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

GB/T 33933.2-2017

**Natural stone mining equipment - Safety requirements - Part 2:
Diamond wire saws**

天然石开采设备 安全要求 第2部分：金刚石串珠锯

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Foreword

GB/T 33933 "natural stone mining equipment safety requirements" is divided into the following three parts.

--- Part 1. Disc sawing machine;

--- Part 2. Diamond wire saws;

--- Part 3. Arm sawing machine. This section GB/T 33933 Part 2. This section drafted in accordance with GB/T 1.1-2009 given rules. This part is proposed by China Machinery Industry Federation. This part of the National Mining Machinery Standardization Technical Committee (SAC/TC88) centralized. This section drafted unit. Fujian Hualong Machinery Co., Ltd., Quanzhou Hollow Superhardware Technology Co., Ltd., Luoyang Mining Machinery Engineering Design and Research Institute Co., Ltd., Fujian VIA Machinery Development Co., Ltd., Huaqiao University. The main drafters of this section. Lin Tianhua, Wu Jian, Guo Ming, Xiao since, square Qianshan, Liao original, Fan care collar, Chen Xueting, Xiao Qing. Natural stone mining equipment safety requirements Part 2. Diamond beaded sawing

1 Scope

Part 2 of China's national safety standard for natural stone quarrying equipment, covering diamond wire saws. It gives the significant hazard list, the safety requirements and protective measures, the verification of those measures and the information for use, within limits set by the machine's physical characteristics and intended use. A diamond wire saw cuts stone with a steel cable carrying diamond-impregnated beads, driven around a powered flywheel and through holes drilled into the rock, at speeds of twenty to forty metres per second. It has displaced almost every other method of separating large blocks from a quarry face, because it will cut in any direction, around corners, and through blocks of any size. It is also the most dangerous machine in a quarry. A wire under tension at that speed stores enormous energy, and when it breaks - which it does, from wear, from a bead

detaching, from a bad splice - the free end whips. The safety requirements are built around containing that event and keeping people out of its path.

GB/T 33933 provisions of this part of the natural stone mining diamond wire saw with a list of major hazards, safety requirements and/or protection measures Application, verification of safety requirements and/or protective measures, usage information. This section is from the physical properties and intended use of natural stone mining with diamond wire saw set restrictions. This section provides Safety requirements apply to GB/T 15706-2012 in

5.4 provisions of the life cycle of the machine generated danger. This section applies to the use of electric motors in natural stone mines as the main driving force and the use of diamond beading rope for the tool mining blocks of non-material Self-propelled diamond wire saw (hereinafter referred to as "string saw").

2 Normative references

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

GB 2894 safety signs and guidelines for their use

GB/T 4208-2008 enclosure protection (IP code) Mechanical and electrical safety - Mechanical electrical equipment - Part 1. General specifications

GB/T 9969 Industrial Products Manual General GB/T 13306 signs

GB/T 13325 noise emitted by machinery and equipment operator position noise measurement of the basic criteria (Engineering)

GB/T 15706-2012 General rules for the design of machinery safety risk assessment and risk reduction Safety of machinery - Emergency stop design principles

GB/T 16855.1-2008 Safety of machinery - Safety related systems - Part 1. General principles of design

GB/T 18209.1 Mechanical and electrical safety instructions, signs and operations - Part 1. Requirements for visual, auditory and tactile signals Mechanical belt restraints Interlocking device design and selection principles GB/T 18831-2010

GB/T 19670 mechanical safety against accidental start

GB/T 23821-2009 Safety of machinery to prevent upper and lower limbs reach the danger zone safety distance Superhard abrasive products diamond wire saw

3 Major hazard list

See Table 1 for a list of the major hazards that a beaded saw may have during its lifetime.

4.1 General requirements

4.1.1 Beaded saws shall comply with the safety requirements and/or protective measures in this chapter. In addition, but not related to the string saw in this section

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