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

GB/T 44072.1-2024

**Connections for hydraulic fluid power - Hose assemblies - Part
1: Dimensions and requirements
(English Translation)**

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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 for standardization documents" Drafting.

This document is part 1 of GB/T 44072 "Hydraulic transmission connecting hose assembly". GB/T 44072 has been published as follows part.

--- Part 1: Dimensions and requirements.

This document is modified to adopt ISO 17165-1:2007 "Hose assemblies for hydraulic fluid transmission - Part 1: Dimensions and requirements".

The technical differences between this document and ISO 17165-1:2007 and their reasons are as follows.

--- The normative references GB/T 7528 replace ISO 8330, GB/T 17446 replaces ISO 5598 (see Chapter 3), and Adapt to my country's technical conditions and improve operability;

---The temperature range of water-based fluid applicable to R7 and R8 hoses has been changed from "0°C~70°C" to "0°C~60°C", applicable "Water" has been added to the hydraulic fluid type, and the temperature range is 0°C~60°C (see 7.1) to adapt to my country's technical conditions;

--- Change the value "8" in the second column of Table 2 "Nominal outer diameter of hard pipe (nominal connection size)" to "6" to adapt to my country's technical requirements Improve operability;

---Changed the hose assembly length tolerance (see Table 6) to adapt to my country's technical conditions and improve operability;

--- Change Appendix C (informative) to Appendix A (normative) to comply with my country's standard writing rules.

This document has the following structural adjustments compared to ISO 17165-1:2007.

--- Appendix A corresponds to Appendix C of ISO 17165-1:2007;

--- Appendix B corresponds to Appendix A of ISO 17165-1:2007;

--- Appendix C corresponds to Appendix B of ISO 17165-1:2007.

The following editorial changes were made to this document.

--- Change the name of the standard to "Hydraulic transmission connecting hose assemblies Part 1: Dimensions and requirements";

--- Replaced ISO 1436 with the informative reference GB/T 3683 (ISO 1436-1 and ISO 1436-2 have been replaced by ISO 1436 replace);

--- Replaced ISO 3862 with the informative reference GB/T 10544 (ISO 3862-1 and ISO 3862-2 have been replaced by ISO 3862 replace);

--- Replaced ISO 4079 with the informative reference GB/T 15329 (ISO 4079-1 and ISO 4079-2 have been replaced by ISO 4079 replace);

--- Replaced ISO 12151-1 with the informative reference GB/T 9065.1;

--- Replaced ISO 12151-2 with the informative reference GB/T 9065.2;

--- Replaced ISO 12151-3 with the informative reference GB/T 9065.3;

--- Replaced ISO 12151-6 with the informative reference GB/T 9065.6;

- Replaced ISO 8434-1 with the informative reference GB/T 14034.1;
- Replaced ISO 3949 with the informative reference GB/T 15908;
- Replaced ISO 11237 with the informative reference GB/T 39313;
- Replaced ISO 10763 with the informative reference GB/T 41354;
- The informative references GB/T 3683, GB/T 9065.1, GB/T 9065.2, GB/T 9065.3, GB/T 9065.6, GB/T 10544, GB/T 14034.1, GB/T 15329, GB/T 15908, GB/T 39313, ISO 6743-4 from the normative the citation list is adjusted to the references;
- Deleted Example 2 in Chapter 13;
- Deleted the footnotes and notes of Table A.1.

Introduction

In a hydraulic transmission system, power is transmitted and controlled by a pressurized fluid in a closed circuit.

The components are connected by pipes (fittings and conduits) through the oil ports. The hose assembly increases the flexibility of the pipe section.

GB/T 44072 aims to standardize the technical requirements of hose assemblies and consists of two parts.

--- Part 1: Dimensions and requirements. The purpose is to determine the dimensions and requirements of hose assemblies.

--- Part 2: Operating procedures. The purpose is to determine the selection, layout, manufacture, installation, Methods of replacement, maintenance and storage.

Hydraulic transmission connecting hose assembly Part 1: Dimensions and requirements

1 Scope

This document specifies dimensions and requirements for hose assemblies and gives important criteria for the selection of hoses and hose fittings with elastomeric seals.

This document is applicable to hoses and hoses that comply with GB/T 15908, GB/T 3683, GB/T 10544, GB/T 15329 and GB/T 39313.

Hoses made of hose connectors with elastic seals in accordance with GB/T 9065.1, GB/T 9065.2, GB/T 9065.3 and GB/T 9065.6 Assembly.

2 Normative references

The contents of the following documents constitute the essential clauses of this document through normative references in this document.

For referenced documents without a date, only the version corresponding to that date applies to this document; for referenced documents without a date, the latest version (including all amendments) applies to this document.

GB/T 7528 Terminology for rubber and plastic hoses and hose assemblies (GB/T 7528-2019, ISO 8330:2014, IDT) GB/T 17446 Fluid power systems and components vocabulary (GB/T 17446-2024, ISO 5598:2020, MOD)

3 Terms and definitions

The terms and definitions defined in GB/T 17446 and GB/T 7528 and the following apply to this document.

The date the hose and hose fittings were assembled into a hose assembly.

4 Logo

4.1

Table 1 gives the type symbols used in clause 8 to identify hose fittings.

Table 1 Symbols used to identify hose fitting types

Symbol Description

Hose connector standard, connection end Type and shape identification GO-ring face seal (in accordance with GB/T 14034.3) external thread hose connector GB/T 9065.1, S Swivel straight hose connector with FO ring face seal (in accordance with GB/T 14034.3) GB/T 9065.1, SWS F45 O-ring end seal (in accordance with GB/T 14034.3) swivel 45° elbow hose connector GB/T 9065.1, SWE45 F90S O-ring end seal (in accordance with GB/T 14034.3) swivel 90° short elbow hose Connectors GB/T 9065.1, SWES