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

GB/T 9065.2-2025

Replacing GB/T 9065.2-2010

**Connections for hydraulic fluid power - Hose fittings - Part 2:
24° cone connectors**

液压传动连接 软管接头 第2部分：24°锥形
(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 2 of GB/T 9065. GB/T 9065 has been published in the following parts.

--- Hydraulic hose connectors. Part 1: O-ring face seal hose connectors;

--- Hydraulic transmission connection hose connectors Part 2. 24° cone;

--- Hydraulic transmission hose connectors Part 3: Flange type;

--- Hydraulic transmission hose connectors Part 4: Stud end;

--- Hydraulic hose connectors. Part 5. 37° flared end hose connectors;

--- Hydraulic transmission connection hose connectors Part 6. 60° cone this document replaces GB/T 9065.2-2010 "Hydraulic hose connectors Part 2. 24° cone seal end hose connectors" and Compared with GB/T 9065.2-2010, in addition to structural adjustments and editorial changes, the main technical changes are as follows.

--- Changed the performance requirements of hose connectors (see 4.3, 4.3 of the 2010

edition);

- Deleted the requirements for thread finish, shoulder distance, undercut, chamfer dimensions and surface roughness (see 6.5.3, 2010 edition, 6.5.4);
- Added the compliance standard for machined surface roughness (see 7.2);
- Added assembly requirements (see Chapter 8);
- Increased the marking requirements on the swivel hose coupling nuts (see Chapter 10).

This document is modified to adopt ISO 12151-2:2022 "Hydraulic transmission and general purpose connectors - Hose connectors - Part 2.

24° cone hose connector with O-ring according to ISO 8434-1.

This document has the following structural adjustments compared to ISO 12151-2:2022.

- Adjust Figure 1 in 6.1 of ISO 12151-2:2022 to the range; Figures 3 to 6 correspond to ISO 12151-2:2022

Figure 2 to Figure 5;

- Table 1 corresponds to Table 5.4 in ISO 12151-2:2022, Tables 2 to 5 correspond to Tables 1 to 4 in ISO 12151-2:2022, Added Table 6;
- Deleted 6.1 of ISO 12151-2:2022; 6.1~6.4 correspond to 6.2~6.5 of ISO 12151-2:2022; added 6.5 and 6.6.

The technical differences between this document and ISO 12151-2:2022 and their reasons are as follows.

- ISO 8434-1 (see Chapter 1, 4.2, 4.3, 6.1 and Chapter 8) is replaced by the normative reference GB/T 14034.1 to adapt my country's technical conditions to improve operability;
- ISO 5598 (see Chapter 3) has been replaced by the normative reference GB/T 17446 to adapt to my country's technical conditions and improve the reliability of the product.

Operability;

- Changed the naming requirements of hose connectors (see Chapter 5) to adapt to my country's technical conditions and improve operability;
- Added relevant content of ferrule hose connectors (see Table 1, Figure 7 and Table 6) to adapt to my country's technical conditions and improve operability Sexuality;
- ISO 4759-1:2000 (see 6.2) has been replaced by the normative reference GB/T 3103.1 to adapt to my country's technical conditions and provide High operability;
- Added normative references to GB/T 196 (see 6.5) to adapt to my country's technical conditions and improve operability;

--- Added relevant technical requirements for threads (see 6.5, 6.6) to adapt to my country's technical conditions and improve operability;

--- Added normative references to GB/T 197 (see 6.6) to adapt to my country's technical conditions and improve operability;

--- ISO 1302 (see 7.2) has been replaced by the normative reference GB/T 131 to adapt to my country's technical conditions and improve operability.

Sexuality;

--- ISO 9227 was replaced by the normative reference GB/T 10125, and the surface treatment requirements were changed (see 7.3) to adapt to my country Technical conditions to improve operability;

--- Changed the requirements for procurement information (see Chapter 9) to adapt to my country's technical conditions and improve operability;

--- Changed the d3 dimension of the hose connector in Table 4 (see Table 4, Table 3 of ISO 12151-2:2022) to the corresponding dimensions in Table 2 and Table 3 the parameters are consistent.

The following editorial changes were made to this document.

--- Change the name of the standard to "Hydraulic transmission connection hose connector Part 2.24° cone";

--- Added Figure 2, schematic diagram of width across sides, diagonal dimensions and side plane length;

--- Changed the expression of L3 value in Table 3.

Introduction

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

to be delivered under pressure.

The assembly is connected to the oil port through a stud end pipe joint with a hard pipe/conduit or with a hose connector and a hose.

GB/T 9065 aims to standardize the technical requirements of hydraulic transmission hose connectors and consists of six parts.

--- Part 1: End seals. The purpose is to determine the basic requirements and dimensions for the design and performance of hose connectors with O-ring end seals.

Inch requirements.

--- Part 2.24° cone. The purpose is to determine the basic requirements and dimensional requirements for the design and performance of hose connectors with 24° cone seals.

--- Part 3: Flange type. The purpose is to determine the basic requirements and dimensional requirements for the design and performance of flange type hose connectors.

--- Part 4: Stud end. The purpose is to determine the basic requirements and dimensional requirements for the design and performance of hose fittings with stud ends.

--- Part 5.37° flared type. The purpose is to determine the basic requirements and dimensions for the design and performance of 37° flared hose connectors Require.

--- Part 6.60° cone. The purpose is to determine the basic requirements and dimensional requirements for the design and performance of hose connectors with a 60° cone.

Hydraulic transmission connection hose connector Part 2.24° cone

1 Scope

This document specifies the basic requirements and dimensional requirements for the design and performance of hose connectors with 24° cone seal (in accordance with GB/T 14034.1).

This type of hose connector is made of carbon steel and is used with hoses with a nominal inner diameter of 5mm~38mm.

NOTE For hose fittings for hydraulic and pneumatic brake systems of road vehicles, see ISO 4038, ISO 4039-1 and ISO 4039-2.

The hose connectors specified in this document (see Figure 1 for a typical example) are used in hydraulic systems together with hoses that meet the requirements of different hose standards.

Index number description.

1---Hose connector;

2---O-ring;

3---Oil port;

4---Transition joint;

5---Nut.

Figure 1 Typical connection example of a 24° cone seal end hose connector