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**Low-alloyed steels for machine
structural use**

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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 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 4053**:2008 is replaced with this Standard.

However, **JIS G 4053**: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.

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Low-alloyed steels for machine structural use

Introduction

This Japanese Industrial Standard has been prepared based on the second edition of **ISO 683-1** published in 2012, the first edition of **ISO 683-2** published in 2012, the first editions of **ISO 683-3** and **ISO 683-5** 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 JC.

1 Scope

This Standard specifies low-alloyed steels for machine structural use (hereafter referred to as steel products) 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 tubes¹⁾.

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 683-1:2012 *Heat-treatable steels, alloy steels and free-cutting steels—Part 1: Non-alloy steels for quenching and tempering*

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*

ISO 683-5:2014 *Heat treatable steels, alloy steels and free-cutting steels—Part 5: Nitriding 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**.

Note¹⁾ Steel tubes are covered in **JIS G 3441** (Alloy steel tubes for machine purposes).

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.