

A. B. C. Testing Inc.

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MECHANICAL TEST REPORT

ABC Testing number: 124009 Date: December 22, 2009
Customer: Foster - Precise Purchase order: verbal instruction (W. Borkowski)
Code or Standard: ASTM E - 8, ASTM E - 23 and AWS D1.5
PQR #, Heat #, or other: Flat (1G), F2A2-ENiK-Ni-H8
Material & Dimensions: 1 inch thick plate (ASTM A 709, Gr 50)
Remarks: Impact tests: -20 degrees F

BEND TESTS

Type and Figure	Result
Transverse Side - Figure 5.11	Acceptable
Transverse Side - Figure 5.11	Acceptable
Transverse Side - Figure 5.11	Acceptable
Transverse Side - Figure 5.11	Acceptable

TENSILE TESTS

Type & Figure Transverse Rectangular - Figure 5.10

Specimen	Width (inches)	Thickness (inches)	Area (sq. in.)	Ultimate Load (pounds)	Ultimate Strength (PSI)	Type of Failure
A	0.747	1.022	0.763	66,300	86,844	Duct - BM
B	0.740	1.025	0.759	68,000	89,651	Duct - BM

Type & Figure Standard Round All Weld Metal Tension - Figure 5.9

Specimen	Diameter (inches)	Area (sq. inches)	Yield Load (pounds)	Tensile Load (pounds)	Yield Strength (PSI)	Tensile Strength (PSI)
W.M.-1	0.504	0.200	14,250	16,800	71,427	84,209
W.M.-2	0.501	0.197	13,500	16,750	68,481	84,967
	Gage length (inches)	New length (inches)	% elongation	New diameter (inches)	Reduced Area (sq. inches)	% RA
W.M.-1	2.014	2.547	26.46	0.323	0.082	58.93
W.M.-2	2.014	2.525	25.37	0.300	0.071	64.14

IMPACT TESTS

Type & Figure Charpy (Simple Beam) - Standard Size (Figure 4 - ASTM E 23)

Specimen	1 (ft - lbs)	2 (ft - lbs)	3 (ft - lbs)	4 (ft - lbs)	5 (ft - lbs)	average ** (ft - lbs)
Center	26	34	36	43	25	32.00

** discard the highest and lowest values and average the remaining values.

All tests were conducted in accordance with the referenced standard.

By: 
Michael Medeiros Vermont Agency of Transportation

RECEIVED

CK'D BY WDL OK'D BY JWC

11:43 am, Jul 11, 2011

RESUBMIT APPROVED X
BY CWC, Proj. Mgr. DATE 07/19/11