

NATURAL GAS VEHICLE STANDARDS

ROAD VEHICLES

Compressed Natural Gas (CNG) Fuel Systems Components

- General Requirements and Definitions (15500-1-2003)
- Performance and general test methods (155000-2-2003)
- Check Valve (15500-3-2003)
- Manual Valve (15500-4-2003)
- Manual Cylinder Valve (15500-5-2003)
- Automatic Valve (15500-6-2003)
- Gas Injector (15500-7-2003)
- Pressure Indicator (15500-8-2003)
- Pressure Regulator (15500-9-2003)
- Gas-flow Adjuster (15500-10-2003)
- Gas/Air Mixer (15500-11-2003)
- Pressure Relief Valve (15500-12-2003)
- Pressure Relief Device (15500-13-2003)
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- Gas-tight housing and ventilation hose (15500-15-2003)
- Rigid Fuel Line (15500-16-2003)
- Flexible Fuel Line (15500-17-2003)
- Filter (15500-18-2003)
- Fittings (15500-19-2003)
- Safety Requirements (15501-1-2003)
- Test Methods (15501-2-2003)

GAS CYLINDERS

- High pressure cylinders for the on-board storage of natural gas a fuel for automotive vehicles (11439-2003)

NATURAL GAS

Determination of Water by the Karl Fischer Method

- Introduction (10101-1-2003)
- Designation of the quality of natural gas use as a compressed fuel for vehicles (15403-2003)
- Titration Procedure (10101-2-2003)
- Coulometric Procedure (10101-3-2003)
- Determination of water content at high pressure (11541-2003)

Determination of Sulfur Compounds

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- Gas Analysis - Gas chromatographic method using an electrochemical detector for the determination of odoriferous sulfur compounds (6326-2-2003)
- Determination of hydrogen sulfide, mercaptan sulfur and carbonyl sulfide sulfur by potentiometry (6326-3-2003)
- Gas chromatographic method using a flame photometric detector for the determination of hydrogen sulfide, carbonyl sulfide and sulfur-containing odorants (6326-4-2003)
- Lingener combustion method (6326-5-2003)
- Organic sulfur compounds as odorants - requirements and test methods (13734-2003)

Determination of Composition with Defined Uncertainty by Gas Chromatography

- Guidelines for tailored analysis (6974-1-2003)
- Measuring-system characteristics and statistics for processing of data (6974-2-2003)
- Determination of hydrogen, helium, oxygen, nitrogen, carbon dioxide and hydrocarbons up to C8 using two packed columns (6974-3-2003)
- Determination of nitrogen, carbon dioxide and C1 to C5 and C6+ hydrocarbons for a laboratory and on-line measuring system using two columns (6974-4-2003)
- Determination of nitrogen, carbon dioxide and hydrocarbons C1 up to C5 and C6+ for a laboratory and on-line process application using three columns (6974-5-2003)
- Determination of hydrogen, helium, oxygen, nitrogen, carbon dioxide and C1 to C8 hydrocarbons using three capillary columns (6974-6-2003)

Gas Analysis

- Determination of the water dew point of natural gas - cooled surface condensation hygrometers (6327-2003)
- Determination of potential hydrocarbon liquid content - Gravimetric methods (6570-2003)

Extended Analysis

- Gas-chromatographic method (6975-2003)
- Calculation of calorific values, density, relative density, and Wobbe index from composition (6976-2003)
- Natural gas vocabulary (14532-2003)

REFUELING STATIONS

- PNS UN ECE REG 110-2003
- PNS 2009-2003: Code of practice for CNG compressor refueling stations: On-site storage and location of equipment

OTHERS

- PNS ISO-CNG covers
- TC 44 COMP
- PNS ISO 13734 Cor1
- PNS ISO 14532 Cor1
- PNS ISO 6976 Cor2
- PNS ISO 6976 Cor3
- PNS 2010-2003
- PNS 2029-2003
- Forewords gas quality-refueling