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

GB/T 786.2-2018

**Fluid power systems and components -- Graphical symbols
and circuit diagrams -- Part 2: Circuit diagrams**

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Foreword

GB/T 786 "Fluid Transmission System and Component Graphic Symbols and Circuit Diagrams" is divided into two parts.

--- Part 1. Graphical symbols for general use and data processing;

--- Part 2. Circuit diagram.

This part is the second part of GB/T 786.

This part is drafted in accordance with the rules given in GB/T 1.1-2009.

This section uses the redrafting method to modify the use of ISO 1219-2:2012 "fluid drive systems and components graphic symbols and circuit diagrams"

Part 2. Circuit Diagram.

The technical differences between this part and ISO 1219-2:2012 and their reasons are as follows.

--- Regarding the normative reference documents, this section has made technical adjustments to adapt to the technical conditions of China. Adjustment

The situation is reflected in Chapter 2, "Regulatory References", as follows.

* Replace ISO 1219-1 with GB/T 786.1 equivalent to the international standard (see 4.3.1, 4.4.1, 4.4.2, Chapter 8);

* Replace ISO 4397 with GB/T 2351 equivalent to the international standard (see 6.4.13);

* Replace ISO 3448 with GB/T 3141 equivalent to the international standard (see Chapter 2, 6.4.1.1);

* Replace ISO 6743-4 with GB/T 7631.2 equivalent to the international standard (see Chapter 2, 6.4.1.1);

- * Replace ISO 5457 with GB/T 14689 modified to international standards (see Note 4.2, Chapter 8);
- * Replace ISO 3098-0 with GB/T 14691 equivalent to the international standard (see Chapter 2, 4.2);
- * Replace ISO 5598 with GB/T 17446 equivalent to the international standard (see Chapter 3);
- * Replace ISO 16889 with GB/T 18853 with international standards (see 6.4.12.1);
- Added normative references GB/T 3766, GB/T 7932 (see Chapter 2, 4.1.3);
- Removed 3.1, 3.2, 3.3, 3.4 from terms and definitions (see Chapter 3);
- Added the relevant requirements for "function diagrams as supplementary information" (see 7.2).

This section also made the following editorial changes.

- ISO 1219-2:2012 pump and motor displacement unit is "cm³", the pump and motor displacement units of this part are changed to "mL/r";
- Remove references [1] and [2] in ISO 1219-2:2012;
- Appendix A ~ Appendix E has been rearranged in the order mentioned in the standard text;
- "Dash line" in the pattern of Appendix C ~ Appendix E is changed to "double dotted line".

This part was proposed by the China Machinery Industry Federation.

This part is under the jurisdiction of the National Hydraulic and Pneumatic Standardization Technical Committee (SAC/TC3).

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1 Scope

This part of GB/T 786 specifies the rules for drawing hydraulic and pneumatic circuit diagrams.

This section applies to hydraulic and pneumatic circuit diagrams, as well as to cooling

systems, lubrication systems, cooling lubrication systems, and fluid transmission phases.

Off the application of special gas systems.

2 Normative references

The following documents are indispensable for the application of this document. For dated references, only dated versions apply to this article.

Pieces. For undated references, the latest edition (including all amendments) applies to this document.

GB/T 786.1 Fluid transmission systems and components - Graphical symbols and diagrams - Part 1 . diagrams for general use and data processing

Shape symbol (GB/T 786.1-2009, ISO 1219-1.2006, IDT)

Hard tube outer diameter and hose inner diameter for GB/T 2351 hydraulic and pneumatic systems (GB/T 2351-2005, ISO 4397.1993, IDT)

GB/T 3141 Industrial Liquid Lubricant ISO Viscosity Classification (GB/T 3141-1994, eqvISO 3448.1992)

General rules and safety requirements for GB/T 3766 hydraulic drive systems and their components (GB/T 3766-2015, ISO 4413.

2010, MOD)

GB/T 7631.2 Classification of lubricants, industrial oils and related products (Class L) Part 2. Group H (hydraulic systems)

(GB/T 7631.2-2003, ISO 6743-4..1999, IDT)

GB/T 7932 General rules and safety requirements for pneumatic systems and their components (GB/T 7932-2017, ISO 4414.2010,

IDT)

GB/T 14689 Technical drawing format format and format (GB/T 14689-2008, ISO 5457.1999, MOD)

GB/T 14691 technical drawing font (GB/T 14691-1993, eqvISO 3098-1. 1974, ISO 3098-2. 1984)

GB/T 17446 fluid drive system and component vocabulary (GB/T 17446-2012, ISO 5598.2008, IDT)

GB/T 18853 hydraulic transmission filter for multi-pass method for evaluating filter performance (GB/T 18853-2015, ISO

16889.2008, MOD)

3 Terms and definitions

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

4.1 General requirements

4.1.1 The circuit diagram should be clearly marked and all the actions and control functions of the system can be implemented according to the circuit.

4.1.2 The circuit diagram shall be capable of reflecting all fluid transmission components and their connection.

4.1.3 The circuit diagram does not have to consider the physical arrangement of components in actual assembly. Information about the component itself and its assembly relationship (including