LF000503

CERTIFIED MILL TEST REPORT

DATE	7/28/11
INVOICE NO.	425120
BILL OF LADING	32747
CUSTOMER NO.	0829
CUSTOMER P.O.	4500079731

NUCOR-YAMATO STEEL CO.
P.O. BOX 1228 • BLYTHEVILLE,AR 72316

100% MELTED AND MANUFACTURED IN U.S.A.
All shapes produced by Nucor-Yamato Steel are cast and rolled to a fully killed and fine grain practice.

SHIP TO:
FORTACERO C/O GULF STREAM MARINE
PORT OF BROWNSVILLE

BROWNSVILLE, TX

SPECIFICATIONS:
ASTM A992/A992M-06a A572/A572M GR50-07
ASTM A709/A709M-09 GR50 (345)
ASTM A709/A709M-09 GR50S (345S)
ASTM A6/A6M-09

SOLD TO:
FORTACERO S.A. DE CV
BLVD CARLOS SALINAS DE GORTARI
KM 8.8
APODACA, N.L. MEXICO 66600

ITEM #	ITEM DESCRIPTION	QTY	HEAT #	MECHANICAL PROPERTIES: YIELD TO TENSILE RATIO	YIELD STRENGTH PSI / MPa	TENSILE STRENGTH PSI / MPa	ELONG % / %	CHARPY IMPACT TEMP °F / °C	IMPACT ENERGY FT-LBS / JOULES	CHEMICAL PROPERTIES: C	Mn	P	S	Si	Cu	Ni	Cr	Mo / Sn	V / Pcm	Cb	CE / CI
1	W08 - 40.0	11	369821	.77	54000	70000	25			.07	1.10	.014	.030	.30	.30	.10	.08	.03	.00	.014	.30
	40'			.79	56000	71000	25											.01	.16		
	W200 x 59.0				372	483	25														
	12.192 M				386	490	25														
2	W08 - 40.0	44	369822	.76	55000	72000	24			.08	1.12	.015	.016	.25	.28	.10	.11	.03	.00	.015	.33
	40'			.78	56000	72000	26											.01	.17		
	W200 x 59.0				379	496	24														
	12.192 M				386	496	26														
3	W12 - 53.0	12	369119	.73	52000	71000	25			.07	1.11	.016	.024	.31	.28	.12	.11	.04	.00	.019	.32
	40'			.73	52000	71000	24											.01	.16		
	W310 x 79.0				359	490	25														
	12.192 M				359	490	24														
4	W12 - 53.0	17	369120	.75	53000	71000	26			.08	1.10	.010	.024	.29	.32	.11	.09	.03	.00	.019	.31
	40'			.74	52000	70000	25											.01	.17		
	W310 x 79.0				365	490	26														
	12.192 M				359	483	25														
5	W12 - 53.0	4	369121	.75	54000	72000	26			.07	1.11	.016	.024	.28	.29	.11	.10	.03	.00	.019	.32
	40'			.74	52000	70000	25											.01	.16		
	W310 x 79.0				372	496	26														
	12.192 M				359	483	25														
6	W12 - 53.0	1	369523	.75	52000	69000	27			.08	1.09	.015	.030	.20	.25	.10	.09	.02	.00	.017	.30
	40'			.74	51000	69000	28											.01	.16		
	W310 x 79.0				359	476	27														
	12.192 M				352	476	28														
7	W12 - 53.0	6	369524	.76	53000	70000	27			.08	1.01	.013	.023	.26	.29	.09	.09	.02	.00	.013	
	40'			.75	52000	69000	27											.01	.16		
	W310 x 79.0				365	483	27														
	12.192 M				359	476	27														
8	W12 - 53.0	7	369525	.74	51000	69000	26			.07	1.00	.012	.031	.23	.26	.10	.07	.03	.00	.01	
	40'			.76	52000	68000	25											.01	.15		
	W310 x 79.0				352	476	26														
	12.192 M				359	469	25														

Pcm = C + Si/30 + Mn/20 + Cu/20 + Ni/60 + Cr/20 + Mo/15 + V/10 + 5B (weld.) 2005

CARBON EQUIVALENT: CE = CE(IIW) = C + Mn/6 + (Cr+Mo+V)/5 + (Ni+Cu)/15

Mercury has not been used in the direct manufacturing of this material.

Corrosion Index: CI=26.01(%Cu)-2.88(%Ni)+1.20(%Cr)+1.49(%Si)+17.28(%P)-7.29(%Cu)(%Ni)-9.10(%Ni)(%P)-33.39(%Cu)^2

ELONGATION BASED ON 8.00 INCH GAUGE LENGTH

I hereby certify that the contents of this report are accurate and correct. All test results and operations performed by this material manufacturer are in compliance with the requirements of the material specifications listed in the Specifications Block above.

Gary Lemell
QUALITY ASSURANCE

CUSTOMER COPY

STATE OF ARKANSAS COUNTY OF MISSISSIPPI
SWORN TO AND SUBSCRIBED BEFORE ME THIS 28 Day of 07/11

Charlene Wallis NOTARY PUBLIC

MY COMMISSION EXPIRES 10/21/2013

CHARLENE WALLIS MY Comm. Exp. NOTARY PUBLIC 10-21-2013 MISSISSIPPI CO. ARKANSAS