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

MH/T 6031-2018

Replacing MH/T 6031-2003

**Aircraft oxygenation equipment
(English Translation)**

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Foreword

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

This standard replaces MH/T 6031-2003 "Aircraft Oxygenated Vehicles". Compared with MH/T 6031-2003, the main changes are as follows.

- The name of the standard has been revised from the original "Aircraft Oxygenation Vehicle" to "Aircraft Oxygenation Equipment";
- Added general requirements (see 3.1);
- Added safety requirements (see 3.2);
- Added technical requirements for fuel tanks and accessories (see 3.4.1.1);
- Added the technical requirements of the exhaust system (see 3.4.1.2);
- Added the technical requirements of the electrical system (see 3.4.1.3);
- Added the technical requirements for electric aircraft oxygenation equipment (see 3.4.2);
- Added technical requirements for towed aircraft oxygenation equipment (see 3.4.3);
- Increased maneuverability (see 3.4.4);
- Added technical requirements for external lighting and optical signal devices (see 3.4.5);
- Added technical requirements for the cab (see 3.4.6);
- Added environmental protection requirements (see 3.5);
- Modified the test method (see Chapter 4, Chapter 4 of the 2003 edition).

This standard was proposed and interpreted by the Airport Department of the Civil Aviation Administration of China.

This standard is under the jurisdiction of the China Academy of Civil Aviation Science and Technology.

Drafting organizations of this standard. Civil Aviation Professional Engineering Quality Supervision Station, National Construction Machinery Quality Supervision and Inspection Center.

1 Scope

This standard specifies the technical requirements, inspection methods, inspection rules, signs, markings, instructions for use, packaging, Transportation and storage.

This standard applies to the mutual filling of oxygen cylinders for aircraft, ground oxygen cylinders, gas cylinder groups, and ground cylinders to fill the gas cylinder groups.

Self-propelled, towed aircraft oxygenation equipment and simple towed aircraft oxygenation unit (hereinafter referred to as oxygenation equipment) with operational functions.

2 Normative references

The following documents are indispensable for the application of this document. For dated reference documents, only the dated version applies to this article Pieces. For undated references, the latest version (including all amendments) applies to this document.

GB 1495 Limits and measurement methods of noise outside the vehicle during acceleration
 GB 1589 Road vehicle outline size, axle load and mass limit GB 3847 Emission limits and measurement methods of visible pollutants from automobile exhaust with compression ignition engines GB/T 3853 Acceptance test of positive displacement compressor GB/T 4094.2 Marking of control parts, indicator lights and signal devices of electric vehicles GB/T 4980 Measurement of noise of positive displacement compressor GB 5099 steel seamless gas cylinder GB 6388 Transport packaging receipt and delivery identification GB 7258 Safety technical conditions for motor vehicle operation GB/T 7777 Mechanical vibration measurement and evaluation of positive displacement compressor GB 8982 oxygen for medical and aviation breathing GB/T 8984 Determination of carbon monoxide, carbon dioxide and hydrocarbons in gases by gas chromatography GB 9969 General Rules for Use of Industrial Products GB/T 12241 General requirements for safety valves GB/T 12536 Automobile sliding test method GB/T 12543 Automobile acceleration performance test method GB/T 12544 Maximum speed test method for automobiles GB/T 12547 Lowest stable vehicle speed test method GB/T 12673 Measuring method for main dimensions of automobiles GB/T 12674 Method for determination of automobile quality (weight) parameters GB/T 12678 Automobile Reliability Driving Test Method GB/T 13306 signs GB/T 14436 General Rules of Guarantee Documents for Industrial Products GB 15382 General technical requirements for gas cylinder valves GB/T 15487 Volumetric compressor flow measurement method GB 16912 Deep freezing method production of oxygen and related gas safety technical regulations GB 17691 Automobile compression ignition, gas fuel ignition engine and automobile exhaust pollutant emission limits and measurement methods (China III, IV, V stage) GB/T 18488.1 Drive Motor System for Electric Vehicle Part 1: Technical Conditions GB 20891 Limits and measurement methods of exhaust pollutants from diesel engines for non-road mobile machinery GJB 150.3A Military equipment laboratory environmental test method Part 3: High temperature test GJB 150.4A Military equipment laboratory environmental test method Part 4: Low temperature test JB/T 5943 General technical conditions for welding parts of construction machinery JB/T 6896 Surface cleanliness of air separation equipment TSG 21 Safety Technical Supervision Regulations for Stationary Pressure Vessels MH/T 0023 Graphical symbols for aircraft ground service equipment QC/T 484 Automotive paint coating QC/T 625 coating and chemical treatment layer for automobile

3.1 General requirements

3.1.1

All purchased parts of oxygenation equipment should meet the requirements of relevant national standards or industry standards, and have relevant certification documents and factory qualification certificates.

3.1.2

The welding of the structural parts of the oxygenation equipment shall comply with the requirements of JB/T 5943.

3.1.3

The paint coating of the oxygenation equipment should meet the requirements of QC/T 484.

3.1.4

The coating and chemical treatment layer of the oxygen-filling equipment components shall meet the requirements of QC/T 625.

3.1.5

When the oxygenation equipment adopts the riveting process, the rivets should be arranged neatly, and there should be no skew, crush, looseness or head mutilation. Oxygenation There should be no sharp edges or corners at all parts of the equipment.

3.1.6

The electrical installation of oxygenation equipment should conform to the electrical schematic diagram, and each terminal should have obvious marks that are not easy to fall off. Connecting parts of oxygenation equipment, Fasteners should be connected reliably, and anti-loosening devices should be provided. The tools and accessories of oxygenation equipment should be fixed and reliable.

3.1.7

The oil circuit and gas circuit system pipelines of oxygenation equipment should be neatly arranged, firmly clamped, and should not rub or collide with moving parts.

3.1.8

The oxygenation equipment should be free of oil, water or air leakage.

3.1.9

All electrical components and wiring harnesses of oxygenation equipment should be neatly arranged and firmly fixed, and appropriate protective measures should be taken.