

MONOKO, LLC

1037 Peninsula Avenue

Tarpon Springs, FL 34689-2125

E-mail Address: MonokoLLC@aol.com

(727) 940-3244

(727) 279-8795 Fax

Submittal No.: 15: Type D Certs, Structural Steel, Brdgs 11 & 56C

Date: June 20, 2016

Vermont Department of Transportation

Southwest Regional Construction Office

Attn: Mr. Mark H. Mackintosh, P.E., Regional Construction Engineer

61 Valley View

Mendon, VT 05701

(Phone) (802) 773-1384; (Fax) (802) 786-5894

Mark.Mackintosh@Vermont.gov

Description: Proposal/Contract Number: Bennington-Mt Tabor BF BPNT (16)

Letting Date: 06/05/15; Award Date: 07/01/15

Project Description: Bridge Painting of Five Bridges

In the Towns of Bennington & Mt. Tabor, VT

Contract Amount: \$2,122,323.00; Completion Date: 09/02/16

Contractor: **MONOKO, LLC**

Reviewed & Approved By: *Keri Monokandilos*

Keri Monokandilos, Manager

Date: **06/20/2016**

Engineer: Tim Pockette, P.E., Resident Engineer

61 Valley View

Mendon, VT 05701

802-773-1384

802-786-3811 office

802-793-4027 cell

Emails go to: tim.pockette@vermont.gov

mark.mackintosh@vermont.gov

mark.sargent@vermont.gov

dspruit@gpinet.com

Revision:

Vermont Agency of Transportation
Certification & Independent Assurance Unit
Type "D" record of certification from manufacturer

Name of Manufacturer: NUCOR STEEL DYNAMICS INDUSTRY TUBE
P.O. BOX 2259 P.O. BOX 13948 5226 W. 74TH ST.
Address: MT. Pleasant, S.C. 29405 ROCKWELL, VA CHICAGO, IL

We hereby certify: STRUCTURAL STEEL (US 7 - BRIDGE NO. 11)

714.03 High-Strength Low Alloy Steel

In the quantity of: 1.00 LS (Plan Quantity)

Furnished by: CONSTAT STEEL SERVICE 423 A.E. MAIN SEVENTH POVT, ME 04974

For use on: 13B120 0030 BENNINGTON-MT. TABOR BF BPNT(16)
(RE-ADVERTISED)

Identified by: HT# 1506615, 1506618 JK 3414 440055

Conforms to all requirements of the State of Vermont Agency of Transportation 2011 standard specifications, pertinent project plans, and special provisions for the above stated contract for item or items listed as follows: 506.75 and that processing, product testing and inspection control of raw materials are in conformity with all applicable specification, drawings and/or standards of all materials furnished.

Subscribed and sworn to before me

By:

Richard F. Williams
(Signature of Authorized Representative)

this 15 day of June 20 16

Name:

Richard F Williams
(Type or Print)

Colin B Whalen
(Notary Public)

Title:

Pres
(Company Status or Affiliation)

Commission Expiring on

Colin B Whalen
Notary Public - State Of Maine
My Commission Expires September 5, 2019

Certifications for materials requiring a type "C" or "D" certification, when specified by contract provisions, must be accompanied by mill test reports showing chemical and physical analyses.

This certification is to be completed by the manufacturer of the materials and not by the supplier or dealer. This certification is to be sent to:

Vermont Agency of Transportation
Materials Section
2178 Airport Rd, Unit B
Berlin, VT 05641



Independence Tube

6226 W. 74th St
Chicago, IL 60636
708-486-0380
Fax: 708-583-1950

independencetube.com
itctube.com
Certificate Number: MAR 302195

Sold By:
INDEPENDENCE TUBE CORPORATION
8226 W. 74th St.
Chicago, IL 60636
Tel: 708-486-0380
Fax: 708-583-1950

Purchase Order No: NE-480781
Sales Order No: MAR 288614 - 13
Bill of Lading No: MAR 167265 - B
Invoice No: MAR 659777 - 5

Shipped: 6/11/2015
Invoiced: 6/11/2015

Sold To:
214 - INFRA METALS-WALLINGFORD
55 PENT HIGHWAY
WALLINGFORD, CT 06492

Ship To:
2 - INFRA-METALS (RAIL)
55 PENT HIGHWAY
TRACK #953
WALLINGFORD, CT 06492

CERTIFICATE of ANALYSIS and TESTS

Certificate No: MAR 302195
Test Date: 6/8/2015

Customer Part No:

TUBING A500C
8" X 4" X 1/4" X 40'

Total Pieces: 8
Total Weight: 6,086

Bundle Tag	Mill	Heat	Specs	Y/T Ratio	Pieces	Weight
926857	39	440055	YLD=63600/TEN=77050/ELG=30.4	0.8254	8	6,086

Mill # 39 Heat # 440055 Carbon Eq. 0.3597 Heat Src Origin: MELTED AND MANUFACTURED IN THE USA

C	Mn	P	S	Si	Al	Cu	Cr	Mo	V	Ni	Cb
0.2100	0.8400	0.0160	0.0050	0.0200	0.0500	0.0100	0.0300	0.0100	0.0020	0.0100	0.0020

LEED Information (based on the most recent LEED information from the producing mill)

Method	Location	Recycled Content	Post Consumer	Post Industrial
BOF	Gary, IN	18.5%	4.5%	14.0%

Certification:

I certify that the above results are a true and correct copy of records prepared and maintained by Independence Tube Corporation. Sworn this day, 6/8/2015

WE PROUDLY MANUFACTURE ALL OUR PRODUCT IN THE USA. INDEPENDENCE TUBE PRODUCT IS MANUFACTURED, TESTED, AND INSPECTED IN ACCORDANCE WITH ASTM STANDARDS. MATERIAL IDENTIFIED AS A500 GRADE B(C) MEETS BOTH ASTM A500 GRADE B AND A500 GRADE C SPECIFICATIONS

Mihai (Mike) Popa, Corporate Metallurgist

- CURRENT STANDARDS:**
-A252-10
 -A500/A500M-13
 -A513-13
 -A53/A53M-12
 -A847/A847M-14
 -A1085/A1085M-15

Customer Name: COMBAT STEEL SERVICE LLC
 Customer P.O. #: 2083
 Invoice No: 735540
 Shipper No: 713572
 Heat Number: JK3414



Steel Dynamics - Roanoke Bar Division
 P.O. Box 13948 Roanoke, VA 24088
 Office: 640-342-4831 Fax: 640-342-4437

Test and Inspection Report

NO. 94030-3
 ROANOKE

INTRA-METALS CO., CT.

