

DATE	4/27/12
INVOICE NO.	478774
BILL OF LADING	64758
CUSTOMER NO.	5446
CUSTOMER P.O.	600367

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.

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

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ASTM A992/A992M-11 A572/A572M GR50-07
ASTM A709/A709M-11 GR50 (345)
ASTM A709/A709M-11 GR50S (345S)
ASTM A6/A6M-11
46759

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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	TENSILE STRENGTH	ELONGATION	CHARPY IMPACT		C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Cb	CE
					PSI	PSI		TEMP	IMPACT ENERGY												
1	W920 x389.9 12.192 M	1	384831	.76	52000	68000	31			.08	1.10	.008	.026	.20	.31	.11	.10	.03	.01	.018	.32
2	W36 -262.0 40'	1	384836	.79	55000	69000	32			.08	1.11	.010	.025	.24	.27	.11	.11	.03	.01	.018	.33
3	W36 -262.0 40'	6	384926	.77	53000	69000	30			.08	1.20	.010	.025	.24	.29	.11	.10	.03	.01	.019	.32
4	W36 -262.0 40'	4	384930	.79	55000	70000	29			.08	1.20	.008	.024	.22	.27	.10	.08	.03	.03	.017	.33
5	W36 -262.0 40'	4	384933	.77	58000	75000	28			.07	1.30	.011	.022	.22	.30	.12	.09	.04	.04	.002	.35

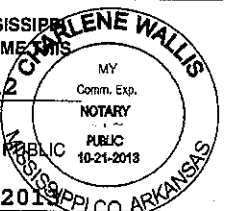
TEL: 58-36-10-00
ORIGINAL DE NUESTROS ARCHIVOS
REMISION DE NUESTROS ARCHIVOS
VENTAS@ferrebarniedo.com

Pcm=C+Si+Mn+Cu+Ni+Cr+Mo+V+5B (Approx. 0.005)
30 20 20 60 20 15 10
CARBON EQUIVALENT: CE=CE(JTW) = 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=25.01(%Cu)+3.86(%Ni)+1.20(%Cr)+1.48(%Si)+17.28(%P)+7.29(%Ni)+9.10(%Ni)+30.38(%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.

Day Lonnell
QUALITY ASSURANCE

STATE OF ARKANSAS COUNTY OF MISSISSIPPI
SWORN TO AND SUBSCRIBED BEFORE ME THIS
27 Day of 04/12
Charlene Wallis NOTARY PUBLIC
MY COMMISSION EXPIRES 10/21/2013



CUSTOMER COPY