DATE	7/18/12
INVOICE NO.	495725
BILL OF LADING	74759
CUSTOMER NO.	5446
CUSTOMER P.O.	600420

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

47243

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
	7 -161.0	10	389174	.78	56000	72000	27			.08	1.22	.014	.019	.25	.27	.13	.08	.04	.03	.021	.34
	40'			.75	53000	71000	27											.01	.18		
	W690 x240.0				386	496	27														
	12.192 M				365	490	27														
2	W27 -161.0	12	389176	.77	54000	70000	28			.08	1.10	.014	.026	.28	.33	.12	.09	.04	.01	.021	.32
	40'			.74	53000	72000	28											.01	.17		
	W690 x240.0				372	483	28														
	12.192 M				365	496	28														
3	W27 -161.0	1	389184	.75	52000	69000	29			.08	1.10	.017	.021	.27	.27	.12	.10	.03	.01	.021	.32
	40'			.74	52000	70000	28											.01	.17		
	W690 x240.0				359	476															
	12.192 M				359	483	28														
4	W27 -161.0	3	389371	.74	52000	70000	29			.07	1.14	.014	.021	.27	.33	.10	.09	.03	.01	.021	.32
	40'			.77	54000	70000	29											.01	.16		
	W690 x240.0				359	483	29														
	12.192 M				370	483	29														

Pcm = C + Si/30 + Mn/20 + Cu/20 + Ni/60 + Cr/20 + Mo/15 + V/10 + 5 (B Bin Approx. 1000/5)

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)+[illegible]+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
18 Day of 07/12

Charlene Wallis NOTARY PUBLIC

MY COMMISSION EXPIRES 10/21/2013

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

ORIGINAL CERTIFICADO DE ACERO
ARCELOR MITTAL
ventas@ferrebarniedo.com.mx
TEL. 58 36-10-00
COPIA REMISIÓN
COPIA ARCHIVOS