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

GB/T 4974-2018

Replacing GB/T 4974-2005

**Air compressors, rock drilling machines and pneumatic tools --
Preferred pressures**

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Foreword

This standard was drafted in accordance with the rules given in GB/T 1.1-2009.

This standard replaces GB/T 4974-2005 "Air compressor, rock drilling machinery and pneumatic tools priority pressure".

Compared with GB/T 4974-2005, the main technical changes in this standard are as follows.

- English name Compressors changed to Aircompressors (see cover,.2005 edition cover);
- Revised the terms and definitions of rated pressure (see 3.1,.2005 edition 3.1);
- Modify the nominal pressure term as design pressure and redefine it (see 3.2,.2005 edition 3.2);
- Increased the pressure value of Table 1. the first column increased by 0.2, 0.8, (35), (45), the third column increased by 0.05, 0.063, 0.12
0.63, 3.45, 12.5, 18, 31.5, adjusted the position of some pressure values in the table (see Table 1, Table 1 of.2005);
- Modify the second gear pressure in Table 2 to the fourth gear pressure, the pressure values of each gear are re-divided, and add 0.28, 0.8, 1.4, (see Table 2,.2005)
Table 2).

This standard uses the redrafting method to modify the use of ISO 5941.1979 "compressor, pneumatic tools and pneumatic machinery priority pressure."

There are technical differences between this standard and ISO 5941.1979, and the terms involved in these differences have been passed on the outer margins of the margins.

The vertical single line () is marked, and a list of the corresponding technical differences and their causes is given in Appendix A.

This standard also made the following editorial changes.

---Modified standard name;

--- Pressure unit replaces "bar" with "MPa".

This standard was proposed by the China Machinery Industry Federation.

This standard is under the jurisdiction of the National Compressor Standardization Technical Committee (SAC/TC145).

This standard was drafted. Hefei General Machinery Research Institute, Tianshui Rock Drilling Machinery Pneumatic Tools Research Institute, Hefei General Mechanical and Electrical Products Testing Institute

Limited.

1 Scope

This standard specifies the priority pressure used to represent performance data for air compressors, rock drilling machines and pneumatic tools.

This standard applies to air compressors, rock drilling machines and pneumatic tools. This standard also applies to the components of the compressed air system.

Note. The pressures stated in this standard are gauge pressures.

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 2346 Fluid Transmission System and Component Nominal Pressure Series (GB/T 2346-2003, ISO 2944.2000, MOD)

3 Terms and definitions

The following terms and definitions apply to this document.

3.1

Rated pressure ratedpressure

It shall be determined in the scope of 0.04MPa~45MPa for the design, manufacture and use of the unit specified in the standard, contract or nameplate.

The pressure level used for the pressure level.

Note. For air compressors, air compressors can be considered to have the best or near-optimal performance at rated pressure.

3.2

Design pressure design pressure

The pressure that the tool or machine is expected to use, usually the machine is tested for performance at this pressure.

Note 1. Suitable for rock drilling machines or pneumatic tools.

Note 2. Refer to GB/T 5621 for performance test.

4 Air compressor priority rated pressure

The preferred rated pressure of the air compressor is shown in Table 1. The first column in Table 1 is the nominal pressure value given in GB/T 2346; the second column is the air compressor

The preferred rated pressure; the third column is the pressure values commonly found in general sales documents, which are air compressors, air compressor units and their gas storage tanks.

Nominal pressure or maximum pressure.

Table 1 unit is MPa

Other rated pressures commonly used for nominal pressure priority rated pressure

0.04 0.04 0.05

0.063 0.063, 0.08