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**Manganese-molybdenum and manga-
nese-molybdenum-nickel alloy steel
plates for boilers and pressure vessels**

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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 3119** : 2019), which has been technically revised.

However, **JIS G 3119** : 2019 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 19 December 2024.

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Manganese-molybdenum and manganese-molybdenum-nickel alloy steel plates for boilers and pressure vessels

Introduction

This Japanese Industrial Standard has been prepared based on **ISO 9328-1** : 2018, Edition 4, and **ISO 9328-2** : 2018, Edition 4, 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 requirements for hot-rolled steel plates of manganese-molybdenum and manganese-molybdenum-nickel alloy to be used for boilers and pressure vessels for intermediate and elevated temperature services (hereafter referred to as steel plates).

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

ISO 9328-1 : 2018 *Steel flat products for pressure purposes — Technical delivery conditions — Part 1 : General requirements*

ISO 9328-2 : 2018 *Steel flat products for pressure purposes — Technical delivery conditions — Part 2 : Non-alloy and alloy steels with specified elevated temperature properties* (overall evaluation : MOD)

In addition, symbols which denote the degree of correspondence in the contents between the relevant International Standards 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 0201 *Glossary of terms used in iron and steel (Heat treatment)*

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*