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**The airplane tank tanker truck
(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 was proposed by the Airport Department of the Civil Aviation Administration of China.

This standard was approved by the Aircraft Airworthiness Certification 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. China National Aviation Fuel Co., Ltd., Aerospace Chenguang Co., Ltd.

1 Scope

This standard specifies the technical requirements, test methods, inspection rules and product markings, packaging, and transportation of aircraft tank tankers at civil airports.

Requirements for input and storage.

This standard applies to the manufacture and acceptance of aircraft tank refueling trucks (hereinafter referred to as refueling trucks) in civil airports.

2 Normative references

The relevant clauses in the following documents have become clauses of this standard by reference. For all cited documents with a date or edition, any subsequent amendments (excluding the content of the errata) or revised versions do not apply to this standard, but it is recommended that all parties using this standard discuss using the latest

Possibility of version. For cited documents without a date or edition, the latest version is applicable to this standard.

GB 1589-2004 Road vehicle outline size, axle load and mass limit GB/T 5574 Vulcanized rubber sheet for industrial use GB 6951 Light oil product safety oil surface potential value GB 7258-2004 Safety technical conditions for motor vehicle operation GB 10543 Rubber hoses for refueling and draining aircraft on the ground GB 13348 Electrostatic Safety Regulations for Liquid Petroleum Products GB/T 12673 Measuring method for main dimensions of automobiles GB/T 12674 Determination method of automobile quality (weight) parameters GB/T 12676 Automobile brake system, structural performance and test method GB/T 12677 Vehicle technical condition driving inspection method GB/T 13306 The form and size of the label GB/T 18411 road vehicle product label GB/T 21358 General technical specification for jet fuel filter separator JB/T 4734 Aluminum welding vessel JB/T 4735 Steel Welded Atmospheric Pressure Vessel JT 230-1995 Car static conductive rubber tow belt HB 6122 General technical requirements for aircraft pressure refueling nozzles HB 6130 Aircraft Pressure Refueling Nozzle Dimensions Standard HG/T 3089 O-ring rubber compound for fuel oil MH/T 6002 Civil Aviation Fuel Equipment Good Technical Specification MH/T 6005-2009 Civil Aircraft Fueling Specification QC/T 252 Type-setting test procedures for special purpose vehicles QC/T 264 metal coating-nickel-chromium and copper-nickel-chromium plating QC/T 484 Automotive paint coating QC/T 503 General Technical Requirements for Special Trailers API 1529 aviation fuel hose API 1581 Aviation Jet Fuel Filter Separator Specification and Evaluation Procedure SAE AS5877 Aircraft Pressure Refueling Joint Specification

3 Terms and definitions

Aircraft tank refueller Equipped with oil tank, oil pump, filter separator, pressure control device (for pressure refueling), flow meter, refueling hose and joint (oil Gun) and other parts, which can independently complete the fueling (pumping) of aircraft and have the functions of pumping, regulating pressure, and purifying.

[MH/T 6005-2009 3.1] 3.2 Special equipment of tank refueller the parts other than the chassis of the aircraft refueling vehicle.

Deadman control valve it is a safety control device that can be installed on tank fueling trucks and pipeline fueling trucks to remotely control the start and stop of the fueling (pumping) system.

[MH/T 6005-2009 3.3] 3.4 Aircraft pressure refueling nozzle A device that is installed at the end of the refueling hose of an aircraft refueling vehicle to implement aircraft pressure refueling and can control the pressure.

Pressure control valve it is installed in the pipeline of the aircraft refueling truck to control the pressure.

Note: When the pressure at the end of the pressure refueling joint exceeds (0.35 0.035) MPa, the pressure control valve is closed to prevent the pressure at the end of the pressure refueling joint from exceeding the limit.

Closed circuit sampler A device that takes out fuel from the filter separator and performs oil quality inspection.

Fueling platform

Work platform for refueling (pumping) under the wings of an aircraft.

Tank gross capacity

The sum of the rated capacity of the oil tank, remaining oil volume, and expansion capacity.

Tank rated capacity

The amount of oil in the tank that can be pumped by the oil pump system required by the design.

3.10

Remaining oil

The amount of remaining oil in the tank that cannot be pumped out by the pump oil system.

3.11

Expansile capacity

In addition to the rated capacity and remaining fuel, the extra space capacity for the expansion of the fuel in the tank.

3.12

Refueling going rating Under the specified test conditions, the working conditions of pressure or gravity refueling.

3.13

Refueling flow rating the maximum refueling flow rate under rated refueling conditions.

3.14

Working pressure

The outlet pressure of the oil pump when refueling at the rated refueling flow.

3.15

Nozzle downstream pressure the refueling pressure at the pressure refueling joint.

4.1 General requirements

4.1.1

Fuel trucks should meet the relevant requirements in MH/T 6002 and MH/T 6005.

4.1.2

Outsourcing parts and outsourcing parts should comply with the relevant standards and have the manufacturer's certificate.

4.2.1 High temperature

In the rated loading state, it should be able to work normally in a natural environment not exceeding 46 °C. The rubber parts and plastic parts should be free from deformation or cracking in addition to bubbling, the paint layer should be free from peeling, and moving parts should not be stuck.

4.2.2 Low temperature

Under the rated loading condition, it should be able to work normally in a natural environment of not lower than -30 °C. All rubber parts and metal parts are not broken and sealed no parts fall off, and all valves and instruments work normally.

4.3.1 Operational reliability

The oil pump system shall undergo a 100-hour reliability operation test and shall meet the following requirements.

- a) The pipeline connection is reliable, the circulation is smooth, and there is no leakage;
- b) All meters, indicator lights and control devices work normally;
- c) The operation average time between failures is not less than 60 h;
- d) The average continuous working time is not less than 4 h;
- e) The inherent effectiveness of the operation is not less than 0.92.

4.3.2 Driving reliability

For aircraft refueling vehicles modified with a finalized chassis, the finalized test mileage in the driving reliability test is 3 000 km, and the factory test is 20 km.

The following requirements should be met.

- a) The mean distance between failures while driving is not less than 2 000 km;
- b) The inherent effectiveness of the operation is not less than 0.95;