AC1 009936 (Aceros de grado)

CERTIFIED MILL TEST REPORT

DATE	5/26/11
INVOICE NO.	411777
BILL OF LADING	25078
CUSTOMER NO.	4829
CUSTOMER P.O.	4500073758

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 STREAM
PORT OF BROWNSVILLE

BROWNSVILLE, TX

SOLD TO
ACEROS DE GRADO, SA DE CV
AV FELIX U GOMEZ 2828 NTE COL MODER
RFC AGR081124?V9
MONTERREY, NL CP 64530

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

ITEM #	ITEM DESCRIPTION	QTY	HEAT #	MECHANICAL PROPERTIES						CHEMICAL PROPERTIES											
				YIELD TO TENSILE RATIO	YIELD STRENGTH PSI / MPa	TENSILE STRENGTH PSI / MPa	ELONG % / %	CHARPY IMPACT TEMP °F / °C	CHARPY IMPACT ENERGY FT-LBS / JOULES	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Cb	CE
																		Sn	Pcm		CI
1	W18 106.0	1	364045	.77	55000	71000	27			.07	1.10	.016	.024	.26	.28	.12	.13	.03	.00	.020	.31
	40'			.76	54000	71000	26											.01	.16		
	W460 x158.0				379	490	27														
	12.192 M				372	490	26														
2	W18 106.0	1	364101	.77	55000	71000	26			.07	1.20	.015	.021	.22	.28	.12	.11	.03	.04	.002	.34
	40'			.75	54000	72000	26											.01	.17		
	W460 x158.0				379	490	26														
	12.192 M				372	496	26														
3	W18 106.0	2	364112	.77	55000	71000	26			.08	1.20	.017	.020	.24	.32	.11	.13	.03	.04	.002	.35
	40'			.76	56000	74000	25											.01	.18		
	W460 x158.0				379	490	26														
	12.192 M				386	510	25														
4	W18 106.0	4	364113	.79	55000	70000	26			.07	1.23	.018	.019	.28	.34	.12	.12	.04	.05	.001	.35
	40'			.76	54000	71000	26											.01	.18		
	W460 x158.0				379	483	26														
	12.192 M				372	490	26														
5	W18 106.0	2	364114	.75	55000	73000	26			.08	1.21	.017	.022	.23	.32	.11	.13	.04	.04	.002	.35
	40'			.77	54000	70000	25											.01	.18		
	W460 x158.0				379	503	26														
	12.192 M				372	483	25														
6	W18 106.0	4	364115	.77	57000	74000	26			.08	1.20	.021	.024	.25	.30	.11	.13	.04	.05	.002	.35
	40'			.74	55000	74000	26											.01	.18		
	W460 x158.0				393	510	26														
	12.192 M				379	510	26														
7	W18 106.0	2	364117	.78	56000	72000	26			.07	1.21	.016	.024	.22	.35	.12	.10	.04	.04	.002	.34
	40'			.75	55000	73000	24											.01	.17		
	W460 x158.0				386	496	26														
	12.192 M				379	503	24														
8	W18 106.0	1	364121	.76	55000	72000	25			.07	1.20	.018	.020	.26	.31	.12	.11	.03	.04	.001	.34
	40'			.78	56000	72000	25											.01	.17		
	W460 x158.0				379	496	25														
	12.192 M				386	496	25														
9	W27 -146.0	12	361518	.82	58000	71000	27			.07	1.11	.012	.024	.26	.32	.11	.10	.03	.00	.020	.32
	40'			.80	56000	70000	27											.01	.16		
	W690 x217.0				400	490	27														
	12.192 M				386	483	27														

Pcm = C + Si/30 + Mn/20 + Cu/20 + Ni/60 + Cr/20 + Mo/15 + V/10 + 5B (Applies Only If B > 0.0008)

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 Lennell

QUALITY ASSURANCE

CUSTOMER COPY

STATE OF ARKANSAS COUNTY OF MISSISSIPPI
SWORN TO AND SUBSCRIBED BEFORE ME THIS

26 Day of 05/11

Charlene Wallis NOTARY PUBLIC

MY COMMISSION EXPIRES 10/21/2013

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