



67R-014609

TÜV SÜD Auto CZ s.r.o.

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ECE/UN Technical Service No. E8/C

Protokol E8/K OSH, r.2

07_120417_00_400

1/2

Technical Report No.: 120417 – 07 – TAC
 ECE Regulation No.: R67.01
 Manufacturer: Emer S.p.A.; Via Roma, 104/A; 25060 COLLEBEATO Brescia
 Italy
 Type: Electronic control unit type: GO001

TECHNICAL REPORT No. 120417 – 07 - TAC

Test according to ECE Regulation No. 67.01

Uniform provisions concerning the approval of:

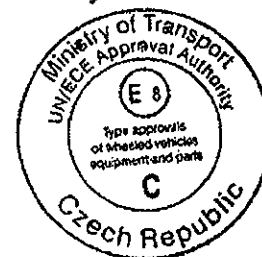
- I. Approval of specific equipment of motor vehicles using liquefied petroleum gases in their propulsion system
- II. Approval of a vehicle fitted with specific equipment for the use of liquefied petroleum gases in its propulsion system with regard to the installation of such equipment

ECE No. 67.00 – date of entry into force: 1 June 1987
 including all amendments up to and including
 ECE No. 67.01, Supplement 4 - date of entry into force: 4 April 2005

Objectives: Document for issue of approval

I. Technical data

- | | | |
|--------|------------------------------------|--|
| 0.1. | Make (trade name of manufacturer): | Frank |
| 0.2. | Type: | GO001 |
| | Variants: | GO001/6, GO001/8 |
| 0.2.1. | Commercial name: | Not applicable |
| 0.3. | Means of identification of type: | Stamped on the cover |
| 0.3.1. | Location of that marking: | On the cover of ECU |
| 0.4. | Class of component: | Not applicable |
| 0.5. | Name and address of manufacturer: | Emer S.p.A.
Via Roma, 104/A
25060 COLLEBEATO Brescia-Italy |
| 0.8. | Address of assembly plant: | See point 0.5. |
| 0.9. | Location of the approval mark: | On the body of ECU. |



TÜV SÜD Auto CZ s.r.o., ECE/UN Technical Service No. E8/C
Technical Report No.: 120417 – 07 – TAC
ECE Regulation No.: R67.01
Manufacturer: Emer S.p.A.; Via Roma, 104/A
25060 COLLEBEATO Brescia-Italy
Type: Electronic control unit type: GO0017



Provedl BIK OSN.r.2

07_120417_00.doc

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II. Test report

Technical data and tests results are indicated in the enclosures of this technical report.

3. Specimen submitted to test on: 12 December 2005

4. Date of test: 12 December 2005

III. Manufacturer's information folder

Application for approval
11 pages total of 13 April 2007

IV. Attachments

Technical Reports No.:

260084 – 07 – TAC:

3 pages total

260085 – 07 – TAC:

3 pages total

The results presented above were measured/found in the laboratory accredited by ČIA under No. 1107 according to the ISO/IEC 17025 standard and relate only to items tested. The final confirmation exceeds the accreditation.

Measuring and test equipment and test site meet the requirements of the applicable legislation. This report must never be reproduced incomplete without a written permission of the testing laboratory.


V. Final assessment


The described sample

complies

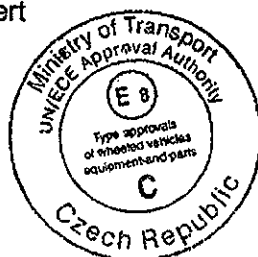
with the requirements of ECE Regulation No. 67.01
for issue of approval certificate

This technical report consists of pages No. 1 to 2 and 6 pages of attachments.


Vladimír Perný
Officially recognized expert


Vít Dvořák
Head of Group of experts

Prague, 31 May 2007





Technical Report No.: 260084 - 07 - TAC
ECE Regulation No.: 010.02
Manufacturer: Emer S.p.A.
Type: 067 GO001

TECHNICAL REPORT
No. 260084 - 07 - TAC

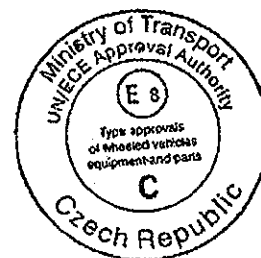
Test according to ECE Regulation No. 010.02
**Uniform provisions concerning the approval of vehicles
with regard to electromagnetic compatibility.**

ECE No. 010.00 – date of entry into force: 1 April 1969
including all amendments up to and including
ECE No. 010.02, Supplement 02 – date of entry into force: 12 September 2004

