



LE GOUVERNEMENT
DU GRAND-DUCHÉ DE LUXEMBOURG

Ministère des Transports

L-2938 Luxembourg

SOCIÉTÉ NATIONALE DE
CERTIFICATION ET D'HOMOLOGATION

s.à.r.l.

Registre de Commerce: B 27180

L-5201 Sandweiler



Référence: E13*110R00*110R00*0130*00

Annexes: - Rapport technique
- Fiche de renseignements du constructeur

Sandweiler, le 23 novembre 2007



Communication concernant: - la délivrance d'une homologation

Communication concerning:

approval granted

- l'extension d'homologation

approval extended

- le refus d'homologation

approval refused

- le retrait d'homologation

approval withdrawn

- l'arrêt définitif de la production

production definitely discontinued

d'un type d'organe GNC en application du Règlement N° 110

of a type of CNG component pursuant to Regulation N° 110


Homologation N°:

Approval number:

E13*110R00*110R00*0130*00

Marque d'homologation:

Approval mark:

 110R-000130

1.

Organe GNC ⁽²⁾:

CNG component considered ⁽²⁾:

not applicable

Réservoir(s) ou bouteille(s):

Container(s) or cylinder(s):

not applicable

Témoin de pression:

Pressure indicator:

not applicable

Soupape de surpression:

Pressure relief valve:

not applicable

Vanne(s) automatique(s):

Automatic valve(s):

not applicable

Limiteur de débit:

Excess flow valve:

not applicable

Capot étanche:

Gas-tight housing:

not applicable

	Détendeur(s) de pression: Pressure regulator(s):	not applicable
	Soupape(s) de contrôle: Check valve(s):	not applicable
	Dispositif de surpression: Pressure relief device:	not applicable
	Vanne manuelle: Manual valve:	not applicable
	Flexibles: Flexible fuel lines:	not applicable
	Tuyauterie rigide et raccords: <i>Rigid hoses and fittings:</i>	<i>Type: H1</i> <i>Var./vers.: see technical report N° LCA 54 0351 012 07</i>
	Embout ou réceptacle de remplissage: Filling or receptacle:	not applicable
	Mélangeur gaz / air (injecteur(s)): Gas / air mixer (injector(s)):	not applicable
	Régulateur de débit: Gas flow adjuster:	not applicable
	Mélangeur gaz / air (carburateur): Gas / air mixer (carburettor):	not applicable
	Module de commande électronique: Electronic control unit:	not applicable
	Capteur(s) de pression et de température: Pressure and temperature sensor(s):	not applicable
	Filtre(s) à GNC: CNG filter(s):	not applicable
2.	Marque de fabrication ou de commerce: Trade name or mark:	OMB Saleri S.p.A., FARO
3.	Nom et adresse du constructeur: Manufacturer's name and address:	OMB Saleri S.p.A. Via Rose di Sotto 38/c I-25126 Brescia (BS)
4.	Le cas échéant, nom et adresse du représentant du constructeur: If applicable, name and address of manufacturer's representative:	not applicable
5.	Présenté à l'homologation le: Submitted for approval on:	04.06. & 05.06.2007
6.	Autorité déléguée: <i>Assigned authority:</i>	<i>Société Nationale de Certification et d'Homologation</i> <i>L-5201 Sandweiler</i>
	Service technique chargé des essais d'homologation: Technical service responsible for type-approval tests:	Luxcontrol SA B.P. 349 L-4004 Esch-sur-Alzette
7.	Date du procès-verbal délivré par ce service: Date of test report issued by that service:	23.11.2007

8. **Numéro du procès-verbal:**
Number of test report: LCA 54 0351 012 07
9. **L'homologation est:**
Approval is: granted
10. **Raison(s) de l'extension (le cas échéant):**
Reason(s) of extension (if applicable): not applicable
11. **Lieu:**
Place: Sandweiler
12. **Date:**
Date: 23 novembre 2007
13. **Signature:**
Signature:

Pour le Ministre des Transports



Handwritten signature of Marco FELTES.

Marco FELTES
Inspecteur Principal

Pour la SNCH



Handwritten signature of Claude LIESCH.