55 PENT HIGHWAY
 WALLINGFORD CT 6492-0000

Date: 6/04/13

HEAT NUMBER	SIZE	1-YIELD PT. KSI	ULTIMATE KSI	ELONG BEND 8 IN. TEST	GRADE						
JK3414	ANGLES 2 1/2 X 2 1/2 X 5/16	53.7	74.3	30.3	A36/A529						
PURCHASE ORDER NUMBER	NUMBER OF PIECES	2-YIELD PT. KSI	ULTIMATE KSI	ELONG BEND 8 IN. TEST	GRADE						
PK-490300	50 PIECES 40'	55.7	76.5	33.0	A36/A529						
HEAT NUMBER	SIZE	1-YIELD PT. KSI	ULTIMATE KSI	ELONG BEND 8 IN. TEST	GRADE						
JK3414	ANGLES 63.5 X 63.5 X 7.0	570.8	512.3	30.3	A36/A529						
PURCHASE ORDER NUMBER	NUMBER OF PIECES	2-YIELD PT. KSI <td>ULTIMATE KSI <td>ELONG BEND 8 IN. TEST <td>GRADE</td> </td></td>	ULTIMATE KSI <td>ELONG BEND 8 IN. TEST <td>GRADE</td> </td>	ELONG BEND 8 IN. TEST <td>GRADE</td>	GRADE						
PK-490300	50 PIECES 40'	384.6	527.5	31.0	A36/A529						
C	MM	S	P	SI	CR	MI	MO	CU	V	MS	CR
.14	1.00	.031	.010	.22	.14	.13	.04	.26	.021	.002	.61

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. 12-080QA-676

This material was melted and manufactured in the USA by basic Electric Furnace processes to meet specification: A36/A529-14 Gr50, ASTM A572-14 Gr50, A709-15A GR50 & GR50, ASME SA36-13 (S1JH13)

The tensile values stated in either inch-pound units or SI units are to be regarded as separate as defined in the ASTM specs 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: Lewis E. Leitwack Jr.



DELIVER TO: Receiving
CAMDEN YARDS STEEL COMP

Berkeley Division of NUCOR Corporation
ISO/TS 16949 Registered

METALLURGICAL TEST REPORT

P.O. Box 2259
Mt. Pleasant, SC 29465

Nucor Steel - Berkeley
a division of NUCOR corporation

Phone: 843-336-6000
Sales Fax: 843-336-6150

Issuance Date 5/23/15 MTR# 1286156 MTR BER INQUIRIES@NUCOR.COM

Sold to: M AND A HOLDINGS CO LLC
To: DBA CAMDEN YARDS STEEL CO
2500 BROADWAY DRAWER 14
CAMDEN, NJ 08104

Ship to: CAMDEN YARDS STEEL CO.
To: 2500 BROADWAY DRAWER 14
CAMDEN, NJ 08104

Ship Date 5/23/15
Bill of Lading # 1135036
Vehicle # NYC 631705

Gauge x Width .3630 MIN X 48.0000 MIN HR HOT ROLL COIL
CONVERSION TO / ASTM A36 / REV: 2014

P/O # 005821
Mill Order # 370431-11
Part # .363X48 A36

Total Wgt 186260.00 LB

Heat	C	Mn	P	S	Si	Ca	Mg	Cr	Mo	Ni	Al	V	Nb	N	Ti	B	Cu
1506615	.18	.46	.011	.003	.03	.10	.03	.03	.01	.008	.026	.002	.000	.006	.001	.000	.002
1506618	.19	.49	.017	.002	.03	.09	.03	.04	.00	.005	.024	.003	.000	.006	.001	.000	.002

Heat/Coil#	YIELD STRENGTH (ksi)		TENSILE STRENGTH (ksi)		ELONGATION (% IN 2")		HARDNESS (Rockwell B)	N Value	
	long.	trans.	long.	trans.	long.	trans.		long.	trans.
1506615-4		50.1		70.4		34	71		.18
1506615-5		50.4		70.0		35	72		.17
1506618-4		49.8		70.8		32	70		.17
1506618-5		49.1		69.3		40	76		.19

Coil (tag) 1506615-7 1506615-8
(47060.00 LB) (47120.00 LB)

Coil (tag) 1506618-1 1506618-2
(47040.00 LB) (47060.00 LB)

Mill Test Reports according to EN10204 3.1

All material is sold subject to the description, specifications and terms and conditions set forth on the face and reverse side of Nucor Steel - Berkeley's sales order acknowledgment.

Tensile Testing, when applicable, is performed in accordance with ASTM A-370 specifications. Specimen is machined to standard rectangular test configuration (Figure J of ASTM A-370) with a 2" gage length. Yield Strength is determined at 0.2% offset.

This material has been produced in compliance with the chemistry and established rolling practices of the ordered specification. If material is ordered to a chemical composition only and if physical testing is not a requirement of the customer's order, testing is not performed by the producer.

We hereby certify the above information is correct as contained in the records of the corporation.

Sevin Shero Robert Moses
Hot Mill Metallurgist Chief Metallurgist

** 100% MELTED AND MANUFACTURED IN THE USA **

Vermont Agency of Transportation
Certification & Independent Assurance Unit
Type "D" record of certification from manufacturer

Name of Manufacturer: NUCOR
Address: P.O. BOX 6100 SAINT JOE, INDIANA 46785
We hereby certify: STRUCTURAL STEEL (US 7 - BRIDGE NO. 11)
714.05 High-Strength Bolts, Nuts, And Washers
In the quantity of: 1.00 LS (Plan Quantity)
Furnished by: CRISTAL STEEL SERVICES 423 A.E. Main Seawport, ME 04974
For use on: 13B120 0030 BENNINGTON-MT. TABOR BF BPNT(16)
(RE-ADVERTISED)
Identified by: HT# NF 15102735, NF 1310377, NF 16100536, NF 1420437

Conforms to all requirements of the State of Vermont Agency of Transportation 2011 standard specifications, pertinent project plans, and special provisions for the above stated contract for item or items listed as follows: 506.75 and that processing, product testing and inspection control of raw materials are in conformity with all applicable specification, drawings and/or standards of all materials furnished.

Subscribed and sworn to before me

CBW
this 15 day of June 20 16

[Signature]
(Notary Public)

By: [Signature]
(Signature of Authorized Representative)

Name: Richard B. Dickerson
(Type or Print)

Title: Pres
(Company Status or Affiliation)

Commission Expiring on 2019
Callin B Whalen
Notary Public - State Of Maine
My Commission Expires September 5, 2019

Certifications for materials requiring a type "C" or "D" certification, when specified by contract provisions, must be accompanied by mill test reports showing chemical and physical analyses.

This certification is to be completed by the manufacturer of the materials and not by the supplier or dealer. This certification is to be sent to:

Vermont Agency of Transportation
Materials Section
2178 Airport Rd, Unit B
Berlin, VT 05641

NUCOR

FASTENER DIVISION

LOT NO.
366419A

Post Office Box 6100
Saint Joe, Indiana 46785
Telephone 260/337-1800

TEST REPORT SERIAL# FB475062
TEST REPORT ISSUE DATE 10/14/15
MANUFACTURE DATE 10/07/15
NAME OF LAB SAMPLER: DAWN LEAVITT, LAB TECHNICIAN



*****CERTIFIED MATERIAL TEST REPORT*****
PART NO. LOT NO. DESCRIPTION
160130 366419A 1/2-15 X 3 1/2 A325 HVY HEX
PLAIN ASTM F3125 TY1

--CHEMISTRY MATERIAL GRADE -1035HR
MATERIAL HEAT #CHEMISTRY COMPOSITION (WT% HEAT ANALYSIS) BY MATERIAL SUPPLIER
NUMBER NUMBER C MN P S SI NUCOR STEEL - NEBRASKA
RND30247 NF15102735 .35 .82 .009 .016 .26

--MECHANICAL PROPERTIES IN ACCORDANCE WITH ASTM A325-14
SURFACE CORE PROOF LOAD TENSILE STRENGTH
HARDNESS HARDNESS 12100 LBS 10 DEG-WEDGE
(R30N) (RC) (LBS) STRESS (PSI)
N/A 29.4 PASS 19680 138609
N/A 27.8 PASS 19560 137844
N/A 26.0 PASS 19720 138971
N/A 27.4
AVERAGE VALUES FROM TESTS
26.2 19653 138501
PRODUCTION LOT SIZE 14800 PCS

