Australian Standard®

Methods for destructive testing of welds in metal

Method 9.1: Hot cracking test

PREFACE

This Standard was prepared by the Standards Australia Committee WD/6 on Testing of Welds to supersede AS 2205.9.1—1980, *Methods of destructive testing of welds in metal*, Part 9.1: *Cracking tests—Hot cracking test*.

This edition does not include any technical changes from the previous edition, except that references to other Standards have been brought up to date. It includes some editorial improvements.

METHOD

1 SCOPE This Standard sets out a method for hot cracking testing of a welded joint. The test determines the susceptibility of weld metal to cracking while at elevated temperatures during or just after welding and is applied principally to ferritic steels.

2 REFERENCED DOCUMENTS The following documents are referred to in this Standard:

AS
2205 Methods for destructive testing of welds in metal
2205.1 Method 1: General requirements for tests
2812 Welding, brazing and cutting of metals—Glossary of terms

3 PRINCIPLE A test piece is prepared under specified conditions and then visually examined. The root of the weld is subjected to tension by bending and then examined for evidence of hot cracking.

4 PREPARATION OF TEST PIECE The test piece shall be prepared in accordance with the requirements of AS 2205.1 and the following:

(a) *Material* The test piece shall made from parent metal as specified in the application Standard.

(b) *Assembling the test piece* The test piece shall be prepared in readiness for making the test welds by assembling in the following sequence:

(i) The surfaces of the parent metal at or near the welds shall be cleaned and free from oil, so that the result is not influenced by the transfer of sulfur from contaminated parent metal to the weld.

(ii) Three transverse stiffeners shall be welded to the lower plate as shown in Figure 1. Only sufficient weld shall be used, to ensure that distortion will not occur during the test welding.