Claude LIESCH
Conseiller de Direction

14. **Des copies des documents soumis dans le dossier d'homologation ou d'extension d'homologation peuvent être obtenues sur demande:**
The documents filed with the application or extension of approval can be obtained upon request:

see: INDEX to TYPE-APPROVAL REPORT

ADDITIF
ADDENDUM

1.	Renseignements complémentaires concernant l'homologation d'un type d'organe GNC en application du Règlement N° 110 ⁽¹⁾: Additional information concerning the type-approval of a type of CNG components pursuant to regulation N° 110 ⁽¹⁾ :	
1.1.	Réservoir(s) ou bouteille(s): Container(s) or cylinder(s):	not applicable
1.1.1.	Dimensions: Dimensions:	not applicable
1.1.2.	Matériau: Material:	not applicable
1.2.	Témoin de pression: Pressure indicator:	not applicable
1.2.1.	Pression(s) de fonctionnement: Working pressure(s):	not applicable
1.2.2.	Matériau: Material:	not applicable
1.3.	Soupape de surpression (soupape de décompression): Pressure relief valve (discharge valve):	not applicable
1.3.1.	Pression(s) de fonctionnement: Working pressure(s):	not applicable
1.3.2.	Matériau: Material:	not applicable
1.4.	Vanne(s) automatique(s): Automatic valve(s):	not applicable
1.4.1.	Pression(s) de fonctionnement: Working pressure(s):	not applicable
1.4.2.	Matériau: Material:	not applicable
1.5.	Limiteur de débit: Excess flow valve:	not applicable
1.5.1.	Pression(s) de fonctionnement: Working pressure(s):	not applicable
1.5.2.	Matériau: Material:	not applicable
1.6.	Capot étanche: Gas-tight housing:	not applicable
1.6.1.	Pression(s) de fonctionnement: Working pressure(s):	not applicable
1.6.2.	Matériau: Material:	not applicable
1.7.	Régulateur(s) de pression: Pressure regulator(s):	not applicable
1.7.1.	Pression(s) de fonctionnement: Working pressure(s):	not applicable
1.7.2.	Matériau: Material:	not applicable
1.8.	Soupape(s) de contrôle ou de antiretour: Check valve(s) or non-return valve(s):	not applicable
1.8.1.	Pression(s) de fonctionnement: Working pressure(s):	not applicable
1.8.2.	Matériau: Material:	not applicable

1.9.	Dispositif de surpression (à déclenchement thermique): Pressure relief device temperature triggered):	not applicable
1.9.1.	Pression(s) de fonctionnement: Working pressure(s):	not applicable
1.9.2.	Matériau: Material:	not applicable
1.10.	Vanne manuelle: Manual valve:	not applicable
1.10.1.	Pression(s) de fonctionnement: Working pressure(s):	not applicable
1.10.2.	Matériau: Material:	not applicable
1.11.	Flexibles: Flexible fuel lines:	not applicable
1.11.1.	Pression(s) de fonctionnement: Working pressure(s):	not applicable
1.11.2.	Matériau: Material:	not applicable
1.12.	Embout ou réceptacle de remplissage: Filling unit or receptacle:	not applicable
1.12.1.	Pression(s) de fonctionnement: Working pressure(s):	not applicable
1.12.2.	Matériau: Material:	not applicable
1.13.	Injecteur(s): Gas injector(s):	not applicable
1.13.1.	Pression(s) de fonctionnement: Working pressure(s):	not applicable
1.13.2.	Matériau: Material:	not applicable
1.14.	Régulateur de débit: Gas flow adjuster:	not applicable
1.14.1.	Pression(s) de fonctionnement: Working pressure(s):	not applicable
1.14.2.	Matériau: Material:	not applicable
1.15.	Mélangeur gaz / air: Gas / air mixer:	not applicable
1.15.1.	Pression(s) de fonctionnement: Working pressure(s):	not applicable
1.15.2.	Matériau: Material:	not applicable
1.16.	Module de commande électronique (pour l'alimentation au GNC): Electronic control unit (CNG-fuelling):	not applicable
1.16.1.	Principes de base du logiciel: Basic software principles:	not applicable
1.17.	Capteur(s) de pression et de température: Pressure and temperature sensor(s):	not applicable
1.17.1.	Pression(s) de fonctionnement: Working pressure(s):	not applicable
1.17.2.	Matériau: Material:	not applicable

1.18.	Filtre(s) à GNC: CNG filter(s):	not applicable
1.18.1.	Pression(s) de fonctionnement: Working pressure(s):	not applicable
1.18.2.	Matériau: Material:	not applicable
	<i>Tuyauterie rigide et raccords:</i> <i>Rigid hoses and fittings:</i>	<i>Type: H1</i>
	<i>Pression(s) de fonctionnement:</i> <i>Working pressure(s):</i>	<i>26000 kPa</i>
	<i>Matériau:</i> <i>Material:</i>	<i>see: Information document</i>

⁽¹⁾ **Indiquer les tolérances.**
Indicate the tolerances.
⁽²⁾ **Biffer la mention inutile.**
Strike out what does not apply.



