

ICS 23.100.40

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

GB/T 2878.2-2011

**Connections for hydraulic fluid power -- Ports and stud ends
with metric threads and O-ring sealing -- Part 2: Heavy-duty
stud ends (S series)**

液压传动连接 带米制螺纹和O形圈密封的油口和螺柱端 第2部分：重型螺柱端（S
系列）

(English Translation)

Issued on: December 30, 2011

Implemented on: October 1, 2012

Issued by: Standardization Administration of China

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Foreword

GB/T 2878 "Hydraulic fluid connection with metric threads and O-ring seal Ports and stud ends" is divided into four parts.

--- Part 1. Ports;

--- Part 2. Heavy stud ends (S series);

--- Part 3. Light stud ends (L series);

--- Part 4. Screw Plugs.

This section GB/T 2878 Part 2.

This section drafted in accordance with GB/T 1.1-2009 given rules.

This section uses redrafted Law Amendment uses ISO 6149-2:2006 "fittings for hydraulic fluid power and general use of the band Seal oil ports and stud ends - Part 2 ISO 261 metric threads and O-rings. Heavy (S series) stud ends Dimensions, design, test Methods and technical requirements. " this part of ISO 6149-2:2006 and the technical differences for the following reasons.

--- On normative references, this part has been adjusted technical differences, in order to adapt our technical conditions, adjustments Focus reflected in Chapter 2, specific adjustments are as follows.

- Modify with international standards of GB/T 193 instead of ISO 261 (see Table 1);
- Modify with international standards of GB/T 197 instead of ISO 965-1 (see Table 1);
- equivalents adoption of international standards GB/T 3103.1 replaces ISO 4759-1 (see Chapter 4);
- equivalents adoption of international standards GB/T 3452.2 replaces ISO 3601-3 (see Chapter 6);

- equivalents adoption of international standards GB/T 6031 instead of ISO 48 (see Chapter 6);
- equivalents adoption of international standards GB/T 17446 replaces ISO 5598 (see Chapter 3);
- equivalents adoption of international standards GB/T 26143 replaces ISO 19879 (see Chapter 7);
- 5.1 in stud ends materials from mild steel to carbon steel;
- Chapter 8, remove the stud end tag name label;
- Chapter 9, the stud end labeling requirements described in the "shall" with "should." this part made the following editorial changes.
- Simplified standard name;
- Delete footnote 7 international standards.

This part is proposed by China Machinery Industry Federation.

This part of the National Standardization Technical Committee of hydraulic and pneumatic (SAC/TC3) centralized.

This section is responsible for drafting unit. Zhejiang Jiangsu Jiang grid hydraulic Co., Ltd., Jiangsu Machinery Research and Design Institute Co., Ltd., the machine Productivity Promotion Center.

Participated in the drafting of this section. Haiyan Pipe Manufacturing Co., Ltd., Shanghai Lixin Hydraulic Co., Ltd., China Shipbuilding Industry Corporation 704 Research the Zhejiang Huaxia Valve Co., Ltd. Ningbo City Hengtong Hydraulic.

Introduction

In the hydraulic drive system, the power is pressurized fluid to pass through the inner loop control and closed. In a typical application, the fluid (liquid or gas) can be delivered under pressure.

Hydraulic components through its port with threaded stud end fittings with the tube or hose connection.

Hydraulic systems and components designed to give priority to the proposed new GB/T 2878 series threaded ports and stud ends, because this series of provisions Ports and stud ends for metric threads and O-ring seal. We are hoping to help users to recommend a reasonable choice.

Hydraulic connection with metric thread Ports and stud ends and O-ring seal Part 2. Heavy stud ends (S series)

1 Scope

This section GB/T 2878 specifies the metric adjustable and non-adjustable heavy-duty (S series) Dimensions column ends and O-ring performance requirements and test procedures.

Non-adjustable stud ends comply with this section applies to the maximum working pressure 63MPa (630bar), suitable for adjustable stud ends up working Operating pressure 40MPa (400bar). Allowable working pressure should be in accordance with the stud end size, materials, structures, working conditions and the application conditions determine.

Only compliance with this size of the product to achieve rated performance can not be guaranteed. Manufacturers should be in accordance with the specifications contained in this section of the trial Inspection to ensure that components meet the specified performance.

Note 1: The need for effective number of tests to verify the performance requirements of carbon steel pipe joint.

Note 2: This section applies to GB/T 14034.1-2010, fittings ISO 8434-3 and in line with the GB/T 2878.4 of the plug. Related hose Joint technical specifications see ISO 12151-4.

Note 3: The introduction section provides recommendations for the design of new applications using hydraulic drive Ports and stud ends.

2 Normative references

The following documents for the application of this document is essential. For dated references, only the dated version suitable for use herein Member. For undated references, the latest edition (including any amendments) applies to this document.

GB/T 193 common thread diameter and pitch series GB/T 197 common thread tolerance
GB/T 3103.1-2002 Tolerances for fasteners - Bolts, screws, studs and nuts (ISO 4759-1)
GB/T 3452.2-2007 hydraulic and pneumatic rubber O-ring Part 2. appearance quality inspection standard (ISO 3601-3) GB/T 6031 Determination of vulcanized rubber or thermoplastic rubber hardness (10 ~ 100IRHD) (ISO 48) GB/T 17446 Fluid power systems and components terminology (ISO 5598) GB/T 26143 hydraulic fittings test methods (ISO 19879)

3 Terms and Definitions

GB/T 17446 and as defined in the following terms and definitions apply to this section.

Adjustable stud ends adjustablestudend During tightening the coupling nut, allowing fittings to complete the connection to adjust the direction of the positioning stud end fittings.

NOTE: This type is mainly used for stud shaped end fittings (such as T-shaped, cross and elbow).

Non-adjustable stud ends non-adjustablestudend During tightening the coupling nut, no special reorientation stud end fittings. Only for straight-through pipe joints.