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JIS E 1110 : 1998

(Reaffirmed in 2003)

Carbon steel tie — plates

ICS 45.080

Descriptions : sleepers, fixtures, railway rails, sheet materials, steels

Reference number : JIS E 1110 : 1998 (E)

Foreword

This translation has been made based on the original Japanese Industrial Standard revised by the Minister of International Trade and Industry through deliberations at the Japanese Industrial Standards Committee in accordance with the Industrial Standardization Law. Consequently **JIS E 1110 : 1988** is replaced with **JIS E 1110 : 1998**.

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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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Carbon steel tie — plates

Introduction This Japanese Industrial Standard has been prepared based on the first edition of **ISO 6305/2** *Railway components — Technical delivery requirements — Part 2: Unalloyed carbon steel baseplates* published in 1983, by adding the minimum necessary matters specified in the conventional **JIS E 1110:1988** (*Tie Plates*) to clauses or contents, in consideration of users' confusion due to the drastic overall revision of the conventional **JIS** and to widen the scope of choices available to users.

In addition, portions underlined with dots in this Standard are not stated in the original International Standard.

1 Scope This Standard specifies the quality, acceptance condition, shape and size required for carbon steel tie-plates (hereafter referred to as "tie-plates") rolled or hot forged to be used when fastening the rails specified in **JIS E 1101** to the wooden sleepers.

2 Normative references The normative references to this Standard are as follows:

JIS B 7420 *Plain limit gauges*

JIS E 1101 *Flat bottom railway rails and special rails for switches and crossings of non-treated steel*

JIS Z 2241 *Method of tensile test for metallic materials*

JIS Z 9015 *Sampling procedures for inspection by attributes*

3 Manufacturing method

3.1 Steelmaking process The steelmaking process shall be as follows.

- (1) The steelmaking process shall be at the manufacturer's option. If requested by the purchaser, the manufacturer shall state in his tender the type and the principal characteristics of the steelmaking process; he may not alter them without advising the purchaser's representative.
- (2) The steel used shall be of one of the grades defined in Table 1 and as selected by the purchaser.

Table 1 Grade of steel used of tie-plates

Tensile strength R_m (N/mm ²)	Minimum elongation (%)
380 to 480	24
480 to 620	18

Other steel grades may be used subject to agreement in the order between the purchaser and the manufacturer.

- (3) Continuously cast blooms may be used in addition to blooms made from ingots.