Cr	Mo	Sn	Al
0.2200	0.7000	0.0060	0.0070	0.0200	0.0500	0.0200	0.0300	0.0100	0.0110	0.0620

V	Cb	N	B	Ti	Sb	Ca
0.0000	0.0000	0.0035	0.0001	0.0010	0.0030	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

A6384-64 20E

12-Cons.

BL 47806

NUCOR
PLATE MILL

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

Mill Test Report

Page 1

NUCOR
It's our Nature.

Issuing Date : 10/16/2008 B/L No. : 216368 Load No. : 217370 Our Order No. : 66562/1 Cust. Order No. : 10-34891-UM

Vehicle No: 7334

Specification : 0.3750" x 96.000" x 120.000"
ASTM A36-08/ASTM A709 Grade 36-07/ASME SA36-03a

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

		Tensile Test						Charpy Impacts										
Plate Serial No	Pieces	Tons	Dir.	(psi) Yield	(psi) Tensile	Elongation % in 2"	Elongation % in 8"	Dir.	(ft-lbs) 1	(%) shear	(ft-lbs) 2	(%) shear	(ft-lbs) 3	(%) shear	(ft-lbs) Ave.	(%) shear	Size	Temp (°F)	Min Ave.
8107869-08	15	9.18	T	45,800	71,000		25.8	H-L	76.9		63.0		60.6		66.8		10mm	40	15
			T	43,600	68,200		24.6												
8107869-09	22	13.47	T	45,800	71,000		25.8	H-L	76.9		63.0		60.6		66.8		10mm	40	15
			T	43,600	68,200		24.6												

AMY C MEYER
NOTARY
My Comm. Expires
June 3 2012
BERTIE COUNTY, NC
PUBLIC

10/17/08

NFCM, T1 and T2, 15ft-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 = C+(Si/30)+(Mn/20)+(Cu/20)+(Ni/60)+(Cr/20)+(Mo/15)+(V/10)+5B
Melted and manufactured in the USA. ISO 9001-2000 certified (#12443-0) by SRI Quality System Registrar (#0985-09). PED 97/23/EC 7/2 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 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. Depretis

T. A. Depretis, Metallurgist

10/16/2008 2:31:15 PM

TEST CERTIFICATE

ARCELORMITTAL PLATE LLC

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

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

SEND TO:

01-N

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

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-QE CERT. NO. 30130

CHEMICAL COMPOSITION

	C	MN	P	S	CU	SI	NI	CR	MO
MELT:T1668 (2)	.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	673	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

SWORN TO AND SUBSCRIBED BEFORE ME THIS 5TH DAY OF DECEMBER 2008

NOTARY PUBLIC

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 Zaplitny

SUPERVISOR - TEST REPORTING
ELINORE ZAPLITNY

A416 GR 270
A36/A36M-07ε1
UNIVERSAL CROSSING MATERIAL
B/L 6789

Tensile Testing
Metallurical Laboratory
Phn: 216.641.3290
Fax: 216.641.3291

CHARPY WORKSHEET

JA8337-301

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

12-35108

	Size	Temp	Ft_lbs	Lat Exp	%Shear	P/F
7/A4390E 01	Full	+40 F	68			PASS
			93			
			25			
		Avg	62			
8/A4387E 01	Full	+40 F	57			PASS
			48			
			15			
		Avg	40			
8/A4439E 01	Full	+40 F	44			PASS
			76			
			52			
		Avg	57			
4/A4365E 01	Full	+40 F	40			PASS
			72			
			75			
		Avg	62			
5/A4633E 01	Full	+40 F	72			PASS
			54			
			53			
		Avg	60			

Union Metal
Consignt
B/L 67840

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

-1204

page 1

DEC 05 '08 08:59 FROM:KENILWORTH STEEL INC 1-330-399-9184 T-714 P.01 F-684

RYERSON
196 Bell Avenue
CARNEGIE, PA 15106

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

Jerold A. Smith

Authorized Agent of Ryerson

11/09/2007

010104

GERDAU AMERISTEEL

005837

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

Chemical and Physical Test Report

MADE IN CANADA

SHIP TO	INVOICE TO	SHIP DATE
RYERSON TULL 5 CLINTON STREET 314-231-1020 ST LOUIS, MO 63102	RYERSON TULL PROCUREMENT/CHIC P.O. BOX 8000 A CHICAGO, IL 60680	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 %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: 010104

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.	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Nb	Sn
N541524	.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 & SON, INC.
RECEIVING DEPT. CHICAGO
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 TO: YOUNGSTOWN PIPE & SUPPLY INC
4100 LAKE PARK RD
PO BOX 3467
YOUNGSTOWN, OH 44513-0000

SHIP TO: YOUNGSTOWN PIPE
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.

