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

**GB 21500-2008**

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**Trackless tyred mining truck for underground mines - Safety  
requirements**

地下矿用无轨轮胎式运矿车 安全要求

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## Foreword

All the technical contents of this standard is mandatory. This standard relates to the underground mine safety trackless wheel transporting the tub. This standard does not relate to the risks associated with GB/T 15706.1-2007 and GB/T 15706.2-2007 agreement. 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: Sinosteel Hengyang Heavy Machinery Co., Ltd. Participated in the drafting of this standard. Luoyang Mining Machinery Engineering Design Institute. The main

drafters of this standard. high dream bear, Xiaoqi Lin, Gan Yulin, Zhao Yuan, Li Yang, now, Li Hang, creative approach. This standard was first formulated. Underground mine trolley wheel transporting tub Safety requirements

## 1 Scope

GB 21500-2008 is the Chinese national standard on trackless tyred mining truck for underground mines - 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 13 March 2008 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 2008. Classification: ICS 73.100.40, CCS D93. 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.

1 Standard reference conditions of power, fuel and lubricating oil consumption And test methods ( GB/T 6072.1-2000, idt ISO 3046-1.1995)

## 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 1190 OTR tire technical requirements

GB 1251.1 workplace Auditory danger signal danger signal ( GB 1251.1-1989, eqv ISO 7731. 1986)

GB/T 2883 construction machinery Wheel Size Series ( GB/T 2883-2002, ISO 4250-3.1997, MOD) GB 2894 Safety Signs ( GB 2894-1996, neq ISO 3864. 1984)

GB/T 2980 OTR tire specifications, size, pressure and load capacity ( GB/T 2980-2001, eqv ISO 4250-1.1996)

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

GB 4351.1 Portable fire extinguishers - Part 1. Performance and structural requirements ( GB 4351.1-2005, ISO 7165.1999, NEQ)

GB 4785 Installation regulations for car and trailer exterior illumination and light signal devices (

GB 4785-2007, ECER48.2001, NEQ)

GB/T 5008.1 lead-acid starter batteries technical conditions ( GB/T 5008.1-2005, IEC 60095-1.2000, MOD)

GB 5226.1-2002 Safety of machinery electrical equipment Part  
IEC 60204-1.2000, IDT) Calibration

GB/T 6072.1 reciprocating internal combustion engines - Performance - Part

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

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

GB/T 8593.1 moving machinery - Symbols for operator controls and other displays - Part 1. Common symbols ( GB/T 8593.1- 1998, eqv ISO 6405-1.1991)

GB/T 8593.2 moving machinery - Symbols for operator controls and other displays - Part 2. Specific symbols for machines, equipment and accessories No. ( GB/T 8593.2-1998, eqv ISO 6405-2.1993)

GB/T 8595 moving machinery handling ( GB/T 8595-2001, eqv ISO 10968.1995)

GB 9656 automotive safety glass

GB 9969.1 Instructions General Industrial Products

GB 12265.1 machinery Safety distances to prevent danger zones being reached upper limbs (

GB 12265.1-1997, eqvEN294. 1992)

GB 12265.2 machinery Safety distances to prevent (

GB 12265.2-2000, eqvEN811 lower limbs danger zones. 1994)

### 3 Terms and Definitions

The following terms and definitions apply to this standard.

3.1 For the delivery of the ore material or designed in underground mines with self-propelled mechanical tire.

3.2 Passing the examination by the competent authority and authorized personnel mine car driving operation.

3.3 So transported tub brake or standing still all parts of the assembly. The system consists of steering mechanism, transmission and brakes.

3.4 Make transport stops and remains stationary tub main braking system.

3.5 When the service brake system failure that shipped tramcar stop system.

3.6 So that transport carts remain intact system.

3.7 Including cab, additional preparation hangar, FOPS and ROPS and all attachments specified by the manufacturer of a quality The driver and by the use of the instructions provided to raise the upper limit of the fuel tank, lubrication systems, hydraulic systems and cooling systems of liquid 75kg The total mass.

## 4 Baseline conditions

Engine baseline conditions should be consistent with GB/T 6072.1 requirements, namely.

--- Relative humidity.  $r = 30\%$  If the actual use of the environment and different baseline conditions, in order to ensure the normal operation of the engine, the user should be adjusted according to the manufacturer's requirements.

## 5 Dangerous List

Yun tub in Table 1 risk factor for its lifetime. Table

1 Danger List No. dangerous 1 high-pressure fluid jet 2 transport carts tipping, loss of stability 3 and the related mechanical slip, pouring, drop

4 transport minerals projectile

5 loose coupling

6 moving parts without guards or protective devices designed unreasonable

## 6.1 General Requirements

6.1.1 shipped tub used parts should be manufactured in accordance with prescribed procedures approved product drawings and technical documents.

6.1.2 tub design and manufacturing operation should ensure the safe operation during normal use, and should be able to meet the expected physical performance requirements, and should not be Any risk.

6.1.3 shipped tub should adopt security technical measures to prevent possible overloading, dangerous material defects or other damage arising.

### 6.2.1 General requirements