

THE NETHERLANDS
(N E D E R L A N D)

COMMUNICATION

Concerning ⁽¹⁾:

- approval granted
- ~~approval extended~~
- ~~approval refused~~
- ~~approval withdrawn~~
- ~~production definitely discontinued~~


of a type of CNG/LNG component pursuant to Regulation number 110.

Approval number: E4-110R-010403**Extension number: 00**

1. CNG/LNG component considered:

- ~~Container(s) or cylinder(s)~~⁽⁺⁾
- Tank(s) or vessel(s)²
- ~~Pressure indicator~~⁽⁺⁾
- ~~Pressure relief valve~~⁽⁺⁾
- ~~Automatic valve(s)~~⁽⁺⁾
- ~~Excess flow valve~~⁽⁺⁾
- ~~Gas tight housing~~⁽⁺⁾
- ~~Pressure regulator(s)~~⁽⁺⁾
- ~~Non return valve(s)~~⁽⁺⁾
- ~~Pressure relief device (PRD)(temperature triggered)~~⁽⁺⁾
- ~~Manual valve~~⁽⁺⁾
- ~~Flexible fuel lines~~⁽⁺⁾
- ~~Filling unit or receptacle~~⁽⁺⁾
- ~~Gas injector(s)~~⁽⁺⁾
- ~~Gas flow adjuster~~⁽⁺⁾
- ~~Gas/air mixer~~⁽⁺⁾
- ~~Electronic control unit~~⁽⁺⁾
- ~~Pressure and temperature sensor(s)~~⁽⁺⁾
- ~~CNG filter(s)~~⁽⁺⁾
- ~~PRD (pressure triggered)~~⁽⁺⁾
- ~~Fuel rail~~²
- ~~Heat exchanger/vaporizer~~²
- ~~Natural gas detector~~²
- ~~LNG filling receptacle~~²
- ~~LNG pressure control regulator~~²
- ~~LNG pressure and/or temperature sensor~~²



- LNG manual valve²
 - LNG non return valve²
 - LNG pressure relief valve²
 - LNG excess flow valve²
 - LNG fuel pump²
2. Trade name or mark : LNG Tank 1324482 including vaporizer
3. Manufacturer's name and address : Alutech GmbH
Lend 25
5651 Lend
Austria
4. If applicable, name and address of manufacturer's representative :
5. Submitted for approval on : June 2014
6. Technical service responsible for conducting approval tests : Kiwa Nederland B.V.
P.O. Box 137
7300 AC Apeldoorn
The Netherlands
7. Date of report issued by that service : June 15th, 2015
8. Number of report issued by that service : 150200266
9. Approval : granted/~~refused/extended/withdrawn~~⁽¹⁾
10. Reason(s) of extension (if applicable) :
11. Place : Zoetermeer
12. Date : 24-AUG-2015
13. Signature :  R.F.R. Clement
14. The documents filed with the application or extension of approval can be obtained upon request.

⁽¹⁾ Strike out what does not apply.

ADDENDUM

1. Additional information concerning the type-approval of a type of CNG/LNG components pursuant to Regulation number 110.
 - 1.1. Natural Gas Storage System
 - 1.1.1. Container(s) or cylinder(s)
 - 1.1.1.1. Dimensions : Approved outer tank diameters: 200 mm MIN O.D. – 853 mm Max O.D.
Approved inner tank diameters: 150 mm MIN O.D. – 803 mm MAX O.D.
Approved tank length: 842.5 mm MIN – 2527.5 mm MAX
 - 1.1.1.2. Material : Stainless steel
 - 1.1.2. Tank(s) or vessel(s) (for LNG system)
 - 1.1.2.1. Capacity : From 100 litre up to 935 litre
 - 1.1.2.2. Material : The LNG tank system complying with the R110 consists out of the following components:

Component:	Certificate number:
Heat exchanger	Part of this approval E4-110R-010403-L
Fill receptacle	E4-110R-010361
Fill receptacle	E4-110R-010362-L
Vent receptacle	E4-110R-010363-L
Manual vent valve	E4-110R-010357
Economizer	E4-110R-010396
Final pressure regulator	E4-110R-010374
Automatic valve	E4-110R-000297
Excess flow valve	E4-110R-010399
Secondary relief valve	E4-110R-010365
Manual drain valve	E4-110R-010357
Fill check valve	E4-110R-010404
Primary relief valve	E4-110R-010369
Pressure gauge	E1-110R-010329-L
Pressure gauge	: E4-110R-010355-L
	:
Maximum allowable working pressure	: 1.59MPa (15,9bar)
Temperature range	: -162°C up to 85°C
Primary relief valve	
Secondary relief valve	
 - 1.2. Pressure indicator
 - 1.2.1. Working pressure(s) ⁽²⁾ :
 - 1.2.2. Material :
 - 1.3. Pressure relief valve (discharge valve)
 - 1.3.1. Working pressure(s) ⁽²⁾ :
 - 1.3.2. Material :
 - 1.4. Automatic valve(s)
 - 1.4.1. Working pressure(s) ⁽²⁾ :
 - 1.4.2. Material :

