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PEOPLE'S REPUBLIC OF CHINA**

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Nickel and nickel alloy castings

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Foreword

This standard was drafted in accordance with the rules given in GB/T 1.1-2009.

This standard uses the redrafting method to modify the use of ISO 12725.1997 "nickel and nickel alloy castings." This standard and ISO 12725.1997

Compared with the structural adjustments, Appendix A lists a list of the numbering of this standard and ISO 12725.1997.

There are technical differences between this standard and ISO 12725.1997. Appendix B gives a list of the corresponding technical differences and their causes.

This standard is proposed and managed by the National Foundry Standardization Technical Committee (SAC/TC54).

This standard is drafted by. Bao Ti Group Co., Ltd.

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Limited.

1 Scope

This standard specifies the requirements, test methods, inspection rules and signs, packaging, transportation, storage and quality certification of nickel and nickel alloy castings.

Books and so on.

This standard applies to nickel and nickel alloy castings used in corrosive and high

temperature environments.

2 Normative references

The following documents are indispensable for the application of this document. For dated references, only dated versions apply to this article.

Pieces. For undated references, the latest edition (including all amendments) applies to this document.

GB/T 228.1 tensile testing of metallic materials - Part 1. Test methods for room temperature (GB/T 228.1-2010, ISO 6892-1.

2009, MOD)

GB/T 5677 steel casting radiographic inspection (GB/T 5677-2007, ISO 4993. 1987, IDT)

GB/T 6414 casting dimensional tolerances, geometric tolerances and machining allowances (GB/T 6414-2017, ISO 8062-3.2007,

MOD)

GB/T 8170 Numerical Rounding Rules and Representation and Determination of Limit Values

GB/T 8647 (all parts) Nickel chemical analysis method

GB/T 8888 heavy non-ferrous metal processing product packaging, marking, transportation, storage and quality certificate

GB/T 9443 steel casting penetration test (GB/T 9443-2007, ISO 4987.1992, IDT)

GB/T 20967 Non-destructive testing visual inspection general

YS/T 325 (all parts) Nickel-copper alloy chemical analysis method

3.1 Smelting

Nickel and nickel alloy smelting should be smelted in an induction furnace or an electrosag furnace, or it can be smelted in other ways.

3.2.1 The delivery status of the castings shall comply with the requirements of Table 1.

3.2.2 When the purchaser has special requirements on the supply status of the casting, it should be indicated in the contract or purchase order.

3.3 Chemical composition

The chemical composition of the casting shall comply with the requirements of Table 2.

3.4 Mechanical properties

3.4.1 The room temperature mechanical properties of single or cast samples shall comply with the requirements of Table 3.

3.4.2 When the demander has special requirements, its mechanical performance index should be indicated in the contract or purchase order.

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