--VISUAL INSPECTION IN ACCORDANCE WITH ASTM A325-14 4 PCS. SAMPLED LOT PASSED
HEAT TREATMENT - AUSTENITIZED, OIL QUENCHED & TEMPERED (MIN 800 DEG F)

--DIMENSIONS PER ASME B18.2.6-2012
CHARACTERISTIC #SAMPLES TESTED MINIMUM MAXIMUM
Width Across Corners 8 0.995 1.001
Grip Length 8 2.45 2.47
Head Height 8 0.308 0.311
Threads 8 PASS PASS

ALL TESTS ARE IN ACCORDANCE WITH THE LATEST REVISIONS OF THE METHODS PRESCRIBED IN THE APPLICABLE SAE AND ASTM SPECIFICATIONS. THE SAMPLES TESTED CONFORM TO THE SPECIFICATIONS AS DESCRIBED/LISTED ABOVE AND WERE MANUFACTURED FREE OF MERCURY CONTAMINATION. NO HEATS TO WHICH BISMUTH, SELENIUM, TELLURIUM, OR LEAD WAS INTENTIONALLY ADDED HAVE BEEN USED TO PRODUCE THE BOLTS.
THE STEEL WAS MELTED AND MANUFACTURED IN THE U.S.A. AND THE PRODUCT WAS MANUFACTURED AND TESTED IN THE U.S.A. PRODUCT COMPLIES WITH DFARS 252.225-7014. WE CERTIFY THAT THIS DATA IS A TRUE REPRESENTATION OF INFORMATION PROVIDED BY THE MATERIAL SUPPLIER AND OUR TESTING LABORATORY. THIS CERTIFIED MATERIAL TEST REPORT RELATES ONLY TO THE ITEMS LISTED ON THIS DOCUMENT AND MAY NOT BE REPRODUCED EXCEPT IN FULL.



MECHANICAL FASTENER
CERTIFICATE NO. A2LA 0139.01
EXPIRATION DATE 12/31/15

NUCOR FASTENER
A DIVISION OF NUCOR CORPORATION

John W. Ferguson
JOHN W. FERGUSON
QUALITY ASSURANCE SUPERVISOR

NUCOR

FASTENER DIVISION

LOT NO.
332651A

Post Office Box 6100
Saint Joe, Indiana 46785
Telephone 260/337-1600

TEST REPORT SERIAL# FB417194
TEST REPORT ISSUE DATE 10/22/13
MANUFACTURE DATE 10/10/13
NAME OF LAB SAMPLER: DEANN MORENO, LAB TECHNICIAN



*****CERTIFIED MATERIAL TEST REPORT*****
PART NO. LOT NO. DESCRIPTION
160090 332651A 1/2-13 X 2 1/2 A325 HVY HX
SYRUC SCREW PLAIN

--CHEMISTRY MATERIAL GRADE -1035MR
HATERIAL HEAT **CHEMISTRY COMPOSITION (WTK HEAT ANALYSIS) BY MATERIAL SUPPLIER
NUMBER NUMBER C MN P S SI NUCOR STEEL - NEBRASKA
RH026526 NF13103377 .35 .81 .011 .013 .23

--MECHANICAL PROPERTIES IN ACCORDANCE WITH ASTM A325-10
SURFACE CORE PROOF LOAD TENSILE STRENGTH
HARDNESS HARDNESS 12100 LBS 10 DEG-WEDGE
(R30N) (RC) (LBS) STRESS (PSI)
N/A 30.4 PASS 20490 144397
N/A 50.1 PASS 20490 144645
N/A 30.5 PASS 20620 145314
N/A 30.2
AVERAGE VALUES FROM TESTS 20617 144585
30.3
PRODUCTION LOT SIZE 31000 PCS

--VISUAL INSPECTION IN ACCORDANCE WITH ASTM A325-10 4 PCS. SAMPLED LOT PASSED
HEAT TREATMENT - AUSTENITIZED, OIL QUENCHED & TEMPERED (MIN 800 DEG F)

--DIMENSIONS PER ASME B10.2.6-2012
CHARACTERISTIC #SAMPLES TESTED MINIMUM MAXIMUM
Width Across Corners 8 0.9800 0.9860
Grip Length 8 1.4370 1.4970
Head Height 8 0.5020 3.0700
Threads 8 PASS PASS

ALL TESTS ARE IN ACCORDANCE WITH THE LATEST REVISIONS OF THE METHODS PRESCRIBED IN THE APPLICABLE SAE AND ASTM SPECIFICATIONS. THE SAMPLES TESTED CONFORM TO THE SPECIFICATIONS AS DESCRIBED/LISTED ABOVE AND WERE MANUFACTURED FREE OF MERCURY CONTAMINATION. NO HEATS TO WHICH BISMUTH, SELENIUM, TELLURIUM, OR LEAD WAS INTENTIONALLY ADDED HAVE BEEN USED TO PRODUCE THE BOLTS. THE STEEL WAS MELTED AND MANUFACTURED IN THE U.S.A. AND THE PRODUCT WAS MANUFACTURED AND TESTED IN THE U.S.A. PRODUCT COMPLIES WITH DFARS 252.225-7014. WE CERTIFY THAT THIS DATA IS A TRUE REPRESENTATION OF INFORMATION PROVIDED BY THE MATERIAL SUPPLIER AND OUR TESTING LABORATORY. THIS CERTIFIED MATERIAL TEST REPORT RELATES ONLY TO THE ITEMS LISTED ON THIS DOCUMENT AND MAY NOT BE REPRODUCED EXCEPT IN FULL.



MECHANICAL FASTENER
CERTIFICATE NO. A2LA 0159.01
EXPIRATION DATE 12/31/13

NUCOR FASTENER
A DIVISION OF NUCOR CORPORATION

John W. Ferguson
JOHN W. FERGUSON
QUALITY ASSURANCE SUPERVISOR

NUCOR

FASTENER DIVISION

LOT NO.
353075A

Post Office Box 5100
Saint Joe, Indiana 46785
Telephone 260/337-1600

TEST REPORT SERIAL# F8445479
TEST REPORT ISSUE DATE 12/08/14
MANUFACTURE DATE 11/26/14
NAME OF LAB SAMPLER: RYAN UNGER, LAB TECHNICIAN



*****CERTIFIED MATERIAL TEST REPORT*****

PART NO. LOT NO. DESCRIPTION
160120 353075A 1/2-13 X 5 1/4 A325 HVY HX
STRUC SCREW PLAIN

--CHEMISTRY MATERIAL GRADE - 1035HR
MATERIAL HEAT #CHEMISTRY COMPOSITION (WT% HEAT ANALYSIS) BY MATERIAL SUPPLIER
NUMBER NUMBER C Mn P S SI NUCOR STEEL - NEBRASKA
RM029537 NF14204257 .34 .78 .005 .019 .24

--MECHANICAL PROPERTIES IN ACCORDANCE WITH ASTM A325-10
SURFACE CORE PROOF LOAD TENSILE STRENGTH
HARDNESS HARDNESS 12100 LBS 10 DEG-WEDGE
(R50H) (RC) (LBS) STRESS (PSI)
N/A 27.9 PASS 20100 141649
N/A 30.3 PASS 19870 140028
N/A 30.7 PASS 20100 142213
N/A 29.9
AVERAGE VALUES FROM TESTS
29.7 20050 141297
PRODUCTION LOT SIZE 17000 PCS

