

NUCOR-YAMATO STEEL CO.

P O BOX 1228
BLYTHEVILLE AR 72316

DATE
4/19/06

7282
CERTIFIED MILL TEST REPORT
100% KILLED AND MANUFACTURED IN U.S.A.
All shapes produced by Nucor-Yamato Steel are cast and rolled to a fully killed 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
1207 UNIROYAL DRIVE
FINAL: SAN LUIS POTOSI, SLP MX
LAREDO, TX

INVOICE 37941	CUSTOMER NO. 5446
BILL OF LADING 781430	CUSTOMER P.O. FERRE 24 2ND

2 SPECIFICATIONS GRADE: ASTM A992/A992M-04a A572/A572M GR50-03a ASTM A709/A709M-03a GR50 (345)
ASTM A709/A709M-03a GR50S (345S) ASTM A6/A6M-04a

ITEM	ITEM DESCRIPTION	QTY	HEAT #	MECHANICAL PROPERTIES								CHEMICAL PROPERTIES													
				YIELD TO TENSILE RATIO	YIELD STRENGTH FBI MPa	TENSILE STRENGTH FBI MPa	ELONG %	CHARPY IMPACT		C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Cb	CE				
								TEMP F	IMPACT ENERGY FT-LBS JOULES																
1	W24 -104.0 40'	3	273176	.80	56000	70000	28					.061	.25	.018	.026	.20	.28	.11	.11	.03	.00	.015	.33		
				.77	55000	71000	29																		
	W610 x155.0 12.192 M						386	483	28																
2	W24 -104.0 40'	8	273178	.79	56000	71000	28					.071	.23	.019	.025	.22	.32	.11	.11	.03	.00	.015	.34		
				.77	55000	71000	28																		
	W610 x155.0 12.192 M						386	490	28																
3	W24 -104.0 40'	12	273180	.78	54000	69000	28					.071	.23	.020	.024	.20	.32	.11	.11	.03	.00	.016	.34		
				.78	54000	69000	27																		
	W610 x155.0 12.192 M						372	476	28																
4	W24 -104.0 40'	9	273181	.77	54000	70000	28					.071	.19	.020	.025	.20	.33	.10	.10	.03	.00	.015	.33		
				.77	53000	69000	27																		
	W610 x155.0 12.192 M						372	483	28																
5	W24 -104.0 40'	1	273188	.78	56000	72000	27					.071	.22	.022	.022	.21	.33	.09	.10	.03	.00	.016	.33		
				.79	56000	71000	25																		
	W610 x155.0 12.192 M						386	496	27																
6	W24 -104.0 40'	6	273211	.79	55000	70000	26					.061	.22	.017	.023	.19	.29	.10	.10	.02	.00	.015	.31		
				.80	56000	70000	27																		
	W610 x155.0 12.192 M						379	483	26																

ELONGATION BASED ON 8.00 INCH GAUGE LENGTH
 $P_{cm} = C + \frac{Si}{30} + \frac{Mn}{20} + \frac{Cu}{20} + \frac{Ni}{60} + \frac{Cr}{20} + \frac{Mo}{15} + \frac{V}{10} + \frac{5B}{10} - \text{approx. } .0005$
 CARBON EQUIVALENT CE = $C + \frac{Mn}{6} + \frac{Cr + Mo + V}{5} + \frac{Ni + Cu}{15}$
 Corrosion Index: $CI = 26.01(\%Cu) + 3.88(\%Ni) + 1.2(\%Cr) + 1.49(\%Si) + 17.28(\%P) - 7.29(\%Cu)(\%Ni) - 9.10(\%Ni)(\%P) - 33.39(\%Cu)^2$

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

NUCOR-YAMATO STEEL CO.

P O BOX 1228
 BLYTHEVILLE AR 72316

DATE
 4/21/06

7475

CERTIFIED TEST REPORT

100% 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 BARNIEADO, S.A. DE C.V.
 AV REVOLUCION NO 81
 SAN CRISTOBAL ECATEPEC
 EDO DE MEXICO 55000-0000

SHIP TO

FERRE BARNIEADO C/O TAF FORWARDING
 1207 UNIROVAL DRIVE
 FINAL: SAN LUIS POTOSI, SLP MX
 LAREDO, TX

INVOICE
 38641
 BILL OF LADING
 781829

CUSTOMER NO.
 5446
 CUSTOMER P.O.
 FERRE 24 2ND

SPECIFICATIONS GRADE:

ASTM A709/A709M-03a GR50s (345s)

