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GB/T 10544-2022

Rubber hoses and hose assemblies - Rubber-covered spiral-wire-reinforced hydraulic types for oil-based or water-based fluids - Specification

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foreword

This document is in accordance with the provisions of GB/T 1.1-2020 "Guidelines for Standardization Work Part 1.Structure and Drafting Rules of Standardization Documents"

drafted.

This document replaces GB/T 10544-2013 "Rubber hoses and hose assemblies for oil-based or water-based fluids with wire wound reinforcement

Compared with GB/T 10544-2013, except for structural adjustment and editorial changes, the main technical changes

as follows.

--- The upper limit temperature of water-based fluids in the range is expanded from 60°C to 70°C (see Chapter 1, Chapter 1 of the.2013 edition);

--- For R15 type, a specification with a nominal inner diameter of 51 is added (see Table 1);

---In the pulse performance test, the "optional pulse test" has been incorporated into the "water-based fluid resistance test" as an option. The temperature of the water-based fluid

Raised from 60°C to 70°C (see 7.4, 7.4 of the.2013 edition);

--- Increased wear resistance test requirements (see 7.8);

--- The immersion temperature of the water resistance test is increased to 70 °C, and the volume change rate of the inner lining and outer covering of the hose is respectively required (see

7.9.3, 7.8.3 of the.2013 edition);

--- Increased the test frequency requirements (see Chapter 8).

This document is equivalent to ISO 3862.2020 "Rubber hoses and hose assemblies suitable for oil-based or water-based fluids, wire wound reinforcement

Specification for Rubber Covered Hydraulic Types.

Please note that some content of this document may be patented. The issuing agency of

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this document assumes no responsibility for identifying patents.

1 Scope

This document specifies five types of wire wound reinforced hydraulic hoses and hose assemblies with a nominal inner diameter of 6.3mm~51mm.

Require.

This document applies to hoses and hose assemblies using the following media.

---HH, HL, HM, HR and HV oil-based hydraulic fluids defined by ISO 6743-4, of which 4SP and 4SH types are applicable to the temperature range

The temperature range is -40 degrees C~100 degrees C, and the applicable temperature range of R12, R13 and R15 type is -40 degrees C~120 degrees C;

---HFC, HFAE, HFAS and HFB type water-based hydraulics with a temperature range of -40°C to 70°C as defined by ISO 6743-4

fluid;

--- Water with a temperature range of 0°C to 70°C.

This document does not cover requirements for joints. Only for hose and assembly requirements.

NOTE. It is the user's responsibility to consult the hose manufacturer to confirm the compatibility of the hose with the fluid being used.

2 Normative references

The contents of the following documents constitute essential provisions of this document through normative references in the text. Among them, dated citations

documents, only the version corresponding to that date applies to this document; for undated references, the latest edition (including all amendments) applies to

this document.

GB/T 14905-2020 Determination of adhesive strength between layers of rubber and plastic hoses (ISO 8033.2016, IDT)

assemblies-Hydrostatic testing)

Note. GB/T 5563-2013 Hydrostatic test method for rubber and plastic hoses and hose assemblies (ISO 1402.2009, IDT)

Note. GB/T 1690-2010 Test method for liquid resistance of vulcanized or thermoplastic rubber (ISO 1817.2005, MOD)

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ISO 4671 Rubber and plastic hoses and hose assemblies Method of measurement of hose dimensions and length of hose assemblies (Rubberand

Note. GB/T 9573-2013 Rubber and plastic hoses and hose assemblies-Hose dimensions and hose assembly length measurement methods (ISO 4671.2007,

IDT)

andhoseassemblies)

Note. GB/T 7939-2008 Test method for hydraulic hose assembly (ISO 6605.2002, MOD)

ISO 6743-4 Classification of Lubricants, Industrial Oils and Related Products (Class L) Part 4.Group H (Hydraulic Systems)

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