NBMG-08 May 16, 2008

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 / Cb	Cu / Sn	C.E.
PO# =>	83141												
E4974	Nucor Steel - Auburn Inc	53,200	73,300	23.8%			.17	.76	.014	.040	.18	.31	.35
E4974	1/4x1" FL 20'	367MPa	505MPa				.08	.11	.026	0.00	.002		
	A36/44W	54,600	73,600	25.0%									
	CSA G40.21-98 44W/ASTM A36/A36M-	376MPa	507MPa										
	ASTM A709/A709M-07 GR 36												
	ASME SA36-2007 EDITION												
	ASTM A36/A36M-05												

YOUNGSTOWN PIPE & SUPPLY INC.
PHONE# 330.783.2700
THESE TESTS REPORTS APPLY TO:
SOLD TO: 2 Welco Metal
YOUR P.O. # 18825
YS&S O.M. # 56193
SIGNED BY YP&S

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 [illegible]

QUALITY ASSURANCE: Jim Biernat

002
YOUNGSTOWN PIPE
10/08/08 15:42 FAX 330 783 2865

Steel Dynamics®
Roanoke Bar Division

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

YOUNGSTOWN PIPE & SUPPLY INC
PHONE# 330.783.2700
THESE TESTS REPORTS APPLY TO:
SOLD TO: Union Metal 19185
YOUR P.O. # 57383
Y&S O.M. # 160044
SIGNED BY Y&S

Test and Inspection Report 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
Metallurical Laboratory
Phn: 216.641.3290
Fax: 216.641.3291

CHARPY WORKSHEET

JA8310-718

YOUNGSTOWN PIPE & SU
Attn: MIKE MONTLER
Phn: 330-744-2222
Fax: 330-744-8480

SB 80072-M

	Size	Temp	Ft_lbs	Lat Exp	%Shear	P/F
/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			
/A6L861 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: Ullon Metal
YOUR P.O.# 19185
YS&S O.M.# 57383
ENTERED BY YP&S

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

-1207

RYERSON
196 Bell Avenue
CARNEGIE, PA 15106

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

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

CERTIFIED TEST REPORT

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	%
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	
		LENGTH	ELONG	PIN. DIA	R.A.

CHARPY IMPACT TEST

TEMP. F	FT./LB.	SUBSIZE SPECIMEN SAMPLE

Grain Size	Reduction Ratio	As Rolled Hardness	D.I.	C.E.	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

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.

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

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

JIM BIERNAT, METALLURGIST
STATE OF NEW YORK SS.
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

(sign)

SUBSCRIBED AND SHOWN BEFORE ME

THIS_____ DAY OF_____

L.S._____

THIS CERTIFICATE IS NOTARIZED ONLY WHEN REQUESTED

BB/00625
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	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

ISO/TS 16949:2002 Registered IST

Order Details

Part Number:	F0114	Blue Print Rev:	1279
Packing Slip:	4444	Material Type:	1030 -1050
Purchase Order:		Quantity:	40,029
IST Order Number:	634940-1	Net Weight:	5,404.0
Lot Number:	1207-813	Part Desc:	WASHER
Heat Number:		Comments:	4 TUB #401,712,100,523 1395,1528,1557,1610,1652 11117,13026,13377

SPECIFICATIONS	RESULTS
HRC 38 - 45	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@indsl.com

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

4148

S01668

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

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 FG SPECIFIED HARDNESS NON-TEMPER ROLLED REST THICK REST CHEM	
2	.136M P008M000 X 37.000 ME X COILS COIL WGT 30000MN/37000MX	
	HEAT-NO 2141028 K925001 COIL NUMBERS	

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

S01668

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
105,726	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

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

ROGERS BROTHERS, INC. 1925 KISHWAUKEE STREET, ROCKFORD, ILLINOIS 61104-5197 PHONE: 815/965-5132 FAX: 815/965-3765
E-MAIL: rogersbros@rworld.com

S02127

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.	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 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

