DATE	11/14/11
INVOICE NO.	444720
BILL OF LADING	44369
CUSTOMER NO.	5446
CUSTOMER P.O.	600218

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

45739

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			CHEMICAL PROPERTIES: C	Mn	P	S	Si	Cu	Ni	Cr	Mo / Sn	V / Pcm	Cb	CE / CI
	14 - 90.0	1	375080	.82	59000	72000	24					.07	1.11	.016	.023	.24	.27	.10	.10	.03	.00	.021	.31
	40'			.79	55000	70000	27													.01	.16		
	W360 x134.0				407	496	24																
	12.192 M				379	483	27																
2	W14 - 90.0	2	375082	.80	59000	74000	25					.07	1.10	.019	.021	.24	.26	.10	.12	.03	.00	.019	.30
	40'			.84	61000	73000	21													.01	.16		
	W360 x134.0				407	510	25																
	12.192 M				421	503	21																
3	W14 - 90.0	2	375099	.79	56000	71000	28					.08	1.10	.016	.026	.25	.29	.11	.10	.03	.00	.018	.32
	40'			.81	58000	72000	26													.01	.17		
	W360 x134.0				386	490	28																
	12.192 M				400	496	26																
4	W14 - 90.0	2	375104	.80	56000	70000	27					.07	1.01	.022	.025	.22	.28	.09	.15	.03	.00	.019	.30
	40'			.82	58000	71000	25													.01	.16		
	W360 x134.0				386	483	27																
	12.192 M				400	490	25																
5	W14 - 90.0	4	375116	.79	58000	73000	24					.07	1.25	.016	.020	.25	.29	.12	.13	.04	.03	.010	.35
	40'			.81	60000	74000	25													.01	.17		
	W360 x134.0				400	503	24																
	12.192 M				414	510	25																
6	W14 - 90.0	2	375118	.79	57000	72000	24					.07	1.20	.015	.020	.23	.31	.11	.11	.03	.04	.002	.34
	40'			.78	57000	73000	24													.01	.17		
	W360 x134.0				393	496	24																
	12.192 M				393	503	24																
7	W14 - 90.0	8	375127	.80	59000	74000	25					.07	1.25	.016	.022	.25	.30	.11	.15	.03	.02	.010	.35
	40'			.81	60000	74000	25													.01	.17		
	W360 x134.0				407	510	25																
	12.192 M				414	510	25																
8	W14 - 90.0	4	375129	.78	58000	74000	23					.08	1.25	.016	.023	.25	.30	.10	.14	.03	.02	.008	.36
	40'			.80	59000	74000	25													.01	.18		
	W360 x134.0				400	510	23																
	12.192 M				407	510	25																
9	W14 - 90.0	11	375130	.79	58000	73000	25					.07	1.28	.017	.023	.22	.29	.10	.12	.03	.03	.010	.35
	40'			.77	57000	74000	25													.01	.17		
	W360 x134.0				400	503	25																
	12.192 M				393	510	25																

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

14 Day of 11/11

Charlene Wallis NOTARY PUBLIC

MY COMMISSION EXPIRES 10/21/2013

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

FERRE BARNIEDO, S.A. DE C.V.
ESTE CERTIFICADO ES COPIA FIEL DEL ORIGINAL DE NUESTROS ARCHIVOS
AMPARA LA REMISION No. 59-35-00
ventas@ferrebarniedo.com.mx