--VISUAL INSPECTION IN ACCORDANCE WITH ASTM A325-10 4 PCS. SAMPLED LOT PASSED
HEAT TREATMENT - AUSTENITIZED, OIL QUENCHED & TEMPERED (MIN 800 DEG F)

--DIMENSIONS PER ASME B18.2.4-2012
CHARACTERISTIC #SAMPLES TESTED MINIMUM MAXIMUM
Width Across Corners 8 0.987 0.995
Grip Length 8 2.24 2.25
Head Height 8 0.314 0.321
Threads 8 PASS PASS

ALL TESTS ARE IN ACCORDANCE WITH THE LATEST REVISIONS OF THE METHODS PRESCRIBED IN THE APPLICABLE SAE AND ASTM SPECIFICATIONS. THE SAMPLES TESTED CONFORM TO THE SPECIFICATIONS AS DESCRIBED/LISTED ABOVE AND WERE MANUFACTURED FREE OF MERCURY CONTAMINATION. NO HEATS TO WHICH BISMUTH, SELENIUM, TELLURIUM, OR LEAD WAS INTENTIONALLY ADDED HAVE BEEN USED TO PRODUCE THE BOLTS. THE STEEL WAS MELTED AND MANUFACTURED IN THE U.S.A. AND THE PRODUCT WAS MANUFACTURED AND TESTED IN THE U.S.A. PRODUCT COMPLIES WITH DFARS 252.225-7016. WE CERTIFY THAT THIS DATA IS A TRUE REPRESENTATION OF INFORMATION PROVIDED BY THE MATERIAL SUPPLIER AND OUR TESTING LABORATORY. THIS CERTIFIED MATERIAL TEST REPORT RELATES ONLY TO THE ITEMS LISTED ON THIS DOCUMENT AND MAY NOT BE REPRODUCED EXCEPT IN FULL.



MECHANICAL FASTENER
CERTIFICATE NO. A2LA 0139.01
EXPIRATION DATE 12/31/15

NUCOR FASTENER
A DIVISION OF NUCOR CORPORATION

John W. Ferguson
JOHN W. FERGUSON
QUALITY ASSURANCE SUPERVISOR

FASTENER DIVISION

TEST REPORT SERIAL# FB492529
 TEST REPORT ISSUE DATE 4/15/16
 MANUFACTURE DATE 3/23/16
 NAME OF LAB SAMPLER: DAWN LEAVITT, LAB TECHNICIAN



*****CERTIFIED MATERIAL TEST REPORT*****

PART NO. LOT NO. DESCRIPTION
 160087 374107A 1/2-13 X 2 1/4 A325 HVY HX HDG
 ASTM F3125 TY1

--CHEMISTRY MATERIAL GRADE -1035HR
 MATERIAL HEAT **CHEMISTRY COMPOSITION (WTT% HEAT ANALYSIS) BY MATERIAL SUPPLIER
 NUMBER NUMBER C MN P S SI NUCOR STEEL - NEBRASKA
 RH030633 NF16100536 .34 .77 .012 .011 .26

--MECHANICAL PROPERTIES IN ACCORDANCE WITH ASTM F3125-15a
 SURFACE CORE PROOF LOAD TENSILE STRENGTH
 HARDNESS HARDNESS 12100 LBS LO DEG-WEDGE
 (R50N) (RC) (LBS) STRESS (PSI)
 N/A 29.5 PASS 20150 141901
 N/A 29.2 PASS 20240 142535
 N/A 50.1 PASS 20290 142887
 N/A 29.4
 AVERAGE VALUES FROM TESTS
 29.5 20227 142441
 PRODUCTION LOT SIZE 22000 PCS

--VISUAL INSPECTION IN ACCORDANCE WITH ASTM F3125-15a 4 PCS. SAMPLED LOT PASSED

--COATING - HOT DIP GALVANIZED TO ASTM F2329-13 - GALVANIZING PERFORMED IN THE U.S.A.
 1. 0.00315 2. 0.00285 3. 0.00280 4. 0.00359 5. 0.00347 6. 0.00471 7. 0.00248
 8. 0.00364 9. 0.00284 10. 0.00287 11. 0.00315 12. 0.00359 13. 0.00277 14. 0.00366
 15. 0.00278
 AVERAGE THICKNESS FROM 15 TESTS .00327
 HEAT TREATMENT - AUSTENITIZED, OIL QUENCHED & TEMPERED (MIN 800 DEG F)

--DIMENSIONS PER ASME B18.2.6-2012
 CHARACTERISTIC #SAMPLES TESTED MINIMUM MAXIMUM
 Width Across Corners 8 0.984 0.991
 Grip Length 8 1.22 1.24
 Head Height 8 0.314 0.319
 Threads 8 PASS PASS

ALL TESTS ARE IN ACCORDANCE WITH THE LATEST REVISIONS OF THE METHODS PRESCRIBED IN THE APPLICABLE SAE AND ASTM SPECIFICATIONS. THE SAMPLES TESTED CONFORM TO THE SPECIFICATIONS AS DESCRIBED/LISTED ABOVE AND WERE MANUFACTURED FREE OF MERCURY CONTAMINATION. NO HEATS TO WHICH BISMUTH, SELENIUM, TELLURIUM, OR LEAD WAS INTENTIONALLY ADDED HAVE BEEN USED TO PRODUCE THE BOLTS. THE STEEL WAS MELTED AND MANUFACTURED IN THE U.S.A. AND THE PRODUCT WAS MANUFACTURED AND TESTED IN THE U.S.A. PRODUCT COMPLIES WITH DFARS 252.225-7014. WE CERTIFY THAT THIS DATA IS A TRUE REPRESENTATION OF INFORMATION PROVIDED BY THE MATERIAL SUPPLIER AND OUR TESTING LABORATORY. THIS CERTIFIED MATERIAL TEST REPORT RELATES ONLY TO THE ITEMS LISTED ON THIS DOCUMENT AND MAY NOT BE REPRODUCED EXCEPT IN FULL.



MECHANICAL FASTENER
 CERTIFICATE NO. A2LA 0159.01
 EXPIRATION DATE 12/31/17

NUCOR FASTENER
 A DIVISION OF NUCOR CORPORATION

John W. Ferguson
 JOHN W. FERGUSON
 QUALITY ASSURANCE SUPERVISOR

INDIANA GALVANIZING, LLC

Hot-Dip Galvanizing
51702 Lovejoy Dr.
Middlebury IN, 46540
Phone: 574-822-9102 Fax: 574-822-9106

Customer
NUCOR FASTENER
6730 CR 60
Saint Joe, IN 46785

PO: 159520

Hot-Dip Galvanizing Certification

Indiana Galvanizing certifies that samples representing listed lot(s) have been tested and inspected as required by applicable specifications. The results of this inspection and testing demonstrates that the requirements for ASTM F2329, including the requirements ASTM A153 that are referenced within the specification, have been met and have been galvanized in Middlebury, Indiana of the United States of America.