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

S02127

HEAT TREAT CERTIFICATION

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

Certification Date:
05/07/2008

Page: 1 of 1

ISO/TS 16949:2002 Registered IST

Order Details

Part Number:	F0200	Blue Print Rev:	1279
Packing Slip:	4512	Material Type:	1030 -1050
Purchase Order:		Quantity:	3,496
IST Order Number:	694460-1	Net Weight:	1,346.0
Lot Number:	0508-023	Part Desc:	WASHER
Heat Number:	2131928	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

760602

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

PAGE 1 of 1

MELTED AND MANUFACTURED IN USA

PURCHASE ORDER:
01/11/08 004183-5

C E R T I F I C A T E
O F T E S T S

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

D.H. Emanuele

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

03:15:28

Item	Specification and Description
	HR SHEET HI-CARBON SAE-1050 AK FG SPECIFIED HARDNESS NON-TEMPER ROLLED RESC THICK RESC CHEM T/R
1	.189M P010M000 X 39.000 ME X COILS COIL WGT 30000MN/39000MX

COIL NUMBERS

HEAT-NO
2131928 C186101
2142175 C186401

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	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			

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

502127

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.

PIECES	PART# & SIZE	LOT NUMBER	AVERAGE ZINC COATING IN MILS.
39,272	BBW-S00 1-3/4"	0108-868	3.92
257,500	F0012 ½"	0508-029	3.33
52,750	F0012 ½"	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 ¾"	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

ROGERS BROTHERS, INC. 1925 KISHWAUKEE STREET, ROCKFORD, ILLINOIS 61104-6197 PHONE: 815/965-5132 FAX: 815/965-3765
E-MAIL - rogersbros@rworld.com

INSPECTION CERTIFICATE

Customer	Specification	Size	Lot No.	Date
DALLAS FASTENER, INC. 1031 AVENUE M GRAND PRAIRIE, TEXAS 75050	ASTM A-563 GRADE DH HEAVY HEX NUT	H.D.G. 5/8-11 UNC 0.020" BLUE DYE	AC821	Apr. 12,'06

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 (%)

Mill Maker	Material Size	Heat No. / Spec.	C	Si	Mn	P	S	Cu	Ni	Cr	Mo	
			0.20 MIN.		MIN.	MAX.	MAX.					
REP	CARBON		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 lbf	- kN • kgf • lbf	24-38 .HxC	HxB • HB	J • kgfm • ftlbf	T:MIN.800° F
Results	n 5	n -	27.5 27.4 27.8 29.0 29.0 28.1			Q:FORGING Q (W.Q.) T:1004° F/45M. (W.C.
	Results GOOD	Results -		Hardness Treatment After 24 Hr.X °F (°C)	°F (°C)	Q : Quenching T : Tempering ST : Solution Treatment

OFFICIAL SEAL
JEAN MARGHERIO
NOTARY PUBLIC - STATE OF ILLINOIS
MY COMMISSION EXPIRES:10/18/09

04-12-06

Shape & Dimension	ANSI B18.2.2
Inspection	GOOD
Thread Precision	ANSI B1.1 CLASS-2B
Inspection	GOOD
Appearance Inspection	GOOD

Remarks:

" DH U"

Production Quantity
22,750 pcs.

UML # 501418

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

Sep 23 08 10:26a

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 #240.01 Valid to October 31, 2001

UMC # 501418

METALLURGICAL TEST REPORT

Sales Order No.:	Delivery No. (BOL):	Vehicle ID(Carrier):	Purchase Order No.:	P.O.Date:
8116459			20421	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	Customer Information
(BC) C.18/.23 MN.60/.85 P.030 MAX S.030 MAX SI.15/.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 POR INFO ONLY	4120

MATERIAL INFORMATION

Item No.	Material No.	Material Description	Heat
000001	0015213	0.859"	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	%
Sn	0.001	%
Al	0.035	%
V	0.005	%
Cb	0.001	%

C,S,N Determined by methods defined in ASTM E1019-94.
Pb and Bi Determined by methods defined in ASTM E1085-95.
All other elements determined by methods defined in ASTM E415-99.

DILERED

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
Cast Test

J-Pt.	Result	UOM
J-1	43	HRC
J-2	43	HRC
J-3	39	HRC
J-4	34	HRC
J-5	30	HRC
J-6	29	HRC
J-7	27	HRC
J-8	26	HRC
J-9	25	HRC
J-10	25	HRC
J-11	24	HRC
J-12	23	HRC
J-13	22	HRC
J-14	22	HRC
J-15	22	HRC
J-16	22	HRC
J-18	21	HRC
J-20	21	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 fulfills requirements in such respect. 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 melted and manufactured in the USA.
Prepared by the office of: James C. Cash, Director, Quality Assurance Hot Rolled Bar Division, dated: 04/05/2000
This Report May Not Be Reproduced Except In Full
UQS020 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 public requirements in each respect. 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 melted and manufactured in the USA.

