JIS

JAPANESE
INDUSTRIAL
STANDARD

Translated and Published by
Japanese Standards Association

JIS E 4047 : 2008

(JARI/JSA)

Rolling stock — Body frame — Design methods for welded joints

ICS 25.160.40;45.040
Reference number : JIS E 4047 : 2008 (E)

Date of Establishment: 1974-08-01
Date of Revision: 2008-03-11
Date of Public Notice in Official Gazette: 2008-03-11
Investigated by: Japanese Industrial Standards Committee
Standards Board
Technical Committee on Railways and Rolling Stock

JIS E 4047 : 2008, First English edition published in 2008-07

Translated and published by: Japanese Standards Association
4-1-24, Akasaka, Minato-ku, Tokyo, 107-8440 JAPAN

In the event of any doubts arising as to the contents,
the original JIS is to be the final authority.

KA/HN

Printed in Japan

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Foreword

This translation has been made based on the original Japanese Industrial Standard revised by the Minister of Land, Infrastructure and Transport, through deliberations at the Japanese Industrial Standards Committee as the result of proposal of revision of Japanese Industries Standard submitted by Japan Association of Rolling Stock Industries (JARI)/Japanese Standards Association (JSA) 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 E 4047** : 1988 is replaced with this Standard.

Attention is drawn to the possibility that some parts of this Standard may conflict with a patent right, application for a patent after opening to the public, utility model right or application for registration of utility model after opening to the public which have technical properties. The relevant Minister and the Japanese Industrial Standards Committee are not responsible for identifying the patent right, application for a patent after opening to the public, utility model right or application for registration of utility model after opening to the public which have the said technical properties.

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Introduction

This Japanese Industrial Standard was established in 1974 and, through two revisions, comes down to this time. The last revision was made in 1988, and after that, **JIS E 4049** (Welded joints of stainless steel for railway rolling stock — Design methods) and **JIS E 4050** (Welded joints of aluminium alloy for railway rolling stock — Design methods) were established in 1990 and in 1992, respectively. The revision at this time has been made in order to respond to a request that common specifications of these three standards be unified for the sake of convenience.

Further, no International Standard corresponding to this Standard has been established at this point.

1 Scope

This Standard specifies the design methods for welded joints used for the body frame of rolling stock (hereafter referred to as "joints"). However, joints related to the spot weld, seam weld, laser weld and friction stir weld are not included.

Further, this Standard can be applied to the following parts, if necessary:

— structure of locomotive;

— framework for underfloor apparatus;

— hanging part for apparatus of fitting.

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 E 4001 *Railway rolling stock — Vocabulary*

JIS E 7106 *Rolling stock — General requirements of carbody structures for passenger car*

JIS G 3101 *Rolled steels for general structure*

JIS G 3106 *Rolled steels for welded structure*

JIS G 3114 *Hot-rolled atmospheric corrosion resisting steels for welded structure*

JIS G 3125 *Superior atmospheric corrosion resisting rolled steels*

JIS G 3131 *Hot-rolled mild steel plates, sheets and strips*

JIS G 3141 *Cold-reduced carbon steel sheets and strips*

JIS G 3350 *Light gauge sections for general structure*