DATE	3/11/11
INVOICE NO.	397257
BILL OF LADING	16069
CUSTOMER NO.	5446
CUSTOMER P.O.	600032

NUCOR-YAMATO STEEL CO.

P.O. BOX 1228 ● BLYTHEVILLE,AR 72316

CERTIFIED MILL TEST REPORT

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
FB C/O JORGE MIGUEL MEDRANO SANCHEZ
HIDALGO 3530 PAT 4100
FINAL: SAN LUIS POTOSI, SLP MX
NUEVO LAREDO, TM 88000

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

43859

SOLD TO
FERRE BARNIEDO, SA DE CV
AV REVOLUCION #81 COL SAN CRISTOBAL
ECATEPEC DE MORELOS
EDO, MEXICO CP 55000

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
	24 -146.0	6	362528	.77	55000	71000	27			.07	1.10	.013	.020	.23	.43	.11	.09	.03	.00	.022	.31
	40'			.77	56000	73000	27											.02	.17		
	W610 x217.0				379	490	27														
	12.192 M				386	503	27														
2	W24 -146.0	4	362530	.79	57000	72000	25			.07	1.10	.018	.019	.24	.39	.13	.16	.04	.00	.021	.32
	40'			.76	55000	72000	25											.01	.17		
	W610 x217.0				393	496	25														
	12.192 M				379	496	25														
3	W24 -162.0	1	362494	.77	56000	73000	28			.07	1.25	.015	.025	.25	.34	.13	.12	.03	.02	.009	.34
	40'			.74	55000	74000	28											.01	.17		
	W610 x241.0				386	503	28														
	12.192 M				379	510	28														
4	W24 -162.0	5	362496	.76	56000	74000	27			.07	1.33	.017	.022	.26	.36	.12	.14	.03	.03	.010	.36
	40'			.76	56000	74000	26											.01	.18		
	W610 x241.0				386	510	27														
	12.192 M				386	510	26														
5	W24 -162.0	7	362498	.79	58000	73000	28			.07	1.32	.020	.027	.28	.35	.12	.13	.03	.03	.010	.36
	40'			.79	58000	73000	29											.01	.18		
	W610 x241.0				400	503	28														
	12.192 M				400	503	29														
6	W24 -162.0	3	362500	.76	53000	70000	30			.08	1.10	.019	.021	.21	.35	.13	.14	.03	.00	.021	.32
	0'			.80	55000	69000	30											.01	.17		
	.610 x241.0				365	483	30														
	12.192 M				379	476	30														
7	W24 -162.0	1	362503	.74	53000	72000	30			.08	1.10	.013	.023	.22	.31	.11	.11	.03	.00	.019	.32
	40'			.75	54000	72000	30											.01	.17		
	W610 x241.0				365	496	30														
	12.192 M				372	496	30														

Pcm = C + Si/30 + Mn/20 + Cu/20 + Ni/60 + Cr/20 + Mo/15 + V/10 + 5 B B=Approx.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
11 Day of 03/11

Charlene Wallis NOTARY PUBLIC

MY COMMISSION EXPIRES 10/21/2013

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