Prepared by the office of: James C. Cash, 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

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

Dave Gehris/mk

David Gehris, QUALITY CONTROL

- Specializing in Hot Dip Galvanizing -

Sep 23 08 11:02a

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 F606/F606M, ASTM A370, ASTM E18

Chemical Composition (%)

Mill Maker	Material Size	Heat No. / Spec.	C	Si	Mn	P	S	Cu	Ni	Cr	Mo	
			0.20		MIN.	MAX.	MAX.					
NUSTEEL	CARBON STEEL	M25706	0.55 0.46	- 0.26	0.60 0.81	0.040 0.010	0.050 0.033	- 0.12	- 0.05	- 0.11	- 0.02	-

Mechanical Property Inspection

Item	Proof Load	Cone Stripping	Hardness	Hardness	Absorbed Energy
Spec.	145,350 lbf	- kN • kgf • lbf	24-38 HxC	HxB • HB	J • kgfm • ftlbf
	n	n			
Results	5	-	28.7 30.0 29.8 29.7 29.3 29.5		
	Results	Results			
	GOOD	-		Hardness Treatment After 24 Hr.X °F (°C)	

Heat Treatment

T:MIN.800 F

Q:FORGING Q (W.Q.)

T:1193 F/45M. (W.C.

Q : Quenching
T : Tempering
ST : Solution Treatment

Shape & Dimension Inspection	ANSI B18.2.2 GOOD
Thread Precision Inspection	ANSI B1.1 CLASS 2B GOOD
Appearance Inspection	GOOD

Remarks:

" DH U"

Production Quantity
21,454 pcs.

OFFICIAL SEAL
JEAN MARGHERIO
NOTARY PUBLIC - STATE OF ILLINOIS
MY COMMISSION EXPIRES:10/19/09
11-16-07

S25205

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

502523

MACSTEEL®
Quanex

MacSteel
ONE 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
0.46	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
	S	R	C	
AVERAGE	1	1	1	NONE

DECARB SPECIFICATION ASTM E1077

F TOTAL= 0.006

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

502523

MACSTEEL
Quanex

MacSteel
ONE 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

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. **

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

502523

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

OFFICIAL SEAL
JUDITH A FEROLIE
NOTARY PUBLIC - STATE OF ILLINOIS
MY COMMISSION EXPIRES:01/07/08

ROGERS BROTHERS, INC. 1925 KISHWAUKEE STREET, ROCKFORD, ILLINOIS 61104-5197 PHONE: 815/965-5132 FAX: 815/965-3765
E-MAIL: rogersbros@rworld.com

Union Metal CORPORATION

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	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	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.

16th 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.

By

October 17, 2010
My commission expires

Notary Public

JENNIFER WAGNER, NOTARY PUBLIC STATE OF OHIO

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

Union Metal CORPORATION

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	4157113			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

January 31, 2010
MY COMMISSION EXPIRES

RENE L. GROSSMAN NOTARY PUBLIC STATE OF OHIO

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

PRODUCT CERTIFICATION

WORK ORDER LOT NUMBER
FC2870 4188548

SALES ORDER / RLS
411211 / 1

ArcelorMittal Cleveland Inc.

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.	CUSTOMER PART	QUANTITY	COILS	LADING NO	SHIPMENT DATE
18594-11	**3GA62-1/2-UMS28/R0**	**41,920 LBS**	**1**	**01268789**	**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	Mn	P	S	Si	Cu	Ni	Cr	Mo	Sn	Al
0.2000	0.8000	0.0150	0.0060	0.0200	0.0400	0.0100	0.0300	0.0100	0.0070	0.0520

V	Cb	N	B	Ti	Sb	Ca
0.0020	0.0000	0.0042	0.0000	0.0020	0.0020	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

Union Metal CORPORATION

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	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	.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

October 17, 2010
MY COMMISSION EXPIRES

JENNIFER WAGNER NOTARY PUBLIC STATE OF OHIO

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

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.

