

DATE	1/26/12
INVOICE NO.	459455
BILL OF LADING	53243
CUSTOMER NO.	5446
CUSTOMER P.O.	600296

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

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	TENSILE STRENGTH	ELONG	CHARPY IMPACT		C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Cb	CE	
					PSI	MPa		PSI	MPa													%
1	W30 -124.0 40' W760 x185.0 12.192 M	3	379403	.74	52000	70000	28				.08	1.00	.011	.026	.26	.27	.12	.11	.03	.00	.019	.31
				.76	53000	70000	28												.01	.16		
					359	483	28															
					365	483	28															
2	W30 -124.0 40' W760 x185.0 12.192 M	12	379411	.76	54000	71000	28				.08	1.00	.014	.023	.23	.28	.12	.13	.03	.00	.018	.31
				.76	54000	71000	28												.01	.16		
					372	490	28															
					372	490	28															
3	W30 -124.0 40' W760 x185.0 12.192 M	12	379414	.81	59000	73000	26				.07	1.02	.011	.028	.27	.29	.12	.11	.03	.00	.019	.30
				.78	54000	71000	28												.01	.16		
					407	503	26															
					372	490	28															
4	W30 -124.0 40' W760 x185.0 12.192 M	6	379416	.77	55000	71000	28				.08	1.05	.012	.020	.26	.26	.11	.11	.03	.00	.019	.31
				.77	54000	70000	28												.01	.17		
					379	490	28															
					372	483	28															

CARBON EQUIVALENT: CE = C + Mn/6 + (Cr + Mo + V)/5 + (Ni + Cu)/15
Composition Index: C(0.26)Mn(1.05)P(0.011)S(0.026)Si(0.26)Cu(0.27)Ni(0.12)Cr(0.11)Mo(0.03)V(0.00)Cb(0.019)CE(0.31)
Mercury has not been used in the direct manufacturing of this material.

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.

Doug Lennell
QUALITY ASSURANCE
CUSTOMER COPY

STATE OF ARKANSAS COUNTY OF MISSISSIPPI
SWORN TO AND SUBSCRIBED BEFORE ME THIS
26 Day of 01/12
Charlene Wallis NOTARY PUBLIC
MY COMMISSION EXPIRES 10/21/2018
CHARLENE WALLIS
MY Comm. Exp. 10-21-2018
NOTARY PUBLIC
MISSISSIPPI CO. ARKANSAS