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

GB/T 23583.1-2009

Molten steel ladles - Part 1: Types and basic parameters

钢液浇包 第1部分：型式与基本参数

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Table of Contents

Foreword	3
1 Scope	1
2 Normative references	1
3 Types of ladle	1
4 Ladle parameters	2

Foreword

GB/T 23583 "liquid steel ladle" is divided into two parts.

--- Part 1. Types and basic parameters;

--- Part 2. Technical requirements. This is Part 1 GB/T 23583 of. This part is proposed by China Machinery Industry Federation. This part of the National Foundry Machinery Standardization Technical Committee (SAC/TC186) centralized. This section is drafted. Zhongzhida Qingdao Environmental Protection Equipment Co., smelting, Qingdao Green Environmental Protection Equipment Co., Ltd., Weihai casting machine Mechanical plant, Suzhou Jin-casting plant flowers. The main drafters of this section. GOLD Ting, Ren first, Aviva late, Qin Wei Feng. Ladle of molten steel - Part 1. Types and basic parameters

1 Scope

China's national standard for the types and basic parameters of molten steel ladles. It is Part 1 of GB/T 23583 and specifies the types, the basic parameters and the designation of ladles used to hold and pour molten steel. A ladle is the simplest-looking object in a steelworks and one of the most consequential: a steel shell lined with refractory, carrying up to several hundred tonnes of liquid steel at sixteen hundred degrees, lifted by crane over people and equipment. Its capacity is the unit in which a steelworks is organised - the converter, the ladle, the caster and the crane are all sized to each other - so the ladle capacity is not a free choice but the parameter around which a plant is designed. This part fixes the types and the parameters that make a ladle specifiable. The types divide by how the steel leaves: the lip-pour ladle, tipped to pour over its edge, used for smaller castings; the bottom-pour ladle with a stopper or a slide gate, which is what every continuous caster and every large casting operation uses, because pouring from the bottom leaves the slag floating on top behind instead of washing it into the mould; and by whether the ladle is a simple holding vessel or a treatment vessel with provision for stirring, alloy addition and heating. The parameters are the nominal capacity, the internal dimensions and the shell dimensions, the freeboard, the trunnion position and the total mass empty and full - the last

two being what the crane and the plant structure are designed against. Issued on 13 April 2009 and in force since 1 January 2010.

GB/T 23583 provisions of this section and basic parameters of liquid steel ladle. This section applies to metallurgical industry open hearth casting liquid steel furnace and converter using a ladle (hereinafter referred to as a ladle).

2 Normative references

The following documents contain provisions cited by the present part of

GB/T 23583, constitute provisions of this part. For dated reference documents Member, all subsequent amendments (not including errata content) or revisions do not apply to this section, however, encouraged to reach under this section Parties to research agreement to use the latest versions of these documents. For undated reference documents, the latest versions apply to this section.

JB/T 3000 model designation of foundry equipment Type 3 ladle

3.1 ladle according to the type of outlet into Tilting and antes style.

3.2 ladle press gantry type divided detach and bearing type.

3.3 ladle can be divided according to whether the gearbox with gearbox ladle and ladle without a gearbox.

3.4 bottom-ladle nozzle opening and closing according to the type can be divided into the plug rod and slide gate formula.

4 ladle parameters

4.1 ladle main parameters ladle capacity.

4.2 The basic parameters of the ladle shown in Figure 1 and Table 1.

1 ladle of molten steel schematic diagram