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Dimensions, shape, mass and permissible variations of hot rolled steel sections

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In the event of any doubts arising as to the contents,
the original JIS is to be the final authority.

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Foreword

This Japanese Industrial Standard has been revised by the Minister of Economy, Trade and Industry based on the provision of Article 14, paragraph (1) of the Industrial Standardization Act applied mutatis mutandis pursuant to the provision of Article 16 of the said Act in response to a proposal for revision of Japanese Industrial Standard with a draft being attached, submitted by The Japan Iron and Steel Federation (JISF), an accredited standards development organization. This edition replaces the previous edition (**JIS G 3192** : 2014), which has been technically revised.

Attention is drawn to the possibility that some parts of this Standard may conflict with patent rights, published patent application or utility model rights. The relevant Minister is not responsible for identifying any of such patent rights, published patent application or utility model rights.

Dimensions, shape, mass and permissible variations of hot rolled steel sections

Introduction

This Japanese Industrial Standard has been prepared based on **ISO 657-1** : 1989, Edition 1, **ISO 657-2** : 1989, Edition 1, **ISO 657-5** : 1976, Edition 1, **ISO 657-11** : 1980, Edition 1, **ISO 657-15** : 1980, Edition 1, **ISO 657-18** : 1980, Edition 1, **ISO 657-19** : 1980, Edition 1 and **ISO 657-21** : 1983, Edition 1 with some modifications of the technical contents.

The vertical lines on both sides and dotted underlines indicate changes from the corresponding International Standard. A list of modifications with the explanations is given in Annex JA.

1 Scope

This Standard specifies the appearance, shapes and permissible variations thereof, and the dimensions, mass and their tolerances of hot rolled steel sections (hereafter referred to as steel sections).

The application of this Standard shall be as specified in each product standard.

NOTE The International Standards corresponding to this Standard and the symbol of degree of correspondence are as follows.

ISO 657-1 : 1989 *Hot-rolled steel sections — Part 1 : Equal-leg angles — Dimensions*

ISO 657-2 : 1989 *Hot-rolled steel sections — Part 2 : Unequal-leg angles — Dimensions*

ISO 657-5 : 1976 *Hot-rolled steel sections — Part 5 : Equal-leg angles and unequal-leg angles — Tolerances for metric and inch series*

ISO 657-11 : 1980 *Hot-rolled steel sections — Part 11 : Sloping flange channel sections (Metric series) — Dimensions and sectional properties*

ISO 657-15 : 1980 *Hot-rolled steel sections — Part 15 : Sloping flange beam sections (Metric series) — Dimensions and sectional properties*

ISO 657-18 : 1980 *Hot-rolled steel sections — Part 18 : L sections for shipbuilding (metric series) — Dimensions, sectional properties and tolerances*

ISO 657-19 : 1980 H*ot-rolled steel sections — Part 19 : Bulb flats (metric series) — Dimensions, sectional properties and tolerances*

ISO 657-21 : 1983 *Hot-rolled steel sections — Part 21 : T-sections with equal depth and flange width — Dimensions* (overall evaluation : MOD)

In addition, symbols which denote the degree of correspondence in the contents between the relevant International Standard and **JIS** are IDT

(identical), MOD (modified), and NEQ (not equivalent) according to **ISO/IEC Guide 21-1**.

2 Normative references

Part or all of the provisions of the following standards, through reference in this text, constitute provisions of this Standard. The most recent editions of the standards (including amendments) indicated below shall be applied.

JIS G 0203 *Glossary of terms used in iron and steel (Products and quality)*

JIS Z 8401 *Rounding of numbers*

3 Terms and definitions

For the purpose of this Standard, the following terms and definitions, and those given in **JIS G 0203** apply.

3.1

H-sections

sections with cross-section whose shape resembles the letter H

Note 1 to entry Generally, they are manufactured by universal rolling mill, two parallel sides have the same thickness and the inside surface of the side has no slope.

Note 2 to entry It may be classified into narrow width (beam), medium width (beam) and wide width (column) according to the relationship between the height and the side.

Note 3 to entry H-sections with flanges wider than 0.8 times the nominal height may be called “columns”.

Note 4 to entry H-sections include equal outer dimension H-sections. Equal outer dimension H-sections refers to H-sections whose depth is constant irrespective of the thickness of the flange.

3.2

CT-sections

sections prepared by cutting H-sections at the web

Note 1 to entry CT-sections include equal outer dimension CT-sections.

4 Classification and sectional shape

The classification and sectional shapes of steel sections shall be as given in Table 1.