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

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**Cast irons - Classification and designation of casting
imperfections**

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4.1 Defect Coding Rules

foreword

This document is in accordance with the provisions of GB/T 1.1-2020 "Guidelines for Standardization Work Part 1. Structure and Drafting Rules of Standardization Documents" drafted.

The modification of this document adopts ISO /T R16078.2013 "Category and Nomenclature of Casting Defects in Castings". file type Technical Report by ISO

The report is adjusted to my country's national standard.

Compared with ISO /T R16078.2013, this document has many adjustments in structure. The comparison list of structure numbers between the two documents

See Appendix A.

Compared with ISO /T R16078.2013, this document has many technical differences. In the outer margins of the clauses involved, use

A vertical bar (|) is marked. See Appendix B for these technical differences and their reasons.

The following editorial changes have been made to this document.

--- Modified the name of the standardized file.

--- Delete the informative Appendix A and Appendix B in ISO /T R16078.2013.

Please note that some content of this document may be patented. The issuing agency of this document assumes no responsibility for identifying patents.

1 Scope

This document gives the coding rules and coding structure of casting defects of iron

castings, the classification of defects, the names of defects and the description of defect characteristics.

This document applies to the classification and naming of common defects in sand casting iron castings, and iron castings produced by other casting methods for reference.

2 Normative references

The contents of the following documents constitute essential provisions of this document through normative references in the text. Among them, dated citations

documents, only the version corresponding to that date applies to this document; for undated references, the latest edition (including all amendments) applies to this document.

GB/T 5611 Casting Terminology

3 Terms and Definitions

The terms and definitions defined in GB/T 5611 and the following apply to this document.

3.1

defect imperfection

The casting has discontinuities or does not conform to the specified geometry or material requirements.

4.1 Defect Coding Rules

4.1.1 The casting defect classification adopts the line classification method, and the defect coding adopts the four-layer coding method.

Fall into four.

---Defect codes of major categories are represented by 1-digit Latin letters;

--- The grouping defect codes in the major categories consist of 1 Latin letter and 1 Arabic numeral;

--- The subgroup defect code in the grouping consists of 1 Latin letter and 2 Arabic numerals;

--- The code of the specific defect consists of 1 Latin letter and 3 Arabic numerals, and the defect coding structure is shown in Figure 1.

4.1.2 The specific code coding methods of each level are as follows.

a) The first-level defect category code is represented by one Latin letter, that is, the letters

"A, B, C, and G" are used to represent different categories of defects.

See Table 1 for details;

b) The second-level defect grouping is represented by two digits, that is, the defect grouping code is composed of the defect category code and the defect grouping number.

See Table 2;

c) The third-level defect subgroup code is represented by three digits, that is, the defect subgroup code consists of the defect category code, the defect grouping number and the defect

Subgroup numbers, see Table 3 for details;

d) The code of the specific defect of the fourth level is represented by four digits, that is, the code of the defect category, the number of the defect group, the number of the defect subgroup and the

The specific defect code composition is shown in Table 4 to Table 10.