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

GB/T 10892-2021

Stationary air compressors - Safety rules and code of practice

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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 of Standardization Documents"

drafted:

This document replaces GB/T 10892-2005 "Stationary Air Compressor Safety Rules and Operating Regulations", and GB/T 10892-

Compared with:2005, except for structural adjustment and editorial changes, the main technical changes are as follows:

- Adjusted terms and definitions (see Chapter 3, Chapter 4 of the:2005 edition);
- Supplementary situations that are likely to cause personal injury (see 6:4, 6:4 of the:2005 edition);
- Changed the noise health requirements (see 6:5, 6:5 of the:2005 edition);
- Simplified the requirements for the content of the nameplate (see 7:1, 7:1 of the:2005 edition);
- Changed the prerequisite requirements for the exhaust temperature limit of the fuel injection rotary machine (see 12:1, 12:1 of the:2005 edition);
- Changed the temperature requirements for exhaust over-temperature protection (see 12:2, 12:2 of the:2005 edition);
- Supplement the requirements for inhaled air quality (see 15:2, 15:2 of the:2005 edition);
- Refine the installation position of the pressure instrument (see 17:1, 17:1 of the:2005 edition);
- Changed the pressure setting requirements of the pressure relief device (see 20:1, 20:5, 20:6, 20:8, 21:1, 20:1, 20:5, 20:1, 20:5;:2005 edition)

20:6, 20:8, 21:1);

--- Changed the requirements for resetting the pressure relief device (see 24:16, 24:16 of the:2005 edition);

--- Increased lubricating oil classification and typical application requirements (see E:4:2):

This document is revised and adopted ISO 5388:1981 "Safety Rules and Operating Instructions for Stationary Air Compressors":

Compared with ISO 5388:1981, this document has more structural adjustments: Appendix A lists this document and ISO 5388:1981:

Structure number comparison:

Compared with ISO 5388:1981, this document has many technical differences: In the outer margins of the clauses involved, a vertical single

Lines (|) are marked: See Appendix B for a list of these technical differences and their reasons:

The following editorial changes have also been made to this document:

--- The pressure unit replaces "bar" with "MPa";

---The Kelvin "K" is changed to the Celsius temperature " degrees C":

Please note that some content of this document may be patented: The issuing agency of this document assumes no responsibility for identifying patents:

1 Scope

This document specifies that the design, installation, operation and maintenance of general fixed or skid-mounted air compressors (hereinafter referred to as compressors) should be

Observe the safety rules and operating procedures:

This document is applicable to compressors with shaft power not less than 2kW and rated discharge pressure of 0.05MPa~5MPa:

This document does not apply to the following types of compressors:

- a) Special compressors for breathing, diving, surgery;
- b) compressors for air brake systems;
- c) Ejector:

2 Normative references

The contents of the following documents constitute essential provisions of this document

through normative references in the text: Among them, dated citations

documents, only the version corresponding to that date applies to this document; for undated references, the latest edition (including all amendments) applies to

this document:

GB 3100 International System of Units and Its Application (GB 3100-1993, eqvISO 1000:1992)

GB/T 7631:9 Classification of Lubricants, Industrial Oils and Related Products (Class L) Part 9: Group D (Compressors) (GB/T 7631:9-

2014, ISO 6743-3:2003, MOD)

GB/T 13306 Signs

3 Terms and Definitions

The following terms and definitions apply to this document:

3:1

Relief valve or safety valve set pressure reliefvalveorsafetyvalvesetpressure

The pressure at the inlet of the relief valve or safety valve when it begins to open:

3:2

surge limit surgelimit

A limit flow of the turbo compressor, under which the compressor will not be able to work stably:

4 unit system

This document adopts the SI system unit specified in GB 3100:

5 types of compressors

5:1 Classification

Compressors can be divided into oil-free lubricated compressors, oil-lubricated reciprocating compressors and oil-injected rotary compressors according to the lubrication method: