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

GB/T 10598.1-2017

Replacing GB/T 10598.1-2005

**Open-cut mine rotary blast hole drills - Part 1: Common
technology**

露天矿用牙轮钻机和旋转钻机 第1部分：通用技术

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Foreword

GB/T 10598 "open pit drilling and rotary drilling rig" is divided into two parts. - Part 1. General technology; Part 2. Industrial test methods. This part is part 1 of GB/T 10598. This part is drafted in accordance with the rules given in GB/T 1.1-2009. This part of the replacement GB/T 10598.1-2005 "open pit drilling and rotary drilling rig". This part is in line with GB/T 10598.1- 2005, the main technical content changes as follows:

--- modified the standard name;

--- modified the basic parameters of the cone drilling machine table (see Table 1,.2005 version of Table 1); - modified the supply voltage at the time of electric drive (see

4.2.2 in.2005, 4.2.2); - an increase in the absence of a mechanical exception (see 4.3.3); (See

4.3.8 for the.2005 edition);

--- delete the "walking operation should be carried out under the car can be" (see the.2005 version of 4.3.9); - increased regulations relating to piping and cables moving with the rotating mechanism (see 4.3.10); - increased provisions for non-powered traction (see 4.3.13); - increased provisions for cable retracting systems (see 4.3.14);

--- Increased drilling depth detection requirements (see 4.3.15); - modified the requirements for the driver room signal display system (see 4.4.3.1,.2005, 4.4.3.1); - the provisions relating to the provision of the cable entry device are deleted (see

4.4.4.2 of.2005); - increased regulations relating to high-voltage power supply (see 4.4.4.2); - increased regulations for hydraulic, pneumatic and lubrication system pressure safety devices (see 4.4.5.3); - increased provisions for movable high pressure tubing (see 4.4.5.4); - increased regulations on internal combustion engine emissions (see 4.6.15);

--- The test method of the drilling speed regulation is removed (see

6.4.2 of.2005). This part is made by the China Machinery Industry Federation. This part of

the National Mining Machinery Standardization Technical Committee (SAC/TC88) centralized. This part of the drafting unit. Luoyang Mining Engineering Design Institute limited liability company, Sinosteel Hengyang Heavy Machinery Co., Ltd., Nanchang Kaima Co., Ltd., Wuhan Wuzhong Mining Machinery Co., Ltd. This part of the main drafters. Zhang Luoming, Xiao Qilin, Wei Pingjin, Li Ke, Mao Jianzhong, Luo Zhongjian, Cai Guohong, Wang Yadong. This part of the previous version of the standard to replace the release of the situation. GB/T 10598.1-1989, GB/T 10598.1-2005. Open pit drilling and rotary drilling rig Part 1. General technology

1 Scope

Part 1 of China's standard for open-cut mine blast hole drills, carrying the general technology common to the rotary and roller-cone machines that drill the blast holes in an open pit. Every tonne of rock taken out of a large open cut is broken by explosives, and the explosives go into holes drilled by these machines: their availability sets the rate at which the pit can be blasted, and therefore the rate at which it can produce. This part specifies the types, the basic parameters, the technical requirements, the test methods, the inspection rules, and the marking, packaging, transport and storage of open-cut mine rotary blast hole drills. The basic parameters clause is the operative one commercially, because it fixes what the ratings mean: the hole diameter range, the hole depth, the pulldown force and the rotary torque and speed, the mast and its rake capability, the tramming and the ground clearance, and the compressor capacity that clears the cuttings - and a machine is bought and compared on those numbers. The technical requirements then cover the mast and its raising and lowering, the rotary head and feed system, the pipe handling that has to add and remove drill pipe without a person putting hands into the machinery, the levelling jacks, the tracks and the travel, the air system and the dust collection - which matters as much for silicosis as for visibility - the hydraulics, the electrical system, and the operator's cab with its noise, vibration and visibility. The safety provisions are those of a machine that moves under its own power on uneven ground with a tall mast, and they cover the stability, the guarding, the emergency stops and the protection against the mast being raised or the machine tramming in an unsafe state. Issued on 12 July 2017 and in force since 1 February 2018, it replaces GB/T 10598.1-2005.

This part of GB/T 10598 specifies the type, basic parameters, technical requirements, test methods Law, inspection rules, signs, packaging, transportation and storage. This section applies to open pit drilling and rotary drilling rigs (hereinafter referred to as "rigs") and also for other types of drilling rigs. The class Drilling rigs are mainly used for open-pit mine drilling holes, can also be used for construction, water conservancy, roads, railways and ports and other earth and stone works in the open hole drilling operation.

2 Normative reference documents

The following documents are indispensable for the application of this document. For dated references, only the dated edition applies to this article. For undated references, the latest edition (including all modifications) applies to this document.

GB 2894 Safety signs and guidelines for their use

GB/T 8190.11 Reciprocating internal combustion engine emissions measurement - Part 11. Non - road mobile machinery - Engine transient conditions Body and particle emissions of the test bed

GB/T 10598.2 Open pit drilling and rotary drilling rigs - Part 2. Industrial test methods GB/T 13306 signs

GB/T 13325 Radiation noise of machines and equipment Radiation operator Basic criteria for position noise measurement (engineering grade) General specification for packaging of electromechanical products

GB/T 13384 Safety requirements for mine borehole drilling rig

GB 21009 General specification for heavy machinery - Part 12. Painting Metallurgical enterprise dust detection method [Ministry of Metallurgy, Nonferrous Metals Industry Administration Bureau (82) Metallurgical word No. 485]

3.1 Cone drilling machine

3.1.1 type The cone drilling machine is powered by electric or internal combustion, crawler walking, top rotation, continuous pressurization, compressed air slagging, dry or wet Dust removal system, roller drill bit for the drilling tool of the self-drilling rig.

3.1.2 basic parameters The basic parameters of the roller drilling rig shall comply with the provisions of Table 1.

3.2 Rotating the rig

3.2.1 type Rotary drilling machine is based on electricity, internal combustion as power or power and internal combustion engine hybrid, crawler walking, top rotation, continuous pressure, the use of pressure