

International Standard



4928

INTERNATIONAL ORGANIZATION FOR STANDARDIZATION • МЕЖДУНАРОДНАЯ ОРГАНИЗАЦИЯ ПО СТАНДАРТИЗАЦИИ • ORGANISATION INTERNATIONALE DE NORMALISATION

Road vehicles — Elastomeric cups and seals for cylinders for hydraulic braking systems using a non-petroleum base hydraulic brake fluid (Service temperature 120 °C max.)

Véhicules routiers — Coupelles et joints en caoutchouc pour cylindres de dispositifs de freinage hydrauliques utilisant un liquide de frein à base non pétrolière (Température maximale d'utilisation 120 °C)

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Descriptors : road vehicles, brake systems, hydraulic brakes, rubber products, seals (stoppers), specifications, tests, performance tests, marking, test equipment.

Price based on 12 pages

FOREWORD

ISO (the International Organization for Standardization) is a worldwide federation of national standards institutes (ISO member bodies). The work of developing International Standards is carried out through ISO technical committees. Every member body interested in a subject for which a technical committee has been set up has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work.

Draft International Standards adopted by the technical committees are circulated to the member bodies for approval before their acceptance as International Standards by the ISO Council.

International Standard ISO 4928 was developed by Technical Committee ISO/TC 22, *Road vehicles*.

This second edition was submitted directly to the ISO Council, in accordance with clause 5.10.1 of part 1 of the Directives for the technical work of ISO. It cancels and replaces the first edition (i.e. ISO 4928-1978), which had been approved by the member bodies of the following countries :

Australia	Iran	Romania
Austria	Italy	South Africa, Rep. of
Belgium	Japan	Spain
Brazil	Korea, Rep. of	Sweden
Bulgaria	Mexico	Switzerland
Chile	Netherlands	United Kingdom
Czechoslovakia	New Zealand	USSR
Germany, F.R.	Philippines	Yugoslavia
Hungary	Poland	

The member bodies of the following countries had expressed disapproval of the document on technical grounds :

France
USA

Road vehicles — Elastomeric cups and seals for cylinders for hydraulic braking systems using a non-petroleum base hydraulic brake fluid (Service temperature 120 °C max.)

1 SCOPE

This International Standard specifies performance tests of brake cups and seals for hydraulic braking systems for road vehicles; it does not include requirements relating to chemical composition, tensile strength and elongation of the rubber compound; disc brake seals are not covered by this International Standard.

2 FIELD OF APPLICATION

This International Standard applies to moulded seals (cups or double-lipped type gland seals), 60 mm in diameter and under, compounded from high temperature resistant rubber, for use in hydraulic actuating cylinders employing road vehicle brake fluid conforming to the requirements of ISO 4925.

3 REFERENCES

ISO 48, *Vulcanized rubbers — Determination of hardness (Hardness between 30 and 85 IRHD)*.

ISO 1250, *Mineral solvents for paints — White spirits and related hydrocarbon solvents*.

ISO 4925, *Road vehicles — Non-petroleum base hydraulic brake fluid*.

ISO 4926, *Road vehicles — Hydraulic brake systems — Non-petroleum base reference fluids*.

ASTM D 91, *Test for precipitation number of lubricating oils*.

ASTM E 145, *Specification for gravity-convection and forced-ventilation ovens*.

NOTE — The ASTM references will be replaced by ISO references when the latter become available.

4 DEFINITIONS

For the purpose of this International Standard the following definitions apply :

4.1 sloughing : The release of carbon black on the surface of the rubber.

4.2 scoring : The formation of grooves in the rubber parallel to the direction of travel of the piston or seal.

4.3 scuffing : Visible erosion of the outer surface of the rubber.

5 GENERAL REQUIREMENTS

5.1 Workmanship and finish

Seals shall be free from blisters, pin-holes, cracks, protuberances, embedded foreign material or other physical defects which can be detected by thorough inspection, and shall conform to the dimensions specified on the drawings.

5.2 Marking

The identification mark of the manufacturer and other details as specified on drawings shall be moulded into each seal. Each seal in conformity with this International Standard may also have the following mark : "ISO 4928".

5.3 Packaging

Seals shall be packaged to meet requirements specified by the purchaser.

5.4 Sampling

The minimum lot on which complete specification tests shall be conducted for quality control testing, or the frequency of any specific type test used to control production, shall be agreed upon by the manufacturer and the purchaser.