

ICS 43.040.50; 83.140.50
CCS G 43



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

GB/T 30912-2014

Rubber seals for automobile hydraulic disc brake cylinders

汽车液压盘式制动缸用橡胶密封件

(English Translation)

Issued on: July 8, 2014

Implemented on: December 1, 2014

Issued by: Standardization Administration of China

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Foreword

This standard was drafted in accordance with GB/T 1.1-2009 given rules.

This standard uses redrafted law revision using ISO 4930:2006 "Road vehicles use non-petroleum base hydraulic brake fluid hydraulic disc Brake cylinder rubber seal (maximum operating temperature of 150 °C)" (in English) and ISO 6119:2006 "Road vehicles use non-petroleum-based liquid Press the brake fluid for hydraulic disc brake cylinders rubber seals (maximum operating temperature of 120 °C)" (in English).

This standard and ISO 4930:2006 and ISO 6119:2006 compared to the adjustment in the structure, are listed in Appendix A of this standard and ISO 4930:2006 and ISO 6119:2006 reg number of the control list.

This standard and ISO 4930:2006 and ISO 6119:2006 technical differences exist compared to the terms of these differences have been involved by A single vertical line (-) its outer margin positions were marked, and the main technical difference between the following reasons.

--- On normative references, this standard has been adjusted technical differences, in order to adapt our technical conditions, the adjusted situation Focus is reflected in the status of Chapter 2, "Normative references", the specific adjustments are as follows.

- Modify with international standards of GB/T 1690 instead of ISO 1817 (see 5.1.5, 5.2.2.2);
- Use equivalent to international standards of GB/T 3512 instead of ISO 188:1998 (see 4.1.1, 5.1.4, 5.4.2.2, 5.6.2.1.4);
- equivalents adoption of international standards GB/T 6031 instead of ISO 48 (see 5.1.1, 5.2.2.1);
- Modify with international standards of GB 12981 replaces ISO 4926 (see 4.4);

- Remove the ISO 4928;
- Added references GB/T 528 (see 5.1.2), GB/T 531.1 (see 5.1.1,5.2.2.1), GB/T 2828.1 (see 6.1.2.3), GB/T 5721 (see 7.1), GB/T 7758 (see 5.1.6), GB/T 7759 (see 5.1.3);
- Increasing the classification of the seal to the operating temperature range is divided into I and type II. I class corresponding to ISO 6119:2006, II class corresponds ISO 4930:2006. Because the ISO 4930 and ISO 6119 in addition to differences in the operating temperature range, the other part of the same, the to consolidate and streamline the present standard (see 3.1) by increasing the classification method;
- In order to facilitate the production process quality control, increased physical and mechanical performance requirements and test methods for rubber materials (see 3.2,5.1);
- In order to meet our standards, by the brake fluid test compliance with the requirements of ISO 4926 to be in line with GB 12981 Request (see 4.4);
- In order to facilitate the operability test, increasing the brake lining pads simulate different states (see 5.5.1,5.6.1,5.7.1, 5.9.1);
- Increased Chapter 6, "Inspection Rules";
- Increased Chapter 7 "logo, packaging, transportation and storage." this standard also made the following editorial changes.
- Standard name changed to "vehicle hydraulic disc brake cylinders with rubber seals";
- Use the "standard" instead of "this International Standard." the standard proposed by China Petroleum and Chemical Industry Association.

This standard by the National Rubber and rubber products sealing products Standardization Technical Committee Technical Committee (SAC/TC35/SC3) centralized.

This standard was drafted. Anhui Ding seals Co., Ltd., Guizhou public Rubber Co., Ltd., Qingdao Beihai Sealing Technology Co., the company, Qingdao Kai Shi Seal Industry Co., Ltd., Northwest Rubber Plastic Research and Design Institute, Zhejiang Ningboqiaoshi Rubber Co.

1 Scope

This standard specifies the use of non-petroleum base hydraulic brake fluid automotive hydraulic disc brake cylinders, test methods requires rubber seals, inspection Inspection rules and signs, packaging, transportation and storage.

This standard applies to the use of non-petroleum base hydraulic brake fluid automotive hydraulic disc brake cylinders with a solid cross-section rubber seal (square, rectangular Shaped, O-ring).

2 Normative references

The following documents for the application of this document is essential. For dated references, only the dated version suitable for use herein Member. For undated references, the latest edition (including any amendments) applies to this document.

GB/T 528 vulcanized rubber or thermoplastic rubber tensile stress strain properties (GB/T 528-2009, ISO 37:2005, IDT) GB/T 531.1 vulcanized rubber or thermoplastic rubber indentation hardness test methods - Part 1 Shore hardness method (Shore hard Degree) (GB/T 531.1-2008, ISO 7619-1:2004, IDT) GB/T 1690 vulcanized rubber or thermoplastic rubber resistant liquid test method (GB/T 1690-2010, ISO 1817:2005, MOD) GB/T 2828.1 Sampling procedures for inspection - Part 1. by acceptance quality limit (AQL) retrieval batch inspection sampling plan (GB/T 2828.1-2012, ISO 2859-1:1999, IDT) GB/T 3512 vulcanized rubber or thermoplastic rubber hot air and heat accelerated aging test (GB/T 3512-2001, eqv ISO 188:1998) GB/T 5721 rubber seal products logo, packaging, transportation and storage regulations GB/T 6031 vulcanized rubber or thermoplastic rubber hardness measurement (10 ~ 100IRHD) (GB/T 6031-1998, idt ISO 48.

1994)

GB/T 7758 vulcanized rubber low temperature performance measured temperature retraction procedure (TR) (GB/T 7758-2002, ISO 2921:1997, IDT) GB/T 7759 vulcanized rubber, thermoplastic rubber at room temperature, high and low temperature compression set was measured (GB/T 7759-1996, eqv ISO 815:1991) GB 12981 motor vehicle brake fluid (GB 12981-2012, ISO 4925:2005, MOD)

3.1 Classification

Rubber seals according to the working temperature range is divided into two categories.

Class I. -40 °C ~ 120 °C;

II class. -40 °C ~ 150 °C.

3.2 Rubber material physical and mechanical properties

Physical and mechanical properties of rubber material requirements and test methods are shown in Table 1.