



GRAND-DUCHÉ DE LUXEMBOURG

Ministère du Développement durable
et des Infrastructures
Département 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*0185*06

Annexes: - Rapport technique
- Fiche de renseignements du constructeur

Sandweiler, le 06 juin 2012

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approval withdrawn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*0185*06

Marque d'homologation:

Approval mark:



67R-010185 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:

BRC, BRC Gas Equipment, MTM, Kit MTM, IMPCO, IMPCO Technologies, ZAVOLI, FSS, GFI, TA

Type:

Type:

"B" and "K" RAIL

Versions:

Versions:

rail B, rail B MY08, B MY09,
rail K, rail K MY08, G

3. Nom et adresse du fabricant:

Manufacturer's name and address:

M.T.M. s.r.l.
Via La Morra 1
I-12062 Cherasco (CN)

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:

02.04. – 13.04.2012

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:

24.05.2012

8. Numéro du procès-verbal:

Number of report issued by that service:

LCA 54 0280 001 12

9. L'homologation est:

Approval:

extended

10. Raisons de l'extension (éventuellement):

Reason(s) for extension (if applicable):

see: Annex A of technical report N° LCA 54 0280 001 12

11. **Lieu:**
Place: Sandweiler
12. **Date:**
Date: 06 juin 2012
13. **Signature:**
Signature:

Pour le Département des Transports



Marco FELTES
Inspecteur Principal 1^{er} en rang

Pour la SNCH



Claude LIESCH
Directeur



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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L-5201 Sandweiler

Référence: E13*67R00*67R01*0185*06

Annexes: - Rapport technique
- Fiche de renseignements du constructeur

Sandweiler, le 06 juin 2012

INDEX DU DOSSIER D'HOMOLOGATION INDEX TO TYPE-APPROVAL REPORT

Numéro d'homologation:

Approval number:

E13*67R00*67R01*0185*06

Révision:

Revision:

00

Marque de fabrique ou de commerce:

Trade name or mark:

BRC, BRC Gas Equipment, MTM, Kit MTM, IMPCO,
IMPCO Technologies, ZAVOLI, FSS, GFI, TA

Type:

Type:

"B" and "K" RAIL

1. Procès-verbal d'essai:

Test report:

N° LCA 54 0280 001 12

- Technical report:

Page(s) 1 to 6;

- Index:

Annex A - Page(s) 1 to 3.

2. Dossier du constructeur:

Report of the manufacturer:

N° ---

- Manufacturer's information document:

Page(s) 1 to 23, 24 to 27.

3. Autres documents annexés:

Other documents annexed:

not applicable

4. Date de délivrance de l'homologation initiale:

Date of issue of initial type approval:

08.05.2002

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:

06.06.2012

TECHNICAL REPORT

No.: LCA 54 0280 001 12

Inspection concerning the

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

performed according to

ECE – Regulation No. 67

Type: "B" and "K" RAIL
Manufacturer: M.T.M. srl
Via la Morra, 1
I – 12062 Cherasco (CN)

Extension 6 to ECE Type Approval no.: E13*67R00*67R01*0185*00

Index:

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

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1. General

1.1. Test Provisions

The inspection was carried out according to the requirements of ECE-Regulation No. 67 including Supplement 9 to the 01 series of amendments, which entered into force on August 19, 2010.

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:

Gas injection device

- **Type: "B" and "K" RAIL**
- **Versions: rail B, rail K, rail B MY08, rail K MY08, B MY 09, G**

[2.] Trade name or mark:

MTM, BRC Gas Equipment, IMPCO, IMPCO Technologies, ZAVOLI, BRC, Kit MTM, FSS, GFI, TA

[3.] Manufacturer's name and address:

**M.T.M. srl
Via la Morra, 1
I – 12062 Cherasco (CN)**

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

not applicable

[5.] Submitted for approval on: **02.04.2012 - 13.04.2012**

[10.] Reason(s) of extension:

**Added rail version "G" to be fitted with a different type of injector.
Added trade marks "GFI" and "TA"**

...



