



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*67R00*67R01*0284*00

Annexes: - Rapport technique
- Fiche de renseignements du constructeur

Sandweiler, le 25 janvier 2007

Communication concernant ¹⁾:
Communication concerning ¹⁾:



- la délivrance d'une homologation
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approval withdrawn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'équipement GPL en application du Règlement N° 67
of a type of LPG equipment pursuant to regulation N° 67

Numéro d'homologation:
Approval number:

E13*67R00*67R01*0284*00

Marque d'homologation:
Approval mark:

 67R-010284 CLASS 2

1. Equipement GPL ¹⁾:
LPG equipment considered ¹⁾:

Réservoir:
Container:

not applicable

Accessoires fixés au réservoir:
Accessories fitted to the container:

- 80 % stop valve
- level indicator
- pressure relief valve (discharge valve)
- pressure relief device
- remotely controlled service valve with excess flow valve

Bloc multivannes, y compris les accessoires suivants:

Multivalve, including the following accessories:

- gas-tight housing
- power supply-bushing (pump/actuators)
- fuel pump
- vaporizer/pressure regulator
- shut-off valve
- non-return valve
- gas-tube pressure-relief valve
- service-coupling
- flexible hose
- remote-filling-unit
- gas injection device or injector
- fuel-rail
- gas dosage unit
- gas mixing piece
- electronic control unit
- pressure/temperature sensor
- LPG filter unit

2. **Marque de fabrique ou de commerce:**
Trade name or mark: LOVATO
- Type:*
Type: FSU
- Versions:*
Versions: see: page 2 of technical report N° LCA 54 309 017 6
3. **Nom et adresse du fabricant:**
Manufacturer's name and address: Officine LOVATO S.r.l.
Strada Casale, 175
I-36100 Vicenza
4. **Le cas échéant, nom et adresse du mandataire du fabricant:**
If applicable, name and address of manufacturer's representative: not applicable
5. **Equipement présenté à l'homologation le:**
Submitted for approval on: 29.09. – 01.12.2006
6. **Autorité déléguée:**
Assigned authority: Société Nationale de Certification et d'Homologation
L-5201 Sandweiler
- Service technique chargé des essais d'homologation:**
Technical service responsible for conducting approval tests: Luxcontrol SA
B.P. 349
L-4004 Esch-sur-Alzette
7. **Date du procès-verbal délivré par ce service:**
Date of report issued by that service: 25.01.2007
8. **Numéro du procès-verbal:**
Number of report issued by that service: LCA 54 309 017 6
9. **L'homologation est:**
Approval: granted / extended / refused / withdrawn
10. **Raisons de l'extension (éventuellement):**
Reason(s) for extension (if applicable): not applicable

11. **Lieu:**
Place: Sandweiler
12. **Date:**
Date: 25 janvier 2007
13. **Signature:**
Signature:

Pour le Ministre des Transports



Handwritten signature of Paul Schmit.

Paul SCHMIT
Commissaire du Gouvernement

Pour la SNCH



Handwritten signature of Claude Liesch.

Claude LIESCH
Conseiller de Direction

14. **Des copies soumis dans le dossier d'homologation ou d'extension de l'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

APPENDICE 1 (réservoirs uniquement)
APPENDIX 1 (containers only)

1. Caractéristiques du réservoir de base (config. 00)
Container characteristics from the parent container (configuration 00)

- a) Marque de fabrique ou de commerce:**
a) Trade name or mark: not applicable
- b) Forme:**
b) Shape: not applicable
- c) Matériau:**
c) Material: not applicable
- d) Ouvertures:**
d) Openings: not applicable
- e) Epaisseur de la paroi:**
e) Wall thickness: not applicable
- f) Diamètre (réservoir cylindrique):**
f) Diameter (cylindrical container): not applicable
- g) Hauteur (forme de réservoir spéciale):**
g) Height (special container shape): not applicable
- h) Surface externe:**
h) External surface: not applicable
- i) Configuration des accessoires fixés au réservoir (voir tableau 1):**
i) Configuration of accessories fitted to container (see table 1):

Tableau 1:
Table 1:

N° N°	Accessoires Item	Type Type	N° d'homologation Approval N°	N° d'extension Extension N°
a)	Limiteur de remplissage à 80%: 80% stop valve:	-	-	-
b)	Jauge: Level indicator:	-	-	-
c)	Soupape de surpression: Pressure relieve valve:	-	-	-
d)	Vanne d'isolement avec limiteur de débit: Remotely controlled service valve with excess valve:	-	-	-
e)	Pompe à GPL: Fuel pump:	-	-	-
f)	Bloc multivannes: Multi-valve:	-	-	-
g)	Enceinte étanche: Gas-tight housing:	-	-	-
h)	Raccord électrique d'alimentation: Power supply bushing:	-	-	-
i)	Soupape antiretour: Non return valve:	-	-	-
j)	Dispositif de surpression: Pressure relief device:	-	-	-

2. **Liste des réservoirs de la même famille (les listes des réservoirs de la même famille indiquent le diamètre, la capacité, la surface externe et la (les) configuration(s) possible(s) des accessoires fixés au réservoir):**

List of container family (The lists of the container family indicate the diameter, capacity, external surface and the possible configuration(s) of the accessories fitted to the container):

Tableau 2:

Table 2:

N° N°	Type Type	Diamètre/hauteur Diameter/height [mm]	Capacité Capacity [l]	Surface externe External surface [cm ²]	Configuration des accessoires Configuration of accessories [codes] ¹⁾
-	-	-	-	-	-
-	-	-	-	-	-

