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

GB/T 28689-2012

High efficiency rotor sand mixers - Technical requirements

高效转子混砂机 技术条件

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Foreword

This standard rule according to GB/T 1.1-2009 given draft. The standard proposed by China Machinery Industry Federation. This standard by the National Foundry Machinery Standardization Technical Committee (SAC/TC186) centralized. This standard was drafted. Jinan Foundry and Metalforming Machinery Research Institute Co., Ltd. The main drafters of this standard. Yao Jicheng, Lu Jun, Zhan Changjun. Efficient rotor sand mixer technical conditions

1 Scope

China's national technical requirements for high efficiency rotor sand mixers. It specifies the technical requirements, the test methods, the inspection rules and the marking, packaging and transport of the rotor mixers used to prepare foundry moulding sand. Sand mixing decides what a casting will be. A foundry sand is a mixture of sand, binder and additives, and the mould made from it has to reproduce the pattern accurately, hold its shape while molten metal is poured against it, allow the gases to escape, and then break down so that the casting can be shaken out. Every one of those depends on the binder being distributed uniformly over the sand grains, and uniform distribution is a mixing problem rather than a formulation one: a mixture with the correct proportions and poor distribution produces moulds that are strong in places and friable in others, and the scrap that results appears at the shake-out rather than at the mixer. The rotor mixer achieves that distribution with high-speed rotors working within a slowly rotating bowl. The bowl moves the sand and the rotors do the mixing, and because the rotors work on a moving bed rather than on a static one the mixing energy is concentrated where it does most good. The result is a shorter cycle at better uniformity than the older wheel mixers, which is where the efficiency in the name comes from. So the standard specifies the mixing performance and the uniformity achieved, the cycle time, the capacity, the rotors and the bowl and their wear parts, the discharge, the drive and the sealing against a dusty abrasive material, together with the safety of a machine with high-speed rotors inside a bowl that people open. Issued on 3 September 2012 and in force since 1 January 2013.

This standard specifies the technical requirements, test methods, inspection rules and signs, packaging and transportation of highly efficient rotor sand mixer. This standard applies to efficient rotor Mixer (hereinafter referred Mixer)

2 Normative references

The following documents for the application of this document is essential. For dated references, only the dated edition applies to this article Member. For undated references, the latest edition (including any amendments) applies to this document.

GB 5226.1 mechanical and electrical safety of machinery - Electrical equipment - Part 1. General requirements

GB/T 6576 machine lubrication system

GB/T 7932 General technical condition of pneumatic systems

GB/T 9969 General Industrial Product Manual

GB/T 10095.1 cylindrical gear accuracy system - Part 1. Definitions tooth surface deviation and ipsilateral tooth allowable value GB/T 13306 signage

GB/T 17421.1-1998 General machine testing - Part 1. under no-load or finishing conditions Geometric accuracy of machines Foundry machinery - Safety requirements GB 20905

GB/T 23570 Metal Cutting Machine welded General technical requirements

GB/T 25371 casting machinery noise level measurement method

GB/T 25711-2010 casting machinery - General requirements

JB/T5365.1 casting machinery Cleanliness measurement gravimetric method

JB/T8356.1 and technical conditions Packaging Machine JB/T8356.2 tool box

3.1 General requirements

3.1.1 Mixer shall comply with the provisions of this standard, in accordance with prescribed procedures approved manufacturing drawings and technical documents.

3.1.2 Transmission gear should be smooth, flexible, and should be consistent with the provisions of GB/T 10095.1 of.

3.1.3 electrical system shall meet the requirements of GB 5226.1.

3.1.4 Pneumatic systems shall comply with GB/T 7932's.

3.1.5 lubrication system should be oiled, and indicator of oil supply situation should observe the oil standard, and in line with GB/T 6576's Provisions.

3.1.6 weld should be uniform, smooth, nonporous, slag, cracks and other defects, welding

quality should be consistent with the provisions of GB/T 23570 in.

3.1.7 Mixer outer surface should not have obvious irregularities and other defects.

3.1.8 Exposed parts machined surface should not have rust and touch, knock, scratches and other defects.

3.1.9 access door and exposed moving mechanism to be provided with security guards, and shall comply with the provisions of GB 20905.

3.1.10 Each blade life and rotor blades and other wearing parts should not be less than 1500h, and should be easy to replace.