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

中华人民共和国国家标准

GB/T 16507.2-2013

Partial replace GB/T 16507-1996, GB/T 9222-2008

Water-tube Boilers—Part 2: Materials

水管锅炉

第 2 部分：材料

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Foreword

GB/T 16507 "water-tube boilers" is divided into following eight parts:

- Part 1: General rules;
- Part 2: Materials;
- Part 3: Physical design;
- Part 4: Strength calculation of pressure parts;
- Part 5: Manufacturing;
- Part 6: Inspection, testing and acceptance;
- Part 7: Safety accessories and instruments;
- Part 8: Installation and operation.

This is Part 2 of GB / T 16507.

This Part is drafted in accordance with the rules given in GB/T 1.1-2009.

This Part partly replaces the content of GB/T 16507-1996 and GB/T 9222-2008.

Compared with GB/T 16507-1996, GB/T 9222-2008, the main technical content changes are as follows:

- Material parts of GB/T 16507 becomes an independent branch standard;
- Combined material requirements and permissible stress, etc. in GB/T 9222-2008 into this Part;
- Added the materials such as subcritical, supercritical and ultra-supercritical boils;
- Deleted non-long-term use or low-grade materials;
- Specific regulated the application requirements for designation of material from abroad and new materials;
- Added data of elasticity modulus and coefficient of expansion of material in common use.

This Part is proposed by and is under the jurisdiction of the National Standardization Technical Committee of Boiler Pressure Vessel (SAC/TC 262).

The responsible drafting organization is Shanghai Power Equipment Packaged Design and Research Institute.

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This Part replaces the following historical editions issued:

— GB/T16507-1996, GB/T 9222-2008.

Water-tube boilers

Part 2: Materials

1 Scope

This Part of GB/T16507 stipulates material marks and standards allowed to be use in pressure parts of water tube boiler, basic technical requirements for the material, application scope of materials (temperature and pressure) and the allowable stress as well as material marks and standards allowed to be use in non-pressure parts.

This Part applies to the selection and use of materials for pressure parts and non-pressure parts of water tube boil defined by GB/T16507.1.

2 Normative references

The articles contained in the following documents have become this document when they are quoted herein. For the dated documents so quoted, all the modifications (Including all corrections) or revisions made thereafter shall be applicable to this document.

GB/T 150.2 Pressure vessels—Part 2: Materials

GB/T 228.1 Metallic materials - Tensile testing - Part 1: Method of test at room temperature

GB/T 229 Metallic materials—Charpy pendulum impact test method

GB/T 699 Quality carbon structural steels

GB/T 700 Carbon structural steels

GB/T 711 Hot-rolled quality carbon structural steel plates sheets and wide strips

GB 713 Steel plates for boilers and pressure vessels

GB/T 1220 Stainless steel bars

GB/T 1591 High strength low alloy structural steels

GB/T 1221 Heat-resistant steel bars

GB/T 1348 Spheroidal graphite iron castings

GB/T 3077 Alloy structure steels

GB 3087 Seamless steel tubes for low and medium pressure boiler

GB/T 3274 Hot-rolled plates and strips of carbon structural steels and high strength low

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