



THE UNITED KINGDOM VEHICLE APPROVAL AUTHORITY

COMMUNICATION CONCERNING THE APPROVAL GRANTED ⁽¹⁾ TO A COMPONENT TYPE-APPROVAL CERTIFICATE IN RESPECT OF A NON-ORIGINAL EXHAUST SYSTEM FOR A TYPE OF MOTORCYCLE PURSUANT TO COUNCIL DIRECTIVE 97/24/EC – CHAPTER 9 AS LAST AMENDED BY 2013/60/EU.

EC Component type-approval No: e11*97/24/9/III*2013/60*0927*00

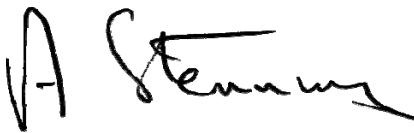
Report No.: 15-00003-CM-MIL-00, by technical service: TÜV SÜD Auto Service GmbH, date: 16 February 2015.

Reason(s) for extension: Not applicable

1. Make of exhaust: Termignoni
2. Type of exhaust: H131
3. Name and address of manufacturer:
Termignoni S.p.A.
Via della Rampina, 1
I-15077 Predosa (AL)
Italy
4. If applicable, name and address of the manufacturer's authorized representative:
Not applicable
5. Make(s) and type(s) and any variant(s) or version(s) of the vehicle(s) for which the exhaust system is designed: See manufacturer's documentation
6. Date system submitted for testing: 16 February 2015
7. Component type-approval GRANTED

8. Place: BRISTOL

9. Date: 10 MARCH 2015

10. Signature: 

A.W.STENNING
Head of Technical and Quality Support Group

(1) Delete as appropriate





THE UNITED KINGDOM VEHICLE APPROVAL AUTHORITY

APPROVAL NUMBER: e11*97/24/9/III*2013/60*0927*00

INFORMATION PACKAGE CONTENTS

INDEX REVISION NUMBER: Not applicable

Total number of sheets: 10 (Ten)

Reasons for Revision: Not applicable

Revision date
&
Office stamp

EAQ310669

An executive agency of the Department for Transport
April 2013 Revision 3





INFORMATION DOCUMENT
N° H131/97/24 rev. 00

Date: 16/02/2015
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Information Document relating to EC type approval as separate technical unit of exhaust systems for motorcycles (Directive 97/24/EC amended 2013/60/EU)

1. *Make (trade name of manufacturer):* Termignoni
2. *Type and general commercial description:* H131
3. *Name and address of manufacturer:* Termignoni S.p.A.
via della Rampina, 1
I-15077 Predosa (AL)
4. *Name and address of manufacturer's authorized representative:* Not applicable
5. *Parts list:* Notice enclosure 1 of the test report
6. *Make and motorcycle type of the field of application:* See list enclosed
7. *Restriction and instructions for installing:* Notice assembly manual and field of application

Further details according to directive 97/24/EC, chapter 9, annex III, enclosure 2 A including amendment 2013/60/EU are mentioned in the motorcycle homologation (notice enclosure 2 of the test report).





