

DATE	5/05/11
INVOICE NO.	407092
BILL OF LADING	22220
CUSTOMER NO.	5446
CUSTOMER P.O.	600053

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-06a A572/A572M GR50-07
ASTM A709/A709M-09 GR50 (345)
ASTM A709/A709M-09 GR50S (345S)
ASTM A6/A6M-09

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

44173

ITEM #	ITEM DESCRIPTION	QTY	HEAT #	MECHANICAL PROPERTIES							CHEMICAL PROPERTIES										
				YIELD TO TENSILE RATIO	YIELD STRENGTH	TENSILE STRENGTH	ELONG.	CHARYI IMPACT		C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Cb	CE
					PSI	PSI		%	TEMP												
1	W33 -130.0 40'	1	365303	.82	59000	72000	26			1.01	.018	.00	.22	.27	.10	.11	.03	.00	.020	.29	
	W840 x193.0 12.192 M			.82	59000	72000	27										.01	.15			
2	W33 -130.0 40'	11	365305	.82	60000	73000	25			.08	.00	.023	.24	.30	.09	.10	.03	.00	.022	.31	
	W840 x193.0 12.192 M			.81	59000	73000	26										.01	.16			
3	W33 -130.0 40'	10	365309	.80	59000	74000	25			1.00	.014	.022	.27	.30	.11	.12	.03	.00	.022	.31	
	W840 x193.0 12.192 M			.78	58000	74000	24										.01	.17			
4	W33 -130.0 40'	6	365311	.83	59000	71000	26			.07	.00	.021	.22	.28	.11	.10	.03	.00	.019	.30	
	W840 x193.0 12.192 M			.80	56000	70000	26										.01	.15			
5	W33 -130.0 40'	1	365328	.80	56000	70000	25			1.01	.016	.022	.22	.29	.10	.09	.03	.00	.021	.29	
	W840 x193.0 12.192 M			.78	54000	69000	26										.01	.15			
6	W33 -130.0 40'	1	365337	.79	59000	75000	26			.08	.10	.017	.022	.29	.12	.13	.03	.00	.020	.32	
	10 x193.0 12.192 M			.80	60000	75000	26										.01	.17			

LA ORIGINAL DE ESTE CERTIFICADO BARNIEDO SA DE CV
VENTAS@FERREBARNIEDO.COM.MX
NO. 58-36-10-00
ARCHIVOS
DE C.V.

Pcm = C + Si + Mn + Cu + Ni + Cr + Mo + V + Nb + Ti + B ≈ Approx. 0.005
30 20 20 80 20 15 10
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: Cr<26.01(%Cu)+3.88(%Ni)+1.20(%Cr)+1.43(%Sb)+17.28(%P)+7.29(%Cu)+9.10(%Ni)+33.38(%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.

Dany Lennell

QUALITY ASSURANCE
CUSTOMER COPY

STATE OF ARKANSAS COUNTY OF MISSISSIPPI
SWORN TO AND SUBSCRIBED BEFORE ME THIS
5 Day of 05/11
Charlene Wallis NOTARY PUBLIC
MY COMMISSION EXPIRES 10/21/2018
CHARLENE WALLIS
MY Comm. Exp. 10-21-2018
NOTARY PUBLIC
MISSISSIPPI CO. ARKANSAS