# DRAFT Jamaican Standard

Specification

for

General Requirements for Rolled Structural Steel Bars, Plates, Shapes, and Sheet Piling



# **BUREAU OF STANDARDS JAMAICA**

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

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# JBS CERTIFICATION MARK PROGRAMME

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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Further information concerning the details of the JBS Certification Mark Programme may be obtained from the Bureau of Standards, 6 Winchester Road, Kingston 10.

# CERTIFICATION MARKS







**Product Certification Marks** 

Plant Certification Mark





# **Jamaican Standard**

# **Specification**

for

General Requirements for Rolled Structural Steel Bars, Plates, Shapes, and Sheet Piling

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Month 2018

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First published Month 2018

This standard was circulated in draft form for comments under the reference DJS ASTM A6/A6M-17a: 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
	ASTA	DARDRORPIUR	

# **Contents**

National foreword Acknowledgement	Page vi ix
1 Scope	1
2 Referenced Documents	2
3 Terminology	2
4 Ordering Information	4
5 Materials and Manufacture	4
5 Materials and Manufacture 6 Heat Treatment 7 Chemical Analysis 8 Metallurgical Structure 9 Quality 10 Test Methods 11 Tension Tests 12 Permitted Variations in Dimensions and Weight [Mass]	4
7 Chemical Analysis	5
8 Metallurgical Structure	5
9 Quality	6
10 Test Methods	8
11 Tension Tests	9
12 Permitted Variations in Dimensions and Weight [Mass]	11
13 Retests	12
14 Test Reports	12
15 Inspection and Testing	13
16 Retreatment	13
17 Rejection	13
18 Identification of Structural Products	13
19 Packaging, Marking and Loading for Shipment	14
20 Keywords	14
SUPPLEMENTARY REQUIREMENTS	26
Table 1 - Tensile and Hardness Requirements	2
Table 2- Grade 36 [250] Chemical Requirements (Heat Analysis)	2
Table 3 - Grade 50 [345] Chemical Requirements (Heat Analysis)	3
Table 4 - Grade 50 [345] Alloy Content	3
Table 5 - Grade 50CR [345CR] Chemical Requirements (Heat Analysis)	3
Table 6 - Grade 50W [345 W] Chemical Requirements (Heat Analysis)	3
Table 7 - Grades HPS 50W [HPS 345W] and HPS 70W [HPS 485 W], and	
HPS 100W [HPS 690W] Chemical Requirements (Heat Analysis)	4
Table 8 - Grade 50S [345S] Chemical Requirements (Heat Analysis)	

Minimum Service Temperature  Table 10 - Non-Fracture Critical Tension Component Impact Test Requirements	4 5
Table 11 - Fracture Critical Tension Component Impact Test Requirements	5
ANNEXES	30
APPENDICES	60
SUMMARY OF CHANGES  SUMMARY OF CHANGES  SUMMARY OF CHANGES  SUMMARY OF CHANGES	63
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# 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 A6/A6M - 17a Standard Specification for General Requirements for Rolled Structural Steel Bars, Plates, Shapes, and Sheet Piling published by ASTM International.

# Scope

1.1 This general requirements specification covers a group of common requirements that, unless otherwise specified in the applicable product specification, apply to rolled structural steel bars, plates, shapes, and sheet piling covered by each of the following product specifications issued by ASTM:

<b>ASTM Designation</b>	Title of Specification
A36/A36M	Title of Specification  Carbon Structural Steel  Structural Steel for Ships  High-Strength Low-Alloy Structural Steel  Low and Intermediate Tensile Strength Carbon Steel Plates
A131/A131M	Structural Steel for Ships
A242/A242M	High-Strength Low-Alloy Structural Steel
A283/A283M	Low and Intermediate Tensile Strength Carbon Steel Plates
A328/A328M	Steel Sheet Piling
A514/A514M	High-Yield Strength, Quenched and Tempered Alloy Steel Plate, Suitable for Welding
A529/A529M	High-Strength Carbon-Manganese Steel of Structural Quality
A572/A572M	High-Strength Low-Alloy Columbium-Vanadium Steel
A573/A573M	Structural Carbon Steel Plates of Improved Toughness
A588/A588M	High-Strength Low-Alloy Structural Steel, up to 50 ksi [345 MPa] Minimum Yield Point, with
	Atmospheric Corrosion Resistance
A633/A633M	Normalized High-Strength Low-Alloy Structural Steel Plates
A656/A656M	Hot-Rolled Structural Steel, High-Strength Low-Alloy Plate with Improved Formability
A690/A690M	High-Strength Low-Alloy Nickel, Copper, Phosphorus Steel H-Piles and Sheet Piling with
	Atmospheric Corrosion Resistance for Use in Marine Environments
A709/A709M	Structural Steel for Bridges
A710/A710M	Precipitation-Strengthened Low-Carbon Nickel-Copper- Chromium-Molybdenum-Columbium
2 P.	Alloy Structural Steel Plates
A769/A769M	Carbon and High-Strength Electric Resistance Forge- Welded Steel Structural Shapes
A786/A786M	Hot-Rolled Carbon, Low-Alloy, High-Strength Low-Alloy, and Alloy Steel Floor Plates
A827/A827M	Plates, Carbon Steel, for Forging and Similar Applications
A829/A829M	Alloy Structural Steel Plates
A830/A830M	Plates, Carbon Steel, Structural Quality, Furnished to Chemical Composition Requirements
A857/A857M	Steel Sheet Piling, Cold Formed, Light Gage
A871/A871M	High-Strength Low-Alloy Structural Steel Plate With Atmospheric Corrosion Resistance