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.	CUSTOMER PART	QUANTITY	COILS	LADING NO	SHIPMENT DATE
18594/13	**7GA36-UMS28/R0**	**35,890 LBS**	**1**	**01271956**	**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

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 SOO75SCH40-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 05/28/08
CERTIFICATION OF TESTS Page 2 of 3

BULL MOOSE TUBE COMPANY

1819 Clarkson Rd.
Chesterfield, Missouri 63017

BILL TO Tubular Steel, Inc.
Attn: Accounts Payable
1031 Executive Parkway Drive
St. Louis MO 63141-6351

SHIP TO Tubular Steel, Inc.
1700 Tubular Steel Road
Sikeston IL 62089-1076

B/L Number 166509 Ship Via 35_F35

1.05" X 0.109 HR X 21' 5"
26.7 mm
ASTM A500-03 Grade B Melted & Manufactured in the USA
Ladle Analysis and Physicals
Ticket # = 13047676 Heat # = E81853

Order # 247728
Purchase Order # 2349
Item # 135735 0672
P

C	MN	P	S	AL	SI	CB	CU	CR	NI	VA	YLD psi	TSN psi	ELN %
.170	.400	.007	.006	.037	.012	0.000	0.000	0.000	0.000	0.000	70169	74915	37

1.05" X 0.109 HR X 21' 5"
26.7 mm
ASTM A500-03 Grade B
Ladle Analysis and Physicals
Ticket # = 13047672 Heat # = E81385

Order # 247728
Purchase Order # 2349
Item # 135735 0672
P

C	MN	P	S	AL	SI	CB	CU	CR	NI	VA	YLD psi	TSN psi	ELN %
.160	.410	.015	.001	.032	.027	0.000	0.000	0.000	0.000	0.000	71428	77408	30

1.05" X 0.109 HR X 21' 5"
26.7 mm
ASTM A500-03 Grade B
Ladle Analysis and Physicals
Ticket # = 13047670 Heat # = C45801

Order # 247728
Purchase Order # 2349
Item # 135735 0672
P

C	MN	P	S	AL	SI	CB	CU	CR	NI	VA	YLD psi	TSN psi	ELN %
.050	.390	.020	.006	.026	.020	0.000	0.000	0.000	0.000	0.000	56722	58243	31

1.05" X 0.109 HR X 21' 5"
26.7 mm
ASTM A500-03 Grade B
Ladle Analysis and Physicals
Ticket # = 13047671 Heat # = E81396

Order # 247728
Purchase Order # 2349
Item # 135735 0672
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	72986	78859	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

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
134 Mill Street
PO Box 459
Sharon, PA 16146
(800) 248-8119
(724) 983-1031 (fax)

PRODUCT CERTIFICATION

HEAT NUMBER
tcp5b46399
SALES ORDER
151566

SOLD TO

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

SHIP TO

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

CUSTOMER P.O.	CUSTOMER PART	QUANTITY	BNDLS	LADING NO	SHIPMENT DATE
2413		192 Pcs	2	00002616	03/27/2006

SPECIFICATION **CSP0840XhSoPe21**
1/2", XH, Sol, 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	.042	.013	.020	.022	.004	.001

Sn	SUM	CE
.001	.050	.200

Pipe Mechanical Test Results

	Yield,PSI	Tensile,PSI	Elong,%-2"	Y/T Ratio	Hard,HRb	Hydro,PSI	Bend 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 10474/DIN 50049. 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.

Union Metal
CORPORATION

MATERIALS MELTED AND MANUFACTURED IN THE USA

CERTIFIED TEST REPORT

1/4" PLATE
MEETS OR EXCEEDS ASTM A36
TESTED TO ASTM A6

DATE	CYCLE NO.	CUSTOMER ORDER NO.
10-13-08		

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. IN 2"	% ELONG. IN 8"	BEND TEST	%RED AREA	TEST NO
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

MY COMMISSION EXPIRES January 31, 2010

RENE L. GROSSMAN, NOTARY PUBLIC STATE OF OHIO

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:

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

PRODUCT CERTIFICATION

WORK ORDER LOT NUMBER
FB7019 4157582

SALES ORDER / RLS
389908 / 1

ArcelorMittal Cleveland Inc.

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.	CUSTOMER PART	QUANTITY	COILS	LADING NO	SHIPMENT DATE
16265-18	**3GA55-1/2-UMS28/R0**	**48,990 LBS**	**1**	**01200751**	**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	Mn	P	S	Si	Cu	Ni	Cr	Mo	Sn	Al
0.2200	0.7000	0.0060	0.0070	0.0200	0.0500	0.0200	0.0300	0.0100	0.0110	0.0620

V	Cb	N	B	Ti	Sb	Ca
0.0000	0.0000	0.0035	0.0001	0.0010	0.0030	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

A6384-64 30E

12-Cons.

