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

中华人民共和国行业标准

JB/T 6402-2006

Replace JB/T 6402-1992

Castings for the large low alloy steels

大型低合金钢铸件

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China**

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Foreword

This standard replaces JB/T 6402—1992 *Heavy Low Alloy Steel Castings*.

This standard, in comparison with JB/T 6402-1992, has the major changes as follows:

-----Add three material brands: ZG45Mn2, ZG30Cr1MnMo and ZG15Cr1Mo;

-----Content of P and S is all reduced to $\leq 0.030\%$;

-----Content of C in chemical constituent ZG20Mn in Table 1 is changed from 0.12%-0.22% to 0.16%-0.22%;

-----In Table 2 Mechanical performance, Z value of ZG40Mn2 normalizing + tempering is changed from $\geq 55\%$ to $\geq 40\%$, A_{KU} is increased to $\geq 30J$;

-----In Table 2 Mechanical performance, the hardness of ZG20Mn normalizing + tempering is changed from $\geq 156HB$ to $\geq 145HB$, and at the same time R_{eH} and R_m and A in normalizing + tempering state are also modified;

-----In Table 2 Mechanical performance, indexes of ZG20CrMo and ZG42CrMo in normalizing + tempering state are supplemented;

-----In Table 2 Mechanical performance, the brand of ZG34Cr1Mo is changed into ZG35Cr1Mo. Moreover, three indexes of Z, A_{KU} and HB are added to hardening and tempering state, R_m is modified, and index value of normalizing + tempering state is supplemented;

-----Add terms for impact test acceptance (see 5.2.4).

This standard was proposed by China Machinery Industry Federation.

This standard is under the centralization of Heavy Casting and Forging Machinery Industry Standardization Technical Committee.

This standard is drafted by: China National Erzhong Group Co.

Main drafter of this standard: Xiao Zhangyu, Lv Youqing.

The information concerning the issuance of previous editions of the standard replaced by this standard is as follows:

——JB/T 6402—1992.

Heavy low alloy steel castings

1 Scope

This standard stipulates ordering, technical requirements, test methods, inspection rules, certificate of qualification, identification, packaging, etc. of low alloy cast steel for common heavy steel castings.

This standard is applicable to castings poured by sand casting or casting mould with thermal conductivity similar to sand casting.

2 Normative references

The articles contained in the following documents have become this standard when they are quoted herein. For the dated documents so quoted, all the modifications (excluding corrections) or revisions made thereafter shall not be applicable to this Standard. For the undated documents so quoted, the latest editions shall be applicable to this Standard.

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

GB/T 223 (All parts) Methods for chemical analysis of iron, steel and alloy

GB/T 228 Metallic materials--Tensile testing at ambient temperature (GB/T 228-2002, eqv ISO 6892-1998)

GB/T 229 Metallic materials-Charpy notch impact test (GB/T 229-1994, eqv ISO 148-1983)

GB/T 231.1 Metallic materials—Brinell hardness test—Part 1: Test method (GB/T 231.1-2004, ISO 6508-1: 1999, MOD)

GB/T 6060.1 Roughness comparison specimens Cast surfaces (GB/T 6060.1-1997, eqv ISO 2632-3: 1979)

GB/T 11352 Carbon steel castings for general engineering purpose

JB/T 5000.6 Heavy mechanical general techniques and standards-Part 6: Steel castings

JB/T 5000.7 Heavy mechanical general techniques and standards-Part 7: Repair welding for steel castings

JB/T 6397 Specification for the heavy carbon structural steel forgings

3 Order requirements

The demander shall provide patterns, material brands of the castings and delivery state for the supplier, and other technical requirements are agreed by both parties through consultation.

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