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

GB 25524-2010

**Track wheel loading machine for underground mine - Safety
requirements**

地下矿用轨轮装载机械 安全要求

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Table of Contents

1	Scope
1.1	Rail wheel derailment
1.2	Sharp edges, angular components stab or stabbed
1.3	Fasteners, parts, components projectile
1.4	Gas, hydraulic system leaks
1.5	Slip, trip and fall
2	Normative references
3	Danger List
4	Safety requirements and/or measures and determination
4.1	General Requirements
4.2	Requirements for guards and protective devices
4.3	Gas, hydraulic system requirements
4.4	Lighting and electrical system requirements
4.6	Stability
5	Use Information
6	By ignoring danger design ergonomics generated
7	Energy dangerous failure or other malfunctions generated
8	Dangerous security errors occur
8.1	Security guard error Starting and stopping device
8.2	Machine malfunction
8.3	Emergency stop mechanism design errors Set on
8.4	Improper machine safety signs
8.5	Energy improper cutting device

Foreword

Chapter 3 of this standard are recommended, the rest are mandatory. The standard proposed by China Machinery Industry Federation. This standard by the National Mining Machinery Standardization Technical Committee (SAC/TC88) centralized. This standard is drafted by: Zibo Mining Machinery Co., Ltd. vigorously. Participated in the drafting of this standard. Luoyang Mining Machinery Engineering Design Institute Co., Ltd. Nanchang Kiama. The main drafters of this standard. Li Bing, Li Yang, now, Wei Ping Jin, Sun Mingwen, Wang Yadong. This standard is the first release. Underground mine rail wheel

loading machinery - Safety requirements

1 Scope

GB 25524-2010 is the Chinese national standard on track wheel loading machine for underground mine - safety requirements, in the field of mining and minerals. It carries no /T suffix, which in the Chinese system means compliance is mandatory: a product or a practice within its scope has to meet it to be lawfully made, sold or carried out in China. It was issued on 1 December 2010 by the General Administration of Quality Supervision, Inspection and Quarantine of the People's Republic of China; Standardization Administration of China, and has been in force since 1 October 2011. Classification: ICS 73.100.10, CCS D92. This page is published from the official record of the standard held by the Chinese standards administration: the identification, the dates, the classification and the issuing body are taken from there. The clause text, the tables and the numeric limits are in the document itself, which is delivered complete in English translation.

This standard specifies the underground mine rail wheel loader list of dangerous machinery, safety requirements and/or measures and determination, the use of information and signs, Symbol, text warning. This standard is predetermined from the physical properties and the use of underground mining rail wheel mechanical load limit raised. The safety standards required Requirements apply to all phases of the machine dangerous life of GB/T 15706.1 specified in generated. This standard does not relate to the hazard and GB/T 15706.1, GB/T 15706.2 agreement on a common mechanical, electrical, hydraulic, pneumatic And other dangerous devices, are not included in this standard. This standard applies to the following underground mine rail wheel loader machinery products (hereinafter referred to as the machine).

- Rock loader bucket;
- Rake bucket rock loader;
- Li claw loaders;
- Crab claw loaders;
- Backhoe loaders.

1.5 Slip, trip and fall

- 2 motors or electric control box leakage
- 4 driver's seat or steering means excessive vibration

2 Normative references

The following documents contain provisions which, through reference in this standard and

become the standard terms. For dated references, subsequent Amendments (not including errata content) or revisions do not apply to this standard, however, encourage the parties to the agreement are based on research Whether the latest versions of these documents. For undated reference documents, the latest versions apply to this standard.

GB/T 3766 Hydraulic System General technical conditions (GB/T 3766-2001, eqv ISO 4413.1998)

GB 3836.1 Electrical apparatus for explosive gas atmospheres - Part 1. General requirements (GB 3836.1-2000, eqv IEC 60079-0.1998)

GB 3836.2 Electrical apparatus for explosive gas atmospheres Part 2. Flameproof "d" (GB 3836.2-2000, eqv IEC 60079-1.1990)

GB 5083 production equipment with safety and health General

GB 5226.1 mechanical and electrical safety of machinery - Electrical equipment - Part 1. General requirements (GB 5226.1-2008, IEC 60204-1.2005, IDT)

GB/T 7932 pneumatic systems General technical conditions (GB/T 7932-2003, ISO 4414.1998, IDT)

GB/T 8196 mechanical safety devices fixed and movable guards design and manufacture of general requirements (GB/T 8196- 2003, ISO 14120.2002, MOD)

GB/T 8419 moving machinery - Seat vibration laboratory evaluation (GB/T 8419-2007, ISO 7096.2000, IDT)

GB/T 8420 moving machinery physical dimensions of operators and minimum operator space (GB/T 8420-2000, eqv ISO 3411.1995)

GB/T 9969 General Instructions industrial products GB/T 13306 signs

GB/T 15706.1 Safety of machinery - Basic concepts, general principles for design - Part 1. Basic terminology and methods (GB/T 15706.1- 2007, ISO 12100-1.2003, IDT)

GB/T 15706.2 Safety of machinery - Basic concepts, general principles for design - Part 2. Technical principles (GB/T 15706.2-2007, ISO 12100-2.2003, IDT)

GB 16423 metal and nonmetal mine safety rules

3 Danger List

Machine lifetime risk that may arise in the transportation, installation, use and maintenance process are shown in Table 1. Table

4.1 General Requirements

4.1.1 The safety of the machine should meet the requirements of GB 16423. Safety

measures

4.1.2 machine intended to be used should be consistent with the relevant requirements of GB/T 15706.1 of.

4.1.3 The machine should be ergonomically designed to reduce labor intensity, to avoid operator fatigue. Rail Wheel Tread machine

4.1.4 shall be 600mm, 762mm or 900mm manufacturing.

4.1.5 Design of the structure and components of the machine should comply with GB 5083 and GB/T 15706.2 of.

4.1.6 The structure and various parts of the machine should have sufficient strength, rigidity and stability. In according to prescribed procedures approved by the drawings and technical documents Manufacture, installation, storage and use, does not cause a risk to personnel.

4.1.7 the exposed surface of the machine should meet the safety requirements, to avoid sharp edges, angular, flash and burrs. All fasteners should be connected to the machine

4.1.8 reliable, not loose in the machine work; possible running loose parts and components, should be adopted Take effective security measures to prevent starting, braking, reverse, loosening and shock hazard.

4.1.9 The machine should set the appropriate safety measures, security guards according to their structural characteristics and mode of operation, to prevent the possibility of Overload, material defects or other damage arising from the danger now. Rotation of the drive train, swinging, sliding and engaging other moving parts, should be installed Fender line with JB/T 3249 provisions or inner housing.

4.1.10 When the parts of the machine requires manual operation, it should ensure the safety of manually operated through the design. If because of the shape or weight element And when the operation can not be performed safely, it should be mechanically operated.

4.1.11 into the operation and maintenance of the position of the channel device shall comply with GB/T 17300 of. It should be provided with a reliable starting and stopping the device and should be accurate, flexible machine on 4.1.12.

4.1.13 When the power or control signal is interrupted, the machine's braking, and other actions should be raised or lowered in a safe state. And transport equipment should be safe and reliable connection means, to ensure the safe transport of the device is connected to a machine 4.1.14. It should be set on a stable and reliable means of hoisting machine 4.1.15, and to avoid overturning or plastic deformation.

4.1.16 When the machine is installed the driver's seat, seat comfort requirements should be consistent with the provisions of GB/T 8419's.

4.1.17 machine noise limits should be consistent with GB 16710.1 requirements.