BL 67806

NUCOR
PLATE MILL

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

Mill Test Report

Page 1

NUCOR
It's our Nature.

Issuing Date : 10/16/2008 B/L No. : 216368 Load No. : 217370 Our Order No. : 66562/1 Cust. Order No. : 10-34891-UM

Vehicle No: 7334

Specification : 0.3750" x 96.000" x 120.000"
ASTM A36-08/ASTM A709 Grade 36-07/ASME SA36-03a

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

	Tensile Test							Charpy Impacts											
Plate Serial No	Pieces	Tons	Dir.	(psi) Yield	(psi) Tensile	Elongation % in 2"	Elongation % in 8"	Dir.	(ft-lbs) 1	(%) shear	(ft-lbs) 2	(%) shear	(ft-lbs) 3	(%) shear	(ft-lbs) Ave.	(%) shear	Size	Temp (°F)	Min Ave.
8107869-08	15	9.18	T	45,800	71,000		25.8	H-L	76.9		63.0		60.6		66.8		10mm	40	15
			T	43,600	68,200		24.6												
8107869-09	22	13.47	T	45,800	71,000		25.8	H-L	76.9		63.0		60.6		66.8		10mm	40	15
			T	43,600	68,200		24.6												

AMY G REILLY
NOTARY
My Comm. Expires
June 9 2013
STARK COUNTY, OH

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-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 = C+(Si/30)+(Mn/20)+(Cu/20)+(Ni/60)+(Cr/20)+(Mo/15)+(V/10)+5B
Melted and manufactured in the USA. ISO 9001-2000 certified (#12443-0) by SRI Quality System Registrar (#0985-09). PED 97/23/EC 7/2 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 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. Depretis

10/16/2008 2:31:15 PM

T. A. Depretis, Metallurgist

TEST CERTIFICATE

ARCELORMITTAL PLATE LLC

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

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

SEND TO: 01-N

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

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-QE CERT. NO. 30130

CHEMICAL COMPOSITION

		C	MN	P	S	CU	SI	NI	CR	MO
MELT:T1668	(2)	.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 DAY OF 09/12/08

NOTARY PUBLIC

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 Zaplitny
SUPERVISOR - TEST REPORTING
ELINORE ZAPLITNY

A441 96
A36/A5-36/07
Universal Consignment
B/L 6789

Tensile Testing
Metallurical Laboratory
Phn: 216.641.3290
Fax: 216.641.3291

CHARPY WORKSHEET

JA8337-301

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

12-35108

	Size	Temp	Ft_lbs	Lat Exp	%Shear	P/F
7/A4390E 01	Full	+40 F	68			PASS
			93			
			25			
		Avg	62			
8/A4387E 01	Full	+40 F	57			PASS
			48			
			15			
		Avg	40			
8/A4439E 01	Full	+40 F	44			PASS
			76			
			52			
		Avg	57			
6/A4365E 01	Full	+40 F	40			PASS
			72			
			75			
		Avg	62			
5/A4633E 01	Full	+40 F	72			PASS
			54			
			53			
		Avg	60			

Union Metal
Consignment
B/L 67840

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

-1204

page 1

DEC 05 '00 08:58 FROM:KENILWORTH STEEL INC 1-330-399-3184 T-714 P.01 F-684

RYERSON
196 Bell Avenue
CARNEGIE, PA 15106

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

11/09/2007

Authorized Agent of Ryerson

010104

GERDAU AMERISTEEL

005837

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

Chemical and Physical Test Report

MADE IN CANADA

SHIP TO	INVOICE TO	SHIP DATE
RYERSON TULL 5 CLINTON STREET 314-231-1020 ST LOUIS, MO 63102	RYERSON TULL PROCUREMENT/CHIC P.O. BOX 8000 A CHICAGO, IL 60680	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 %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: 010104

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.	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Nb	Sn
N541524	.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 & SON, INC.
RECEIVING DEPT.
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 TO: YOUNGSTOWN PIPE & SUPPLY INC
4100 LAKE PARK RD
PO BOX 3467
YOUNGSTOWN, OH 44513-0000

SHIP TO: YOUNGSTOWN PIPE
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.

