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

**中华人民共和国机械行业标准**

JB/T 5000.6-2007

Replace JB/T 5000.6-1998

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**Heavy mechanical general techniques and  
standards—Part 6: Steel castings**

**重型机械通用技术条件  
第 6 部分：铸钢件**

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# Contents

<b>FOREWORD</b> .....	
1 SCOPE .....	1
2 NORMATIVE REFERENCE .....	1
3 TECHNICAL REQUIREMENTS .....	1
3.1 Grades, mechanical components and mechanical property .....	1
3.2 Quality of surface .....	2
3.3 Repair welding .....	6
3.4 Dimensional tolerance .....	6
3.5 Machining allowance .....	9
3.6 Deviation of weight .....	10
3.7 draft angle .....	11
3.8 ratio of curving .....	11
4 METHOD OF TESTING AND REGULATION OF TESTING .....	11
4.1 Chemical analysis .....	11
4.2 Testing of mechanical property .....	11
4.3 Surface testing .....	12
4.4 Testing of dimensions .....	13
5. MARK AND PACKING .....	13
5.1 Mark and certificate of quality .....	13
5.2 Paint and packing .....	13
Figure 1 Dimensional tolerances and limit dimensions .....	8
Figure 2 Maximal shift .....	8
Figure 3 Maximal profile of finished casting after final machining .....	9
Figure 4 Casting steel disc .....	10
Figure 5 Sing-cast testing block for testing of mechanical property .....	12
Table 1 Chemical components of carbon steel .....	2
Table 2 Mechanical property of carbon steel .....	2
Table 3 Chemical components of low alloy steel .....	3
Table 4 Mechanical properties of low alloy steel .....	4
Table 6 Allowance of arm sprue cut .....	6
Table 7 Dimensional tolerance of castings .....	7
Table 8 Machining allowance .....	9
Table 9 Dimensions of raw casting steel disc .....	10
Table 10 Deviation of weight of casting .....	10
Table 11 Curving of casting .....	11

## Foreword

JB/T5000 Heavy Mechanical General Techniques and Standards contain 15 parts:

- \_\_\_Part one: Product Inspection
- \_\_\_Part two: Fire-cutting
- \_\_\_Part three: Welding parts
- \_\_\_Part four: Iron casting
- \_\_\_Part five: Cast nonferrous metal
- \_\_\_Part six: Cast steel
- \_\_\_Part seven: Cast Steel repair welding
- \_\_\_Part eight: Forging
- \_\_\_Part nine: Cutting
- \_\_\_Part ten: Assembly
- \_\_\_Part eleven: Tubing
- \_\_\_Part twelve: Painting
- \_\_\_Part thirteen: Packing
- \_\_\_Part fourteen: Cast steel nondestructive examination
- \_\_\_Part fifteen: Forging steel nondestructive examination

This part is the sixth part of JB/T5000.

This part takes the place of JB/T5000.6-1998 Heavy Mechanical General Technique and Standard: steel casting.

Comparing with JB/T5000.6-1998, the main differences are as follows:

- low alloy steel of grade ZG 25Mn and chemical components and mechanical property of specific steels are modified;
- allowance of arm sprue cut is added;
- concept of rate of curving is added;
- deviation of weight is added;
- technical requirements of impact specimen retest is modified;
- symmetrical layout diagram of tolerance of declined surfaces, basic dimensional diagram of calculation of raw casting and indication diagram of machining allowance of special surfaces are omitted.

This part is raised by China Machinery Industry Federation.

This part is centralized management by the Engineering Industry Metallurgical Equipment Technical Committee for Standardization.

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This part's previous edition:

—JB/T 5000.6—1998.

# Heavy Mechanical General Technique and Standard:

## Part 6: Steel casting

### 1 Scope

This part of JB/T5000 specifies the techniques and standards, method of testing, rules of testing, mark, package and so on of low carbon steel and low alloy steel casting.

This part is applicable to carbon steel and low alloy steel casting using sand mould or mould whose heat conducting is similar with sand mould.

This part is not applicable to special kinds of steels such as high manganese steel, refractory steel and stainless steel.

### 2 Normative reference

Items in the following documents, which are quoted by this part of JB/T5000, become items of this part. Any quoted documents if they are dated, the following modify notification (not including the errata contents) or modify edition are not apply to this part. But, each part who reaches agreement according to this part will be encouraged to make studies on using these latest versions. Any latest edition of undated quoted documents can apply to this part.

GB/T 228 permitted deviation of chemical components of finished steel

GB/T 223 (all parts) steels and method of chemical analysis of alloy

JB/T 228 method of metal tensile testing (GB/T 228-2002, eqv ISO 6892:1998)

JB/T 229 method of metal Charpy notch impact testing (GB/T 229-1994, eqv ISO 148:1983)

JB/T 231.1 method of metal brinell hardness testing (GB/T231.1-2002, eqv ISO 6506-1:1999(E))

JB/T 6414 comparing testing block of roughness of surface casting surfaces (GB/T6060.1-1997, eqv ISO 2632-3:1979)

JB/T 6414-1999 dimensional tolerance and mechanical machining allowance of casting (eqv ISO 8062: 1994)

GB/T 15056 degree of roughness of surface of castings method of judgment

JB/T 5000.7 Heavy Mechanical General Technique and Standard: Part 7: repair welding for steel casting

JB/T 5000.12 Heavy Mechanical General Technique and Standard: Part 12: paint

JB/T 5000.13 Heavy Mechanical General Technique and Standard: Part 13: packing

JB/T 5105 sample of mould of casting draft angle

JB/T 6397-2006 large plain carbon steel forging techniques and standards

### 3 technical requirements

3.1 Grades, mechanical components and mechanical property

3.1.1 Grades, mechanical components and mechanical property of carbon steel must be according to the requirements of Table 1 and Table 2.

3.1.2 Grades, mechanical components and mechanical property of low alloy steel must be

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