



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

GB/T 7932-2017

**Pneumatic fluid power -- General rules and safety requirements
for systems and their components**

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Foreword

This Standard was drafted as per the rules specified in GB/T 1.1-2009.

This Standard replaced GB/T 7932-2003 Pneumatic Fluid Power - General Rules Relating to Systems.

Compared with GB/T 7932-2003, this Standard had the major technical changes as follows besides the editorial modifications:

- Change the name of the standard into Pneumatic Fluid Power - General Rules and Safety Requirements for Systems and Their Components;
- Modify the content of the "Scope" (see Clause 1 of this Edition; Clause 1 of 2003 Edition);
- Modify the content of "Normative References" (see Clause 2 of this Edition; Clause 2 of 2003 Edition);
- Delete partial content of "Terms and Definitions" (3.1, 3.3, 3.4, 3.8, 3.9, 3.10, 3.13 of 2003 Edition);
- Modify the content of "General Rules and Safety Requirements" (see Clause 5 of this Edition; Clause 4~Clause 11 of 2003 Edition);

--- Add "Inspection and Acceptance Test of Safety Requirements" (see Clause 6 of this Edition);

--- Modify the content of "Information for Use" (see Clause 7 of this Edition; 14.4 of

2003 Edition);

--- Delete the "Items that Need to be Negotiated between the Supplier and the Purchaser" and the "Example of Parts List " (Annex A and Annex C of 2003 Edition);

--- Modify the "List of Dangerous Situations" and " Information on Pneumatic Systems and Components" (see Annex A and Annex B of this Edition; Annex B and Annex D of 2003 Edition);

--- Added "Bibliography" (see Bibliography of this Edition).

This Standard uses the translation method to equivalently adopt ISO 4414:2010 Pneumatic Fluid Power - General Rules and Safety Requirements for Systems and Their Components.

The Chinese documents that have a consistent correspondence relationship with the international documents normatively cited in this Standard are as follows:

--- GB/T 786.1-2009 Fluid Power Systems and Components - Graphic Symbols and Circuit Diagrams - Part 1: Graphic Symbols for Conventional Use and Data-Processing Applications (ISO 1219-1:2006, IDT);

--- GB 4208-2008 Degrees of Protection Provided by Enclosure (IP Code) (IEC 60529:2001, IDT);

--- GB 16754-2008 Safety of Machinery - Emergency Stop - Principles for Design (ISO 13850:2006, IDT);

--- GB/T 17446-2012 Fluid Power Systems and Components - Vocabulary (ISO 5598:2008, IDT);

--- GB/T 19670-2005 Safety of Machinery - Prevention of Unexpected Start-up (ISO 14118:2000, MOD);

--- GB/T 19671-2005 Safety of Machinery - Two-Hand Control Device - Functional

Aspects and Design Principles (ISO 13851:2002, IDT);

--- GB/T 32215-2015 Pneumatic Fluid Power - Identification of Ports and control

Mechanisms of Control Valves and Other Components (ISO 11727:1999, IDT).

This Standard was proposed by China Machinery Industry Federation.

This Standard shall be under the jurisdiction of National Technical Committee on Hydropneumatics of Standardization Administration of China (SAC/TC 3).

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The historical editions replaced by this Standard are as follows:

--- GB/T 7932-1987, GB/T 7932-2003.

Pneumatic Fluid Power - General Rules and Safety
Requirements for Systems and Their Components

1 Scope

This Standard specifies general rules and safety requirements for pneumatic fluid power systems and components. It deals with all significant hazards associated with pneumatic fluid power systems and specifies principles to apply in order to avoid those

hazards when the systems are put to their intended use.

NOTE 1: See Clause 4 and Annex A.

The significant hazard noise is incompletely dealt with in this Standard.

NOTE 2: Noise emission depends especially on the installation of pneumatic components or

systems into machinery.

This Standard applies to the design, construction and modification of systems and their components, also taking into account the following aspects:

- a) assembly;
- b) installation;
- c) adjustment;
- d) uninterrupted system operation;
- e) ease and economy of maintenance and cleaning;
- f) reliable operation in all intended uses;
- g) energy efficiency; and
- h) environment.

This Standard does not apply to air compressors and the systems associated with air distribution as typically installed in a factory, including gas bottles and receivers.

2 Normative References

The following documents are essential to the application of this document. For the dated documents, only the versions with the dates indicated are applicable to this document; for the undated documents, only the latest version (including all the amendments) is applicable to this document.

GB/T 15706-2012 Safety of Machinery - General Principles for Design - Risk Assessment and Risk Reduction (ISO 12100:2010, IDT)

ISO 1219-1 Fluid Power Systems and Components - Graphic Symbols and Circuit Diagrams - Part 1: Graphic Symbols for Conventional Use and Data-Processing Applications