STANDARDS AUSTRALIA

RECONFIRMATION

OF
AS 1817.2—2002
Metallic materials—Vickers hardness test
Method 2: Verification of testing machines

RECONFIRMATION NOTICE

Technical Committee MT-009 has reviewed the content of this publication and in accordance with Standards Australia procedures for reconfirmation, it has been determined that the publication is still valid and does not require change.

Certain documents referenced in the publication may have been amended since the original date of publication. Users are advised to ensure that they are using the latest versions of such documents as appropriate, unless advised otherwise in this Reconfirmation Notice.

Approved for reconfirmation in accordance with Standards Australia procedures for reconfirmation on 20 March 2017.

The following are represented on Technical Committee MT-009:

Australasian Institute of Surface Finishing
Australian Chamber of Commerce and Industry
Australian Industry Group
Australian Steel Institute
Bureau of Steel Manufacturers of Australia
Galvanizers Association of Australia
Galvanizing Association of New Zealand
New Zealand Metal Roofing Manufacturers

NOTES

AS 1817.2—2002
ISO 6507-2:1997
Reconfirmed 2017

Australian Standard™

Metallic materials—Vickers hardness test

Method 2: Verification of testing machines

PREFACE

This Standard was prepared by Standards Australia Committee MT-006, Mechanical Testing of Metals to supersede (in part) AS 1817—1991, *Metallic materials—Vickers hardness test.*

This Standard is identical with and is reproduced from ISO 6507-2:1997, *Metallic materials—Vickers hardness test,* Part 2: *Verification of testing machines*.

This Standard is Method 2 of a series of Standards covering the Vickers harness testing of metallic materials.

The series comprises the following Methods:

AS	
1817	Vickers hardness test
1817.1	Method 1: Test method (ISO 6507-1:1997, MOD)
1817.2	Method 2: Verification of testing machines
1817.3	Method 3: Calibration of reference blocks

The force values in this Method were calculated from kilogram force values. They were introduced before the SI-system was adopted. It was decided to keep the values based on the old units for this Method but in the next revision it will be necessary to consider the advantage of introducing rounded values of test force and their effect on the hardness scales.

Attention is drawn to the fact that in this revision the following aspects should be considered:

(a) Addition of a new table (Table 3) for the estimation capability and the maximum permissible error of the measuring device.

(b) Changes of the values for the repeatability of the hardness testing machines in Table 4.

(c) Addition of a new Clause 6 concerning the intervals between the verifications.

(d) Addition of a new Annex A ‘Example of a method for an indirect verification of the measuring device’ (using a reference indentation).

(e) Addition of a new Annex B ‘Notes on diamond indentors’.

As this Standard is reproduced from an International Standard, the following applies:

(i) Its number does not appear on each page of text and its identity is shown only on the cover and title page.

(ii) In the source text ‘this part of ISO 6507’ should read ‘this Australian Standard’.

(iii) A full point should be substituted for a comma when referring to a decimal marker.

References to International Standards should be replaced by references to equivalent Australian Standards, as follows:

Reference to International Standard		*Australian Standard*	
ISO		AS	
376	Metallic materials—Calibration of force-proving instruments used for the verification of uniaxial testing machines	—	
3878	Hardmetals—Vickers hardness test	1817	Metallic materials—Vickers hardness testing
		1817.1	Part 1: Test method (ISO 6507-1:1997, MOD)
ISO			
6507	Metallic materials—Vickers hardness test	1817	Metallic materials—Vickers hardness test
6507-1	Part 1: Test method	1817.1	Method 1: Test method (ISO 6507-1:1997, MOD)
6507-3	Part 3: Calibration of reference blocks	1817.3	Method 3: Calibration of reference blocks

The term ‘informative’ has been used in this Standard to define the application of the appendix to which it applies. An ‘informative’ appendix is only for information and guidance.

1 Scope

This part of ISO 6507 specifies a method of verification of testing machines for determining Vickers hardness in accordance with ISO 6507-1.

It describes a direct verification method for checking the main functions of the machine, and an indirect verification method suitable for the overall checking of the machine. The indirect verification method may be used on its own for periodic routine checking of the machine in service.

If a testing machine is also to be used for other methods of hardness testing, it is essential that it is verified independently for each method.

Portable hardness testing machines shall comply with all the requirements of this part of ISO 6507, but the word "relocation" in 6.1a) does not apply.

The force values in this part of ISO 6507 were calculated from kilogram force values. They were introduced before the SI-system was adopted. It was decided to keep the values based on the old units for this edition, but for the next revision it will be necessary to consider the advantage of introducing rounded values of test force and the consequence on the hardness scales.

2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this part of ISO 6507. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this part of ISO 6507 are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

ISO 376:—[1)], *Metallic materials — Calibration of force-proving instruments used for the verification of uniaxial testing machines.*

ISO 3878:1983, *Hardmetals — Vickers hardness test.*

ISO 6507-1:1997, *Metallic materials — Vickers hardness test — Part 1: Test method.*

ISO 6507-3:1997, *Metallic materials — Vickers hardness test — Part 3: Calibration of reference blocks.*

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1) To be published. (Revision of ISO 376:1987)