Kettle Temperature (Must be between 815 and 850 Degrees Fahrenheit) 840

Mil Readings

Lot Number	High	Low	Average	Bin Tag Verification	Nut Test
373485B	3.00	2.30	2.70	X	X
373494A	3.10	2.90	3.00	X	X
374318A	2.40	3.10	2.70	X	X
374107A	2.70	2.30	2.40	X	X
374109A	2.90	2.10	2.30	X	X
373877A	2.90	2.30	2.50	X	X



Quality Manager or Assignee



K-T Galvanizing Company, Inc.
P.O. Box 560 - 5105 East 3rd Street
Katy, Texas 77492
Ph: 281-391-9201 Fax: 281-391-5819
www.krgalvanizing.com



January 2, 2013

Gulf Coast Fasteners
P.O. Box 19331
Houston, Tx 77224

RE: CERTIFICATE OF COMPLIANCE BLANKET CERTIFICATE

To Whom It May Concern:

We certify that our Hot Dip process meets the requirements of
ASTM A153, class C specifications.

Sincerely,

Al Peck
President

AP/om

Vermont Agency of Transportation
Certification & Independent Assurance Unit
Type "D" record of certification from manufacturer

Name of Manufacturer: Independence Tube NUGOR Steel DYNAMICS
Address: 5226 W 57th St P.O. Box 2259 P.O. Box 13848
Chicago, Ill 60638 MT Pleasant, SC Rendon, VA
We hereby certify: STRUCTURAL STEEL (US 7 - BRIDGE NO. 56C) 2465
714.03 High-Strength Low Alloy Steel
In the quantity of: 1.00 LS (Plan Quantity)
Furnished by: COASTAL STEEL Services 423 E Main St
Sageport, ME 04749
For use on: 13B120 0330 BENNINGTON-MT. TABOR BF BPNT(16)
Identified by: HT# 342861 (RE-ADVERTISED)
1506615, 1506618

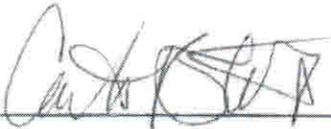
Conforms to all requirements of the State of Vermont Agency of Transportation 2011 standard specifications, pertinent project plans, and special provisions for the above stated contract for item or items listed as follows: 506.75 and that processing, product testing and inspection control of raw materials are in conformity with all applicable specification, drawings and/or standards of all materials furnished.

Subscribed and sworn to before me

By: 
(Signature of Authorized Representative)

this 15 day of June 20 16

Name: Richard B Baker
(Type or Print)


(Notary Public)

Title: Pres.
(Company Status or Affiliation)

Commission Expiring on Callin B Whalen
Notary Public - State Of Maine
My Commission Expires September 5, 2019

Certifications for materials requiring a type "C" or "D" certification, when specified by contract provisions, must be accompanied by mill test reports showing chemical and physical analyses.

This certification is to be completed by the manufacturer of the materials and not by the supplier or dealer. This certification is to be sent to:

Vermont Agency of Transportation
Materials Section
2178 Airport Rd, Unit B
Berlin, VT 05641

Customer Name: COASTAL STEEL SERVICE LLC
 Customer PO#: 2083
 Invoice No: 732340
 Shipper No: /13572
 Heat Number: JK3414



Steel Dynamics - Roanoke Bar Division
 P.O. Box 13848 Roanoke, VA 24088
 Office: 540-342-4831 Fax: 540-342-9437

Test and Inspection Report

NO. 94030-3
 ROANOKE

INERA-METALS CO.-CT.

55 FENT HIGHWAY
 WALLINGFORD CT 6492-0000

Date: 6/04/15

WRA7 NUMBER	SIZE	1-YIELD FT. KSI	ULTIMATE KSI	ELONG 8 IN. TEST	HEAD GRADE						
JK3414	ANGLES 2 1/2 X 2 1/2 X 5/16	53.7	74.3	30.3	A36/A529						
PURCHASE ORDER NUMBER	NUMBER PIECES	3-YIELD FT. KSI	ULTIMATE KSI	ELONG 8 IN. TEST	HEAD GRADE						
JK-490300	50 PIECES 40'	55.7	76.5	31.0	A36/A529						
WRA7 NUMBER	SIZE	1-YIELD FT. KSI	ULTIMATE KSI	ELONG 20 3/8 IN. TEST	HEAD GRADE						
JK3414	ANGLES 63.5 X 63.5 X 7.9	370.0	512.3	30.3	A36/A529						
PURCHASE ORDER NUMBER	NUMBER PIECES	3-YIELD FT. KSI	ULTIMATE KSI	ELONG 20 3/8 IN. TEST	HEAD GRADE						
JK-490300	50 PIECES 40'	386.0	527.5	31.0	A36/A529						
C	MN	P	SI	CR	NI	MO	CU	V	NB	CR	
.14	1.00	.032	.010	.22	.14	.13	.04	.25	.021	.002	.41

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 Bill. Certificate No. 12-00008-676

This material was melted and manufactured in the USA by basic Electric Furnace processes to meet specification: ASTM A36-14, A529-14, GR50, ASTM A572, A572-14, A709-14A, GR50 & GR50, A572-14 (01JUL13)

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: LARRY E. LEFTWICH JR.



Independence Tube

6226 W. 74th St
Chicago, IL 60638
708-496-0380
Fax: 708-563-1950

independencetube.com
itctube.com
Certificate Number: MAR 91465

Sold By:
INDEPENDENCE TUBE CORPORATION
6226 W. 74th St
Chicago, IL 60638
Tel: 708-496-0380
Fax: 708-563-1950

Purchase Order No. NE-75907
Sales Order No. MAR 249017 - 1
Bill of Lading No. MAR 145180 - 5
Invoice No. MAR 610830 - 1

Shipped: 10/29/2013
Invoiced: 10/29/2013

Sold To:
914 - INFRA-METALS
55 PENT HIGHWAY
WALLINGFORD, CT 06492

Ship To:
1 - INFRA-METALS (TRUCK)
55 PENT HIGHWAY
WALLINGFORD, CT 06492

CERTIFICATE of ANALYSIS and TESTS

Certificate No: MAR 91465

Customer Part No:

Test Date: 10/21/2013

TUBING A500C
7" X 8" X 1/4" X 40'

Total Pieces: 9
Total Weight: 6,847

Bundle Tag	Mill	Heat	Specs	Y/T Ratio	Pieces	Weight
763424	39	342861	YLD=57990/TEN=71540/ELG=34	0.8106	9	6,847

Mill # 39 Heat #: 342861 Carbon Eq: 0.3425 Heat Src: Origin: MELTED AND MANUFACTURED IN THE USA

C	Mn	P	S	Si	Al	Cu	Cr	Mo	V	Ni
0.2000	0.7900	0.0100	0.0040	0.0250	0.0500	0.0300	0.0350	0.0100	0.0010	0.0100

LEED Information (based on the most recent LEED information from the producing mill)

Method	Location	Recycled Content	Post Consumer	Post Industrial
BOF	Gary, IN	18.5%	4.5%	14.0%

MELTED & MFG USA

Certification

I certify that the above results are a true and correct copy of records prepared and maintained by Independence Tube Corporation. Sworn this day, 10/21/2013

WE PROUDLY MANUFACTURE ALL OUR PRODUCT IN THE USA. INDEPENDENCE TUBE PRODUCT IS MANUFACTURED, TESTED, AND INSPECTED IN ACCORDANCE WITH ASTM STANDARDS MATERIAL IDENTIFIED AS A500 GRADE B(C) MEETS BOTH ASTM A500 GRADE B AND A500 GRADE C SPECIFICATIONS

