ECE TYPE-APPROVAL CERTIFICATE

Communication concerning:

Approval granted
Approval extended
Approval refused
Approval withdrawn
Production definitely discontinued

of a type of CNG/LNG component pursuant to Regulation No. 110.

Approval No: **E24*110R03/01*0075*00**

1. CNG/LNG component considered:
   - Container(s) or cylinder(s)
   - Tank(s) or vessel(s)
   - Pressure indicator
   - Pressure relief valve
   - Automatic valve(s)
   - Excess flow valve
   - Gas-tight housing
   - Pressure regulator(s)
   - Non-return valve(s) or check 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
   - Heat exchanger(s) / vaporizer(s)
   - Natural gas detector(s)
   - LNG filling receptacle(s)
   - LNG pressure control regulator(s)
   - LNG pressure and/or temperature sensor(s)
   - LNG manual valve(s)
   - LNG automatic valve(s)
   - LNG non-return valve(s)
   - LNG pressure relief valve(s)
   - LNG excess flow valve(s)
   - LNG fuel pump(s)

**Type: Manual Valves**
**Variant(s): L36P, L38P, L83XP**
Approval No: **E24*110R03/01*0075*00**

2. Trade name or mark: **SSP Fittings**

3. Manufacturer’s name and address:
   - **SSP Fittings**
   - 8250 Boyle Parkway Twinsburg,
     Ohio
   - 44087, USA

4. If applicable, name and address of manufacturer’s representative: **N/A**

5. Submitted for approval on: **21.08.2019**

6. Technical service responsible for conducting approval tests:
   - **TÜV SÜD Auto Service GmbH**
   - Westendstraße 199
   - D-80686 München

7. Date of report issued by that service: **29.07.2019**

8. No. of report issued by that service: **19-00007-IS-MUC-00**

9. Approval granted/ refused/ extended/ withdrawn**: **Granted**

10. Reason(s) of extension (if Applicable): **N/A**

11. Place: **Dublin**

12. Date: **16th September, 2019**

13. Signature: [Signature]

14. The documents filed with the application or extension of approval can be obtained upon request.

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1 Distinguishing number of the country which has granted/extended/refused/withdrawn approval (see approval provisions in the Regulation).

2 Strike out what does not apply.
Annex 2B – Addendum

1. Additional information concerning the type approval of a type of CNG/LNG components pursuant to Regulation No. 110

<table>
<thead>
<tr>
<th></th>
<th>Container(s) or cylinder(s)</th>
<th></th>
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<tbody>
<tr>
<td>1.1</td>
<td>Dimensions:</td>
<td>N/A</td>
</tr>
<tr>
<td>1.1.2</td>
<td>Material:</td>
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<table>
<thead>
<tr>
<th></th>
<th>Tank(s) or vessel(s) (for LNG system)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1.2.1</td>
<td>Capacity:</td>
<td>N/A</td>
</tr>
<tr>
<td>1.1.2.2</td>
<td>Material:</td>
<td>N/A</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Pressure indicator</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1.2.1</td>
<td>Working pressure(s):(^1)</td>
<td>N/A</td>
</tr>
<tr>
<td>1.2.2</td>
<td>Material:</td>
<td>N/A</td>
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</table>

<table>
<thead>
<tr>
<th></th>
<th>Pressure relief valve (discharge valve)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1.3.1</td>
<td>Working pressure(s):(^1)</td>
<td>N/A</td>
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<tr>
<td>1.3.2</td>
<td>Material:</td>
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<table>
<thead>
<tr>
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<th>Automatic valve(s)</th>
<th></th>
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</thead>
<tbody>
<tr>
<td>1.4.1</td>
<td>Working pressure(s):(^1)</td>
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<tr>
<td>1.4.2</td>
<td>Material:</td>
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<table>
<thead>
<tr>
<th></th>
<th>Excess flow valve</th>
<th></th>
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</thead>
<tbody>
<tr>
<td>1.5.1</td>
<td>Working pressure(s):(^1)</td>
<td>N/A</td>
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<tr>
<td>1.5.2</td>
<td>Material:</td>
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<table>
<thead>
<tr>
<th></th>
<th>Gas-tight housing</th>
<th></th>
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</thead>
<tbody>
<tr>
<td>1.6.1</td>
<td>Working pressure(s):</td>
<td>N/A</td>
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<tr>
<td>1.6.2</td>
<td>Material:</td>
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<table>
<thead>
<tr>
<th></th>
<th>Pressure regulator(s)</th>
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<tbody>
<tr>
<td>1.7.1</td>
<td>Working pressure(s):(^1)</td>
<td>N/A</td>
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<td>1.7.2</td>
<td>Material:</td>
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<table>
<thead>
<tr>
<th></th>
<th>Non-return valve(s) or check valve(s)</th>
<th></th>
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</thead>
<tbody>
<tr>
<td>1.8.1</td>
<td>Working pressure(s):(^1)</td>
<td>N/A</td>
</tr>
<tr>
<td>1.8.2</td>
<td>Material:</td>
<td>N/A</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Pressure relief device (temperature triggered)</th>
<th></th>
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</thead>
<tbody>
<tr>
<td>1.9.1</td>
<td>Working pressure(s):(^1)</td>
<td>N/A</td>
</tr>
<tr>
<td>1.9.2</td>
<td>Material:</td>
<td>N/A</td>
</tr>
</tbody>
</table>

