

ICS 73.100  
CCS D 97



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

**GB 25974.2-2010**

---

**Powered support for coal mine -- Part 2: Specification for power  
set legs and rams**

煤矿用液压支架 第2部分：立柱和千斤顶技术条件

**(English Translation)**

**Issued on: January 10, 2011**

**Implemented on: June 1, 2011**

---

**Issued by: Standardization Administration of China**

## Table of Contents

Introduction

Introduction

1 Scope

2 Normative References

2.3 Definitions

4 Requires

4.1 General requirements

4.2 Assembly quality in claim

4.3 4 major components required

4.4 Plating claim

4.5 Performance Requirements

4.6 Performance Materials

Test Method 5

5.1 Test conditions

5.2 General requirements

5.3 Assembly 7 and appearance

5.4 The main components

5.5 Plating

5.6 Performance Test

6 Inspection Rules

6.1 Inspection Classification

6.2 Test item

6.3 Batch rules and sampling program

6.4 Decision rule

7 Signs, packaging, transportation and storage

7.1 Marks

7.2 Packaging

7.3 Transport

7.4 Storage

Annex A (normative) cylinder plating layer specification Part

## Foreword

This part of 4.2, 4.5 and 4.6 are mandatory, the rest are recommended.

GB 25974 "coal mine hydraulic support" is divided into the following four parts.

- Part 1. General requirements;
- Part 2. Jack post and technical conditions;
- Part 3. valve and hydraulic control system;
- Part 4. Technical requirements electro-hydraulic control system.

This is Part 2 GB 25974, which corresponds to European standards EN1804-2:2001 "Safety requirements of hydraulic support 2 Points. leg and jack. " This portion EN1804-2:2001 non-equivalent degree of consistency, the main differences are as follows.

- assembly quality requirements increase, the main components required, electroplating requirements, cylinder burst properties (see 4.2,4.3,4.4,4.5.12);
- increased inspection rules (see Chapter 6).

Appendix A of this section is normative, Annex B is an informative annex.

This section is proposed and managed by the China Coal Industry Association.

This section is drafted. CCRI mining Design Research Branch.

Participated in the drafting of this section. Detection Research Branch Coal Research Institute.

## Introduction

MT313-1992 "hydraulic support column technology" and MT97-1992 "Jack hydraulic support technology" has been implemented more than 10 Years, has played an important role in guiding our hydraulic support leg and jack design, production and testing process. As science and technology Advances in technology exchange and market competition intensifies worldwide and, MT313-1992 and MT97-1992 has been difficult to adapt to the market Demand, and the current foreign advanced standards (eg EN standards) there is a gap, especially the development of national standards with the international advanced standards.

In the standard-setting process, given the current actual situation, manufacturing, testing features and technical level of China's pillar and jack Conditions, taking into account the need for standards and foreign standards and the development of this standard to develop our leg and jack design, testing and use of research Study based on the results, and extensive reference to the relevant standards of the major coal-producing countries and

international organizations in the world.

Coal mine hydraulic support Part 2. Jack post and technical conditions

## 1 Scope

GB 25974 This section specifies the terms and definitions coal hydraulic jack and support column, requirements, test methods, testing gage Then, signs, packaging, transportation and storage.

This section applies to coal with hydraulic support leg and jack.

## 2 Normative references

Terms of the following documents constitute provisions of this section by reference in this part of GB 25974. For dated reference documents Pieces, all subsequent amendments (excluding corrections) or revisions do not apply to this section, however, encouraged to reach under this section Whether the parties to the agreement to use the latest versions of these documents. For undated reference documents, the latest versions apply to this section.

GB/T 197-2003 common thread tolerance (ISO 965-1:1998, MOD) GB/T 228 materials at ambient temperature tensile test method (GB/T 228-2002, eqvISO 6892.1998) GB/T 229 metal material Charpy pendulum impact test method (GB/T 229-2007, ISO 148-1:2006, MOD) GB/T 1184-1996 shape and position tolerances without individual tolerance value (eqvISO 2768-2. 1989) GB/T 1804-2000 General tolerances for linear and angular dimensions are not tolerance injection (eqvISO 2768-1. 1989) GB/T 2649 Mechanical properties of welded joints Test Methods of sampling GB/T 2650 welded joints Impact test methods (GB/T 2650-2008, ISO 9016:2001, IDT) GB/T 2651 welded joint tensile test method (GB/T 2651-2008, ISO 4136:2001, IDT) GB/T 2652 and deposited weld metal tensile test method (GB/T 2652-2008, ISO 5178:2001, IDT) GB/T 2653 Method of bend test welded joint (GB/T 2653-2008, ISO 5173:2000, IDT) GB/T 2828.1-2003 Sampling procedures - Part 1. Test batches by sampling the reception quality limit (the AQL) search Plan (ISO 2859-1:1999, IDT) GB/T 2829-2002 Sampling procedures and test cycle forms (for inspection of process stability) GB/T 3452.1 hydraulic pneumatic rubber O-ring Part 1. dimensions, tolerances (GB/T 3452.1-2005, ISO 3601-1:2002, MOD) GB/T 3452.3 hydraulic pneumatic rubber O-ring groove dimensions (GB/T 3452.3-2005, ISO 3601-2:1999, MOD) GB 3836.1-2000 explosive gas atmospheres Electrical Equipment Part 1. General Requirements (eqvIEC 60079-0.1998) GB/T 6394-2002 average grain size of the metal assay GB/T 11352 Carbon steel castings for general engineering (GB/T 11352-2009, ISO 3755:1991; ISO 4990:2003, MOD) GB/T 12361 General technical steel die forgings GB/T 12467 (all parts) of a metal material welding quality requirements (GB/T 12467.1 ~ 12467.5-2009, ISO 3834-1 ~ 3834-5.2005, IDT) GB/T 13306 signs JB/T 3338.1

cylindrical helical compression springs hydraulic technical conditions MT76 hydraulic support (pillar) emulsified oil, and high concentrate aqueous hydraulic fluid

### 3 Terms and Definitions

The following terms and definitions apply to this part of GB 25974.

Hydraulic cylinder actuator A reciprocating linear motion by a hydraulic drive.

Column legs

Almost vertical arrangement, the holder supporting force generating cylinder.

Telescoping Multi multitelescopiclegs More than one telescopic post stroke.

Jack rams

Its function for the stent, the stent does not produce a hydraulic cylinder supporting force.

Support jack supportrams for generating an auxiliary bracket support force balancing hydraulic cylinders or jacks ball hinge.

Fluid supply pressure settingpressure Hydraulic system pressure is supplied to the hydraulic cylinder.

Rated working pressure maximumpermissibleworkingpressure the maximum design pressure of the hydraulic cylinder can work properly.

Rated force at ignoring friction, the resultant force calculated hydraulic cylinder rated working pressure.

Let pressure yielding Causing the pressure relief valve opening force exceeds the pressure of the hydraulic cylinders of varying lengths.

#### 4.1.1 No individual tolerance

No part patterned metal machining tolerances Note should meet the following requirements.

a) No injection dimensional tolerance limit deviations metal cutting pattern parts shall comply with GB/T 1804-2000m stage, no means with relations should be consistent with the provisions of GB/T 1804-2000c level;

b) a metal cutting pattern parts without individual tolerance limit of the angle deviation should comply with GB/T 1804-2000c stage;

c) a metal pattern non-cutting parts Note geometric tolerance limit deviation should meet the requirements GB/T 1184-1996K stage.