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

GB 6220-2009

**Respiratory Protection - Long Tube Breathing Apparatus
(English Translation)**

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Foreword

The Sub-clauses 5.2, 5.3, 5.4, and 7.2 in this Standard are mandatory, while the rest are recommended.

This Standard replaced GB 6220-1986 Long Tube Respirators; and GB 6221-1986 Performance Test Methods of Long Tube Respirators.

Compared with GB 6220-1986 Long Tube Respirators; and GB 6221-1986 Performance Test Methods of Long Tube Respirators, this Standard made the major changes as follows.

- Add the low flowrate warning requirements for the high-pressure air mask;
- Add the strength requirements for the structure and parts;
- Add the technical requirements and test methods of the high-pressure portion, warning device, pressure display device for the air-supply mask of the high-pressure cylinder, as well as the gas cylinder;
- Modify the technical requirements of the mask lens;
- Modify the test methods of breathing resistance;
- Add the test requirements for air-supply valve at different openings;
- Add the high and low temperature adaptability requirements and the test methods;

--- Add the marking requirements.

This Standard was proposed by State Administration of Work Safety.

This Standard shall be under the jurisdiction of National Technical Committee on Personal Protective Equipment of Standardization Administration of China (SAC/TC 112).

Drafting organization of this Standard. Beijing Municipal Institute of Labor Protection.

Participating drafting organizations of this Standard. Institute of Chemical Defense; and MSA (China) Safety Equipment Co., Ltd.

Chief drafting staffs of this Standard. Yang Wenfen, Ding Songtao, Xiao Yiqing, Yao Haifeng, Chen Zhuowei, Zang Lanlan, Zhou Yunyun, and Luo Mufu.

The historical editions replaced by this Standard are as follows.

--- GB 6220-1986;

--- GB 6221-1986.

Respiratory Protection -

Long Tube Breathing Apparatus

1 Scope

This Standard specifies the product classification and composition, technical requirements, test methods and marking of long tube breathing apparatus.

The products specified in this Standard are not suitable for fire-fighting and rescue sites.

2 Normative References

The provisions in following documents become the provisions of this Standard through reference in this Standard. For dated references, the subsequent amendments (excluding corrigendum) or revisions do not apply to this Standard, however, parties who reach an agreement based on this Standard are encouraged to study if the latest versions of these documents are applicable. For undated references, the latest edition of the referenced document applies.

GB/T 1226 General Pressure Gauge

GB 2890-2009 Respiratory Protection - Non-Powered Air-Purifying Respirators

GB 5099 Seamless Steel Gas Cylinders

GB/T 16556-2007 Self-Contained Open-Circuit Compressed Air Breathing
Apparatus

DOT-CFFC Basic Requirements for Fully Wrapped Carbon-Fiber Reinforced
Aluminum Lined Cylinders

3 Terms and Definitions

For the purposes of this Document, the following terms and definitions apply.

3.1 Long tube breathing apparatus

The protective article that protects the wearer's respiratory organs from the surrounding air and transports clean air for breathing through long tubes.

NOTE: Long tube breathing apparatus is divided into. self-inhalation long tube breathing apparatus, powered long tube breathing apparatus, and long tube breathing apparatus with high pressure.

3.1.1 Self-inhalation long tube breathing apparatus

The long tube breathing apparatus that allows the wearer to breathe spontaneously to get fresh, clean air.

3.1.2 Powered long tube breathing apparatus

The long tube breathing apparatus that uses a fan or air compressor to deliver fresh, clean air to the wearer.

3.1.3 Long tube breathing apparatus with high pressure

The long tube breathing apparatus that uses compressed air or high-pressure gas cylinders to deliver clean air to the wearer.

NOTE 1: Also known as pressure demand long tube breathing apparatus.

NOTE 2: The long tube is a pressure-bearing component during gas transmission.

3.2 Breathing tube

The flexible and air-tight tube for connecting masks with long tube.

3.3 Straps

A ring or sleeve to secure a long tube to the waist of the wearer.

NOTE: The straps include a belt and a hanging ring.

3.4 Long tube

Air-tight, flexible and long breathing tube for conveying clean air.

3.5 Tight-fitting face masks

A mask that can cover the nose, mouth, and face, or a mask that can cover the eyes, nose, and mouth, and close to the head and face.

NOTE 1: The tight-fitting face mask is used to ensure the isolation of the working environment by the tight-fitting frame.

NOTE 2: Tight-fitting face mask are divided into full mask and half mask.

3.5.1 Full mask

A tight-fitting face mask that is tight-fitting the head, and covers the eyes, face, nose, mouth, and jaw.

3.5.2 Half mask

A tight-fitting face mask that is tight-fitting the head, and covers the mouth and nose, or covers the mouth, nose, and jaw.

3.6 Loose-fitting facepiece

The air introduction device for positive pressure breathing protection equipment covers only the eyes, nose and mouth, and tight-fitting the face.

3.7 Continuous flow valve

In an air-supply long tube breathing apparatus, a device that allows the wearer to adjust the amount of inspiratory air.