Objectives: Partial document for issue of approval certificate
according to ECE Regulation No. 067.01

I. Technical data

- 0.1. Make (trade name of manufacturer): Frank
- 0.2. Type: 067 GO001
- 0.2.1. Variants: GO001 /6, GO001 /8
- 0.3. Means of identification of type: manufacturer's label
- 0.3.1. Location of that marking: top side of unit's box
- 0.4. Category of vehicle: N/A
- 0.5. Name and address of manufacturer: Emer S.p.A.
Via Roma, 104/A
25060 COLLEBEATO Brescia, ITALY
- 0.8. Address of assembly plant: see 0.5.
- 0.9. Location of the approval mark: next to the manufacturer's label



TÜV SÜD Auto CZ s.r.o., ECE/UN Technical Service No. E8/C

Technical Report No.: 260084 -- 07 - TAC
ECE Regulation No.: 010.02
Manufacturer: Emer S.p.A.
Type: 067 GO001



Protokol E8/C, 067, r.3

260084-07

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II. Test report

1. Test conditions

1.1. Test sample:

set of the ECU GO001 with corresponding wire harness, connected to input/output peripheral components of LPG propulsion system, built in vehicle ŠKODA Fabia 1,4 16V VIN TMBHD46Y823550513.

1.2. Test procedures used:

1.2.1. According to part 6.6. of the Regulation (above):

measurement of the narrowband emissions in distance of 3m in horizontal and vertical antenna polarization, 30 to 1000MHz.

1.2.2. According to part 6.7. of the Regulation (above):

immunity to test signal of frequency range 20 to 1000MHz, BCI method, equivalent power 40mA ± 25% / 50Ω, AM 1kHz 80%.

1.3. Measuring and test equipment:

radiated interference measuring set:
receiver ROHDE & SCHWARZ ESVP
s.n. 879807/0019,
antenna FRANKONIA BTA-M
s.n. 000003M.

Immunity test instrument set
ROHDE & SCHWARZ:
generator SMY 01 s.n. 847984/043,
hf. millivoltmeter URV 5 s.n. 848565/022
w. probe URV 5-Z2 s.n. 847922/02,
wideband power amplifier BONN Elektronik
BWLA 0210-25 s.n. 974436-01,
injection probe FCC F-140 s.n. 192,
directional coupler AR DC3001 s.n. 21970.
EMC test software ROHDE & SCHWARZ
EMS-K1.

1.4. Testing conditions:

w/o precipitations, 2°C, 975hPa, 78% hum.

1.5. Test track or site:

opened area of the TÜV UVMV,
Novodvorská 994, 142 21 Prague 4,
Czech Republic.

2. Test results

2.1. Ad 1.2.1.



32dB μ V/m or less in the whole frequency range.

TÜV SÜD Auto CZ s.r.o., ECE/UN Technical Service No. E8/C

Technical Report No.: 260084 – 07 - TAC
ECE Regulation No.: 010.02
Manufacturer: Emer S.p.A.
Type: 067 G0001



Protokol EHP 084.1.2

260084-076

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2.2. Ad 1.2.2. Functional status A (no deviations).

3. Specimen submitted to test on: 12 December 2005

4. Date of test: 12 December 2005

III. Manufacturer's information folder Emer S.p.A.
11 pages of 13 April 2007

IV. Attachments
No attachments

The results presented above have been measured/found in the No. 1107 laboratory accredited by ČIA according to the ISO/IEC 17025 standard and relate only to the items tested. The final assessment exceeds the accreditation scope.

Measuring and test equipment and test site meet the requirements of the applicable legislation. This report must never be reproduced incomplete without a written permission of the testing laboratory.

V. Final assessment

The described sample

complies

with the requirements of ECE Regulation No. 010.02
as required accordingly to the ECE regulation No. 067.01

This technical report consists of pages No. 1 to 3 and has no attachments.