Mihai (Mike) Popa, Corporate Metallurgist

CURRENT STANDARDS:

-A252-10
-A500/A500M-13
-A513-13
-A53/A53M-12
-A847/A847M-14
-A1085/A1085M-15



DELIVER TO: Receiving
CAMDEN YARDS STEEL COMP

Berkeley Division of NUCOR Corporation
ISO/TS 16949 Registered

P.O. Box 2259
Mt. Pleasant, SC 29465

METALLURGICAL TEST REPORT
NUCOR Steel - Berkeley
a division of NUCOR corporation

Phone: 843-336-6000
Sales Fax: 843-336-6150

Issuance Date 5/23/15 MTR# 1786156 MTR REF INQUIRIES@NUCOR.COM

Sold to: AND A HOLDINGS CO LLC
To: DDA CAMDEN YARDS STEEL CO
2500 BROADWAY DRAWER 14
CAMDEN, NJ 08104

Ship: CAMDEN YARDS STEEL CO.
To: 2500 BROADWAY DRAWER 14
CAMDEN, NJ 08104
Ship Date: 5/23/15
Bill of Lading #: 1135036
Vehicle #: NYC 631785

Gauge x Width: .3630 MIN X 48.0000 MIN HR HOT ROLL COIL
CONVERSION TO / ASTM A36 / REV: 2014

P/O #: 005821
Mill Order #: 370431-11
Part #: .363X48 A36

Total Wgt: 180200.00 LB

Heat	C	Mn	P	S	Si	Ca	Mg	Cr	Mo	Ni	Al	V	Nb	N	Ti	B	Cu
1506615	.18	.46	.011	.003	.03	.10	.03	.03	.01	.006	.026	.002	.000	.006	.001	.000	.002
1506618	.19	.49	.017	.002	.03	.09	.03	.04	.00	.005	.024	.003	.000	.006	.001	.000	.002

Heat/Coil#	YIELD STRENGTH (ksi)		TENSILE STRENGTH (ksi)		ELONGATION (% IN 2")		HARDNESS (Rockwell B)		N Value
	long.	trans.	long.	trans.	long.	trans.	long.	trans.	
1506615-4		50.4		70.4		34		71	.18
1506615-5		50.4		70.0		35		72	.17
1506618-4		49.8		70.8		32		70	.17
1506618-5		49.1		69.3		40		76	.19

Coil (tag): 1506615-7 (47060.00 LB) 1506615-8 (47120.00 LB)
 Coil (tag): 1506618-1 (47040.00 LB) 1506618-2 (47060.00 LB)

Mill Test Reports according to EN10204 3.1

All material is sold subject to the description, specifications and terms and conditions set forth on the face and reverse side of Nucor Steel - Berkeley's sales order acknowledgment.

Tensile Testing, when applicable, is performed in accordance with ASTM A-370 specifications. Specimen is machined to standard rectangular test configuration (Figure 1 of ASTM A-370) with a 2" gage length. Yield Strength is determined at 0.2% offset.

This material has been produced in compliance with the chemistry and established rolling practices of the ordered specification. If material is ordered to a chemical composition only and if physical testing is not a requirement of the customer's order, testing is not performed by the producer.

We hereby certify the above information is correct as contained in the records of the corporation.
Kevin Skoro Robert Moses ** 100% MELTED AND MANUFACTURED IN THE USA **
Hot Mill Metallurgist Chief Metallurgist

Vermont Agency of Transportation
Certification & Independent Assurance Unit
Type "D" record of certification from manufacturer

Name of Manufacturer: NUCOR
Address: P.O. BOX 6100 SAINT JOE, IND. 46785
We hereby certify: STRUCTURAL STEEL (US 7 - BRIDGE NO. 56C)
714.05 High-Strength Bolts, Nuts, And Washers
In the quantity of: 1.00 LS (Plan Quantity)
Furnished by: CONSTAL STEEL SERVICE 433A E. MAIN SAUVEPORT, VT 05474
For use on: 13B120 0330 BENNINGTON-MT. TABOR BF BPNT(16)
(RE-ADVERTISED)
Identified by: # NF15102735, NF1310377, NF16100536, NF1420487

Conforms to all requirements of the State of Vermont Agency of Transportation 2011 standard specifications, pertinent project plans, and special provisions for the above stated contract for item or items listed as follows: 506.75 and that processing, product testing and inspection control of raw materials are in conformity with all applicable specification, drawings and/or standards of all materials furnished.

Subscribed and sworn to before me

By: 
(Signature of Authorized Representative)

this 15 day of June 20 16

Name: Richard E. Nickerson
(Type or Print)


(Notary Public)

Title: Pres.
(Company Status or Affiliation)

Commission Expiring on 4y Commission Expires September 8, 2019
**Callin B Whelan
Notary Public - State Of Maine**

Certifications for materials requiring a type "C" or "D" certification, when specified by contract provisions, must be accompanied by mill test reports showing chemical and physical analyses.

This certification is to be completed by the manufacturer of the materials and not by the supplier or dealer. This certification is to be sent to:

Vermont Agency of Transportation
Materials Section
2178 Airport Rd, Unit B
Berlin, VT 05641

NUCOR

FASTENER DIVISION

LOT NO.
374107A

Post Office Box 5100
Saint Joe, Indiana 46785
Telephone 260/337-1800

TEST REPORT SERIAL# FB492529
TEST REPORT ISSUE DATE 4/15/16
MANUFACTURE DATE 3/23/16
NAME OF LAB SAMPLER: DAWN LEAVITT, LAB TECHNICIAN



*****CERTIFIED MATERIAL TEST REPORT*****
PART NO. LOT NO. DESCRIPTION
160087 374107A 1/2-13 X 2 1/4 A325 HVY HX HDG
ASTM F3125 TY1

--CHEMISTRY MATERIAL GRADE - 1055HR
MATERIAL HEAT #CHEMISTRY COMPOSITION (WT% HEAT ANALYSIS) BY MATERIAL SUPPLIER
NUMBER NUMBER C MN P S SI NUCOR STEEL - NEBRASKA
RH030633 NF16100536 .34 .77 .012 .011 .26

--MECHANICAL PROPERTIES IN ACCORDANCE WITH ASTM F3125-15a
SURFACE CORE PROOF LOAD TENSILE STRENGTH
HARDNESS HARDNESS 12100 LBS 10 DEG-WEDGE
(R50N) (RC) (LBS) STRESS (PSI)
N/A 29.3 PASS 20150 141901
N/A 29.2 PASS 20240 142535
N/A 30.1 PASS 20290 142867
N/A 29.4
AVERAGE VALUES FROM TESTS 20227 142441
29.5
PRODUCTION LOT SIZE 22000 PCS

--VISUAL INSPECTION IN ACCORDANCE WITH ASTM F3125-15a 4 PCS. SAMPLED LOT PASSED

--COATING - HOT DIP GALVANIZED TO ASTM F2329-13 - GALVANIZING PERFORMED IN THE U.S.A.
1. 0.00315 2. 0.00285 3. 0.00280 4. 0.00359 5. 0.00347 6. 0.00471 7. 0.00248
8. 0.00364 9. 0.00264 10. 0.00267 11. 0.00315 12. 0.00359 13. 0.00277 14. 0.00366
15. 0.00278
AVERAGE THICKNESS FROM 15 TESTS .00322
HEAT TREATMENT - AUSTENITIZED, OIL QUENCHED & TEMPERED (MIN 800 DEG F)

