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NATIONAL STANDARD OF THE PEOPLE'S REPUBLIC OF CHINA

GB/T 14034.4-2023

Connections for hydraulic fluid power - Metallic tube connectors - Part 4: 60 degree cone connectors

液压传动连接 金属管接头 第4部分：60°锥形

Issued on: May 23, 2023 **Implemented on: December 1, 2023**

Issued by: State Administration for Market Regulation;
Standardization Administration of the PRC

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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 4 of GB/T 14034 "Metal Pipe Fittings for Hydraulic Transmission Connections": GB/T 14034 has issued the following part:

--- Part 1: 24° cone;

--- Part 2: 37° flared type;

--- Part 4: 60 ° cone: This document is modified to adopt ISO 8434-6:2009 "Fluid Power and General Metal Pipe Connections Part 6: With or without O-rings 60° Conical Fittings": Compared with ISO 8434-6:2009, this document has made the following structural adjustments:

--- Added "Table 2", the original "Table 2" and subsequent table numbers are extended;

--- Added "Figure 2", the number of the original "Figure 2" and subsequent figures is extended;

--- "15:1" corresponds to "15:1:1" of ISO 8434-6:2009, "15:2" is added, "15:2:1~15:2:6" corresponds to ISO 8434-6:2009 "15:1:2~15:1:7", "15:2:7" corresponds to "15:2" of ISO 8434-6:2009: The technical differences between this document and ISO 8434-6:2009 and their reasons are as follows:

--- Replaced ISO 5598:2008 (see Chapter 3) with the normatively quoted GB/T 17446 to adapt to my country's technical conditions and improve high operability;

--- Changed the terms and definitions (see Chapter 3, Chapter 3 of ISO 8434-6:2009);

--- Replaced ISO 3601-3 (see 4:4) with the normatively quoted GB/T 3452:2 to adapt to my country's technical conditions and improve operability active;

--- Replaced ISO 48 (see 4:4) with the normatively quoted GB/T 6031 to adapt to my country's technical conditions and improve operability;

--- Replaced ISO 6149-3 (see 5:1) with the normatively quoted GB/T 2878:3 to adapt to my country's technical conditions and improve operability active;

--- Replaced ISO 10763 (see 7:2) with the normatively quoted GB/T 41354 to adapt to my country's technical conditions and improve operability active;

--- GB/T 3639 (see 7:3) for normative references has been added to adapt to the technical conditions of our country and improve operability;

1 Scope

GB/T 14034.4-2023 is Part 4 of the Chinese series on metallic tube connectors for hydraulic systems, and covers 60 degree cone fittings. The 60 degree cone is the British and Japanese tradition where the 37 degree flare is the American one, and the two are close enough in angle to be mated by mistake and far enough apart to leak when they are - which is a good part of the reason the series keeps them in separate parts with distinct designations. The standard sets the materials, the pressure and temperature ratings, the designation of the fittings, the metal tube, the across-flats dimensions and tolerances, the design, the threads, the manufacture, the assembly guidance, the purchasing information, the marking, and the performance requirements and qualification tests. It took effect on 1 December 2023.

This document specifies 60° tapered metal pipe joints with or without O-ring seals (applicable metal pipe outer diameter 6mm~50mm or General design requirements, basic size and performance requirements, and qualification test for hoses with an inner diameter of 5 mm to 51 mm): The pipe joints specified in this document are suitable for connecting metal pipes or hose joints with oil ports in accordance with GB/T 2878:1 and ISO 1179-

1 Transition connection (Refer to GB/T 9065:6 for relevant hose joint specifications):

Note 1: For new application design, relevant requirements are given in 9:6: Where elastomeric seals are permitted, national standards and inclusion of elastomeric seals are preferred pipe joint design:

Note 2: Use under conditions outside the specified pressure and temperature ranges, see 5:3:

2 Normative references

The contents of the following documents constitute the essential provisions of this document through normative references in the text: Among them, dated references For documents, only the version corresponding to the date is applicable to this document; for undated reference documents, the latest version (including all amendments) is applicable to this document:

GB/T 193 Common thread diameter and pitch series (GB/T 193-2003, ISO 261:1998, MOD) GB/T 2878:

3 Hydraulic power connections with metric thread and O-ring seals on ports and stud ends - Part 3: Lightweight studs Terminal (L series) (GB/T 2878:3-2017, ISO 6149-3:2006, MOD) GB/T 3103:

1 Fastener tolerances Bolts, screws, studs and nuts (GB/T 3103:1-2002, ISO 4759-1:2000, IDT)

GB/T 3452:2 O-ring rubber seals for hydraulic and pneumatic use Part 2: Specifications for inspection of appearance quality (GB/T 3452:2- 2007, ISO 3601-3:2005, IDT)

GB/T 3639 cold-drawn or cold-rolled precision seamless steel tubes

GB/T 6031 Determination of hardness of vulcanized rubber or thermoplastic rubber (10IRHD~100IRHD) (GB/T 6031- 2017, ISO 48:2010, IDT)

GB/T 7307 55°unsealed pipe thread (GB/T 7307-2001, eqv ISO 228-1:1994)

GB/T 10125 Artificial atmosphere corrosion test Salt spray test (GB/T 10125-2021, ISO 9227:2017, MOD)

GB/T 17446 Vocabulary for fluid transmission systems and components (GB/T 17446-2012, ISO 5598:2008, IDT)

GB/T 26143 Test method for hydraulic pipe joints (GB/T 26143-2010, ISO 19879:2010, IDT)

GB/T 41354 Dimensions and nominal pressure of seamless or welded flat-end precision steel pipes for hydraulic transmission (GB/T 41354- 2022, ISO 10763:2020, MOD) ISO 1179-

2 Fluid transmission and general-purpose metal pipe connections, ports and studs with rubber or metal seals for

ISO 228-1 threads (typeE)] ISO 1179-