


TAM International Incorporated

Carbon Steel Material for Load Bearing or Pressure Containing Components, 75 ksi Yield

ESMA-1006

Approval of Document <u>ESMA-1006</u>	
Signature	 <u>Luis Garcia – Sustaining Engineering Manager</u>
	<u>Feb. 9th, 2022</u> Date



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Controlled Document

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1 SCOPE

- 1.1. This document provides specifications for DOM carbon steel material with 75 ksi minimum yield strength used for producing load bearing or pressure containing component parts in TAM products.
- 1.2. **Material specified by this document is compliant to NACE MR-0175, Part 2 Annex A (ISO 15156).**


2. CHEMISTRY

Carbon – (C) .22 - .28
 Manganese - (Mn) .60 - .90
 Phosphorus - (P) .40 Max
 Sulfur - (S) .050 Max

3 MECHANICAL PROPERTIES

- 3.1 The mechanical properties of this material shall conform to the following requirements:
 - 3.1.1 75,000 psi minimum yield strength as determined in accordance with ASTM A370.
 - 3.1.2 85,000 psi minimum tensile strength as determined in accordance with ASTM A370.
 - 3.1.3 Minimum Elongation of 10%
 - 3.1.4 Material shall have a Minimum hardness of HRB 90 (HRC 11) and a Maximum hardness of HRB 99 (HRC 22) as determined in accordance with ASTM E18.

NOTE: No other mechanical properties are required by this specification to be reported unless otherwise specified.

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4 WELDABILITY

- 4.1 Material weldability shall meet or exceed the requirements listed for ASTM 519, P1 materials as identified in ASME BPVC-IX.

Ferrous and Nonferrous P-Numbers


Spec No.	Type/Grade	P-No.
A519	1018 CW	1
A519	1018 HR	1
A519	1020 CW	1
A519	1020 HR	1
A519	1022 CW	1
A519	1022 HR	1
A519	1025 CW	1
A519	1025 HR	1
A519	1026 CW	1
A519	1026 HR	1

5 DIMENSIONAL TOLERANCES

- 5.1 Unless otherwise specified, dimensional tolerances shall comply with the following:
- 5.1.1 Plates shall comply with the dimensional requirements of ASTM A568.
 - 5.1.2 Tubes shall comply with the dimensional requirements of ASTM A450.
 - 5.1.3 Bars shall comply with the dimensional requirements of ASTM A29.
 - 5.1.4 Shapes shall comply with the dimensional requirements of ASTM A6.

6 REPORTS

- 6.1 Material ordered to this specification shall be accompanied by a Material Test Report. Report shall contain the following minimum information which will be subject to inspection upon receipt:

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- 6.1.1 Statement of material type/grade
- 6.1.2 Chemical analysis that shows the carbon content
- 6.1.3 Material yield strength
- 6.1.4 Material hardness
- 6.1.5 Material Identification Number

7 MATERIAL ACCEPTANCE

- 7.1 All requirements of this specification are subject to verification at the discretion of TAM International.
- 7.2 TAM Engineering Manager or designee is ultimately responsible for accepting or rejecting material that does not conform to any portion of this specification.
- 7.3 Any material deviations must be submitted and approved on a Material Deviation Request (PF-09) before machining can begin.**


8 DOCUMENT REVISION

- 8.1 Document revisions will be handled in accordance with SOP-009 Document Control

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Uncontrolled Document

Rev	Date	Description	Prepared By:	Reviewed By / Approved By	Date
A	7/21/15	New Document	Mark Wyatt	M. Wyatt, G. Fletcher, T. Young	7/21/2015
B	01/28/2022	All changes marked in Red . (Sect. 1, Sect. 2, Sect. 4.)	G. Fletcher	J. Dinkel, L. Garcia, T. Young, D. Gregory, C. Kelley/ G. Fletcher	01/28/2022

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