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

GB/T 40565.1-2024

**Connections for hydraulic fluid power - Quick-action couplings
- Part 1: General type**

液压传动连接 快换接头 第1部分：通用型

(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 40565 "Quick-change connectors for hydraulic transmission": GB/T 40565 has been published as follows part:

- Part 1: General purpose;
- Part 2: 20MPa~31.5MPa plane type;
- Part 3: General threaded connections;
- Part 4: 72MPa threaded connection type:

This document is equivalent to ISO 7241:2023 "Dimensions and requirements for quick-change couplings for hydraulic power transmission":

The following minimal editorial changes were made to this document:

- Change the name of the standard to "Hydraulic transmission connection quick-change connectors Part 1: General purpose":

Introduction

In a hydraulic transmission system, power is transmitted and controlled by a pressurized fluid in a closed circuit: Quick-release connectors are used to connect hydraulic components without tools or special Quick connection or disconnection of fluid conduits under special installation conditions:

GB/T 40565 specifies the dimensions and requirements of hydraulic quick-change connectors and consists of four parts:

--- Part 1: General purpose: The purpose is to determine the dimensions and requirements of hydraulic quick-change connectors for general purposes:

--- Part 2: 20MPa~31.5MPa flat type: The purpose is to determine the 20MPa~31.5MPa flat type hydraulic quick change joint Head size and requirements:

--- Part 3: General type with threaded connection: The purpose is to determine the dimensions and requirements of general threaded connection type hydraulic quick-change connectors:

--- Part 4: 72MPa threaded connection type: The purpose is to determine the size of the threaded connection type hydraulic quick-change connector under 72MPa high pressure:

Inches and requirements:

The four parts of GB/T 40565 are formulated by ISO independent standards: In order to facilitate the systematic management and implementation of the standards, the independent standards are the established standards are combined into partial standards:

Hydraulic transmission connection quick change connector Part 1: General purpose

1 Scope

This document specifies the interface dimensions and requirements of hydraulic universal quick-change connectors and the A series universal quick-change connectors for agricultural machinery:

Additional requirements:

This document applies to hydraulic quick-change connectors of series A and B:

---A series is mainly used in Europe;

---B series is mainly used in North America:

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:

Note: GB/T 17446-2012 Fluid power systems and components vocabulary (ISO 5598:2008, IDT)

Note: GB/T 5862-2020 Universal hydraulic quick-change connectors for agricultural tractors and machinery (ISO 5675:2008, MOD) Note: GB/T 5568-2022 Rubber or plastic hoses and hose assemblies - Hydraulic impulse test without flexure (ISO 6803:2017, IDT)

3 Terms and definitions

For the purpose of this document, the terms and definitions defined in ISO 5598 and the following apply:

The maximum force required to fully open the valve when the pressure in the quick-change fitting is zero:

Female half

The socket portion of a quick-release connector (usually includes the mechanism that locks the two ends of the quick-release connector together):

interface

The end parts of the quick-connect fitting that establish and control interchangeability:

Male half

The plug portion of a quick-connect fitting (which connects and locks onto the female end):