
**Road vehicles — Compressed natural
gas (CNG) fuel system components —**

**Part 20:
Rigid fuel line in material other than
stainless steel**

*Véhicules routiers — Composants des systèmes de remplissage en gaz
naturel comprimé —*

*Partie 20: Circuit de combustible rigide en matériaux autres que l'acier
inoxydable*



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Foreword

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International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

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.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

ISO 15500-20 was prepared by Technical Committee ISO/TC 22, *Road vehicles*, Subcommittee SC 25, *Vehicles using gaseous fuels*.

ISO 15500 consists of the following parts, under the general title *Road vehicles — Compressed natural gas (CNG) fuel system components*:

- *Part 1: General requirements and definitions*
- *Part 2: Performance and general test methods*
- *Part 3: Check valve*
- *Part 4: Manual valve*
- *Part 5: Manual cylinder valve*
- *Part 6: Automatic valve*
- *Part 7: Gas injector*
- *Part 8: Pressure indicator*
- *Part 9: Pressure regulator*
- *Part 10: Gas-flow adjuster*
- *Part 11: Gas/air mixer*
- *Part 12: Pressure relief valve (PRV)*
- *Part 13: Pressure relief device (PRD)*
- *Part 14: Excess flow valve*
- *Part 15: Gas-tight housing and ventilation hose*

- *Part 16: Rigid fuel line*
- *Part 17: Flexible fuel line*
- *Part 18: Filter*
- *Part 19: Fittings*
- *Part 20: Rigid fuel line in material other than stainless steel*

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Road vehicles — Compressed natural gas (CNG) fuel system components —

Part 20:

Rigid fuel line in material other than stainless steel

1 Scope

This part of ISO 15500 provides specific requirements and tests applicable to the rigid fuel line in carbon steel, intended for use on the types of motor vehicles, as defined in ISO 3833, with a service pressure for natural gas as a fuel of 20 MPa (200 bar) settled at 15 °C.

ISO 15500 is intended to be applied to vehicles using natural gas which comply with requirements established in ISO 15403 (mono-fuel, bi-fuel or dual-fuel applications). This part of ISO 15500 does not apply to the following:

- liquefied natural gas (LNG) fuel system components located upstream of, and including, the vaporizer;
- fuel containers;
- stationary gas engines;
- container mounting hardware;
- electronic fuel management;
- refuelling receptacles.

NOTE All references to pressure in this part of ISO 15500 are considered gauge pressures unless otherwise specified. 1 bar = 100 kPa = 0,1 MPa.

2 Normative references

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

ISO 3833:1977, *Road vehicles — Types — Terms and definitions*

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

ISO 15500-2:2001, *Road vehicles — Compressed natural gas (CNG) fuel system components — Part 2: Performance and general test methods*

ISO 15403 (all parts), *Natural gas — Natural gas for use as a compressed fuel for vehicles*

EN 10305-1, *Steel tubes for precision applications — Technical delivery conditions — Part 1: Seamless cold drawn tubes*