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

GB/T 33933.3-2017

**Natural stone mining equipment - Safety requirements - Part 3:
Arm type sawing machines**

天然石开采设备 安全要求 第3部分：臂式锯切机

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Table of Contents

- 1 Scope
- 2 Normative reference documents
- 3 Major hazard list
- 4.1 General requirements

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 string saws; Part 3. Arm Sawing Machine. This part is part 3 of GB/T 33933. This part is drafted in accordance with the rules given in GB/T 1.1-2009. 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. Fujian Hualong Machinery Co., Ltd., Shanghai Min Sheng Machinery Manufacturing Co., Ltd., Luoyang Mining Machinery Engineering Design Institute limited liability company, Fujian Province VIA Machinery Development Co., Ltd. The main drafters of this part. Zheng Weicheng, Su Gonghe, Yang Xianli, Xiao Yiteng, Lin Tianhua, Tao Yuhang, Wang Yadong, Xiao Jiawei, Liao Yuanh. Natural stone mining equipment - Safety requirements Part 3. Arm type sawing machine

1 Scope

Part 3 of China's national safety standard for natural stone quarrying equipment, covering arm type sawing machines. It gives the significant hazard list, the safety requirements and protective measures, their verification and the information for use, within limits set by the machine's physical characteristics and intended use. An arm type saw cuts with a chain or belt carrying tungsten carbide or diamond tools, mounted on a long arm that plunges into the rock and then travels along it. It is the machine of choice in soft stone - marble, travertine, the softer limestones - where it cuts faster than wire and leaves a flatter face, and it is used underground as well as in open quarries. Its hazards are different from a wire saw's: the arm is a long cantilever that can be struck or can strike, the cutting tools are individually replaceable and individually able to come loose, and the machine works within a slot it has cut, where an operator can be trapped between the machine and the rock.

This part of GB/T 33933 specifies a list of significant hazards, safety requirements and/or protection measures for armature saws for natural stone mining Certification, safety requirements and/or protection measures. This part is a limitation on the use of arm sawing

machines for natural stone mining in terms of physical properties and intended use. This section provides for security All requirements apply to the hazards arising from the various stages of the machine life period specified in

5.4 of GB/T 15706-2012. This part applies to non-self-propelled arm sawing machines (hereinafter referred to as "arm saws") for the mining of natural stone blocks on natural stone mines.

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 Pieces. For undated references, the latest edition (including all modifications) applies to this document.

GB 2894 Safety signs and guidelines for their use

GB/T 4208-2008 enclosure protection class (IP code) Mechanical electrical safety machinery - Electrical equipment - Part 1. General technical requirements GB 5226.1-2008

GB/T 8196-2003 Mechanical safety protection devices - Design and manufacture of fixed and movable protective devices - General requirements General rules for the use of industrial products GB/T 9969 GB/T 13306 signs

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

GB/T 15706-2012 General principles of mechanical safety design Risk assessment and risk reduction Mechanical safety emergency stop design principles GB/T 16754-2008

GB/T 16855.1-2008 Mechanical safety control systems - Safety components - Part 1. Design general rules

GB/T 18209.1 Mechanical electrical safety instructions, marking and handling - Part 1. Requirements for visual, auditory and tactile signals

GB/T 18831-2010 Interlocking device design and selection principles for mechanical safety belt protection devices

GB/T 19670 mechanical safety to prevent accidental start Safety of machinery - Safety distance of upper and lower limbs to reach dangerous areas GB/T 23821-2009

3 Major hazard list

The list of significant hazards that may occur in the life of the arm saw is shown in Table 1. 4 safety requirements and/or protective measures

4.1 General requirements

4.1.1 Arm saws shall comply with the safety requirements and/or protective measures in this chapter. In addition, it is not related to arm saws but not in this section The design of the arm saw should be in accordance with the principles of GB/T 15706.

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