A913/A913M High-Strength Low-Alloy Steel Shapes of Structural Quality, Produced by Quenching and

Self-Tempering Process (QST)

A945/A945M High-Strength Low-Alloy Structural Steel Plate with Low Carbon and Restricted Sulfur for

Improved Weldability, Formability, and Toughness

A950/A950M Fusion-Bonded Epoxy-Coated Structural Steel H-Piles and Sheet Piling

A992/A992M Structural Steel Shapes

A1043/A1043M Structural Steel with Low Yield to Tensile Ratio for Use in Buildings

A1066/A1066M High-Strength Low-Alloy Structural Steel Plate Produced by Thermo-Mechanical Controlled

Process (TMCP)

1.2 Annex A1 lists permitted variations in dimensions and mass (Note 1) in SI units. The values listed are not exact conversions of the values in Tables 1 to 31 inclusive but are, instead, rounded or rationalized values. Conformance to Annex

A1 is mandatory when the "M" specification designation is used.

NOTE 1— The term "weight" is used when inch-pound units are the standard; however, under SI, the preferred term is "mass."

- 1.3 Annex A2 lists the dimensions of some shape profiles.
- 1.4 Appendix X1 provides information on coil as a source of structural products
- 1.5 Appendix X2 provides information on the variability of tensile properties in plates and structural shapes.
- 1.6 Appendix X3 provides information on weldability.
- 1.7 Appendix X4 provides information on cold bending of plates, including suggested minimum inside radii for cold bending.
- 1.8 This general requirements specification also covers a group of supplementary requirements that are applicable to several of the above product specifications as indicated therein. Such requirements are provided for use where additional testing or additional restrictions are required by the purchaser, and apply only where specified individually in the purchase order.

### 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.

# ASTM Standards:

A131/A131M Specification for Structural Steel for Ships

A370 Test Methods and Definitions for Mechanical Testing of Steel Products
A673/A673M Specification for Sampling Procedure for Impact Testing of Structural Steel

A700 Guide for Packaging, Marking, and Loading Methods for Steel Products for Shipment
A751 Test Methods, Practices, and Terminology for Chemical Analysis of Steel Products

A829/A829M Specification for Alloy Structural Steel Plates

A941 Terminology Relating to Steel, Stainless Steel, Related Alloys, and Ferroalloys

E29 Practice for Using Significant Digits in Test Data to
E112 Test Methods for Determining Average Grain Size

E208 Test Method for Conducting Drop-Weight Test to Determine Nil-Ductility Transition

Temperature of Ferritic Steels

American Welding Society Standards:

A5.1/A5.1M Mild Steel Covered Arc-Welding Electrodes Low-Alloy Steel Covered Arc-Welding Electrodes A5.5/A5.5M Specification For Carbon Steel Electrodes And Fluxes For Submerged Arc Welding A5.17/A5.17M Specification For Carbon Steel Electrodes And Rods For Gas Shielded Arc Welding A5.18/A5.18M A5.20/A5.20M

Carbon Steel Electrodes For Flux Cored Arc Welding

A5.23/A5.23M Low Alloy Steel Electrodes And Fluxes For Submerged Arc Welding

A5.28/A5.28M Specification For Low-Alloy Steel Electrodes And Rods For Gas Shielded Arc Welding

A5.29/A5.29M Specification for Low-Alloy Steel Electrodes for Flux Cored Arc Welding

D1.1/D1.1M Structural Welding Code Steel

U.S. Military Standards:

MIL-STD-129 Marking for Shipment and Storage

MIL-STD-163 Steel Mill Products Preparation for Shipment and Storage

U.S. Federal Standard:

Fed. Std. No. 123 Marking for Shipments (Civil Agencies)

American Society of Mechanical Engineers Code:

Boiler and Pressure Vessel Code, Section IX **ASME** 

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 Building and Associated Materials Technical Committee, which at the time comprised the following members:

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C Laidlaw Ministry of Transport and Mining

G Martin Concrete Blocks and Aggregates Ltd.

H Chin Jamaica Institutes of Engineers

K Strachan Carib Cement

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# Acknowledgment

Acknowledgement is made to ASTM International for permission to adopt ASTM A6/A6M-17a.

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