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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 713-2008

Replace GB 713-1997, GB 6654-1996

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**Steel plates for boilers and pressure vessels**

**锅炉和压力容器用钢板**

(ISO 9328-2: 2004, Steel flat products for pressure purposes – Technical delivery conditions - Part 2: Non-alloy and alloy steels with specified elevated temperature properties, NEQ)

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Standardization Administration of the People's Republic of China

## Contents

<b>Foreword</b> .....	1
<b>1 Scope</b> .....	1
<b>2 Normative References</b> .....	1
<b>3 Order Content</b> .....	3
<b>4 Formation of Code</b> .....	4
<b>5 Dimensions, shape, weight and tolerance</b> .....	4
<b>6 Technical requirements</b> .....	4
<b>6.1 Code and chemical composition</b> .....	4
<b>6.2 Manufacturing methods</b> .....	5
<b>6.3 Delivery conditions</b> .....	5
<b>6.4 Mechanics and process performance</b> .....	6
<b>6.5 Ultrasonic test</b> .....	7
<b>6.6 Surface quality</b> .....	7
<b>6.7 Other additional requirements</b> .....	8
<b>7 Test Method</b> .....	10
<b>8 Inspection Rules</b> .....	11
<b>9 Packaging, Marking and Quality Certification</b> .....	11
<b>Appendix A (Information) Code Correlation Table of New and Old Standards</b> .....	12

## Foreword

5.2.1, 6.1.1.4, 6.1.1.5, 6.3.3, 6.3.4, 6.3.5.1, 6.4.1.1, 6.4.1.2, 6.4.2, 6.4.3, 6.4.4, 6.5, 6.1 footnote b in table 1, 8.3 and 8.4.1 of this Standard are agreement provisions, other technical contents in this standard are mandatory.

This standard has been produced by non-equivalently adopting ISO 9328-2: 2004 *Steel flat products for pressure purposes - Technical delivery conditions - Part 2: Non-alloy and alloy steels with specified elevated temperature properties*.

This Standard refers to EN10028-2: 2003 *Specification for flat products made of steel for pressure purposes*, combining and revising GB 713-1997 *Steel plates for boilers* and GB 6654-1996 *Steel plates for pressure vessels*.

GB 713-1997 Steel plates for boilers and GB 6654-1996 Steel plates for pressure vessels will be superseded by this standard as from its issue date.

In comparison with GB 713-1997 and GB 6654-1996 the main changes are as follows:

- Extending the range of steel plate thicknesses and widths;
- Changing the designation of standard names and codes;
- Abolishing 15MnVR and 15MnVNR, and bringing in 14Cr1MoR and 12Cr2Mo1R;
- Combining 20R and 20g as Q245R, combining 16MnR, 16Mng and 19Mng as Q345R and combining 13MnNiMoNbR and 13MnNiCrMoNbg as 13MnNiMoR;
- Reducing the S and P composition in all codes;
- Raising the V type impact work criterion;
- Abolishing the 20g and 16Mng aging impact test.

This standard was proposed by the China Iron and Steel Industry Association.

This standard is under the jurisdiction of the National Steel Standardisation Technical Committee.

The main drafting organisations of this standard included Chongqin Iron and Steel Co. Ltd, the

Standard Research Institute of Metallurgy Industry Information, Angang Steel Co. Ltd, General Mechanical Engineering Company of China, Wuhan Steel (Group) Co. Ltd, Jinan Steel Co. Ltd and the China Special Equipment Institute and Research College.

The main drafters of this standard were Li Hong, Wang Xiaohu, Qin Xiaozhong, Tang Yifan, Du Dasong, Piao Zhimin, Li Shurui and Zhang Aimin.

The standard supersedes the following previously issued versions:

- GB 713-1963, GB 713-1972, GB 713-1986 and GB 713-1997;
- GB 6654-1996.

# Steel plates for boilers and pressure vessels

## 1 Scope

This standard specifies the dimensions, shape, technical requirements, test methods, inspection rules, packaging, marking and quality certification, etc. of steel plates for boilers and pressure vessels.

The standard applies to steel plates with a thickness ranging from 3 mm to 200 mm for boilers and their accessories and pressurised components in pressure vessels at normal temperature.

## 2 Normative References

The provisions of the following documents become provisions of this standard after being referenced. For dated reference documents, all later amendments (excluding corrigenda) and versions do not apply to this standard; however, any parties that come to an agreement under this standard are encouraged to consider adopting the latest versions of these documents. For undated reference documents, the latest versions apply to this standard.

GB/T 222 Permissible tolerances for the chemical composition of steel products

GB/T 223.3 Methods for chemical analysis of iron, steel and alloy - The dianthipyryl methane phosphomolybdate gravimetric method for the determination of phosphorus content

GB/T 223.10 Methods for chemical analysis of iron, steel and alloy - The photometric method for the determination of aluminium content

GB/T 223.11 Methods for chemical analysis of iron, steel and alloy - The volumetric method for the determination of chromium content

GB/T 223.14 Methods for chemical analysis of iron, steel and alloy - The extraction photometric method for the determination of vanadium content

GB/T 223.17 Methods for chemical analysis of iron, steel and alloy - The the determination of titanium content



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