ASTM A992/A992M-04a A572/A572M GR50-03a ASTM A709/A709M-03a GR50 (345)
 ASTM A6/A6M-04a

ITEM	ITEM DESCRIPTION	QTY	HEAT #	MECHANICAL PROPERTIES								CHEMICAL PROPERTIES												
				YIELD TO TENSILE RATIO	YIELD STRENGTH F _Y MPa	TENSILE STRENGTH F _T MPa	ELONGATION %	CHARPY IMPACT		C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Cb	CE			
								TEMP F	IMPACT ENERGY FT-LBS JOULER															
1	W24 -104.0	14	273174	.79	55000	70000	28					.061	.24	.018	.025	.22	.25	.11	.09	.03	.00	.015	.31	
	40'			.77	55000	71000	27														.01	.14		
	W610 x155.0					379	483	28																
2	12.192 M				379	490	27																	
	W24 -104.0	6	273176	.80	56000	70000	28					.061	.25	.018	.026	.20	.28	.11	.11	.03	.00	.015	.33	
	40'			.77	55000	71000	29																	
W610 x155.0					386	483	28														.01	.15		
3	12.192 M				379	490	29																	
	W24 -104.0	12	273178	.79	56000	71000	28					.071	.23	.019	.025	.22	.32	.11	.11	.03	.00	.015	.34	
	40'			.77	55000	71000	28																	
W610 x155.0					386	490	28														.01	.17		
4	12.192 M				379	490	28																	
	W24 -104.0	4	273180	.78	54000	69000	28					.071	.23	.020	.024	.20	.32	.11	.11	.03	.00	.016	.34	
	40'			.78	54000	69000	27																	
W610 x155.0					372	476	28																	
5	12.192 M				372	476	27																	
	W24 -104.0	1	273184	.81	58000	72000	27					.081	.22	.023	.025	.19	.38	.10	.12	.03	.00	.014	.34	
	40'			.79	57000	72000	25																	
W610 x155.0					400	496	27														.01	.18		
6	12.192 M				393	496	25																	
	W24 -104.0	1	273194	.74	53000	72000	26					.061	.20	.026	.025	.18	.31	.09	.12	.03	.00	.015	.32	
	40'			.75	54000	72000	27																	
W610 x155.0					365	496	26														.01	.16		
6	12.192 M				372	496	27																	

ELONGATION BASED ON 8.00 INCH GAUGE LENGTH
 $P_{cm} = C + Si / 30 + Mn / 20 + Cu / 20 + Ni / 60 + Cr / 20 + Mo / 15 + V / 10 + 5B$ Approx .0005
 CARBON EQUIVALENT CE = $C + Mn / 6 + (Cr + Mo + V) / 5 + (Ni + Cu) / 15$
 Corrosion Index: $CI = 26.01(\%Cu) + 3.88(\%Ni) + 1.2(\%Cr) + 1.49(\%Si) + 17.28(\%P) - 7.29(\%Cu)(\%Ni) - 9.10(\%Ni)(\%P) - 33.39(\%Cu)^2$

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

YAMATO STEEL CO.

P O BOX 1228
 BLYTHEVILLE AR 72316

DATE
 4/21/06

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
 1207 UNIROVAL DRIVE
 FINAL: SAN LUIS POTOSI, SLP MX
 LAREDO, TX

INVOICE
 38640
BILL OF LADING
 781828

CUSTOMER NO.
 5446
CUSTOMER P.O.
 FERRE 24 2ND

2	SPECIFICATIONS GRADE: ASTM A709/A709M-03a GR50S (345S)	ASTM A992/A992M-04a A572/A572M GR50-03a ASTM A709/A709M-03a GR50 (345) ASTM A6/A6M-04a
---	--	---

