
**Gas cylinders — Inspection of the
cylinder installation, and requalification
of high pressure cylinders for the
on-board storage of natural gas as a fuel
for automotive vehicles**

*Bouteilles à gaz — Inspection de l'installation des bouteilles, et
requalification des bouteilles haute pression pour le stockage du gaz
naturel, utilisé comme carburant, à bord des véhicules automobiles*



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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.

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The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

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ISO 19078 was prepared by Technical Committee ISO/TC 58, *Gas cylinders*, Subcommittee SC 4, *Operational requirements for gas cylinders*.

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Introduction

This International Standard provides information and procedures for the periodic visual examination and inspection of natural gas fuel cylinders and the condition of the installation. These cylinders, installed in vehicles, are certified by the manufacturer to meet the requirements of ISO 11439, and are designed to store natural gas at high pressures. This International Standard requires that appropriate information, such as an installation and maintenance manual from the cylinder manufacturer, be reviewed and used during the inspection, together with all the cylinder manufacturer's current recommendations and guidance documents.

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Gas cylinders — Inspection of the cylinder installation, and requalification of high pressure cylinders for the on-board storage of natural gas as a fuel for automotive vehicles

1 Scope

This International Standard specifies the requirements for the inspection of the cylinder installation and the requalification of high pressure cylinders, designed and manufactured in accordance with ISO 11439, for the on-board storage of natural gas as a fuel for automotive vehicles. The purpose of this International Standard is to provide guidance for the inspection of these cylinders in accordance with the manufacturer's recommendations, and to provide criteria for acceptance or rejection in the absence of guidance from the manufacturer, with subsequent disposition as necessary.

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 11439:2000, *Gas cylinders — High pressure cylinders for the on-board storage of natural gas as a fuel for automotive vehicles*

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

3.1

abrasion

damage to cylinder or equipment caused by wearing, grinding or rubbing away of material by friction

NOTE Abrasion can be the result of many cycles of something rubbing lightly on the surface of the cylinder or equipment, or due to a few cycles, perhaps only one, of heavy rubbing.

3.2

impact

forceful blow to the surface of the cylinder that can cut, gouge or significantly indent the surface

NOTE Impact can also induce such damage as delaminations, which are not readily apparent through visual examination.

3.3

condemned

(cylinder or piece of equipment) in a state no longer fit for service and for which repair is not allowed

3.4

crazing

hairline cracking of the resin, giving it an opaque, frosty appearance