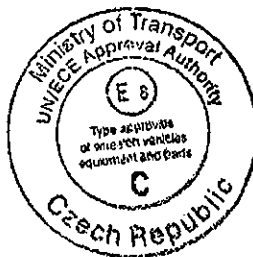

Ing. Ctirad Pecháček

Test executive


Ing. Bohuslav Kovanda

Officially recognized expert

Prague, 24 May 2007





Technical Report No.: 260085 – 07 - TAC
ECE Regulation No.: 067.01
Manufacturer: Emer S.p.A.
Type: 067 GO001

TECHNICAL REPORT
No. 260085 - 07 - TAC

Test according to ECE Regulation No. 067.01
Uniform provisions concerning:

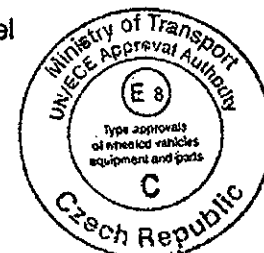
- I. Approval of specific equipment of motor vehicles using liquefied petroleum gases in their propulsion system;**
II. Approval of a vehicle fitted with specific equipment for the use of liquefied petroleum gases in their propulsion system with regard to the installation of such equipment.

ECE No. 067.00 – date of entry into force: 1 June 1987
including all amendments up to and including
ECE No. 067.01, Supplement 03 – date of entry into force: 13 November 2004

Objectives: Document for issue of approval certificate

I. Technical data

- 0.1. Make (trade name of manufacturer): Frank
0.2. Type: 067 GO001
0.2.1. Variants: GO001 /6, GO001 /8
0.3. Means of identification of type: manufacturer's label
0.3.1. Location of that marking: top side of unit's box
0.4. Category of vehicle: N/A
0.5. Name and address of manufacturer: Emer S.p.A.
Via Roma, 104/A
25060 COLLEBEATO Brescia, ITALY
0.8. Address of assembly plant: see 0.5.
0.9. Location of the approval mark: next to the manufacturer's label



TÜV SÜD Auto CZ s.r.o., ECE/UN Technical Service No. E8/C

Technical Report No.: 260085 - 07 - TAC
ECE Regulation No.: 067.01
Manufacturer: Emer S.p.A.
Type: 067 GO001



Protocol ECE/UN, r.2

260085-07a

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II. Test report

1. Test conditions

1.1. Test sample:

set of the ECU GO001 with corresponding wire harness, connected to input/output peripheral components of LPG propulsion system, built in vehicle ŠKODA Fabia 1,4 16V VIN TMBHD46Y823550513.

1.2. Test procedures used:

1.2.1. According to Annex 14, Clause 2:

measurement of the switching-off delay of the service cut-off valves after stalling of the engine.

1.2.2. According to Annex 14, Clause 3:

separate EMC test of the electronic control unit.

1.2.3. According to Annex 14, Clause 4:

simulation of the electrical failure.

1.2.4. According to Annex 14, Clause 5:

simulation of the unit's power switch-off.

1.3. Measuring and test equipment:

scopemeter FLUKE199C,
s.n. DM 8140090.

1.4. Testing conditions:

w/o precipitations, 2°C, 975hPa, 78% hum.

1.5. Test track or site:

opened area of the TÜV UVMV,
Novodvorská 994, 142 21 Prague 4,
Czech Republic.

2. Test results

2.1. Ad 1.2.1.

Measured delay $\leq 5s$.

2.2. Ad 1.2.2.

See our Test Report No. 260084-07-TAC.

2.3. Ad 1.2.3.

Valves remain closed.

2.4. Ad 1.2.4.

Electronic control unit itself does not include any voltage source.

3. Specimen submitted to test on:

12 December 2005

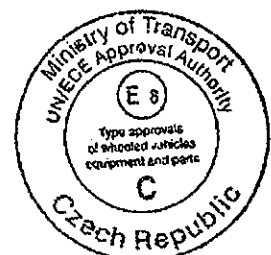
4. Date of test:

12 December 2005

III. Manufacturer's information folder

Emer S.p.A.

11 pages of 13 April 2007



TÜV SÜD Auto CZ s.r.o., ECE/UN Technical Service No. E8/C

Technical Report No.: 260085 - 07 - TAC
ECE Regulation No.: 067.01
Manufacturer: Emer S.p.A.
Type: 067 G0001



Protokol Emer CZ s.r.o.

260085-07a

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IV. Attachments

No attachments.

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Measuring and test equipment and test site meet the requirements of the applicable legislation. This report must never be reproduced incomplete without a written permission of the testing laboratory.

V. Final assessment

The described sample

complies

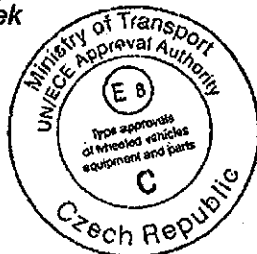
with the requirements of ECE Regulation No. 067.01 for issue of approval certificate.


This technical report consists of pages No. 1 to 3 and has no attachments.


Ing. Ctirad Pecháček

Test executive

Prague, 24 May 2007




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