ITEM	ITEM DESCRIPTION	QTY	HEAT #	MECHANICAL PROPERTIES								CHEMICAL PROPERTIES												
				YIELD TO TENSILE RATIO	YIELD STRENGTH F _Y MPa	TENSILE STRENGTH F _T MPa	ELONG %	CHARPY IMPACT		C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Cb	CE			
								TEMP F	IMPACT ENERGY FT-LBS													Sn	Pcm	CI
1	W24 -104.0 40' W610 x155.0 12.192 M	4	273160	.79	55000	70000	27				.071	.20	.025	.024	.20	.26	.09	.16	.03	.00	.016	.33		
				.79	56000	71000	28														.01	.16		
					379	483	27																	
2	W24 -104.0 40' W610 x155.0 12.192 M	14	273162	.77	53000	69000	28				.061	.25	.020	.023	.23	.29	.12	.11	.03	.00	.016	.33		
				.79	56000	71000	28																	
					365	476	28																	
3	W24 -104.0 40' W610 x155.0 12.192 M	15	273169	.78	56000	72000	26				.081	.21	.022	.023	.25	.37	.10	.11	.03	.00	.016	.34		
				.78	56000	72000	26																	
					386	490	28																	
4	W24 -104.0 40' W610 x155.0 12.192 M	3	273174	.79	55000	70000	28				.061	.24	.018	.025	.22	.25	.11	.09	.03	.00	.015	.31		
				.77	55000	71000	27																	
					379	483	28																	
5	W24 -104.0 40' W610 x155.0 12.192 M	1	273178	.79	56000	71000	28				.071	.23	.019	.025	.22	.32	.11	.11	.03	.00	.015	.34		
				.77	55000	71000	28																	
					386	490	28																	

ELONGATION BASED ON 8.00 INCH GAUGE LENGTH
 Pcm=C+81/30+Mn/20+Cu/20+Ni/60+Cr/20+Mo/15+V/10+5B B-Approx .0005
 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

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

NUCOR-YAMATO STEEL CO.

P O BOX 1228
 BLYTHEVILLE AR 72316

DATE
 6/18/06

8322 TITLE: MECHANICAL TEST REPORT
 100% HEAT TREATED AND MANUFACTURED IN U.S.A
 All steel products are 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

SHIP TO

FERRE BARNIEDO C/O TAF FORWARDING
 1207 UNIROYAL DRIVE
 FINAL: SAN LUIS POTOSI, SLP MX
 LAREDO, TX

INVOICE
 52254

CUSTOMER NO.
 5446

BILL OF LADING
 790510

CUSTOMER P.O.
 FERRE 24 2ND

2	SPECIFICATIONS GRADE: ASTM A709/A709M-03a GR50s (345s)	ASTM A992/A992M-04a A572/A572M GR50-04 ASTM A6/A6M-05a	ASTM A709/A709M-03a GR50 (345)
---	--	---	--------------------------------

ITEM	ITEM DESCRIPTION	QTY	HEAT #	MECHANICAL PROPERTIES							CHEMICAL PROPERTIES															
				YIELD TO TENSILE RATIO	YIELD STRENGTH F _{0.2} MPa	TENSILE STRENGTH F _U MPa	ELONG %	TEMP F	IMPACT ENERGY FT-LBS	IMPACT ENERGY JOULES	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Cb	CE				
																							Sn	Pcm	CI	
1	1P24131551	6	273136	.77	56000	73000	27						.071	.20	.018	.024	.15	.30	.11	.13	.03	.00	.017	.33		
	W24 -104.0			.75	55000	73000	27																			
	40'																									
2	W610 x155.0	15	273138		386	503	27																			
	12.192 M				379	503	27																			
	W24 -104.0			.76	55000	72000	26				.071	.20	.012	.022	.22	.36	.12	.09	.03	.00	.018	.32				
3	40'	3	273153	.78	57000	73000	25														.01	.16				
	W610 x155.0				379	496	26																			
	12.192 M				393	503	25																			
4	W24 -104.0	2	270665	.79	58000	73000	27						.081	.22	.020	.025	.21	.30	.11	.14	.03	.00	.018	.34		
	40'			.78	56000	72000	28																			
	W610 x155.0				400	503	27																.01	.18		
5	12.192 M	2	275980		386	496	28																			
	W36 -256.0			.76	55000	72000	26				.071	.34	.025	.019	.22	.28	.09	.11	.02	.04	.002	.34				
	40'			.75	54000	72000	26																.01	.17		
6	W920 x381.0	2	276821		379	496	27																			
	12.192 M				372	496	26																			
	W36 -256.0			.76	54000	71000	28				.071	.31	.026	.020	.25	.28	.10	.15	.03	.00	.030	.36				
7	40'	2	276821	.75	54000	72000	27														.01	.17				
	W920 x381.0				372	490	28																			
	12.192 M				372	496	27																			
8	W36 -256.0	2	276821	.77	57000	74000	26						.071	.34	.023	.020	.22	.34	.11	.15	.03	.05	.001	.37		
	40'			.76	53000	70000	28																			
	W920 x381.0				393	510	26																.01	.18		
9	12.192 M	2	276821		365	483	28																			

ELONGATION BASED ON 8.00 INCH GAUGE LENGTH
 Pcm=C+Si/30+Mn/20+Cu/20+Ni/60+Cr/20+Mo/15+V/10+5B/1000
 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

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