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Référence: E13*110R00*110R00*0130*00

Annexes: - Rapport technique
- Fiche de renseignements du constructeur

Sandweiler, le 23 novembre 2007

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	Numéro d'homologation: Approval number:	E13*110R00*110R00*0130*00
	Révision: Revision:	00
	Marque de fabrication ou de commerce: Trade name or mark:	OMB Saleri S.p.A., FARO
	Type: Type:	H1
1.	Procès-verbal d'essai: Test report:	N° LCA 54 0351 012 07
	- Technical report:	Page(s) 1 to 7;
	- Index:	Annex A - Page(s) 1.
2.	Dossier du constructeur: Report of the manufacturer:	N° 0351 012 07
	- Manufacturer's information document:	Page(s) 1 to 6;
	- Drawings of the different component parts specifications and of the marking:	Page(s) 7 to 33.
3.	Autres documents annexés: Other documents annexed:	not applicable
4.	Date de délivrance de l'homologation initiale: Date of issue of initial type approval:	23.11.2007
5.	Date de la dernière délivrance de pages révisées: Date of last issue of revised pages:	not applicable
6.	Date de la dernière délivrance d'une homologation révisée: Date of last extension:	not applicable

TECHNICAL REPORT

No.: LCA 54 0351 012 07

Inspection concerning the

**Specific components of motor vehicles using
compressed natural gas (CNG) in their
propulsion system**

performed according to

ECE – Regulation No. 110 – Part I

Type: **H1**
Manufacturer: **OMB Saleri S.p.A.**
Via Rose di sotto 38/c
I-25126 Brescia

Extension -- to ECE Type Approval no.: not applicable

Index:

1. General	Page 2
2. Inspections and their results	Page 3
3. Evaluation of test results	Page 6
4. Statement of compliance	Page 7
5. Annex (beginning with an index)	

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Société Nationale de Certification et d'Homologation
L-5201 SANDWEILER (Luxembourg)
Organisme accrédité OLAS EN 45011
Accréditation N° 5/001 (Portée communiquée sur demande)



1. **General**

1.1. **Test Provisions**

The inspection was carried out according to the requirements of ECE-Regulation No. 110 including Supplement 6 to the 00 series of amendments, which entered into force on June 18, 2007.

1.2. **Information concerning the vehicle type and the requested approval**

The statements below apply to the previous ECE type-approval as referred to on page 1.

1.2.1. **[] Numbering according to the communication concerning the approval of ECE-R110**

[1.] CNG equipment considered:

Rigid hoses and fittings: H1

composed of following parts:

- bicone
- fitting
- nut
- joint
- rigid pipe (steel / stainless steel / copper)

variants:

- 1: **steel welded cold drawn diameter 6 mm**
- 2: **steel seamless cold drawn diameter 6 mm**
- 3: **steel welded cold drawn diameter 8 mm**
- 4: **stainless steel seamless cold drawn diameter 6 mm**
- 5: **stainless steel seamless cold drawn diameter 8 mm**
- 6: **copper seamless cold down drawn diameter 6 mm**
- 7: **copper seamless cold down drawn diameter 8 mm**

versions:

- 1: **fitting for female connection 1/4NPT for 8 mm diameter pipe**
- 2: **fitting for female connection 1/4NPT for 6 mm diameter pipe**
- 3: **1/4NPT joint for diameter 8 or 6 pipes**
- 4: **fitting for female connection 1/4NPT for 8 mm diameter pipe (long version)**
- 5: **fitting for female connection 1/4NPT for 6 mm diameter pipe (long version)**
- 6: **fitting for female connection M12x1 for 6 mm diameter pipe with joint (asymmetrical bicone)**
- 7: **fitting for female connection M14x1 for 8 mm diameter pipe with joint (asymmetrical bicone)**
- 8: **fitting for female connection G1/4 for 6 mm diameter pipe with joint**

