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JB

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

中华人民共和国机械行业标准

JB/T 5000.4-2007

Replace JB/T 5000.4-1998

**Heavy mechanical general techniques and
standards—Part 4: Iron casting**

**重型机械通用技术条件
第 4 部分：铸铁件**

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Foreword

JB/T 5000 《Heavy mechanical general techniques and standards》 divided into 15 parts:

- ___ Part one : Product Inspection
- ___ Part two: Oxygen cutting workpiece
- ___ Part three: Weldment
- ___ 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 workpiece
- ___ 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 JB/T 5000's part four.

This part is instead of JB/T 5000.2-1998 《Heavy mechanical general techniques and standards Iron casting》

This part compare to the JB/T 5000.4-1998,the main changes are as follow:

___Regulate the iron casting's dimension tolerance grade of the black frame recommend small lot and single production.

___The 3.2.4 items added that In order to reduce the danger of the crack,the inner fillet according to the workpieces' wall thickness should ensure the Min.value in the table 2.

___Added the pattern draft in the 3.2.5

___Added the 3.9.6.3 The casting surface roughness not including the allowable deficiency of the 3.9.3 and 3.9.4

This parts' appendix A is a informative annex

This part is offered by the China Machinery Industry Association.

This part is centralized management by the engineering industry metallurgical equipment technical committee for standardization.

This part's draft out unit:Heavy mechanical group co.,ltd

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This part's previous edition:

—JB/T 5000.4—1998

Heavy mechanical general techniques and standards

---Part 4:Iron casting

1 Scope

This part JB/T 5000 specify the iron casting's technology requirement,testing method,testing rule,smybol and certification.

This part is applicable to the heavy mechanical's moulding is use the sand mould or the thermal conductive casting which is similar to the sand moulding.Such as grey cast iron, spheroidal graphite cast iron and heat resistant iron castings.

2 Normative Reference

Through the quoted by JB/T 5000 , Following documents' items are become to the items of this parts.Any quoted documents if it is dated,the following modify notification (not including the errata contents) or modify edition are not apply to this part.But,the agreement which is according to this part can use this parts'latest edition. If it's not dated,it's latest edition can apply to this part.

GB/T 1348 Spheroidal graphite cast iron

GB/T 6060.1 The surface roughness comparison specimens The surface of the casting (GB/T 6060.1—1997, eqv ISO 2632-3:1979)

GB/T 6414 Casting Dimension tolerance and the machining allowance(GB/T 6414—1999,eqv ISO8062:1994)

GB/T 9437 Heat resistant iron castings

GB/T 11351 The weight tolerance of the casting

JB/T5000.12 The heavy mechanical's general technology condition The part 12: painting

3 Technology requirements

3.1 Iron casting's steel grade, chemical composition and mechanical property

3.1.1 The grey casting iron's steel grade and the mechanical property should according to the GB/T 9439's rule.The chemical composition is decided by the supplier.But this chemical composition should according to GB/T 9439's steel grade and the relevant index of the mechanical property.If the demander have the special requirements,this chemical composition is supply by the demander.

3.1.2 Spheroidal graphite cast iron's steel grade and the mechanical property should according to the GB/T 1348's rule.The chemical composition is decided by the supplier.But this chemical composition should according to GB/T 1348's steel grade and the relevant index of the mechanical property.If the demander have the special requirements,this chemical composition is supply by the demander.

3.1.3 Heat resistant iron castings' steel grade and the mechanical property should according to the GB/T 9437's rule.

3.2 Dimension tolerance and the distributing of the tolerance band

3.2.1 The casting dimension should according to the GB/T6414's rule,the general grade symbol and the tolerance see the table 1.The same casting should choose the same tolerance grade,The tolerance grade should according to the rough casting's basic size to choose.

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