ACL006644

CERTIFIED MILL TEST REPORT

DATE	7/26/11
INVOICE NO.	424478
BILL OF LADING	32553
CUSTOMER NO	4829
CUSTOMER P.O.	4500079345

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
ACEROS DE GRADO C/O GULF STRM MAR
PORT OF BROWNSVILLE

BROWNSVILLE, TX

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

SOLD TO
ACEROS DE GRADO, SA DE CV
AV FELIX U GOMEZ 2828 NTE COL MODER
RFC AGR0811247V9
MONTERREY, NL CP 64530

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	W10 - 45.0	28	369126	.73	52000	71000	26			.08	1.12	.009	.021	.26	.29	.11	.12	.03	.00	.015	.33
	40'			.75	52000	69000	26											.01	.17		
	W250 x 67.0				359	490	26														
	12.192 M				359	476	26														
2	W10 - 45.0	15	369445	.75	51000	68000	26			.08	1.01	.014	.024	.23	.30	.10	.10	.03	.00	.014	.31
	40'			.76	51000	67000	26											.01	.16		
	W250 x 67.0				352	469	26														
	12.192 M				352	462	26														
3	W10 - 45.0	31	369446	.77	51000	66000	26			.08	1.00	.013	.022	.22	.31	.11	.08	.03	.00	.013	.30
	40'			.76	51000	67000	26											.01	.16		
	W250 x 67.0				352	455	26														
	12.192 M				352	462	26														
4	W10 - 45.0	10	369447	.76	51000	67000	26			.07	1.00	.016	.026	.23	.29	.09	.10	.02	.00	.014	.29
	40'			.77	51000	66000	25											.01	.15		
	W250 x 67.0				352	462	26														
	12.192 M				352	455	25														
5	W10 - 45.0	35	369450	.76	51000	67000	24			.07	1.00	.013	.025	.23	.29	.09	.08	.03	.00	.014	.29
	40'			.77	51000	66000	26											.01	.15		
	W250 x 67.0				352	462	24														
	12.192 M				352	455	26														
6	W10 - 45.0	8	369459	.74	50000	68000	26			.08	1.00	.011	.022	.24	.29	.10	.09	.03	.00	.014	.30
	40'			.74	51000	69000	25											.01	.16		
	W250 x 67.0				345	469	26														
	12.192 M				352	476	25														
7	W10 - 45.0	3	369608	.76	55000	72000	24			.07	1.21	.013	.026	.28	.32	.11	.11	.03	.00	.025	
	40'			.78	58000	74000	23											.01	.17		
	W250 x 67.0				379	496	24														
	12.192 M				400	510	23														

Pcm = C + Si + Mn + Cu + Ni + Cr + Mo + V + 5 B Approx. 2000
30 20 20 60 20 15 10

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.

Correction Index: CI=26.81(%Cu)+3.06(%Ni)+1.20(%Cr)-1.49(%Si)+17.28(%P)-7.28(%Cu)(%Ni)-8.10(%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 Lennell

QUALITY ASSURANCE

CUSTOMER COPY

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

Charlene Wallis NOTARY PUBLIC

MY COMMISSION EXPIRES 10/21/2015

CHARLENE WALLIS MY Comm. Exp. NOTARY PUBLIC 10-21-2015 MISSISSIPPI CO. ARKANSAS