



JAPANESE
INDUSTRIAL
STANDARD

Translated and Published by
Japanese Standards Association

JIS B 7730 : 2017

(JTM/JSA)

**Rockwell hardness test — Calibration of
reference blocks**

ICS 19.060 ; 77.040.10

Reference number : JIS B 7730 : 2017 (E)

PROTECTED BY COPYRIGHT

14 S

Date of Establishment: 1962-09-01

Date of Revision: 2017-08-21

Date of Public Notice in Official Gazette: 2017-08-21

Investigated by: Japanese Industrial Standards Committee

Standards Board for ISO area

Technical Committee on Basic Engineering

JIS B 7730 : 2017, First English edition published in 2017-10

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.

© JSA 2017

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

HN

Contents

	Page
Introduction	1
1 Scope	1
2 Normative references	1
3 Terms and definitions	2
4 Manufacture and shape of reference blocks	2
4.1 Manufacture	2
4.2 Shape and dimensions	2
5 Calibration machine	3
5.1 General	3
5.2 Test force	3
5.3 Diamond cone indenter	3
5.4 Calibration ball indenter	5
5.5 Depth-measuring device	5
5.6 Testing cycle	5
6 Calibration procedure	5
7 Uniformity of hardness	6
8 Marking	7
9 Validity	7
Annex A (informative) Uniformity of hardness reference blocks	9
Annex B (informative) Uncertainty of mean hardness value of hardness- reference blocks	11
Annex C (normative) Requirements for reference diamond indenters	17
Annex JA (informative) Maintenance of calibration machines	18
Bibliography	19
Annex JB (informative) Comparison table between JIS and corresponding International Standard	20

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 Japan Testing Machinery Association (JTM)/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 B 7730:2010** 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.

Rockwell hardness test — Calibration of reference blocks

Introduction

This Japanese Industrial Standard has been prepared based on **ISO 6508-3 : 2015**, Edition 3, with some modifications of the technical contents to reflect the local needs and situations in Japan.

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 JB.

1 Scope

This Standard specifies a method for calibration of reference blocks of scales A to H, K, N, and T, to be used for the indirect verification and daily checks and maintenance of Rockwell hardness testing machines specified in **JIS B 7726** (hereafter referred to as reference blocks).

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

ISO 6508-3 : 2015 *Metallic materials — Rockwell hardness test — Part 3 : Calibration of reference blocks* (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

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 B 0601 *Geometrical Product Specifications (GPS) — Surface texture : Profile method — Terms, definitions and surface texture parameters*

NOTE : Corresponding International Standard : ISO 4287 *Geometrical Product Specifications (GPS) — Surface texture : Profile method — Terms, definitions and surface texture parameters*

JIS B 0621 *Definitions and designations of geometrical deviations*

JIS B 7726 *Rockwell hardness test — Verification and calibration of testing machines and indenters*

NOTE : Corresponding International Standard : ISO 6508-2 *Metallic materials — Rockwell hardness test — Part 2 : Verification and calibration of testing machines and indenters*