1.5.	Excess flow valve	
1.5.1.	Working pressure(s) ⁽²⁾	:
1.5.2.	Material	:
1.6.	Gas-tight housing	
1.6.1.	Working pressure(s) ⁽²⁾	:
1.6.2.	Material	:
1.7.	Pressure regulator(s)	
1.7.1.	Working pressure(s) ⁽²⁾	:
1.7.2.	Material	:
1.8.	Non-return valve(s) or non-return valve(s)	
1.8.1.	Working pressure(s) ⁽²⁾	:
1.8.2.	Material	:
1.9.	Pressure relief device (temperature triggered)	
1.9.1.	Working pressure(s) ⁽²⁾	:
1.9.2.	Material	:
1.10.	Manual valve	
1.10.1.	Working pressure(s) ⁽²⁾	:
1.10.2.	Material	:
1.11.	Flexible fuel lines	
1.11.1.	Working pressure(s) ⁽²⁾	:
1.11.2.	Material	:
1.12.	Filling unit or receptacle	
1.12.1.	Working pressure(s) ⁽²⁾	:
1.12.2.	Material	:
1.13.	Gas injector(s)	
1.13.1.	Working pressure(s) ⁽²⁾	:
1.13.2.	Material	:
1.14.	Gas flow adjuster	
1.14.1.	Working pressure(s) ⁽²⁾	:
1.14.2.	Material	:
1.15.	Gas/air mixer	
1.15.1.	Working pressure(s) ⁽²⁾	:
1.15.2.	Material	:
1.16.	Electronic control unit (CNG-fuelling)	
1.16.1.	Basic software principles	:
1.17.	Pressure and temperature sensor(s)	
1.17.1.	Working pressure(s) ⁽²⁾	:
1.17.2.	Material	:
1.18.	CNG filter(s)	
1.18.1.	Working pressure(s) ⁽²⁾	:
1.18.2.	Material	:

1.19.	PRD (pressure triggered)	
1.19.1.	Working pressure(s) ⁽²⁾	: ... MPa
1.19.2.	Material	:
1.20.	Fuel rail(s)	
1.20.1.	Working pressure(s) ⁽²⁾	: ... MPa
1.20.2.	Material	:
1.21.	Heat Exchanger(s) / Vaporizer(s)	
1.21.1.	Working pressure(s) ⁽²⁾	: ...MPa
1.21.2.	Material	:
1.22.	Natural gas detector(s)	
1.22.1.	Working pressure(s) ⁽²⁾	: ... MPa
1.22.2.	Material	:
1.23.	LNG filling receptacle(s)	
1.23.1.	Working pressure(s) ⁽²⁾	: ... MPa
1.23.2.	Material	:
1.24.	LNG pressure control regulator(s)	
1.24.1.	Working pressure(s) ⁽²⁾	: ... MPa
1.24.2.	Material	:
1.25.	LNG pressure and/or temperature sensor(s)	
1.25.1.	Working pressure(s) ⁽²⁾	: ... MPa
1.25.2.	Material	:
1.26.	LNG manual valve(s)	
1.26.1.	Working pressure(s) ⁽²⁾	: ... MPa
1.26.2.	Material	:
1.27.	LNG automatic valve(s)	
1.27.1.	Working pressure(s) ⁽²⁾	: ... MPa
1.27.2.	Material	:
1.28.	LNG non return valve(s)	
1.28.1.	Working pressure(s) ⁽²⁾	: ... MPa
1.28.2.	Material	:
1.29.	LNG pressure relief valve(s)	
1.29.1.	Working pressure(s) ⁽²⁾	: ... MPa
1.29.2.	Material	:
1.30.	LNG excess flow valve(s)	
1.30.1.	Working pressure(s) ⁽²⁾	: ... MPa
1.30.2.	Material	:
1.31.	LNG fuel pump(s)	
1.31.1.	Working pressure(s) ⁽²⁾	: ... MPa
1.31.2.	Material	:

⁽²⁾ Specify the tolerance