

ICS 65.060
CCS T 54



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

GB/T 21423-2025

Replacing GB/T 21423-2008

**Tri-wheel vehicle fuel tanks - Safety property requirements and
test methods**

三轮汽车燃油箱 安全性能要求和试验方法

Issued on: October 31, 2025

Implemented on: May 1, 2026

**Issued by: State Administration for Market Regulation;
Standardization Administration of the PRC**

Table of Contents

- 1 Scope
- 2 Normative references
- 3 Terms and Definitions
- 4 Safety performance requirements
- 4.1 Safety Requirements

Foreword

This document complies with the provisions of GB/T 1.1-2020 "Standardization Work Guidelines Part

1. Structure and Drafting Rules of Standardization Documents". Drafting. This document supersedes GB/T 21423-2008 "Safety Performance Requirements and Test Methods for Fuel Tanks of Three-Wheeled Vehicles" and is consistent with GB/T 21423- Compared to.2008, aside from structural adjustments and editorial changes, the main technical changes are as follows:

---The scope of the standard has been changed to include plastic fuel tanks (see Chapter 1, Chapter 1 of the.2008 edition);

---The terms "fuel permeation" and "automatic pressure compensation device" and their definitions have been added (see

---Security requirements have been changed (see 4.1, 3.1 in the.2008 version);

---The material requirements for fuel tanks have been changed (see 4.2.1, 3.1.1 in the.2008 version);

---Added requirements for low-temperature impact resistance, fuel permeability, fuel resistance, and high-temperature resistance of plastic fuel tanks. And fire resistance requirements (see 4.2.6~4.2.10);

---Added checks on safety requirements (see 5.1);

---A safety valve opening pressure test method has been added (see 5.2);

---The test method for rated fuel tank capacity has been changed (see 5.3, 4.2 in the.2008 edition);

---The fuel tank sealing test method has been changed (see 5.4,

1 Scope

GB/T 21423-2025 is the Chinese national standard covering the fuel tank of a three-wheeler - the pressure and drop tests, the fire resistance, the permeability of a plastic tank, the venting and the filler, and the mounting that has to keep the tank away from the exhaust and off the ground. Issued on 31 October 2025, it has been in force since 1 May 2026, replacing GB/T 21423-2008.

This document specifies the safety performance requirements for fuel tanks of three-wheeled vehicles and describes the corresponding test methods. This document applies to the design, manufacture, and inspection of metal and plastic fuel tanks for three-wheeled vehicles. For fuel tanks made of other materials, please refer to [the relevant documentation/reference needed]. Follow the instructions.

2 Normative references

The contents of the following documents, through normative references within the text, constitute essential provisions of this document. Dated citations are not included. For references to documents, only the version corresponding to that date applies to this document; for undated references, the latest version (including all amendments) applies. This document.

GB 7258-2017 Technical Conditions for Safe Operation of Motor Vehicles

GB 19147-2016 Diesel Fuel for Vehicles

GB/T 23292-2009 Test Methods for Tractor Fuel Tanks

3 Terms and Definitions

The following terms and definitions apply to this document.

3.1 fuel tank Mounted on a three-wheeled vehicle, it is assembled from a fuel tank body, refueling hose, refueling port, fuel tank cap, pipe fittings, and other auxiliary devices, and is used for storing fuel. The entire assembly of a separate fuel storage tank.

3.2 fuelleak The fuel in the fuel tank falls in a linear or granular manner.

3.3 Rated capacity The fuel tank design parameters specify the volume for refueling.

3.4 fuel permeability The loss of fuel in the fuel tank due to molecular diffusion.

3.5 A device that automatically compensates for the pressure above the fuel level in the fuel tank.

4.1 Safety Requirements

4.1.1 All components of the fuel tank shall be properly protected by the body or frame of the three-wheeled vehicle to prevent contact with ground obstacles.

chinastandards.org · PREVIEW