NBMG-05 May 16, 2008

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

YOUNGSTOWN PIPE & SUPPLY INC.
PHONE# 330.783.2700
THESE TESTS REPORTS APPLY TO:
SOLD TO: Weld Metal
YOUR P.O. # 18823
YS&S O.M. # 56143
SIGNED BY YPaS

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

QUALITY ASSURANCE: Jim Biernat

003
YOUNGSTOWN PIPE
10/06/08 15:42 FAX 330 783 2985

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

Steel Dynamics®
Roanoke Bar Division

YOUNGSTOWN PIPE & SUPPLY INC
PHONE# 330.783.2700
THESE TESTS REPORTS APPLY TO:
SOLD TO: Union Mfg
YOUR P.O. # 15185
Y&S O.M. # 57383
SIGNED BY Y&S Tom

Test and Inspection Report 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
Metallurical Laboratory
Phn: 216.641.3290
Fax: 216.641.3291

CHARPY WORKSHEET

JA8310-718

YOUNGSTOWN PIPE & SU
Attn: MIKE MONTLER
Phn: 330-744-2222
Fax: 330-744-8480

SB 80072-M

	Size	Temp	Ft_lbs	Lat Exp	%Shear	P/F
/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			
/A6L861 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: Willow Metal
YOUR P.O. # 19185 57383
YP&S O.M. # Copy
TAGGED BY YP&S

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

-1207

RYERSON
196 Bell Avenue
CARNEGIE, PA 15106

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

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

CERTIFIED TEST REPORT

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	%
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	
		LENGTH	ELONG	PIN. DIA	R.A.

CHARPY IMPACT TEST

TEMP. F	FT./LB.	SUBSIZE SPECIMEN SAMPLE

Grain Size	Reduction Ratio	As Rolled Hardness	D.I.	C.E.	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

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

JIM BIERNAT, METALLURGIST
STATE OF NEW YORK ss.
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

(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

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

BB/00625
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	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

ISO/TS 16949:2002 Registered IST

Order Details

Part Number:	F0114	Blue Print Rev:	1279
Packing Slip:	4444 .	Material Type:	1030 -1050
Purchase Order:		Quantity:	40,029
IST Order Number:	634940-1	Net Weight:	5,404.0
Lot Number:	1207-813	Part Desc:	WASHER
Heat Number:		Comments:	4 TUB #401,712,100,523 1395,1528,1557,1610,1652 11117,13026,13377

SPECIFICATIONS	RESULTS
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.

4148

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: 11/26/07 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

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 FG SPECIFIED HARDNESS NON-TEMPER ROLLED REST THICK REST CHEM	
2	.136M P008M000 X 37.000 ME X COILS COIL WGT 30000MN/37000MX	
	HEAT-NO 2141028 K925001 COIL NUMBERS	

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

So1668

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
105,726	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

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

ROGERS BROTHERS, INC. 1925 KISHWAUKEE STREET, ROCKFORD, ILLINOIS 61104-5197 PHONE: 815/965-5132 FAX: 815/965-3765
E-MAIL: rogersbros@rrworld.com

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

S02127

HEAT TREAT CERTIFICATION

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

Certification Date:
05/07/2008

Page: 1 of 1

ISO/TS 16949:2002 Registered IST

Order Details

Part Number:	F0200	Blue Print Rev:	1279
Packing Slip:	4512	Material Type:	1030 -1050
Purchase Order:		Quantity:	3,496
IST Order Number:	694460-1	Net Weight:	1,346.0
Lot Number:	0508-023	Part Desc:	WASHER
Heat Number:	2131928	Comments:	1 TUB #820 4319,4446,9039,2276,90012 92759

SPECIFICATIONS	RESULTS
HRC 38 - 45	HRC 41 - 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@indsl.com

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

4329

502127

760602

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

PAGE 1 of 1

MELTED AND MANUFACTURED IN USA

PURCHASE ORDER:
01/11/08 004183-5

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

C E R T I F I C A T E O F T E S T S

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.

03:15:28

Item	Specification and Description
	HR SHEET HI-CARBON SAE-1050 AK FG SPECIFIED HARDNESS NON-TEMPER ROLLED REST THICK REST CHEM T/R
1	.189M P010M300 X 39.000 ME X COILS COIL WGT 30000MN/39000MX

COIL NUMBERS

HEAT-NO
2131928 C186101
2142175 C186401

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	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			

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

S02127

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.

