

**NUCOR-YAMATO STEEL CO.**

P O BOX 1228  
 BLYTHEVILLE AR 72314

DATE  
 1/20/05

**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.

**SOLD TO**

FERRE BARNIEDO, S.A. DE C.V.  
 AV REVOLUCION NO 81  
 SAN CRISTOBAL ECATEPEC  
 EDO DE MEXICO 55000-0000

**SHIP TO**

FERRE BARNIEDO C/O TAF FORWARDING  
 SR DELFIN 956-723-7112  
 1207 UNIROYAL DRIVE  
 LAREDO, TX

INVOICE  
 914190

CUSTOMER NO.  
 3446

9194

EST 607

BILL OF LADING  
 713240

CUSTOMER P.O.  
 BERND 12/01

2 SPECIFICATIONS GRADE: ASTM A572GR50-U1 ASTM A6/A6H-U2B  
 ASTM A709/A709M-01b GR50 (345)

ITEM	ITEM DESCRIPTION	QTY	HEAT #	MECHANICAL PROPERTIES								CHEMICAL PROPERTIES											
				YIELD TO TENSILE MPa	YIELD STRENGTH MPa	TENSILE STRENGTH MPa	ELONG %	CHARPY IMPACT		C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Cb	CE		
								TEMP °C	IMPACT ENERGY FT-LBS JOULES														
1	L08 - 51.0 '0' x 8 x 1 L203x203x25.4 12.192 M	12	248692	.68	52000	77000	27					.08	.26	.014	.029	.32	.32	.13	.10	.03	.00	.027	.35
				.68	52000	76000	25													.01	.18		
						359	531	27															
						359	524	25															
2	L08 - 51.0 40' L8 x 8 x 1 L203x203x25.4 12.192 M	8	248695	.74	56000	76000	26					.08	.23	.013	.023	.30	.34	.14	.08	.03	.00	.023	.34
				.76	56000	74000	27													.01	.17		
						386	524	26															
						386	510	27															
3	L08 - 51.0 40' L8 x 8 x 1 L203x203x25.4 12.192 M	8	248697	.72	55000	76000	25					.06	.21	.017	.036	.26	.31	.12	.10	.03	.00	.025	.32
				.73	55000	75000	26													.01	.16		
						379	524	25															
						379	517	26															
4	L08 - 51.0 40' L8 x 8 x 1 L203x203x25.4 12.192 M	4	248712	.72	55000	76000	27					.08	.28	.016	.027	.32	.34	.13	.13	.03	.00	.025	.35
				.71	53000	75000	27													.01	.18		
						379	524	27															
						365	517	27															
5	L08 - 51.0 40' L8 x 8 x 1 L203x203x25.4 12.192 M	20	248715	.67	51000	76000	23					.07	.24	.019	.031	.26	.35	.12	.11	.03	.00	.022	.34
				.67	50000	75000	24													.01	.17		
						352	524	23															
						345	517	24															
6	L08 - 51.0 40' L8 x 8 x 1 L203x203x25.4 12.192 M	32	248717	.71	55000	77000	24					.08	.22	.014	.030	.31	.32	.12	.11	.03	.00	.023	.34
				.69	53000	77000	24													.01	.18		
						379	531	24															
						365	531	24															

ELONGATION BASED ON 8.00 INCH GAUGE LENGTH CARBON EQUIVALENT CE = C+ Mn/6 + (Cr+Mo+V)/5 + (Ni+Cu)/15  
 Pcm=C+Si/30+Mn/20+Cu/20+Ni/60+Cr/20+Mo/15+V/10+SB E-Approx .0005  
 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)<sup>2</sup>

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, 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