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Structural steels with specified hardenability bands

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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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Contents

Foreword

This translation has been made based on the original Japanese Industrial Standard revised by the Minister of Economy, Trade and Industry through deliberations at the Japanese Industrial Standards Committee as the result of proposal for revision of Japanese Industrial Standard submitted by The Japan Iron and Steel Federation (JISF) with the draft being attached, based on the provision of Article 12 Clause 1 of the Industrial Standardization Law applicable to the case of revision by the provision of Article 14.

Consequently **JIS G 4052**:2008 is replaced with this Standard.

However, **JIS G 4052**:2008 may be applied in the **JIS** mark certification based on the relevant provisions of Article 19 Clause 1, etc. of the Industrial Standardization Law until November 20, 2017.

Attention is drawn to the possibility that some parts of this Standard may conflict with patent rights, applications for a patent after opening to the public or utility model rights. The relevant Minister and the Japanese Industrial Standards Committee are not responsible for identifying any of such patent rights, applications for a patent after opening to the public or utility model rights.

Structural steels with specified hardenability bands

Introduction

This Japanese Industrial Standard has been prepared based on the first edition of **ISO 683-2** published in 2012 and the first edition of **ISO 683-3** published in 2014 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 JB.

1 Scope

This Standard specifies steels mainly intended for machine structural use with specified hardenability bands (hereafter referred to as steel products) which are manufactured by hot rolling, hot forging and hot extruding. This Standard applies to steel products with a uniform cross-section, which are generally supplied for use after further processes of forging, cutting and heat treatment. This Standard is not applicable to steel tubes [1)].

The manufacturing method and quality requirements for hot-extruded sections are given in Annex JA.

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

ISO 683-2:2012 *Heat-treatable steels, alloy steels and free-cutting steels—Part 2: Alloy steels for quenching and tempering*

ISO 683-3:2014 *Heat-treatable steels, alloy steels and free-cutting steels—Part 3: Case-hardening steels* (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**.

Note [1)] Steel tubes are covered in **JIS G 3479** (Steel tubes for machine structure with specified hardenability bands).

2 Normative references

The following standards contain provisions which, 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 0320 *Standard test method for heat analysis of steel products*

JIS G 0321 *Product analysis and its tolerance for wrought steel*

JIS G 0404 *Steel and steel products—General technical delivery requirements*

JIS G 0415 *Steel and steel products—Inspection documents*