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

MH/T 6121-2020

**Aviation Fuel Operation System Emission Operation Vehicle
(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 is under the jurisdiction of the China Academy of Civil Aviation Science and Technology.

Drafting organizations of this standard. China National Aviation Fuel Group Co., Ltd., China National Aviation Fuel Group Logistics Co., Ltd., Shanghai Chengfei Aviation Special Design Equipment Co., Ltd.

1 Scope

This standard specifies the terms and definitions, technical requirements, test methods, inspection rules, markings, Instructions for use, packaging, transportation and storage.

This standard is applicable to the design, manufacture and use of fuel emission operation vehicles for aviation fuel supply systems (hereinafter referred to as emission operation vehicles).

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 1589-2016 Cars, trailers and car-train outline dimensions, axle loads and mass limits
 GB/T 3766 General rules and safety requirements for hydraulic transmission systems and their components
 GB/T 5574 Industrial Rubber Sheet
 GB 7258 Safety technical conditions for motor vehicle operation
 GB/T 7935 General technical conditions for hydraulic components
 GB/T 9969 General Rules for the Use of Industrial Products
 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 Determination method of automobile quality (weight) parameters
 GB/T 12678 Automobile Reliability Driving Test Method
 GB/T 13306 signs
 GB 18564.1 Tank vehicles for road transportation of liquid dangerous goods Part 1: Technical requirements for metal atmospheric tanks
 GB 20891 Limits and measurement methods of exhaust pollutants from diesel engines for non-road mobile machinery (China's third and fourth stages)
 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
 HG/T 3089 O-type rubber sealing ring material for fuel
 JB/T 4734 Aluminum welding vessel
 JB/T 4735.1 Steel welded atmospheric pressure vessel
 JB/T 5943 General technical conditions for welding parts of construction machinery
 JT/T 230 Car static conductive rubber tow belt
 QC/T 484 Automotive paint coating
 QC/T 625 coating and chemical treatment layer for automobile

3 Terms and definitions

The following terms and definitions apply to this document.

Discharge vehicle for aviation fuel supply system Equipped with fuel tanks, fuel pumps, high and low point emission recovery devices and other components, it can provide high point exhaust and low point for the aviation fuel supply system
Special equipment for drainage and impurities, mobile pumping stations and other functions.

Filter screen ball valve it is equipped with an observation window and a ball valve that can quickly disassemble the filter screen.

Self-closing camlock couplings it is a self-closing device that is installed at the end of the high and low point discharge system and can be connected to the high point exhaust and low point drain joint valves of the pipe network.

High and low point discharge system for the pipe network Equipped with self-closing quick connectors, hoses, filter ball valves, flow meters, closed-circuit samplers and other components, which can recover high-point drains in the oil pipeline network
System of oil and gas discharged from low points, moisture and impurities discharged from low points.

Rated condition of pump fuel system Under the specified test conditions, the operating conditions of the pumping system.

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.

Remaining oil

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

Expansive capacity

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

4.1 General requirements

4.1.1

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

4.1.2

The welding quality should meet the requirements of JB/T 5943.

4.1.3

The paint quality should meet the requirements of QC/T 484.

4.1.4

The coating and chemical treatment layer should meet the requirements of QC/T 625.

4.1.5

Finished products and parts should not have material defects, processing defects and assembly defects that affect reliability, function, appearance, and safety.

4.1.6

The rubber products in contact with fuel should have oil resistance and should meet the requirements of GB/T 5574 and HG/T 3089.

4.1.7

There should be no oil leakage, air leakage, or water leakage in the discharge vehicle.

4.1.8

Pipes, gas pipes and wires should be installed neatly and firmly fixed.

4.1.9

The emission operation vehicle should have its own operation data collection and transmission function.

4.2 Safety requirements

4.2.1

The discharge vehicle should be equipped with two dry powder fire extinguishers of not less than 8 kg, and they should be easy to take and place.

4.2.2

The bottom of the discharge truck should be equipped with static conductive floor mopping tape, and the static conductive floor mopping tape should meet the requirements of JT/T 230.

4.2.3

At least one static conductive grounding device should be installed at the place where the vehicle is easy to operate. The length of the static conductive cable should not be less than 15 m, the cable end Alligator clip on the end.

4.2.4

The resistance between any two points of the metal pipeline, any point to the end of the grounding wire, and any point of the oil tank to the end of the mopping tape the value should not be greater than 5 ohm. The resistance value at both ends of the hose assembly should not be greater than 1 Mohm.

4.2.5

The discharge operation vehicle shall be equipped with self-closing quick connector and power take-off interlocking device. When the self-closing quick connector is not reset or the power take-off is hooked when the emission operation vehicle cannot move, the yellow indicator light is on. After resetting, the interlock is released and the indicator light goes out. At the same time, it shall have the overrunning interlock function.

It can be equipped with a red indicator light.

4.3 Maneuverability

4.3.1

The external dimensions of the emission operation vehicle meet the requirements of Table 1 in GB 1589-2016.

4.3.2

The approach angle and departure angle of the discharge vehicle should not be less than