

**NUCOR-YAMATO STEEL CO.**

P.O. BOX 1226  
 BLYTHEVILLE AR 72316

DATE  
 12/05/06

**CERTIFIED MILL TEST REPORT**  
 100% MELTED AND MANUFACTURED IN U.S.A.

All shapes produced by Nucor-Yamato Steel are test and rolled to a fully killed and fine grain practice.

**SOLD TO**

FERRE BARRIEDO, S.A. DE C.V.  
 AV REVOLUCION #81 COL SAN CRISTOBAL  
 BORMEPEC DE MORELOS  
 MEXICO CP 55000

**SHIP TO**

FERRE C/O LOGISTICA INTEGRAL EN  
 ESPUELA O ESCAPE #06-717-94  
 FINAL: SAN LUIS POIOSI, SLP MX  
 LAREDO, TX

INVOICE 98171	CUSTOMER NO. 5446
BILL OF LADING 819145	CUSTOMER P.O. 65638

SPECIFICATIONS GRADE: ASTM A992/A992M-06a A572/A572M GR50-04 ASIM A709/A709M-03a GR50 (345)  
 ASIM A709/A709M-03a GR50S (345R) ASTM A6/A6M-05a

ITEM	ITEM DESCRIPTION	QTY	HEAT #	MECHANICAL PROPERTIES						CHEMICAL PROPERTIES												
				YIELD TO TENSILE RATIO	YIELD STRENGTH PSI	TENSILE STRENGTH PSI	ELONG X	CHARPY IMPACT		C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Cb	CE	
								TEMP F	IMPACT ENERGY FT-LBS													
1	A30 - 99.0 45' #760 x147.0 13.716 M	1	286490	.77	59000	77000	24				.071	.33	.018	.021	.23	.35	.09	.12	.02	.00	.020	.35
2	A30 - 99.0 45' #760 x147.0 13.716 M	1	286535	.78	60000	77000	24				.071	.31	.021	.025	.25	.34	.08	.11	.02	.00	.019	.35
3	A30 - 99.0 45' #760 x147.0 13.716 M	1	286549	.78	60000	77000	24				.071	.31	.022	.019	.20	.26	.08	.12	.02	.00	.019	.34
4	A30 - 99.0 50' #760 x147.0 15.240 M	8	286519	.77	60000	78000	25				.081	.31	.016	.023	.22	.35	.12	.13	.02	.00	.018	.36
5	A30 - 99.0 50' #760 x147.0 15.240 M	5	286537	.76	60000	79000	24				.081	.32	.018	.023	.24	.33	.09	.10	.02	.00	.019	.35
6	A30 - 99.0 50' #760 x147.0 15.240 M	1	286544	.75	58000	77000	24				.081	.32	.014	.024	.26	.31	.09	.13	.02	.00	.020	.36
7	A30 - 108.0 45' #760 x181.0 13.716 M	3	286341	.77	59000	77000	23				.081	.30	.015	.019	.20	.38	.11	.14	.05	.00	.018	.37

ELONGATION BASED ON 8.00 INCH GAUGE LENGTH  
 F0.2=C+(81/30)Min / 20-Cu / 20+Ni / 60-Cr / 20-Mo / 15+V / 10+5B B approx .80S  
 Carbon Equivalent CE = C + Mn/6 + (Cr+Mo+V) / 5 + (Ni+Cu) / 15  
 Corrosion Index: CI=26.01(%Cu)+3.88(%Ni)+1.2(%Cr)+1.49(%Si)+17.28(%P)-7.29(%Cu)(%Ni)-9.10(%Ni)(%P)-33.39(%Cu)^2

Notably verify 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, and when designated by the purchaser, meet the applicable specifications.

GARY PENNELL  
 QUALITY ASSURANCE

STATE OF ARKANSAS  
 COUNTY OF MISSISSIPPI  
 SWORN TO AND SUBSCRIBED BEFORE ME THIS  
 Day of \_\_\_\_\_

NOTARY PUBLIC