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

GB/T 241-2025

Replacing GB/T 241-2007

Metallic materials - Tube - Hydrostatic pressure test

金属材料 管 液压试验方法

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Foreword

This document is in accordance with the provisions of GB/T 1.1-2020 "Guidelines for standardization work Part 1: Structure and drafting rules for standardization documents" Drafting.

This document replaces GB/T 241-2007 "Methods of hydraulic test for metal pipes". Compared with GB/T 241-2007, except for the structural adjustment and In addition to editorial changes, the main technical changes are as follows.

- a) The name of the standard has been changed;
- b) The scope of application of the document has been changed (see Chapter 1, Chapter 1 of the 2007 edition);
- c) Change "maximum test pressure" to "specified test pressure" (see 3.1, 3.1 of the 2007 edition);
- d) The definition of "pressure transmission medium" has been changed (see 3.3, 3.3 of the 2007 edition);
- e) Change "pressurization speed" to "pressurization rate" (see 3.4, 3.4 of the 2007 edition);
- f) Change "pressure relief speed" to "pressure relief rate" (see 3.5, 3.5 of the 2007 edition);
- g) The definition of "leakage" has been deleted (see 3.6 of the 2007 edition);
- h) The content of "Test Principles" has been changed (see Chapter 4, 2007 edition);
- i) The content of "Test Equipment and Instruments" has been changed, and a reference to

JJG52 has been added (see Chapter 5, Chapter 4 of the 2007 edition);

- j) Added the specimen length requirements and calculation formula (see Chapter 6);
- k) The requirements for pressurization rate and pressure relief rate have been changed, and the requirement for test pressure stabilization time has been deleted (see 7.2, 6.4 of the 2007 edition);
- l) Added requirements for the pressure fluctuation range during the test (see 7.3);
- m) Added the "Test Procedure" chapter (see Chapter 8);
- n) The content of "Test Results Evaluation" has been changed (see Chapter 9, Chapter 7 of the 2007 edition);
- o) Change "Appendix A" from an informative appendix to a normative appendix;
- p) Added numerical rounding rules for calculated specified test pressure values (see Appendix A.3);
- q) Change "Appendix B" from an informative appendix to a normative appendix;
- r) The minimum length requirement for the test specimen has been deleted (see B.2 of the 2007 edition).

Please note that some of the contents of this document may involve patents. The issuing organization of this document does not assume the responsibility for identifying patents.

This document was proposed by the China Iron and Steel Association.

This document is under the jurisdiction of the National Technical Committee on Steel Standardization (SAC/TC183).

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This document was first issued in 1982, revised for the first time in 1990, revised for the

second time in 2007, and this is the third revision.

Hydraulic test method for metallic pipes Warning. People who use this document should have practical experience in regular laboratory work. This document does not reflect all possible safety Any user shall be responsible for taking appropriate safety and health measures and ensuring that the conditions stipulated by relevant national laws and regulations are met.

1 Scope

This document specifies the principles, test equipment and instruments, specimens, test requirements, test procedures, and test results of the hydraulic test method for metal pipes. Assessment and test reports.

This document applies to the tightness and/or strength tests of steel, cast iron and non-ferrous metal pipes under the action of internal pressure of pressure transmission media.

2 Normative references

JJG52

3 Terms and Definitions

The following terms and definitions apply to this document.

3.1

The test pressure during the test stabilization time (3.2).

3.2 Holdtime

Maintaining the specified test pressure (3.1) for a period of time

3.3

The liquid medium that transmits pressure is usually water, oil, or emulsion.

3.4 Pressure applying rate

The change in pressure per unit time during pressure loading.

3.5 pressure removal rate pressure removal rate

The change in pressure per unit time during pressure unloading.

3.6 Destructive test destroy test

A test in which the test pressure is continuously increased until leakage or rupture occurs in the metal pipe.

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