ΔCL 009949

CERTIFIED MILL TEST REPORT

DATE	1/10/11
INVOICE NO.	386470
BILL OF LADING	9066
CUSTOMER NO.	0829
CUSTOMER P.O.	4500073757

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

BROWNSIVLLE, 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
IPR 14x5x32
IPR 14x5x38

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	C	Mn	P	S	Si	Cu	Ni	Cr	Mo / Sn	V / Pcm	Cb	CE / CI
1	W14 - 22.0	22	358034	.81	55000	68000	25			.07	.71	.017	.032	.20	.30	.12	.13	.04	.00	.008	.25
	40'			.82	56000	68000	25											.01	.14		
	W360 x 32.9				379	469	25														
	12.192 M				386	469	25														
2	W14 - 22.0	42	358037	.82	56000	68000	25			.08	.70	.012	.031	.22	.30	.12	.10	.03	.00	.007	.26
	40'			.83	58000	70000	26											.01	.15		
	W360 x 32.9				386	469	25														
	12.192 M				400	483	26														
3	W14 - 22.0	7	358039	.82	56000	68000	26			.07	.72	.014	.030	.21	.32	.11	.10	.03	.00	.005	.25
	40'			.83	58000	70000	26											.01	.14		
	W360 x 32.9				386	469	26														
	12.192 M				400	483	26														
4	W14 - 22.0	6	358040	.81	55000	68000	26			.08	.71	.017	.025	.22	.27	.12	.12	.04	.00	.006	.26
	40'			.81	57000	70000	26											.01	.15		
	W360 x 32.9				379	469	26														
	12.192 M				393	483	26														
5	W14 - 22.0	3	358046	.86	67000	78000	24			.07	.71	.018	.032	.24	.28	.12	.14	.04	.00	.007	.26
	40'			.84	62000	74000	25											.01	.14		
	W360 x 32.9				462	538	24														
	12.192 M				427	510	25														
6	W16 - 26.0	29	358048	.78	54000	69000	26			.07	.70	.016	.031	.23	.32	.10	.10	.03	.00	.009	.25
	40'		✓	.80	55000	69000	25											.02	.14		
	W410 x 38.8				372	476	26														
	12.192 M				379	476	25														
7	W16 - 26.0	1	358052	.80	55000	69000	26			.08	.70	.023	.027	.21	.35	.12	.18	.04	.00	.008	.27
	40'			.80	55000	69000	28											.01	.16		
	W410 x 38.8				379	476	26														
	12.192 M				379	476	28														
8	W16 - 26.0	80	358055	.82	58000	71000	25			.08	.70	.021	.029	.22	.34	.13	.15	.04	.00	.008	.27
	40'			.83	60000	72000	24											.01	.15		
	W410 x 38.8				400	490	25														
	12.192 M				414	496	24														
9	W16 - 26.0	28	358057	.81	55000	68000	27			.07	.72	.024	.032	.24	.33	.12	.17	.04	.00	.009	.26
	40'			.81	55000	68000	26											.01	.15		
	W410 x 38.8				379	469	27														
	12.192 M				379	469	26														

Pcm = C + Si/30 + Mn/20 + Cu/20 + Ni/60 + Cr/20 + Mo/15 + V/10 + 5 B (B=Approx.0.0005)

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)+3.88(%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 Lemmell

QUALITY ASSURANCE

CUSTOMER COPY

STATE OF ARKANSAS COUNTY OF MISSISSIPPI
SWORN TO AND SUBSCRIBED BEFORE ME THIS 10 Day of 01/11

Charlene Wallis NOTARY PUBLIC

MY COMMISSION EXPIRES 10/21/2013

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