DJS ASTM A709/A709M-17: 2018
ICS 77.140.10

DRAFT Jamaican Standard

Specification

for

Structural Steel for Bridges

BUREAU OF STANDARDS JAMAICA

COMMENT PERIOD: JULY 22, 2018 TO SEPTEMBER 22, 2018

IMPORTANT NOTICE

Jamaican standards are subjected to periodic review. The next amendment will be sent without charge if you cut along the dotted line and return the self-addressed label. If we do not receive this label we have no record that you wish to be kept up-to-date. Our address:

Bureau of Standards Jamaica
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DJS ASTM A709/A709M–17: 2018

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The general policies of the JBS Certification Mark Programme are as follows:

- The JBS provides certification services for manufacturers participating in the programme and licensed to use the gazetted JBS Certification Marks to indicate conformity with Jamaican Standards.

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CERTIFICATION MARKS

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Certification of Agricultural Produce (CAP) Mark

Jamaica-Made Mark

Jamaican Standard

Specification

for

Structural Steel for Bridges

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This standard was circulated in draft form for comments under the reference DJS ASTM A709/A709M-17: 2018.

Jamaican Standards establish requirements in relation to commodities, processes and practices, but do not purport to include all the necessary provisions of a contract.

The attention of those using this specification is called to the necessity of complying with any relevant legislation.

Amendments

No.	Date of Issue	Remarks	Entered by and date

Designation: A709/A709M – 17ε1

Contents

NOTE

Informative Annex – gives additional information intended to assist in the understanding or use of the document. They do not contain requirements.

Normative Annex – gives provisions additional to those in the body of a document.
They contain requirements.

National foreword

This standard is an adoption of and is identical to ASTM A709/A709M–17 Standard Specification for Structural Steel for Bridges published by ASTM International.

Scope

1.1 This specification covers carbon and high-strength low alloy steel structural shapes, plates, and bars, quenched and tempered alloy steel, and stainless steel for structural plates intended for use in bridges. Eight grades are available in four yield strength levels as follows:

Grade U.S. [SI]	Yield Strength, ksi [MPa]
36 [250]	36 [250]
50 [345]	50 [345]
50S [345S]	50 [345]
50W [345W]	50 [345]
HPS 50W [HPS 345W]	50 [345]
50CR [345CR]	50 [345]
HPS 70W [HPS 485W]	70 [485]
HPS 100W [HPS 690W]	100 [690]

1.1.1 Grades 36 [250], 50 [345], 50S [345S], 50W [345W], and 50CR [345CR] are also included in Specifications A36/ A36M, A572/A572M, A992/A992M, A588/A588M, and A1010/A1010M (UNS S41003), respectively. When the requirements of Table 10 or Table 11 or the supplementary requirements of this specification are specified, they exceed the requirements of Specifications A36/A36M, A572/A572M, A992/A992M, A588/A588M, and A1010/A1010M (UNS S41003). Product availability is shown in Table 1.

1.1.2 Grades 50W [345W], 50CR [345CR], HPS 50W [HPS 345W], HPS 70W [HPS 485W], and HPS 100W [HPS 690W] have enhanced atmospheric corrosion resistance (see 13.1.2). Product availability is shown in Table 1.

1.2 Grade HPS 70W [HPS 485W] or HPS 100W [HPS 690W] shall not be substituted for Grades 36 [250], 50 [345], 50S [345S], 50W [345W], or HPS 50W [HPS 345W]. Grade 50W [345W], or HPS 50W [HPS 345W] shall not be substituted for Grades 36 [250], 50 [345] or 50S [345S] without agreement between the purchaser and the supplier.

1.3 When the steel is to be welded, it is presupposed that a welding procedure suitable for the grade of steel and intended use or service will be utilized. See Appendix X3 of Specification A6/A6M for information on weldability.

1.4 For structural products to be used as tension components requiring notch toughness testing, standardized requirements are provided in this standard, and they are based upon American Association of State Highway and Transportation Officials (AASHTO) requirements for both fracture critical and non-fracture critical members.

1.5 Supplementary requirements are available but shall apply only if specified in the purchase order.

1.6 The values stated in either SI units or inch-pound units are to be regarded separately as standard. The values stated in each system may not be exact equivalents; therefore, each system shall be used independently of the other. Combining values from the two systems may result in non-conformance with the standard.

1.7 For structural products produced from coil and furnished without heat treatment or with stress relieving only, the additional requirements, including additional testing requirements and the reporting of additional test results, of Specification A6/A6M apply.

1.8 This international standard was developed in accordance with internationally recognized principles on standardization established in the Decision on Principles for the Development of International Standards, Guides and Recommendations issued by the World Trade Organization Technical Barriers to Trade (TBT) Committee.

Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

A6/A6M	Specification for General Requirements for Rolled Structural Steel Bars, Plates, Shapes, and Sheet Piling
A36/A36M	Specification for Carbon Structural Steel
A370	Test Methods and Definitions for Mechanical Testing of Steel Products
A572/A572M	Specification for High-Strength Low-Alloy Columbium-Vanadium Structural Steel
A588/A588M	Specification for High-Strength Low-Alloy Structural Steel, up to 50 ksi [345 MPa] Minimum Yield Point, with Atmospheric Corrosion Resistance
A673/A673M	Specification for Sampling Procedure for Impact Testing of Structural Steel
A992/A992M	Specification for Structural Steel Shapes
A1010/A1010M	Specification for Higher-Strength Martensitic Stainless Steel Plate, Sheet, and Strip
G101	Guide for Estimating the Atmospheric Corrosion Resistance of Low-Alloy Steels

This standard is compulsory.

Committee representation

The revision of this standard for the Standards Council, established under the Standards Act, 1969 was carried out under the supervision of the Bureau's Building and Associated Materials Technical Committee, which at the time comprised the following members:

D Christie (Chairman)	Trelawny Aggregates Ltd.
C Laidlaw	Ministry of Transport and Mining
G Martin	Concrete Blocks and Aggregates Ltd.
H Chin	Jamaica Institutes of Engineers
K Strachan	Carib Cement
L Kelly	Incorporated Master Builders Association of Jamaica

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W Francis	Bureau of Standards Jamaica
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Acknowledgment

Acknowledgement is made to ASTM International for permission to adopt ASTM A709/A709M–17.