PIECES	PART# & SIZE	LOT NUMBER	AVERAGE ZINC COATING IN MILS.
39,272	BBW-S00 1-3/4"	0108-868	3.92
257,500	F0012 ½"	0508-029	3.33
52,750	F0012 ½"	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 ¾"	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

ROGERS BROTHERS, INC. 1925 KISHWAUKEE STREET, ROCKFORD, ILLINOIS 61104-5197 PHONE: 815/965-5132 FAX: 815/965-3765
E-MAIL - rogersbros@rworld.com

INSPECTION CERTIFICATE

Customer	Specification	Size	Lot No.	Date
DALLAS FASTENER, INC. 1041 AVENUE M GRAND PRAIRIE, TEXAS 75050	ASTM A-563 GRADE DH HEAVY HEX NUT	H.D.G. 5/8-11 UNC 0.020" BLUE DYE	AC821	Apr. 12,'06

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 (%)

Mill Maker	Material Size	Heat No. / Spec.	C	Si	Mn	P	S	Cu	Ni	Cr	Mo	
			0.20		MIN.	MAX.	MAX.					
REP	CARBON		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
Spec.	33,900 lbf	- kN • kgf • lbf	24-38 HRC	HRB • HB	J • kgfm • ftlbf
	n	n			
Results	5	-	27.5 27.4 27.8 29.0 29.0 28.1		
	Results	Results			
	GOOD	-		Hardness Treatment After 24 Hr.X °F (°C)	

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

Heat Treatment

T:MIN.800° F

Q:FORGING Q
(W.Q.)

T:1004° F/45M.
(W.C.

Q : Quenching
T : Tempering
ST : Solution Treatment

Shape & Dimension Inspection	ANSI B18.2.2 GOOD
Thread Precision Inspection	ANSI B1.1 CLASS 2B GOOD
Appearance Inspection	GOOD

Remarks:

" DH U"

Production Quantity
22,750 pcs.

UMC # 501418

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

Sep 23 08 10:26a

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 ADC-81 Valid to October 31, 2001

UMC # 501418

METALLURGICAL TEST REPORT

Sales Order No.:	Delivery No. (BOL):	Vehicle ID(Carrier):	Purchase Order No.:	P.O.Date:
8116459			20421	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 SI.15/.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 POR INFO ONLY

Customer Information
4120

MATERIAL INFORMATION

Item No.	Material No.	Material Description	Heat
000001	0015213	0.859"	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	%
Sn	0.001	%
Al	0.035	%
V	0.005	%
Cb	0.001	%

C,S,N Determined by methods defined in ASTM E1019-94.
Pb and Bi Determined by methods defined in ASTM E1085-95.
All other elements determined by methods defined in ASTM E415-99.

DILUTED

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
Cast Test

J-Pt.	Result	UOM
J-1	43	HRC
J-2	43	HRC
J-3	39	HRC
J-4	34	HRC
J-5	30	HRC
J-6	29	HRC
J-7	27	HRC
J-8	26	HRC
J-9	25	HRC
J-10	25	HRC
J-11	24	HRC
J-12	23	HRC
J-13	22	HRC
J-14	22	HRC
J-15	22	HRC
J-16	22	HRC
J-18	21	HRC
J-20	21	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 buyers requirements in such respect. 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 melted and manufactured in the USA.
Prepared by the office of: James C. Cash, Director, Quality Assurance Hot Rolled Bar Division, dated: 04/05/2000

This Report May Not Be Reproduced Except In Full
UQS020 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.:	Delivery No. (BOL):	Vehicle ID(Carrier):	Purchase Order No.:	P.O.Date:
8116459			20421	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/or requirements in each respect. The results in this report are applicable only to the heat 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 melted and manufactured in the USA.

Prepared by the office of: James C. Cash, 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

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

Dave Gehris/mk

David Gehris, QUALITY CONTROL

- Specializing in Hot Dip Galvanizing -

Sep 23 08 11:02a

502523

MACSTEEL®
Quanex

MacSteel
ONE 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
0.46	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
	S	R	C	
AVERAGE	1	1	1	NONE

DECARB SPECIFICATION ASTM E1077

F TOTAL= 0.006

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

502523

MACSTEEL®
Quanex

MacSteel
ONE 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

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. **

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

502523

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

OFFICIAL SEAL
JUDITH A FEROLIE
NOTARY PUBLIC - STATE OF ILLINOIS
MY COMMISSION EXPIRES:01/07/08

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