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**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB/T 26955-2011

**Destructive tests on welds in metallic materials -- Macroscopic
and microscopic examination of welds**

金属材料焊缝破坏性试验 焊缝宏观和微观检验

(English Translation)

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Foreword

This standard was drafted in accordance with GB/T 1.1-2009 given rules.

This standard uses redrafted Law Amendment uses ISO 17639:2003 (E) "Destructive tests on welds in metallic materials Weld macro and micro Concept test "(in English).

This standard and ISO 17639. compared to 2003 (E), mainly to do the following changes.

--- "This International Standard" be replaced by "this standard";

--- Delete foreword international standards;

--- In Chapter 2, "Normative references" in direct reference to the ISO 17639. International Standard 2003 (E) referenced in the corresponding Chinese national standards;

--- Original international standard for Chapter 10 Acronyms weld metal and base metal in accordance with ISO/T R15608 accordingly modify;

- Remove the Appendix A test report sample letter code;
- Added Appendix B, for explaining the clusters steel division;
- Added Appendix C, for explaining the clusters of aluminum and aluminum division;
- Added Appendix D, for explaining the clusters of copper and copper alloys division;
- Added Appendix E, for explaining the clusters divided nickel and nickel alloys;
- Added Appendix F, for explaining the clusters titanium and titanium alloy division.

This standard by the National Standardization Technical Committee welded (SAC/TC55) and focal points.

This standard was drafted. Shanghai Research Institute of Materials, Bo-resistant Detection Technology (Shanghai) Co., Ltd., Harbin Welding Institute.

1 Scope

This standard specifies the terms and definitions welds in metallic materials macroscopic and microscopic examination, principles, the purpose of testing, the sample taken, testing procedures and inspection reports.

This standard applies to macroscopic and microscopic examination of welds in metallic materials.

2 Normative references

The following documents for the application of this document is essential. For dated references, only the dated version suitable for use herein Member. For undated references, the latest edition (including any amendments) applies to this document.

GB/T 6417.1 metal fusion welding head defect classification and description (GB/T 6417.1-2005, Weldingandprocesses-Classificationofgeometricimperfectionsinmetallic-Part 1. FusionweldingISO 6520-1.1998, IDT) GB/T 26956 Destructive tests on welds in metallic materials macroscopic and microscopic examination with an etchant (GB/T 26956-2011, ISO/TR16060:2003 (E), IDT)

3 Terms and definitions

The following terms and definitions apply to this document.

3.1 Macroscopic examination

No corrosion or erosion of the surface of the test examined with the naked eye or low power optical instrument (generally less than magnification 50 x).

3.2 Microscopic examination

(General magnification 50 x ~ 500 x) for failure to corrosion or erosion test surfaces examined with a microscope.

3.3 Inspector operator

Macroscopic and/or microscopic inspection personnel.

4 Abbreviations

Abbreviations used in this standard as follows.

A represents macroscopic examination;

I represent microscopic examination;

E indicates erosion;

U means no erosion.

Abbreviations used in the base metal, the steel according to Appendix B class group division for aluminum and aluminum alloys according to Annex C of clusters Division, for copper and copper alloy in accordance with Appendix D class group division, for nickel and nickel alloys in accordance with Appendix E classes in the group division, and for titanium Titanium Appendix F in the class group division.