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):

Rail version "G"

2.2. **Inspection items**

	Location of test:	Date of receipt of test item:	Date of test:	Inspector
Main:	CSI S.p.A.	January 2002	February 2002	--
Ext.1:	I-20021 Bollate (MI)	29.07.2006	29.07- 28.09.2006	D. Durazzi
Ext.2:		December 2007	7/01/07 - 31/01/08	M. Moscardelli
Ext.3:	L-4004 Esch/Alzette	Not applicable	2.05.2008	D. Durazzi
Ext.4:	I-CSI/Bollate (MI)	November 2008	December 2008	D. Durazzi
Ext.5:	See item [3.]	16.06.2010	16.6.2010 –2.7.2010	D. Durazzi A. Tomasini
Ext.6:	See item [3.]	02.04.2012	02-13.04.2012	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 considered component of the LPG-equipment doesn't involve any electrical connection. The requirements, concerning the relevant electromagnetic compatibility according to the Regulation 10.02 series of amendments, or equivalent, are not applicable.

The rail device has parts of class 2.



2.2.2. Inspections: (according to Annex 11; Class 2 device)

Tests	Test results	Line item
Overpressure test	no rupture or permanent distortion at a pressure of 1015 kPa maintained for a period of 60 seconds	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, - 20°C and + 120°C	Annex 15, par. 5
High temperature test	leakage from stem or body seals or other joints less than 15 cm ³ / hour under a pressure of 675 kPa at + 120°C after 8 hours of conditioning at + 120°C	Annex 15, par. 6
Low temperature test	leakage from stem or body seals or other joints less than 15 cm ³ / hour under a pressure of 675 kPa at - 20°C after 8 hours of conditioning at - 20°C	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
General provisions	Requirements fulfilled	Part I, 6.1.
Provisions regarding electrical insulation	Requirements fulfilled	Part I, 6.15.2.
Provisions regarding the insulation class.	Requirements fulfilled	Part I, 6.15.2.1.
Provisions on valves activated by electrical power.	Requirements fulfilled	Part I, 6.15.3.1.
Heat exchange medium (compatibility and pressure requirements)	Not applicable, as no exchange medium in contact with the apparatus.	Part I, 6.15.4.1.

...



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 injection unit:

- versions as stated in the information document
- rail shape and process assembly as stated in the information document
- alternative sensor or injector seats and tightness solutions as stated in the information document
- trade marks as stated in annex B

3.2. Remarks

3.2.1. Main report:

Not applicable

3.2.2. Extension 1:

New tests were performed to cover the stated change.

3.2.3. Extension 2:

New tests have been performed to cover the added alternative versions.

3.2.4. Extensions 3:

The stated changes did not require new tests to be performed.

3.2.5. Extensions 4 to 6:

New tests were performed to cover the stated change.

...



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 9 to the 01 series of amendments, which entered into force on August 19, 2010.

Esch/Alzette, 24 May 2012

Luxcontrol s.a.
Service Homologation-automobile

David Durazzi
Ingénieur-Inspecteur

Paul Wax
Ingénieur-Inspecteur

Annex



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

EEC type-approval No.: E13*67R00*67R01*0185*00

Main Report

Technical Report No.: LCA 54 280 003 2	Pages 1 to 6
Composition of the Annex:	
A: Index	Page 1
B: Information folder	Pages 1 to 9

Extension 1

Technical Report No.: LCA 54 280 002 7	Pages 1 to 6
Composition of the Annex:	
A: Index	Page 1
B: Information folder	
- to be replaced:	Page 4
- to be added:	Pages 10 to 13

Contents of the extension

- To be added:
- alternative sensors or injector seats
 - alternative tightness solutions

- To be modified:
- list of trade marks

Extension 2

Technical Report No.: LCA 54 0280 002 08	Pages 1 to 6
Composition of the Annex:	
A: Index	Pages 1 to 2
B: Information folder	
- to be added:	Pages 14 to 17

Contents of the extension:

- To be added:
- new alternative versions "rail B MY08" and "rail K MY08" with alternative sensor seat and with modified joints and o-ring
 - alternative ECE marking configuration
 - trade mark "ZAVOLI", "IMPCO Technologies"



To be modified:

- the stated amendment of the regulation
 - the editorial arrangement
-

Extension 3

Technical Report No.: LCA 54 0280 012 08 Pages 1 to 6

Composition of the Annex:

- | | |
|-----------------------|--------------|
| A: Index | Pages 1 to 2 |
| B: Information folder | |
| - to be added: | Page 18 |