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- 9: fitting for female connection G1/4 for 8 mm diameter pipe with joint
- 10: fitting for female connection M12x1 for 6 mm diameter pipe (long version, asymmetrical bicone)
- 11: fitting for female connection M12x1 for 6 mm diameter pipe with joint (symmetrical bicone)
- 12: fitting for female connection M14x1 for 8 mm diameter pipe with joint (symmetrical bicone)
- 13: fitting for female connection M12x1 for 6 mm diameter pipe (long version, symmetrical bicone)

[2.] trade name or mark:

OMB Saleri S.p.A. , FARO

[3.] Manufacturer's name and address:

**OMB Saleri S.p.A.
Via Rose di sotto 38/c
I-25126 Brescia**

[4.] If applicable, name and address of manufacturer's representative:

not applicable

[5.] Submitted for approval on: **04/06/2007-05/06/2007**

[10.] Reason(s) of extension:

not applicable

1.2.2. [] Numbering according to the communication concerning the approval of ECE-R110, Annex 2B -Addendum

[1.] Additional information concerning the type approval of a type of CNG components pursuant to Regulation No 110:

[1.1.] - [1.18.] **not applicable**

1.3. Version of the tested equipment

The following variants have been used for testing (if not stated in part 1.2.1. of this report):

not applicable

1.4. Inspection items

	Location of test:	Date of receipt of test item:	Date of test:	Inspectors
Main Report	CSI - v.le Lombardia, 20 I-20021 Bollate (MI)	29.05.2007	04.06.2007- 05.06.2007	D. Durazzi

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1.4.1. General

The marking requirements according to item 4.1. and 4.2. of Part I of the Regulation are fulfilled.

Every material of the equipment in contact with CNG is compatible with it.

Electromagnetic compatibility requirements according to Regulation R10.02 or equivalent are not applicable.

The component has parts of class 0.

1.4.2. Inspections

Device	Classification pressure
Rigid pipe	26000 kPa
Fittings and bicone	26000 kPa



1.4.2.1. CNG component (according to Annex 5; class 0 device):

Tests	Test results	Line item
Overpressure test	requirements fulfilled	Annex 5A
External leakage test	requirements fulfilled	Annex 5B
High temperature test	requirements fulfilled	Annex 5B
Low temperature test	requirements fulfilled	Annex 5B
Internal leakage test	Not applicable	Annex 5C
Durability test	Not applicable	Annex 5L
CNG compatibility	Not applicable (no synthetic non-metallic material)	Annex 5D
Corrosion resistance	requirements fulfilled	Annex 5E
Resistance to dry heat	Not applicable (no synthetic non-metallic material)	Annex 5F
Ozone ageing	Not applicable (no synthetic non-metallic material)	Annex 5G
Temperature cycle	Not applicable (no synthetic non-metallic material)	Annex 5H
Vibration resistance	requirements fulfilled	Annex 5N
Operating temperatures	Components designed to operate at temperatures between -40°C and +120°C	Annex 5O

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1.5. Remarks

Inspection results are only applicable to items which have been tested.

1.6. Test facilities

Calibration of measuring and test equipment used to carry out the inspections is in accordance with the EEC-Directive and/or ECE-Regulation stated in 1.1. of this report and with ISO 17025.

2. Evaluation of test results

2.1. Variants and equipment covered

The tests carried out cover the following variations as far as these are relevant for the valve:

- variants, versions and mounting configurations as described in annex B

2.2. Remarks

2.2.1. Main report:

not applicable

...



3. **Statement of compliance**

The inspections items and measurements carried out have shown the compliance of the vehicle type described in this report and the attached Annex with the requirements of ECE-Regulation No. 110 including Supplement 6 to the 00 series of amendments, which entered into force on June 18, 2007.

Esch/Alzette, 23 November 2007

Luxcontrol s.a.
Service Homologation-automobile

David Durazzi
Ingénieur-Inspecteur

Mauro Moscardelli
Ingénieur-Inspecteur

Annex



Index to the information package, including a summary in chronological order, concerning extensions and/or amendments

EEC type-approval No.: not applicable

Main Report

Technical Report No.: LCA 54 0351 012 07 Pages 1 to 7

Composition of the Annex:

A: Index Page 1
B: Information folder Page 1 to 33

Index to the information folder:

- manufacturer's information document (page 1 to 6)
 - drawings of the different component parts specifications and of the marking (page 7 to 33)
-