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Free-cutting steels

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Foreword

This Japanese Industrial Standard has been 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 a draft being attached, based on the provision of Article 12, paragraph (1) of the Industrial Standardization Act applied mutatis mutandis pursuant to the provision of Article 16 of the said Act. This edition replaces the previous edition (**JIS G 4804: 2008**), which has been technically revised.

However, **JIS G 4804: 2008** may be applied in the **JIS** mark certification based on the relevant provisions of Article 30, paragraph (1), etc. of the Industrial Standardization Act until 21 February 2022.

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Free-cutting steels

Introduction

This Japanese Industrial Standard has been prepared based on **ISO 683-4** : 2016, Edition 2, 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 requirements for free-cutting steels manufactured by adding sulfur to carbon steel, or by combining phosphorus and/or lead with sulfur (hereafter referred to as steels), especially in order to improve machinability. The steels include bars, wire rods and flat bars.

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

ISO 683-4 : 2016 *Heat-treatable steels, alloy steels and free-cutting steels — Part 4 : Free-cutting steels* (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 0202 *Glossary of terms used in iron and steel (Testing)*

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

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*

JIS G 3191 *Dimensions, mass and permissible variations of hot rolled steel bars and bar in coil*

JIS G 3194 *Dimensions, mass and permissible variations of hot rolled flat steel*