Contents of the extension:

To be added:

- trade mark "BRC", "Kit MTM"

To be modified:

- the supplement level of the regulation
-

Extension 4

Technical Report No.: LCA 54 0280 019 08 Pages 1 to 6

Composition of the Annex:

- | | |
|-----------------------|----------------|
| A: Index | Pages 1 to 2 |
| B: Information folder | |
| - to be added: | Pages 19 to 21 |

Contents of the extension:

To be added:

- version B MY 09 with all its characteristics

To be modified:

- the supplement level of the regulation
-

Extension 5

Technical Report No.: LCA 54 0280 009 10 Pages 1 to 6

Composition of the Annex:

- | | |
|-----------------------|----------------|
| A: Index | Pages 1 to 3 |
| B: Information folder | |
| - to be added: | Pages 22 to 23 |



Contents of the extension:

To be added:

- alternative rail shape (die casting process) and new ring locking system for injectors in the rail version "B MY 09"
- trade mark "FSS"

Extension 6

Technical Report No.: LCA 54 0280 001 12 Pages 1 to 6

Composition of the Annex:

A: Index Pages 1 to 3

B: Information folder

 - to be added: Pages 24 to 27

Contents of the extension:

To be added:

- rail version "G" able to fit a different type of injector, with alternative configurations for inlet and outlet (straight or 90°) and for the connection of the injectors (aluminum bush with O'ring , or a rubber bush only)
- trade marks "GFI" and "TA"

To be modified:

- the supplement level of the regulation

Index to the information folder:

- manufacturer's information document (pages 1 to 27)
-



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12062 – Cherasco (Cn)- Italy
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e-mail: info@brc.it

P.IVA 00525960043
CCIAA Cuneo n. 107283
Reg. Imp.Uff. Alba n. 1423
Capitale Sociale:
EURO 2.400.000 i.v.
(Lire 4.647.048.000)



“B” & “K” rail

1. List of modifications.

Adding a new version “G” of the rail able to fit a different type of injector (see drawing 0000-11554 enclosed); all previous version and configuration stays unchanged.

In the main body (6) the seat has been design to suit new injector type

The new version can be with straight inlet (10) or 90° outlet (10) as per alternative configuration in the drawing attached.

The new version can be with straight outlet (1) or 90° outlet (1) as per alternative configuration in the drawing attached.

In case of 90° outlet the pipe holder (12) is connected with the outlet (1) and the O ring (13) grants the tightness.

Also the connection between the rail and the injector can have 2 alternatives ; in first option the bush (4) is in aluminum material and there is an Oring (5) to grants the tightness. In the second option the bush (4) is rubber material (FKM) and itself also grants the tightness.



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P.IVA 00525960043
 CCIAA Cuneo n. 107283
 Reg. Imp.Uff. Alba n. 1423
 Capitale Sociale:
 EURO 2.400.000 i.v.
 (Lire 4.647.048.000)



2. Material

1	Alluminum UNI EN 573-3 lega EN AW-2011	
2	Alluminum UNI EN 573-3 lega EN AW-2011	
10	brass UNI EN 12165 CW 617N	
16	brass UNI EN 12164 CW 614N	
4	Alluminum UNI EN 573-3 lega EN AW-2011	
4	FKM	Alternative
5	FKM	
6	Alluminum UNI EN 573-3 EN AW-6060	
9	Alluminum UNI EN 573-3 lega EN AW-2011	
12	brass UNI EN 12164 CW 614N	
13	FKM	
14	Alluminum UNI EN 573-3 lega EN AW-2011	

3. Trade name or Mark

GFI and TA trade marks has to be added.

