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Road vehicles — Compressed natural gas (CNG) fuel systems —

Part 2: Test methods

Véhicules routiers — Systèmes d'alimentation en gaz naturel comprimé (GNC) —

Partie 2: Méthodes d'essai

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ISO copyright office
CP 401 • Ch. de Blandonnet 8
CH-1214 Vernier, Geneva
Phone: +41 22 749 01 11
Email: copyright@iso.org
Website: www.iso.org

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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of ISO document should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

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This document was prepared by Technical Committee ISO/TC 22, *Road vehicles*, Subcommittee SC 41, *Specific aspects for gaseous fuels*.

This third edition cancels and replaces the second edition (ISO 15501-1:2016), which has been technically revised.

The main changes are as follows:

— reference to 20 MPa has been deleted and a reference to service pressure has been added;

— technical changes were done in 4.1.2;

— technical changes were done in 4.1.5.2;

— technical changes were done in 4.4.

A list of all parts in the ISO 15501 series can be found on the ISO website.

Any feedback or questions on this document should be directed to the user’s national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

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Road vehicles — Compressed natural gas (CNG) fuel systems —

Part 2: Test methods

1 Scope

This document specifies the test methods for checking the minimum safety requirements specified in ISO 15501-1. It is applicable to the functionality of the fuel systems designed to operate on compressed natural gas of motor vehicles as defined in ISO 3833.

NOTE For tests of individual components, refer to the ISO 15500 series, ISO 14469 and ISO 11439.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition indicated applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 6487, *Road vehicles — Measurement techniques in impact tests — Instrumentation*

ISO 15500-1, *Road vehicles — Compressed natural gas (CNG) fuel system components — Part 1: General requirements and definitions*

ISO 15501-1:2025, *Road vehicles — Compressed natural gas (CNG) fuel systems — Part 1: Safety requirements*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 15500-1and ISO 15501-1 apply.

ISO and IEC maintain terminology databases for use in standardization at the following addresses:

— ISO Online browsing platform: available at https://www.iso.org/obp

— IEC Electropedia: available at https://www.electropedia.org/

4 Test methods

4.1 Cylinder mounting strength tests

4.1.1 General

When a vehicle is equipped with several cylinders, they should preferably be tested as a unit.

When groups of cylinders are installed on a vehicle such that they are separately anchored to the original structure of the vehicle, then each separate group of cylinders may be tested individually.

When performing these tests, accessories and piping shall not contribute to reinforcing the cylinder mounting.

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