\(^1\) Specify the tolerance.
1.10. Manual valve
1.10.1. Working pressure(s):\(^1\) 275 bar @ +85°C
1.10.2. Material: Non-metallic materials: 1) PEEK (450G) manufactured by Vitrex; 2) PTFE (Dalcon natural/virgin) manufactured by Dalau; 3) PTFE Glass Compound (Fluteck P8500 GL) manufactured by Fluorseals; 4) Low Temp BUNA-N (N0756) manufactured by Parker

1.11. Flexible fuel lines
1.11.1. Working pressure(s):\(^1\) N/A
1.11.2. Material: N/A

1.12. Filling unit or receptacle
1.12.1. Working pressure(s):\(^1\) N/A
1.12.2. Material: N/A

1.13. Gas injector(s)
1.13.1. Working pressure(s):\(^1\) N/A
1.13.2. Material: N/A

1.14. Gas flow adjuster
1.14.1. Working pressure(s):\(^1\) N/A
1.14.2. Material: N/A

1.15. Gas/air mixer
1.15.1. Working pressure(s):\(^1\) N/A
1.15.2. Material: N/A

1.16. Electronic control unit
1.16.1. Basic software principles: N/A

1.17. Pressure and temperature sensor(s)
1.17.1. Working pressure(s):\(^1\) N/A
1.17.2. Material: N/A

1.18. CNG filter(s)
1.18.1. Working pressure(s):\(^1\) N/A
1.18.2. Material: N/A

1.19. PRD (pressure triggered)
1.19.1. Working pressure(s):\(^1\) N/A
1.19.2. Material: N/A

1.20. Fuel rail(s)
1.20.1. Working pressure(s):\(^1\) N/A
1.20.2. Material: N/A
1.21. Heat Exchanger(s) / Vaporizer(s)
1.21.1. Working pressure(s): N/A
1.21.2. Material: N/A

1.22. Natural gas detector(s):
1.22.1. Working pressure(s): N/A
1.22.2. Material: N/A

1.23. LNG filling receptacle(s)
1.23.1. Working pressure(s): N/A
1.23.2. Material: N/A

1.24. LNG pressure control regulator(s)
1.24.1. Working pressure(s): N/A
1.24.2. Material: N/A

1.25. LNG pressure and/or temperature sensor(s)
1.25.1. Working pressure(s): N/A
1.25.2. Material: N/A

1.26. LNG manual valve(s)
1.26.1. Working pressure(s): N/A
1.26.2. Material: N/A

1.27. LNG automatic valve(s)
1.27.1. Working pressure(s): N/A
1.27.2. Material: N/A

1.28. LNG non-return valve(s)
1.28.1. Working pressure(s): N/A
1.28.2. Material: N/A

1.29. LNG pressure relief valve(s)
1.29.1. Working pressure(s): N/A
1.29.2. Material: N/A

1.30. LNG excess flow valve(s)
1.30.1. Working pressure(s): N/A
1.30.2. Material: N/A

1.31. LNG fuel pump(s)
1.31.1. Working pressure(s): N/A
1.31.2. Material: N/A
Index to the Information Package

Date of issue: 16th September, 2019
Date of latest amendment: N/A
Reason for extension/revision: N/A

1. Additional conditions, and advisory notes on legal alternatives.

2. Test report(s)
   - numbers(s): 19-00007-IS-MUC-00
   - date of issue: 29.07.2019
   - date of latest amendment: N/A

3. Information document
   - number(s): Annex IA
   - date of issue: 29.07.2019
   - date of latest amendment: N/A

Documentation: 15 pages
Appendix: Additional conditions, and advisory notes on legal alternatives

A: Additional conditions:

1. The attached technical report, with any of its attachments, forms part of this Type Approval certificate.
2. Each type from series production shall be to the measurements specified in the attached drawings, and shall be manufactured only from the materials specified in the Approval documents.
3. Changes in the type are permitted only with the explicit permission of NSAI. Breaches of this requirement will lead to a withdrawal of the Type Approval, and in addition may be subject to criminal prosecution.
4. At regular intervals, any tests or associated checks prescribed by the applicable legislation to verify continued conformity with the approved type shall be carried out. The manufacturer shall demonstrate compliance with this by submitting to NSAI evidence of adequate arrangements and documented control plans for each type approved.
5. Any set of samples or test pieces showing evidence of non-conformity shall give rise to further sampling and testing and all steps shall be taken to restore conformity of production.
6. This Type Approval will expire when it is surrendered by the holder, or withdrawn by NSAI, or when the approved type no longer conforms to legal requirements. The recall of the Type Approval can be issued by NSAI when the conditions required for the issuing or continuation of the Type Approval are no longer current, or when the Approval holder is in breach of the duties attached to the Type Approval, or when it is established that the approved type no longer meets the requirements of traffic safety.
7. Changes in the company name, address or manufacturing site, as well as in any of the sales or other agents specified in the issuing of the approval must immediately be notified to NSAI.
8. The duties imposed by the issuing of this certificate are not transferable. The legal protection of third parties is not affected by this certificate.
9. When the manufacture or sale of the system, component or separate technical unit has not been started within one year of the date of issue of this certificate, then NSAI is to be informed. This requirement also applies when the manufacture or sale has been halted for more than one year, or when it ought to have been halted for more than one year. The initial commencement of manufacture or sale, or the resumption of manufacture or sale, shall then be notified to NSAI within one month of commencement or resumption.

B: Legal Options:

Any objection to the requirements set out in this certificate shall be made within one month of the date of issue. The objection shall be made, in writing, to NSAI in Dublin.