

ICS 73.100
CCS D91



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

GB 25526-2010

Shaft boring machines - Safety requirements

矿用钻井机 安全要求

Issued on: December 1, 2010

Implemented on: October 1, 2011

**Issued by: General Administration of Quality Supervision, Inspection and
Quarantine of the People's Republic of China;
Standardization Administration of China**

Table of Contents

- 1 Scope
- 2 Normative references
- 3 Danger List
- 4 Instability
 - 4.1 General Requirements
 - 4.2 Operating location requirements
 - 4.3 Control System Requirements Drilling machine control system
 - 4.4 The control device requirements
 - 4.5 Moving parts protection requirements
 - 4.6 Requirements for electrical equipment
 - 4.7 Hydraulic, lubrication system requirements
 - 4.9 Lifting devices and mechanical components
- 5 Person slips, trips, falls or fall from the drill rack
- 6 Shock

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 was drafted. Luoyang Mining Machinery Engineering Design Institute Co., Ltd., CITIC Heavy Machinery Co., Ltd. The main drafters of this standard. Zou Yong, Huang Jialin, now Li Yang, Guo Ming, Zhang Sheng Qi, Wang Yadong. This standard is the first release. Mine drilling machine - Safety requirements

1 Scope

GB 25526-2010 is the Chinese national standard on shaft boring machines - 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, CCS D91. 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 extrusion or involvement

2 high-pressure, high-temperature liquid jet 3 drilling machine accessories falling, broken glass,

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 2894 Safety Signs and use guidelines

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 3836.3 Electrical apparatus for explosive gas atmospheres Part 3. Increased Safety "e" (GB 3836.3-2000, eqv IEC 60079-7.1990)

GB 3836.4 explosive gas environment with electrical equipment - Part 4. Intrinsic safety "i" (GB 3836.4-2000, eqv IEC 60079-11.1999)

GB 3836.5 Electrical apparatus for explosive gas atmospheres - Part 5. pressurized enclosure type "p" (GB 3836.5-2004, IEC 60079-2.2001, MOD)

GB 3836.6 Electrical apparatus for explosive gas atmospheres - Part 6. Oil - immersion "o" (GB 3836.6-2004, IEC 60079-6. 1995, IDT)

GB 3836.7 Electrical apparatus for explosive gas atmospheres - Part 7. Powder filling "q" (GB 3836.7-2004, IEC 60079-5. 1997, IDT)

GB 3836.8 Electrical apparatus for explosive gas atmospheres - Part 8. "n" electrical equipment (GB 3836.8-2003, IEC 60079-15.2001, MOD)

GB 3836.9 Electrical apparatus for explosive gas atmospheres - Part 9. Encapsulation "m" (GB 3836.8-2006, IEC 60079-18. 2004, IDT)

GB 4351.1 Portable fire extinguishers - Part 1. Performance and structural requirements

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

3 Danger List

Drilling machine lifetime risk that may arise in the construction, transportation, installation, use, maintenance and removal process are shown in Table 1. Table

4.1 General Requirements

4.1.1 The intended use of the drilling machine security measures should be consistent with the requirements of GB/T 15706.1 of.

4.1.2 Drilling machine should be ergonomically designed, so as to reduce labor intensity, to avoid operator fatigue. The operator work should root According to the need to wear protective gloves, wear safety shoes and other personal protective equipment.

4.1.3 personnel may be exposed to hot and cold surfaces should be equipped with guardrails or covers. Sharp edges, corners and protruding parts of the design should be consistent GB/T 15706.2 requirements.

4.1.4 mechanical vents and cooler air outlet should be fitted with a protective grille or similar facilities, to prevent upper limbs or fingers moving parts.

4.1.5 pipe drilling machine, hoses and fittings shall withstand. Hose working pressure should be marked. Hose or tube should be close to the operating position Install shields, tube or hose burst avoid injury to the user.

4.1.6 Drilling machine the material used should be the health and safety of humans, and with the given ambient temperature to adapt. The manufacturer shall Operation Guide, rigs working ambient temperature. In exceptional cold temperature environment, the operator shall be protected.

4.1.7 Drilling machine components require manual operation, it should ensure the safety of manually operated through the design. If because of the shape or weight element While manual operation is not safe, it should take measures to use mechanical operation.

4.1.8 rigs should allow sufficient space for operation and maintenance. Into the operation and maintenance of the position of the channel device shall comply with GB/T 17300 Provisions. Such as. doors, windows, the entrance can be opened or closed freely in the "on" and "off" state should be safe.

4.1.9 Energy drilling machine should be independent, the separate parts should be disconnected and energy device, which should be clearly marked. If the weight The new turning around threatening people, they should be able to lock. It should be able to release

energy stored in the loop left or safely after cutting energy, making people around without danger. Some circuits can maintain Holding and energy turned on to clamp the workpiece, save the information and interior lighting. In this case, special measures should be taken to protect the operator Safety.

4.2 Operating location requirements

4.2.1 drilling machine operation should be carried out at ambient no danger to personnel status. Operator position required and standing empty Room should be consistent with GB/T 8420 and JB/T 3683 requirements.

4.2.2 operating position should be able to prevent the risk of flying or falling objects produced.

4.2.3 operating position should be quick and easy access and good visibility, ensure staff do not pose a danger.

4.2.4 drilling machine can be equipped with a cab as needed. Cab shall meet the following requirements.

- a) should be installed according to the air conditioner operating conditions to ensure that the cab winter temperatures not lower than 15 °C, not higher than summer 28 °C;
- b) shall be equipped with an air purification device, the driver indoor air dust concentration shall meet the requirements of 4.15.1;
- c) when the drilling machine operation and close the doors and windows, air conditioner and start cleaning device, the cab noise should not exceed 85dB (A). Noise should be GB/T 13325 for testing;
- d) shall take the necessary damping measures, the weighted root mean square acceleration correction value at the seat should not exceed 1.25m/s², vibration test parameters According to GB/T 8419 method;
- e) the direction of the door opening should enable the driver in the event of danger quickly leave the cab;
- f) cab illumination shall meet the requirements of 4.13.2;
- g) the cab of the material should be consistent with the requirements of 4.14.1 of the fire, and fire-fighting equipment configuration;
- h) glass cab and machinery should be between the seismic, not broken after injury to the user.

4.3 Control System Requirements Drilling machine control system

4.3.1 Safety - Part shall comply GB/T 16855.1 requirements.