

JAPANESE INDUSTRIAL STANDARD

Translated and Published by Japanese Standards Association

JIS Z 3144:2013

(JWES)

Routine test of resistance spot and projection welds

 $\mathbf{ICS} \ \ 25.160.40$

Reference number: JIS Z 3144: 2013 (E)

Z 3144: 2013

Date of Establishment: 1996-10-20

Date of Revision: 2013-03-21

Date of Public Notice in Official Gazette: 2013-03-21

Investigated by: Japanese Industrial Standards Committee

Standards Board

Technical Committee on Welding

JIS Z 3144: 2013, First English edition published in 2015-04

Translated and published by: Japanese Standards Association Mita MT Building, 3-13-12, Mita, Minato-ku, Tokyo, 108-0073 JAPAN

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

© ISA 2015

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from the publisher.

Printed in Japan KK/HN

Contents

	Page
Introduction ····································	
1	Scope
2	Normative references · · · · · 1
3	Terms and definitions · · · · 1
4	Kind of tests ······2
5 5.1 5.2 5.3 5.4 6 6.1 6.2	Test piece and test specimen3Test specimen for chisel test3Test specimen for peel test3Test specimen for torsion test4Precaution for preparing test specimen4Test methods5Chisel test5Peel test8
6.3	Torsion test ·····9
7 7.1 7.2	Classification of failure mode and measurement of weld diameter
8	Records14
Annex	x JA (informative) Comparison table between JIS and corresponding International Standard15

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 Welding Engineering Society (JWES) 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 Z 3144: 1996 is replaced with this Standard.

This **JIS** document is protected by the Copyright Law.

Attention is drawn to the possibility that some parts of this Standard may conflict with patent rights, applications for a patent after opening to the public or utility model rights. The relevant Minister and the Japanese Industrial Standards Committee are not responsible for identifying any of such patent rights, applications for a patent after opening to the public or utility model rights.

Routine test of resistance spot and projection welds

JIS Z 3144: 2013

Introduction

This Japanese Industrial Standard has been prepared based on the second edition of **ISO 10447** published in 2006 with some modifications to correspond to the actual situation in Japan.

The portions given sidelines or dotted underlines are the matters in which the contents of the corresponding International Standard have been modified. A list of modifications with the explanations is given in Annex JA.

1 Scope

This Standard specifies the method of test to routinely examine weld diameter, plug diameter, and failure mode of spot welds and projection welds which are made by laminating two or more metallic materials of 0.5 mm to 3.2 mm in thickness by means of chisel test, peel test, and torsion test at workshop or testing area in a factory.

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

ISO 10447: 2006 Resistance welding — Peel and chisel testing of resistance spot and projection welds (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

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) listed below shall be applied.

JIS B 7507 Vernier, dial and digital callipers

JIS Z 3001-1 Welding and allied processes — Vocabulary — Part 1: General

3 Terms and definitions

For the purpose of this Standard, the terms and definitions given in JIS Z 3001-1, and the following apply.

3.1 routine test

test to be carried out making use of simple tools and instruments which are routinely used in workshop or testing area in a factory

3.2 interface failure