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

GB/T 9142-2021

**Building construction machinery and equipment - Concrete
mixers**

建筑施工机械与设备 混凝土搅拌机

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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" Drafting. This document replaces GB/T 9142-2000 "Concrete Mixer", compared with GB/T 9142-2000, except for structural adjustment and editorial In addition to the changes, the main technical changes are as follows:

- a) The scope of application of this document has been changed (see Chapter 1);
- b) Deleted the nominal capacity, periodic concrete mixer, self-falling concrete mixer, forced concrete mixer, and loading time Time, centralized discharge port mixer, flat long discharge port mixer, working cycle, failure, basic failure, related failure, non Related failures, non-basic failures, failure criticality factor, equivalent failures, average working time before the first failure, and average no failures The definition of working hours and reliability (see the.2000 edition of 3.1, 3.2, 3.3, 3.4, 3.10, 3.12, 3.13, 3.14, 3.15, 3.16, 3.17, 3.18, 3.19, 3.20, 3.21, 3.22, 3.23, 3.24);
- c) Added the definition of standard test conditions (see 3.1);
- d) The definitions of coarse aggregate, homogeneous concrete, mixing time and discharge time have been changed (see 3.2, 3.3, 3.4, 3.5, 3.6, 3.7, 3.11);
- e) The rated capacity and feed capacity of the mixer have been changed (see Chapter 4, Chapter 4 of the.2000 edition);
- f) The technical requirements for mixing time, residual rate and reasonable viscosity ratio have been changed (see Chapter 5, Chapter 5 of the.2000 edition);
- g) The test method is changed (see Chapter 6, Chapter 6 of the.2000 edition);
- h) The requirements of the product manual have been changed (see 8.2.3,

8.2.3 of the.2000 edition);

i) Deleted the content of the air content test of the concrete mixture in the appendix (see Appendix A of the.2000 edition);

j) Deleted the content of the dry apparent density test of the saturated surface of gravel and pebbles in the appendix (see Appendix B of the.2000 edition);

k) The homogeneity test record table has been added (see Table A.1). Please note that some of the contents of this document may involve patents. The issuing agency of this document is not responsible for identifying patents. This document was proposed by China Machinery Industry Federation. This document is under the jurisdiction of the National Construction Machinery and Equipment Standardization Technical Committee (SAC/TC328). This document was drafted by: Zoomlion Heavy Industry Co., Ltd., National Construction and Urban Construction Machinery Quality Supervision and Inspection Center, Shandong Yuanyou Heavy Industry Branch Technology Co., Ltd., Fujian South Road Machinery Co., Ltd., Shantui Jianyou Machinery Co., Ltd., Langfang Zhongjian Machinery Co., Ltd., Qingdao Branch Nile Machinery Equipment Co., Ltd., Sany Heavy Industry Co., Ltd., Zhengzhou Sanhe Hydraulic Machinery Co., Ltd., Hangzhou Jianghe Mechanical and Electrical Equipment Engineering Limited company. The main drafters of this document. Guo Shoujun, Mo Jinfeng, Wu Binxing, Fu Zhongxuan, Wang Rui, Li Hui, Cai Chunjie, Jiao Yumin, Tang Ming, Pang Zengling, Geng Guijun, Zhang Rui, Jiang Zhihui, Wang Liangqiang, Feng Xinhong. The previous releases of this document and the documents it replaced are as follows:

1 Scope

China's national standard for concrete mixers. Everything about a concrete's strength is decided in the mixer, and inadequate mixing is the most common cause of concrete that does not reach its specified strength despite a correct mix design - the cement must be dispersed uniformly through the aggregate, and a mixer that leaves pockets of unmixed material produces concrete that is weak in places nobody can identify afterwards. The batch mixers this standard covers work in cycles rather than continuously, which is what allows each batch to be proportioned and recorded, and the modern ones are twin-shaft machines whose counter-rotating paddles mix stiff low-water concretes that a drum mixer cannot handle at all. The mixing time, the wear of the blades and liners, and the completeness of discharge are what determine consistency batch to batch. The standard specifies the classification, models and parameters, technical requirements, test methods, inspection rules, marking, packaging, transport and storage, and applies to batch mixers of rated capacity up to 10000 L as defined in GB/T 25637.1, including those in batching plants.

This document specifies the classification, model and parameters, technical requirements, test methods, inspection rules and signs, packaging, and transportation of concrete mixers.

And storage. This document is applicable to periodic concrete mixing with a rated capacity of 10000L or less (including 10000L) specified in GB/T 25637.1 Mixer (hereinafter referred to as the mixer), and the mixer used in the concrete mixing station (building).

2 Normative references

The content of the following documents constitutes an indispensable clause of this document through normative references in the text. Among them, dated quotations Only the version corresponding to the date is applicable to this document; for undated reference documents, the latest version (including all amendments) is applicable to This document.

GB/T 3766 General rules and safety requirements for hydraulic transmission systems and their components

GB/T 6003.2 Technical requirements and inspection of test sieves Part

3 Terms and definitions

GB/T 7920.4, GB/T 10171, GB/T 18576, GB/T 25637.1 and the following terms and definitions apply to this document.