The complete list of trade marks is :

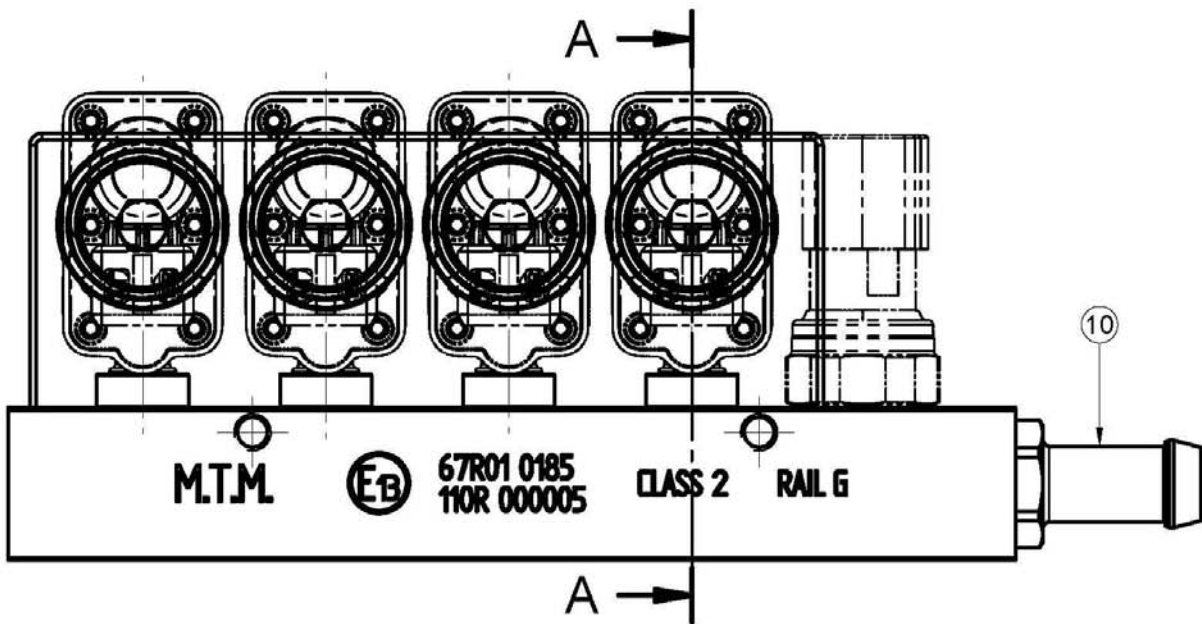
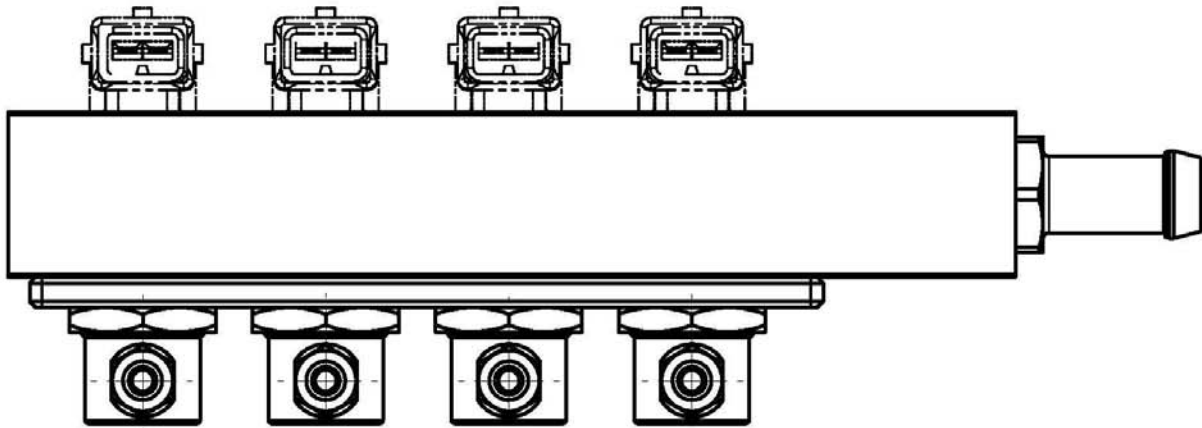
BRC, BRC Gas Equipment
 MTM, Kit MTM
 IMPCO, IMPCO Technologies
 TA
 GFI
 ZAVOLI
 FSS

4. Drawings

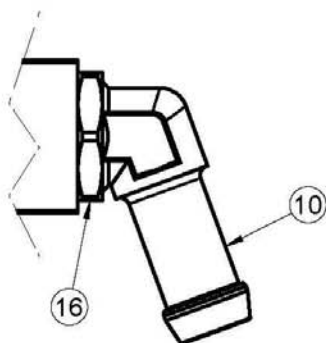
Enclosed Drawing 1333-10367



M.T.M. s.r.l.