3. **Listes des configurations possibles des accessoires fixés au réservoir (indiquer la liste des accessoires possibles, qui diffèrent de la configuration essayée (code 00) et qui peuvent être fixés au type de réservoir en question. Pour tous les accessoires, préciser le type, le numéro d'homologation et le numéro d'extension, en indiquant pour chacun son propre code de configuration):**

Lists of the possible configurations of accessories fitted to the container (Specify a list of the possible accessories, which differ from the tested configuration of accessories (code 00) and which may be fitted to the type of container. Specify for all accessories, type, approval number and extension number, indicating its own configuration code):

Tableau 3:

Table 3:

N° N°	Accessoires Accessories	Type Type	N° d'homologation Approval N°	N° d'extension Extension N°	Configuration des accessoires [code] Configuration of accessories [code]
a)	-	-	-	-	-

¹⁾ **Biffer les mentions inutiles.**
Strike out what does not apply.



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Sandweiler, le 25 janvier 2007

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	Numéro d'homologation: Approval number:	E13*67R00*67R01*0284*00
	Révision: Revision:	00
	Marque de fabrication ou de commerce: Trade name or mark:	LOVATO
	Type: Type:	FSU
1.	Procès-verbal d'essai: Test report:	N° LCA 54 309 017 6
	- Technical report:	Page(s) 1 to 6;
	- Index:	Annex A - Page(s) 1.
2.	Dossier du constructeur: Report of the manufacturer:	N° 309 017 6
	- Manufacturer's information document:	Page(s) 1 to 21.
3.	Autres documents annexés: Other documents annexed:	not applicable
4.	Date de délivrance de l'homologation initiale: Date of issue of initial type approval:	25.01.2007
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 54 309 017 6

Inspection concerning the

**Specific equipment of motor vehicles using
liquefied petroleum gases in their propulsion
system**

performed according to

ECE – Regulation No. 67

Type: **FSU**
Manufacturer: **Officine Lovato S.r.l.**
Strada Casale, 175
I-36100 Vicenza

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

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3. Evaluation of test results	Page	5
4. Statement of compliance	Page	6
5. Annex (beginning with an index)		

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E13*67R00*67R01*0284*00
Société Nationale de Certification et d'Homologation
L-5201 SANDWEILER (Luxembourg)
Organisme accrédité OLAS EN 45011
...
Accréditation N° 5/001 (Portée communiquée sur demande)

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IBAN: LU48 0026 1824 1543 2600
BIC: BILULL



1. General

1.1. Test Provisions

The inspection was carried out according to the requirements of ECE-Regulation No. 67 including Supplement 6 to the 01 series of amendments, which entered into force on January 18, 2006.

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-R67

[1.] LPG equipment considered:

**FILTER with or without
integrated PRESSURE SENSOR and/or TEMPERATURE SENSOR**

- **type:** FSU
- **version:** FSU 12 , FSU 16,
FSU PT 12 , FSU PT 16,
FSU PT12 R, FSU PT 16 R,
FSU P 12 , FSU P 16,
FSU P 12 R, FSU P 16 R

[2.] Trade name or mark:

Lovato

[3.] Manufacturer's name and address:

**Officine Lovato S.r.l.
Strada Casale, 175
I-36100 Vicenza**

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

not applicable

[5.] Submitted for approval on: **29 September 2006 until 1 December 2006**

[10.] Reason(s) of extension:

not applicable

...



2. Inspections and their results

2.1. Version of the tested equipment

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

FSU PT 16 and FSU PT 16R

2.2. Inspection items

	Location of test:	Date of receipt of test item:	Date of test:	Inspector
Main Report	CSI – v.le Lombardia, 20 I-20021 Bollate (MI)	29.09.2006	29.09.2006 – 01.12.2006	D. Durazzi

2.2.1. 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 LPG is compatible with it.

The installation of the component of the LPG-equipment has to comply with the relevant electromagnetic compatibility requirements according to the Regulation 10.02 series of amendments, or equivalent.

The LPG gas component has parts of class 2.



2.2.2. Inspections: (class 2)

Tests	Test results	Line item
General provisions	requirements fulfilled	Part I, 6.1.
Overpressure test	no rupture or permanent distortion at a pressure of 1015 kPa	Annex 15, par. 4
External leakage test	leakage from stem or body seals or other joints less than 15 cm ³ / hour under a pressure of 675 kPa at room temperature, - 40°C and + 120°C	Annex 15, par. 5
High temperature test	requirements fulfilled	Annex 15, par. 6
Low temperature test	requirements fulfilled	Annex 15, par. 7
LPG compatibility	all the synthetic materials used satisfy the requirements	Annex 15, par. 11
Corrosion resistance	requirements fulfilled	Annex 15, par. 12
Provisions regarding electrical insulation	requirements fulfilled	Part I, 6.15.2.
Provision regarding heat exchange medium (compatibility / pressure)	not applicable	Part I, 6.15.4.
Provision regarding gas flow prevention	not applicable	Part I, 6.15.6.2.

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L-5201 SANDWEILER (Luxembourg)
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2.3. Remarks

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

2.4. 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.

Inspectors stated under 2.2. of this report were in charge of performing and/or evaluating the tests.

3. Evaluation of test results

3.1. Variants and equipment covered

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

- component versions as stated in the information document

3.2. Remarks

3.2.1. Main report:

not applicable

...



4. **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. 67 including Supplement 6 to the 01 series of amendments, which entered into force on January 18, 2006.

Esch/Alzette, 25 January 2007

Luxcontrol s.a.
Service Homologation-automobile

David Durazzi
Ingénieur-Inspecteur

Mauro Moscardelli
Ingénieur-Inspecteur

Annex