

DATE	8/19/13
INVOICE NO.	573431
BILL OF LADING	121178
CUSTOMER NO.	5446
CUSTOMER P.O.	600747

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.

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

S P E C I F I C A T I O N S
ASTM A992/A992M-11 A572/A572M GR50-07
ASTM A709/A709M-11 GR50 (345)
ASTM A709/A709M-11 GR50S (345S)
ASTM A6/A6M-12

S O L D T O
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					CHEMICAL PROPERTIES											
				YIELD TO TENSILE RATIO	YIELD STRENGTH PSI MPa	TENSILE STRENGTH PSI MPa	ELONG %	CHARTY IMPACT TEMP °C	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Cb	CE
1	W30 -173.0 40'	2	408702	.79	54000	68000	29		.07	1.16	.010	.022	.21	.29	.11	.09	.05	.01	.022	.31
																			.01	.16
2	W760 x257.0 12.192 M	4	408705	.79	55000	70000	29		.07	1.12	.012	.027	.28	.27	.11	.11	.04	.00	.019	.31
				.80	55000	69000	29												.01	.16
3	W30 -173.0 40'	3	408706	.77	55000	71000	29		.07	1.10	.016	.020	.26	.26	.09	.16	.04	.01	.020	.32
				.77	53000	69000	29												.01	.16
4	W760 x257.0 12.192 M	4	408708	.79	56000	71000	28		.07	1.12	.016	.023	.24	.25	.09	.14	.04	.01	.020	.32
				.78	56000	72000	27												.01	.16
5	W30 -173.0 40'	4	408709	.78	57000	73000	28		.08	1.10	.012	.021			.32	.11	.03	.01	.018	.32
				.78	56000	72000	29												.01	.17
6	W760 x257.0 12.192 M	1	408710	.77	56000	73000	28		.08	1.10	.014	.019	.27	.26	.10	.16	.04	.01	.021	.33
				.79	56000	71000	28												.01	.17
7	W30 -173.0 40'	3	408712	.79	56000	71000	28		.07	1.10	.011	.019	.24	.27	.11	.12	.04	.01	.018	.31
				.79	56000	71000	28												.01	.16
8	W760 x257.0 12.192 M	2	408713	.81	58000	72000	27		.08	1.13	.012	.021	.23	.29	.11	.14	.04	.01	.020	.33
				.79	56000	71000	28												.01	.17
9	W30 -173.0 40'	1	408716	.78	57000	73000	28		.07	1.10	.010	.027	.28	.31	.11	.10	.04	.01	.022	.31
				.79	57000	72000	28												.01	.16
	W760 x257.0 12.192 M				393	503	28													
					393	496	28													

FERRE BARNIEDO S.A. ORIGINAL DE NUESTROS ARCHIVOS
 LA REMISION DE NUESTROS ARCHIVOS
 No. 39-10-00
 ventas@ferrebarniedo.com.mx

W_{Fe} = C + Si + Mn + Cu + Ni + Cr + Mo + V + 5 B (Approx.) / 100
 CARBON EQUIVALENT: CE = C/(100) = 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 = 28.0(%Cu) + 3.88(%Ni) + 1.20(%Cr) + 1.48(%B) + 17.28(%P) + 7.29(%Cu) + 9.10(%Ni) + 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.

Gay Lemell

QUALITY ASSURANCE

CUSTOMER COPY

STATE OF ARKANSAS COUNTY OF MISSISSIPPI
 SWORN TO AND SUBSCRIBED BEFORE ME THIS
 19 Day of 08/13
Charlene Wallis NOTARY PUBLIC
 MY COMMISSION EXPIRES 10/21/2013