ALTERNATIVE VERSION



COMPLESSIVO RAIL GFI per OMOLOGAZIONE

Disegno n°: 0000-11554

File: 0000-11554

G. Chiarle 02/04/2012

G. Cravero 02/04/2012

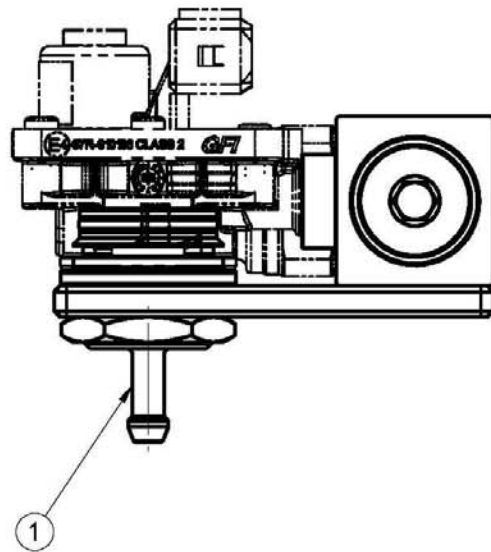
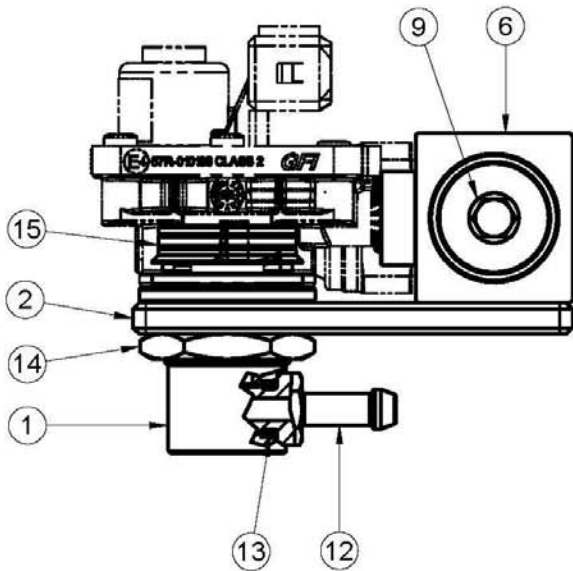
A. Montà 02/04/2012



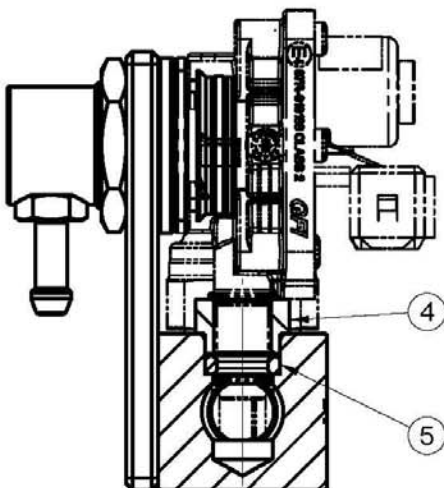
M.T.M. s.r.l.



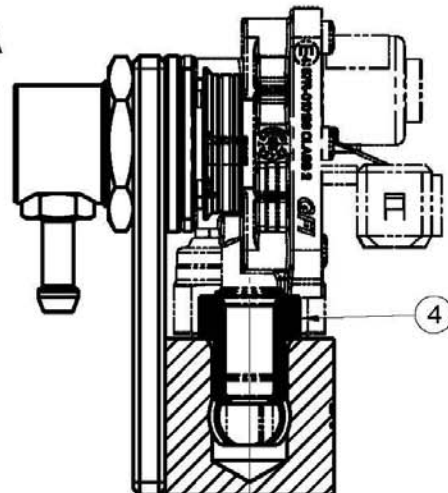
ALTERNATIVE VERSION



ALTERNATIVE VERSION



SEZ. A-A



COMPLESSIVO RAIL GFI per OMOLOGAZIONE
 Disegno n°: 0000-11554
 File: 0000-11554
 G. Chiarle 02/04/2012
 G. Cravero 02/04/2012
 A. Montà 02/04/2012