STANDARDS AUSTRALIA

RECONFIRMATION

OF

AS 2205.7.1—2003

Methods for destructive testing of welds in metal

Method 7.1: Charpy V-notch impact fracture toughness test

RECONFIRMATION NOTICE

Major stakeholders of this publication have 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 12 January 2018.

NOTES

AS 2205.7.1—2003
Reconfirmed 2018

Australian Standard™

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PREFACE

This Standard was prepared by the Standards Australia Committee WD-006, Testing of Welds to supersede AS 2205.7.1—1997.

The objective of this edition is to update the Standard and include editorial changes in accordance with current Standards Australia editorial policy.

METHOD

1 SCOPE

This Standard sets out a method for Charpy V-notch impact testing of a welded joint. The test determines the fracture toughness of a selected area of metal within the weld zone.

2 REFERENCED DOCUMENTS

The following documents are referred to in this Standard:

AS
1544 Methods for impact tests on metals
1544.2 Part 2: Charpy V-notch
1544.5 Part 5: Assessment of fracture surface appearance of steel

3 PRINCIPLE

A test specimen is prepared in a specified manner and impact tested. The energy absorbed by the specimen in the weld metal or in the heat-affected zone is determined.

4 PREPARATION OF TEST SPECIMEN

The test specimen shall be prepared as follows:

(a) The shape, dimensions and method of preparation of the test specimen shall be in accordance with AS/NZS 1544.2.

(b) Because of the likely scatter of results, at least three specimens shall be tested, unless otherwise specified in the application Standard.

(c) To ensure that the machining of the V-notch is correctly located, either in the weld metal or in the heat-affected zone, depending on which is to be tested, the test specimen shall be etched to distinguish between the different zones of the weld metal.