--DIMENSIONS PER ASME B18.2.6-2012
CHARACTERISTIC #SAMPLES TESTED MINIMUM MAXIMUM
Width Across Corners 8 0.984 0.991
Grip Length 8 1.22 1.24
Head Height 8 0.314 0.319
Threads 8 PASS PASS

ALL TESTS ARE IN ACCORDANCE WITH THE LATEST REVISIONS OF THE METHODS PRESCRIBED IN THE APPLICABLE SAE AND ASTM SPECIFICATIONS. THE SAMPLES TESTED CONFORM TO THE SPECIFICATIONS AS DESCRIBED/LISTED ABOVE AND WERE MANUFACTURED FREE OF MERCURY CONTAMINATION. NO HEATS TO WHICH BISMUTH, SELENIUM, TELLURIUM, OR LEAD WAS INTENTIONALLY ADDED HAVE BEEN USED TO PRODUCE THE BOLTS. THE STEEL WAS MELTED AND MANUFACTURED IN THE U.S.A. AND THE PRODUCT WAS MANUFACTURED AND TESTED IN THE U.S.A. PRODUCT COMPLIES WITH DFARS 252.225-7014. WE CERTIFY THAT THIS DATA IS A TRUE REPRESENTATION OF INFORMATION PROVIDED BY THE MATERIAL SUPPLIER AND OUR TESTING LABORATORY. THIS CERTIFIED MATERIAL TEST REPORT RELATES ONLY TO THE ITEMS LISTED ON THIS DOCUMENT AND MAY NOT BE REPRODUCED EXCEPT IN FULL.



MECHANICAL FASTENER
CERTIFICATE NO. AZLA 0159.01
EXPIRATION DATE 12/31/17

NUCOR FASTENER
A DIVISION OF NUCOR CORPORATION

John W. Ferguson
JOHN W. FERGUSON
QUALITY ASSURANCE SUPERVISOR

NUCOR

FASTENER DIVISION

LOT NO.
352651A

Post Office Box 6100
Saint Joe, Indiana 46785
Telephone 260/337-1800

TEST REPORT SERIAL# FB417194
TEST REPORT ISSUE DATE 10/22/13
MANUFACTURE DATE 10/10/13
NAME OF LAB SAMPLER: DEANN MORENO, LAB TECHNICIAN



*****CERTIFIED MATERIAL TEST REPORT*****

PART NO. 160090
LOT NO. 352651A
DESCRIPTION 1/2-13 X 2 1/2 A325 HVY HX STRUC SCREW PLAIN

--CHEMISTRY MATERIAL GRADE - 1035MR
MATERIAL HEAT **CHEMISTRY COMPOSITION (WT% HEAT ANALYSIS) BY MATERIAL SUPPLIER
NUMBER NUMBER C MN P S SI NUCOR STEEL - NEBRASKA
RM028526 NF13103377 .35 .81 .011 .013 .23

--MECHANICAL PROPERTIES IN ACCORDANCE WITH ASTM A325-10
SURFACE CORE PROOF LOAD TENSILE STRENGTH
HARDNESS HARDNESS 12100 LBS 10 DEG-WEDGE
(CR50N) (RC)
N/A 30.4 PASS 20490 144397
N/A 30.1 PASS 20440 144045
N/A 30.5 PASS 20620 145314
N/A 30.2
AVERAGE VALUES FROM TESTS 20517 144585
30.3
PRODUCTION LOT SIZE 31000 PCS

4 PCS. SAMPLED LOT PASSED

--VISUAL INSPECTION IN ACCORDANCE WITH ASTM A325-10
HEAT TREATMENT - AUSTENITIZED, OIL QUENCHED & TEMPERED (MIN 800 DEG F)

--DIMENSIONS PER ASME B18.2.6-2012
CHARACTERISTIC #SAMPLES TESTED MINIMUM MAXIMUM
Width Across Corners 8 0.9800 0.9860
Grip Length 8 1.4370 1.4970
Head Height 8 0.5020 0.0780
Threads 8 PASS PASS

ALL TESTS ARE IN ACCORDANCE WITH THE LATEST REVISIONS OF THE METHODS PRESCRIBED IN THE APPLICABLE SAE AND ASTM SPECIFICATIONS. THE SAMPLES TESTED CONFORM TO THE SPECIFICATIONS AS DESCRIBED/LISTED ABOVE AND WERE MANUFACTURED FREE OF MERCURY CONTAMINATION. NO HEATS TO WHICH BISMUTH, SELENIUM, TELLURIUM, OR LEAD WAS INTENTIONALLY ADDED HAVE BEEN USED TO PRODUCE THE BOLTS. THE STEEL WAS MELTED AND MANUFACTURED IN THE U.S.A. AND THE PRODUCT WAS MANUFACTURED AND TESTED IN THE U.S.A. PRODUCT COMPLIES WITH DFARS 252.225-7014. WE CERTIFY THAT THIS DATA IS A TRUE REPRESENTATION OF INFORMATION PROVIDED BY THE MATERIAL SUPPLIER AND OUR TESTING LABORATORY. THIS CERTIFIED MATERIAL TEST REPORT RELATES ONLY TO THE ITEMS LISTED ON THIS DOCUMENT AND MAY NOT BE REPRODUCED EXCEPT IN FULL.



MECHANICAL FASTENER
CERTIFICATE NO. A2LA 0159-01
EXPIRATION DATE 12/31/13

NUCOR FASTENER
A DIVISION OF NUCOR CORPORATION

John W. Ferguson
JOHN W. FERGUSON
QUALITY ASSURANCE SUPERVISOR

NUCOR

FASTENER DIVISION

LOT NO.
353073A

Post Office Box 6100
Saint Joe, Indiana 46785
Telephone 260/337-1600

TEST REPORT SERIAL# FB446479
TEST REPORT ISSUE DATE 12/08/14
MANUFACTURE DATE 11/26/14
NAME OF LAB SAMPLER: RYAN UNGER, LAB TECHNICIAN



*****CERTIFIED MATERIAL TEST REPORT*****

PART NO. LOT NO. DESCRIPTION
160126 353073A 1/2-13 X 3 1/4 A325 HVY HX
STRUC SCREW PLAIN

---CHEMISTRY MATERIAL GRADE -1035HR
MATERIAL HEAT # CHEMISTRY COMPOSITION (WT% HEAT ANALYSIS) BY MATERIAL SUPPLIER
NUMBER NUMBER C MN P S SI NUCOR STEEL - NEBRASKA
RH029537 NF14204237 .34 .78 .005 .019 .24

---MECHANICAL PROPERTIES IN ACCORDANCE WITH ASTM A325-10
SURFACE CORE PROOF LOAD TENSILE STRENGTH
HARDNESS HARDNESS 12100 LBS 10 DEG-WEDGE
(R30N) (RC) (LBS) STRESS (PSI)
N/A 27.9 PASS 20100 141649
N/A 30.3 PASS 19870 140028
N/A 30.7 PASS 20169 142213
N/A 29.9
AVERAGE VALUES FROM TESTS
29.7 20050 141297
PRODUCTION LOT SIZE 17000 PCS

---VISUAL INSPECTION IN ACCORDANCE WITH ASTM A325-10 4 PCS. SAMPLED LOT PASSED
HEAT TREATMENT - AUSTENITIZED, OIL QUENCHED & TEMPERED (MIN 800 DEG F)

