

DATE	11/21/11
INVOICE NO.	445996
BILL OF LADING	45273
CUSTOMER NO.	5446
CUSTOMER P.O.	600226

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

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ASTM A995/A995M-06
ASTM A709/A709M-03
ASTM A109/A109M-09
ASTM A6/A6M-09

22154

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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	PSI	%	TEMP	IMPACT ENERGY												
1	4527 -146.0 1090 x217.0 12.132 M	5	375614	.79	57000	72000	26			.07	1.10	.013	.023	.26	.28	.11	.11	.03	.00	.020	
2	4527 -146.0 1090 x217.0 12.132 M	5	375615	.82	58000	71000	29			.07	1.11	.020	.029	.26	.31	.13	.17	.04	.00	.022	
3	4527 -146.0 1090 x217.0 12.132 M	11	375616	.79	58000	73000	26			.07	1.10	.013	.023	.25	.28	.12	.12	.03	.00	.020	
4	4527 -146.0 1090 x217.0 12.132 M	3	375617	.79	57000	72000	26			.07	1.10	.013	.020	.25	.28	.11	.10	.03	.00	.019	
5	4527 -146.0 1090 x217.0 12.132 M	1	375620	.81	61000	75000	25			.07	1.10	.013	.021	.26	.29	.11	.09	.03	.00	.021	
6	4527 -146.0 1090 x217.0 12.132 M	2	375622	.79	58000	73000	26			.07	1.11	.014	.023	.25	.30	.11	.09	.03	.00	.020	
7	4527 -146.0 1090 x217.0 12.132 M	1	375623	.82	61000	74000	24			.07	1.10	.013	.020	.24	.30	.13	.10	.04	.00	.019	

CARBON EQUIVALENT: CE = C + (Mn/6) + (Cr/5) + (Ni/16) + (Cu/12) - (S/24) - (P/8)
Mixtures has not been used in the direct manufacturing of this material.

Corrosion Index: C₁ = 0.001(C + Mn + Ni + Cu) + 0.0005(S + P) + 0.0001(Cr + Mo + V) + 0.0001(Cb) + 0.0001(CE)

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.

Day Lennell

QUALITY ASSURANCE

CUSTOMER COPY

STATE OF ARKANSAS COUNTY OF MISSISSIPPI
SWORN TO AND SUBSCRIBED BEFORE ME THIS

21 Day of 11/11

Charlene Wallis NOTARY PUBLIC

MY COMMISSION EXPIRES 10/21/2013

