



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

中华人民共和国国家标准

GB/T 3766-2001

Replace GB/T 3766-1983

**Hydraulic fluid power—General rules relating to
systems**

液压系统通用技术条件

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and Quarantine of the People's Republic of China**

Contents

Foreword.....	1
ISO Foreword	2
Introduction.....	3
1 Scope.....	5
2 Normative References.....	5
3 Definitions.....	8
4 Requirements.....	9
5 System design	14
6 Energy conversion components.....	20
7 Valves	27
8 Fluids and conditioning components.....	31
9 Piping.....	39
10 Control systems	43
11 Diagnostics and monitoring*.....	49
12 Cleaning and painting	49
13 Preparation for transportation.....	50
14 Commissioning.....	51
15 Identification statement (reference to this International Standard)	52
Annex A (Informative) Items requiring supplier/purchaser agreement.....	53
Annex B (Informative) Hazards related with hydraulic transmission.....	54
Annex C (Informative) List of reference standard.....	57

Foreword

This Standard is revision of GB/T 3766-1983 based on ISO 4413: 1998 Hydraulic fluid power — General rules relating to systems, technical content is equivalent to this International Standard.

Deleted the annex C, D and E of ISO 4413 in this Standard, due to three annexes are not necessary and increase the length of standard.

According to ISO 4413: 1998 and comparison with this standard, following contents in GB/T 3766-1983 have been changed: Added the requirements of “Danger” and “site condition” to article; refined the requirements of “Energy conversion device”, “hydraulic valve”, “hydraulic oil and regulating element” as well as “piping system”, etc; added “system design”, “diagnosis and monitoring”, “clean and coating”, “preparation of transportation”, “test run” and “annotation notes’ etc, as well as “Annex A” and “Annex B”. In addition, for ease of use, added the annex C, show the comparison list of reference standard between national standard and ISO 4413-1998.

Annex A, B and C of this Standard are informative annex.

Since implementation date, this Standard will replace GB/T 3766-1983.

This Standard is proposed by China Machinery Industry Federation

This Standard is under the jurisdiction of National Technical Committee on Hydropneumatic of Standardization Administration of China.

The responsible drafting organization is Beijing Research Institute of Automation for Machine-building Industry

The chief drafting staff of this standard includes Liu Xinde, Zhao Manlin and Wu Zhiming.

This Standard was issued on June, 1983 for the first time, this Standard is secondary edition.

ISO Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

International Standard ISO 4413 was prepared by Technical Committee ISO/TC 131, Fluid power systems, Subcommittee SC 9, Installations and systems.

This second edition cancels and replaces the first edition, which has been technically revised.

Annexes A to D of this International Standard are for information only.

Introduction

In hydraulic fluid power systems, power is transmitted and controlled through a liquid under pressure within an enclosed circuit.

The application of hydraulic fluid power systems requires a thorough understanding and precise communication between supplier and purchaser. This International Standard was prepared to assist that understanding and communication and to document many of the good practices learned from experience with hydraulic systems.

Use of this International Standard assists:

- a) the identification and specification of the requirements for hydraulic systems and components;
- b) the identification of respective areas of responsibility;
- c) the design of systems and their components to comply with specific requirements;
- d) understanding of the safety requirements of a hydraulic system.

General rules given in this International Standard have no legal status except those paragraphs that are included in contractual agreements between purchasers and suppliers. Deviation from those parts of this International Standard included in contractual agreements shall also be agreed to in writing by the purchaser and supplier. Attention shall be drawn by the purchaser and/or supplier to applicable national or local codes or laws.

General rules that contain the verb "shall" are counsels of good engineering practice, universally applicable with rare exception. Use of the word "should" in the document is not an indication of choice but an indication that the desirable engineering practices described may have to be modified due to the peculiarities of certain processes, environmental conditions or equipment size.

Titles or parts of the text which are marked with an asterisk (*) indicate subclauses for

which discussion is needed between the supplier and purchaser to define the requirements and/or responsibilities. These are also listed in annex A.

Hydraulic fluid power—General rules relating to systems

1 Scope

This Standard provides general rules relating to hydraulic systems on machinery used in industrial manufacturing processes. It is intended as a guide for both suppliers and purchasers, with a view to ensuring:

- a) safety;
- b) uninterrupted system operation;
- c) ease and economy of maintenance;
- d) long life of the system.

2 Normative References

The articles contained in the following documents have become this standard when they are quoted herein. For the dated documents so quoted, all the modifications or revisions made thereafter shall not be applicable to this Standard. For the undated documents so quoted, the latest editions shall be applicable to this Standard.

GB/T 786.1-1993 Fluid power systems and components—Graphic symbols and circuit diagrams—Part 1: Graphic symbols

GB/T 2514-1993 Hydraulic fluid power—Four-port directional control valves—Mounting surface

GB/T 2877-1981 Hydraulic fluid power; Two-port slip-in cartridge valves cavities; Mounting dimensions

GB 4208-1993 Degrees of protection provided by enclosure (IP code)

GB/T 5226.1-1996 Electrical equipment of industrial machines Part 1: General requirements

GB/T 8098-1987 Hydraulic fluid power--Compensated flow control valves--Mounting

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