---DIMENSIONS PER ASME B16.2.6-2012
CHARACTERISTIC #SAMPLES TESTED MINIMUM MAXIMUM
Width Across Corners 8 0.987 0.995
Grip Length 8 2.24 2.25
Head Height 8 0.314 0.321
Threads 8 PASS PASS

ALL TESTS ARE IN ACCORDANCE WITH THE LATEST REVISIONS OF THE METHODS PRESCRIBED IN THE APPLICABLE SAE AND ASTM SPECIFICATIONS. THE SAMPLES TESTED CONFORM TO THE SPECIFICATIONS AS DESCRIBED/LISTED ABOVE AND WERE MANUFACTURED FREE OF MERCURY CONTAMINATION. NO HEATS TO WHICH BISMUTH, SELENIUM, TELLURIUM, OR LEAD WAS INTENTIONALLY ADDED HAVE BEEN USED TO PRODUCE THE BOLTS. THE STEEL WAS MELTED AND MANUFACTURED IN THE U.S.A. AND THE PRODUCT WAS MANUFACTURED AND TESTED IN THE U.S.A. PRODUCT COMPLIES WITH DFARS 252.225-7014. WE CERTIFY THAT THIS DATA IS A TRUE REPRESENTATION OF INFORMATION PROVIDED BY THE MATERIAL SUPPLIER AND OUR TESTING LABORATORY. THIS CERTIFIED MATERIAL TEST REPORT RELATES ONLY TO THE ITEMS LISTED ON THIS DOCUMENT AND MAY NOT BE REPRODUCED EXCEPT IN FULL.



MECHANICAL FASTENER
CERTIFICATE NO. A2LA 0139.01
EXPIRATION DATE 12/31/15

NUCOR FASTENER
A DIVISION OF NUCOR CORPORATION

John W. Ferguson
JOHN W. FERGUSON
QUALITY ASSURANCE SUPERVISOR

NUCOR

FASTENER DIVISION

LOT NO.
366419A

Post Office Box 6100
Saint Joe, Indiana 46785
Telephone 260/337-1800

TEST REPORT SERIAL# FB475062
TEST REPORT ISSUE DATE 10/14/15
MANUFACTURE DATE 10/07/15
NAME OF LAB SAMPLER: DAWN LEAVITT, LAB TECHNICIAN



*****CERTIFIED MATERIAL TEST REPORT*****
PART NO. LOT NO. DESCRIPTION
160130 366419A 1/2-13 X 3 1/2 A325 HVY HX
PLAIN ASTM F3125 TY1

--CHEMISTRY MATERIAL GRADE - 1035MR
MATERIAL HEAT **CHEMISTRY COMPOSITION (WT% HEAT ANALYSIS) BY MATERIAL SUPPLIER
NUMBER NUMBER C MN P S SI NUCOR STEEL - NEBRASKA
RH030247 NF15102735 .35 .82 .009 .016 .26

--MECHANICAL PROPERTIES IN ACCORDANCE WITH ASTM A325-14
SURFACE CORE PROOF LOAD TENSILE STRENGTH
HARDNESS HARDNESS 12100 LBS 10 DEG-WEDGE
(R30N) (RC) (LBS) STRESS (PSI)
N/A 29.4 PASS 19680 138689
N/A 27.8 PASS 19560 137849
N/A 28.0 PASS 19720 138971
N/A 27.4
AVERAGE VALUES FROM TESTS
28.2 19653 138501
PRODUCTION LOT SIZE 14800 PCS

--VISUAL INSPECTION IN ACCORDANCE WITH ASTM A325-14 4 PCS. SAMPLED LOT PASSED
HEAT TREATMENT - AUSTENITIZED, OIL QUENCHED & TEMPERED (MIN 800 DEG F)

--DIMENSIONS PER ASME B18.2.6-2012
CHARACTERISTIC #SAMPLES TESTED MINIMUM MAXIMUM
Width Across Corners 8 0.995 1.001
Grip Length 8 2.45 2.47
Head Height 8 0.308 0.311
Threads 8 PASS PASS

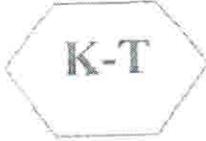
ALL TESTS ARE IN ACCORDANCE WITH THE LATEST REVISIONS OF THE METHODS PRESCRIBED IN THE APPLICABLE SAE AND ASTM SPECIFICATIONS. THE SAMPLES TESTED CONFORM TO THE SPECIFICATIONS AS DESCRIBED/LISTED ABOVE AND WERE MANUFACTURED FREE OF MERCURY CONTAMINATION. NO HEATS TO WHICH BISMUTH, SELENIUM, TELLURIUM, OR LEAD WAS INTENTIONALLY ADDED HAVE BEEN USED TO PRODUCE THE BOLTS. THE STEEL WAS MELTED AND MANUFACTURED IN THE U.S.A. AND THE PRODUCT WAS MANUFACTURED AND TESTED IN THE U.S.A. PRODUCT COMPLIES WITH DFARS 252.225-7014. WE CERTIFY THAT THIS DATA IS A TRUE REPRESENTATION OF INFORMATION PROVIDED BY THE MATERIAL SUPPLIER AND OUR TESTING LABORATORY. THIS CERTIFIED MATERIAL TEST REPORT RELATES ONLY TO THE ITEMS LISTED ON THIS DOCUMENT AND MAY NOT BE REPRODUCED EXCEPT IN FULL.



MECHANICAL FASTENER
CERTIFICATE NO. A2LA D139.01
EXPIRATION DATE 12/31/15

NUCOR FASTENER
A DIVISION OF NUCOR CORPORATION

John W. Ferguson
JOHN W. FERGUSON
QUALITY ASSURANCE SUPERVISOR



K-T Galvanizing Company, Inc.
P.O. Box 560 - 5105 East 3rd Street
Katy, Texas 77492
Ph: 281-391-9261 Fax 281-391-5819
www.katgalvanizing.com



January 2, 2013

Gulf Coast Fasteners
P.O. Box 19331
Houston, Tx 77224

RE: CERTIFICATE OF COMPLIANCE BLANKET CERTIFICATE

To Whom It May Concern:

We certify that our Hot Dip process meets the requirements of
ASTM A153, class C specifications.

Sincerely

Al Peck
President

AP/om

INDIANA GALVANIZING, LLC

Hot-Dip Galvanizing
51702 Lovejoy Dr.
Middlebury IN, 46540
Phone: 574-822-9102 Fax: 574-822-9106

Customer
NUCOR FASTENER
6730 CR 60
Saint Joe, IN 46785

PO: 159520

Hot-Dip Galvanizing Certification

Indiana Galvanizing certifies that samples representing listed lot(s) have been tested and inspected as required by applicable specifications. The results of this inspection and testing demonstrates that the requirements for ASTM F2329, including the requirements ASTM A153 that are referenced within the specification, have been met and have been galvanized in Middlebury, Indiana of the United States of America.

Kettle Temperature (Must be between 815 and 850 Degrees Fahrenheit) 840

Mil Readings

Lot Number	High	Low	Average	Bin Tag Verification	Nut Test
373485B	3.00	2.30	2.70	X	X
373494A	3.10	2.90	3.00	X	X
374318A	2.40	3.10	2.70	X	X
374107A	2.70	2.30	2.40	X	X
374109A	2.90	2.10	2.30	X	X
373877A	2.90	2.30	2.50	X	X



Quality Manager or Assignee