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

GB/T 29615-2013

**Elastomeric boots used in automobile hydraulic braking
systems**

汽车液压制动系统用橡胶护罩

(English Translation)

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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 4927:2005 "Road vehicles used for non-petroleum base hydraulic brake fluid liquid drum Press the brake wheel cylinders with elastomer cover (maximum operating temperature of 120 °C) \u200b\u200b"(in English) and ISO 6117:2005" Road vehicles used for non-oil Hydraulic brake wheel cylinders drum base hydraulic brake fluid with elastomer cover (maximum operating temperature of 100 °C) "(in English).

This standard and ISO 4927:2005 and ISO 6117:2005 Main technical differences and the reasons are as follows.

--- 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.

- Use equivalent to international standards of GB/T 3512 instead of ISO 188:1998 (see 4.2.3.1.1, 4.2.4.1.1, 4.2.6.1.2, 4.2.7.1);

- equivalents adoption of international standards GB/T 6031 instead of ISO 48 (see 4.2.1, 4.2.2.1);

- Modify with international standards of GB 12981 replaces ISO 4925 (see 4.2.3.3);

- Remove the ISO 4926;

- Added references GB/T 528 (see Table 1), GB/T 531.1 (see Table 1), GB/T 1690 (see Table 1), GB/T 5721 (See 7.3), GB/T 7758 (see Table 1), GB/T 7759 (see Table 1).

--- In order to distinguish different maximum operating temperature of the shroud, increasing the classification and increases the maximum operating temperature of 150 °C

material (see 3.1).

--- In order to facilitate rubber shroud production process quality control, increasing the rubber physical properties requirements (see 3.2).

--- In order to meet our standards, by the brake fluid test compliance with the requirements of ISO 4926 to meet the requirements of GB 12981 (See 4.2.3.3).

--- In order to facilitate the preparation and presentation of complete, increase heat, cold stroke test results (see 4.2.4.4,4.2.5.3).

--- In order to distinguish temperatures heat resistance test, an increase of class I, II type, III type of material the test conditions (see Table 2, Table 3, Table 4).

--- Remove the 3.4 "sampling."

--- Increased Chapter 5, "Inspection Rules."

--- Increased 6.3.

The terms of these differences has been involved in a single vertical line through its outer margin position (l) were marked.

ISO 4927:2005 and ISO 6117:2005 is identical in structure of the text, this standard and ISO 4927:2005 and ISO 6117.

Compared to 2005, the difference is the structure of clauses.

--- The ISO 4927:2005 and ISO 6117:2005 3.1 3.3 Adjustment of this standard;

--- The ISO 4927:2005 and ISO 6117:2005 3.2 6.1 Adjustment of this standard;

--- The ISO 4927:2005 and ISO 6117:2005 3.3 6.2 Adjustment of this standard;

--- The ISO 4927:2005 and ISO 6117:2005 Chapter 4, "Test Requirements", adjust and modify this standard 3.4 "into Product performance ";

--- The ISO 4927:2005 and ISO 6117:2005 Chapter 5, "test program" to adjust and modify this standard 4.2 "into Product performance test. " 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. Guizhou public Rubber Co., Ltd., Anhui Ding car seal Tektronix Ltd., Qingdao Beihai sealing technology Ltd., Zhejiang Ningboqiaoshi Rubber Co., Ltd., Northwest Rubber Plastic Research and Design Institute, Qingdao Kai Shi Seal Industry Co., Ltd.

1 Scope

This standard specifies the hydraulic brake system for automotive wheel cylinders molded rubber shroud requirements, test methods, inspection rules, labeling, package Loading, transport and storage.

This standard applies to non-petroleum based brake fluid for disc brakes and drum brakes shroud and its performance evaluation test methods.

This standard does not apply to petroleum base brake fluid brake cylinder cover and rubber and rubber reinforcing layer bonding rubber shield.

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 hardness test pushed Part 1. Shore hardness method (Shore hardness) (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 of general provisions 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/T 7762 vulcanized rubber or thermoplastic rubber resistant to ozone cracking static tensile test (GB/T 7762-2003, ISO 1413-1. 1989, MOD) GB 12981 motor vehicle brake fluid (GB 12981-2012, ISO 4925:2005, MOD) GB 29334-2012 for non-petroleum base hydraulic brake fluid automotive hydraulic brake cylinder with elastomeric cups and seals

3.1 Classification

Press the rubber seal shield Operating temperature range is divided into three categories.

Class I. Operating temperature range is $-40\text{ }^{\circ}\text{C} \sim 100\text{ }^{\circ}\text{C}$;

II categories. operating temperature range is $-40\text{ }^{\circ}\text{C} \sim 120\text{ }^{\circ}\text{C}$;