

JJG

INDUSTRY STANDARD OF THE PEOPLE'S REPUBLIC OF CHINA

JJG 1201-2024

Digital Tyre Pressure Gauges (English Translation)

Issued on: June 14, 2024

Implemented on: December 14, 2024

Issued by: State Administration for Market Regulation

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7.5 Verification cycle (5)

Appendix A Digital Tire Pressure Gauge Calibration Record Format (6)

Appendix B Format of the inner pages of the verification certificate and verification result notification (7)

Introduction

JJF1001 "General metrological terms and definitions", JJF1002 "Rules for the preparation of national metrological verification procedures", JJF 1059.1-2012 "Evaluation and Expression of Uncertainty in Measurement" and other specifications together constitute the basis for the formulation of this regulation.

Series specifications.

This regulation refers to JJG 927-2013 "Tire Pressure Gauge", JJG 875-2019 "Digital Pressure Gauge" and the relevant contents of JJG 544-2011 "Pressure Controller" were formulated.

This regulation is published for the first time.

Verification procedures for digital tire pressure gauges

1 Scope

This regulation applies to the initial and subsequent verification of digital tire pressure gauges with a measurement upper limit not exceeding 2.5 MPa.

and inspection during use.

2 References

This specification refers to the following documents.

JJG 544-2011 Pressure Controller JJG 875-2019 Digital Pressure Gauge JJG 927-2013 Tire Pressure Gauge JJF1008-2008 Pressure measurement terms and definitions for any referenced document with a date, only the version with the date is applicable to this Regulation; for any referenced document without a date, the latest version (including all amendments) shall apply to this regulation.

3 Terminology and units of measurement

3.1 Terminology

A pressure measuring or controlling instrument that digitally displays the tire pressure value being measured.

3.1.2 Setpoint

The input pressure value at which control or alarm occurs.

3.1.3 Setpoint error the difference between the set value and the actual value of the measured value when the output variable is output according to the specified requirements.

3.2 Units of measurement the legal unit of measurement used in tire pressure gauges is Pa (Pascal), or its decimal multiples such as kPa, MPa, etc.

4 Overview

Digital tire pressure gauges (hereinafter referred to as tire pressure gauges) can be divided into measurement type and control type according to their functions. measurement type tire pressure the meter has a zero return mechanism, which is usually used to measure tire pressure. There are two types of zero return mechanisms, one is a manual zero return mechanism, and the other is a it is an automatic zeroing mechanism. The working principle of the manual zeroing mechanism tire pressure gauge is shown in Figure 1. The measured pressure is reset by the manual zeroing mechanism.

The structure acts on the pressure sensor, and the pressure sensor outputs the corresponding electrical signal, which is processed by the signal processing unit and displayed as the pressure the working principle of the tire pressure gauge with automatic zero return mechanism is shown in Figure 2. The measured pressure acts on the pressure sensor.

The force sensor outputs the corresponding electrical signal, which is processed by the signal processing unit to display the pressure value. After the pressure is released, the pressure is released by the atmosphere.

In the case of a certain period of time, the tire pressure gauge will automatically return to zero. The control type tire pressure gauge is used to control the tire pressure.

The tire inflation device has a working principle as shown in Figure 3. The measured pressure acts on the pressure sensor, and the pressure sensor outputs the corresponding electrical signal is processed by the signal processing unit and sent to the alarm control device and displays the pressure value.