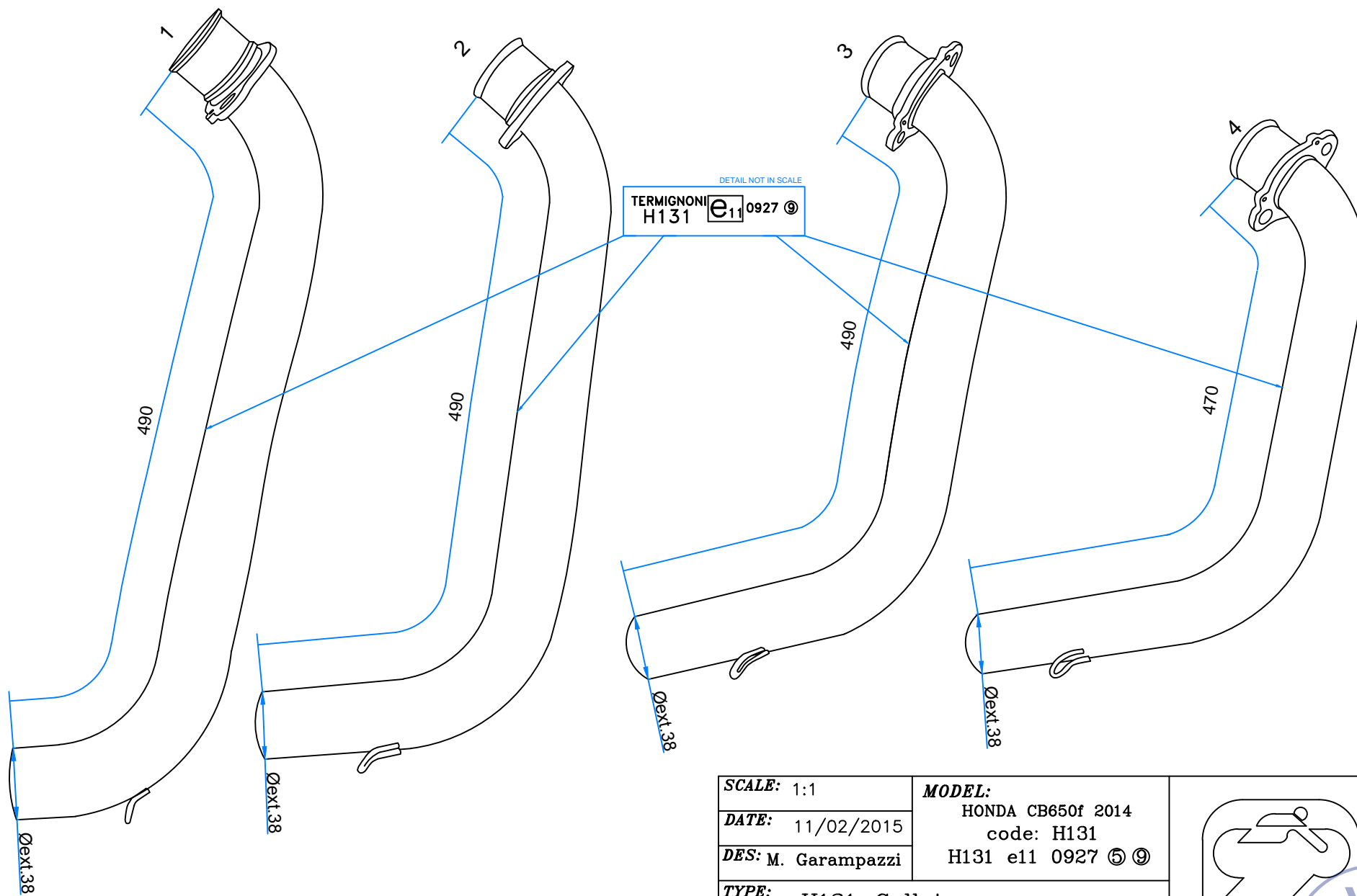
INFORMATION DOCUMENT
N H131/97/24 rev. 00

Date: 16/02/2015
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Information Document relating to EC type approval as separate technical unit of exhaust systems for motorcycles (Directive 97/24/EC amended 2013/60/EU)

<i>Enclosures</i>	<i>Drawing no.</i>	<i>Date</i>
<i>Drawing of collectors</i>	H131_Collectors	11/02/2015
<i>Drawing of final body</i>	H131_Final body	11/02/2015
<i>Drawing of silencer</i>	H131: Silencer	10/02/2015
<i>Drawing of catalytic converter</i>	H131: Catalytic converter	11/02/2015
<i>Drawing of reduction</i>	H131: Tappo	11/02/2015
<i>Drawing of composition</i>	H131: Assembly	12/02/2015
<i>List of vehicles</i>		
<i>Fitting instructions</i>		





SCALE: 1:1

DATE: 11/02/2015

DES: M. Garampazzi

TYPE: H131_Colletcors

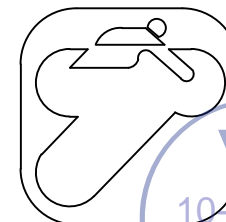
MODEL:

HONDA CB650f 2014

code: H131

H131 e11 0927 ⑤ ⑨

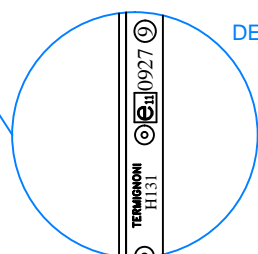
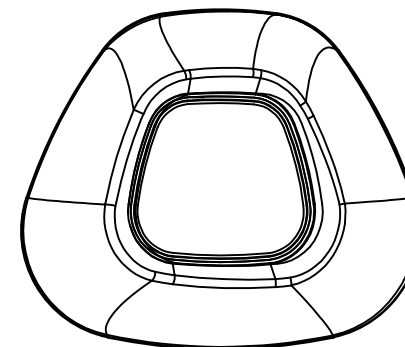
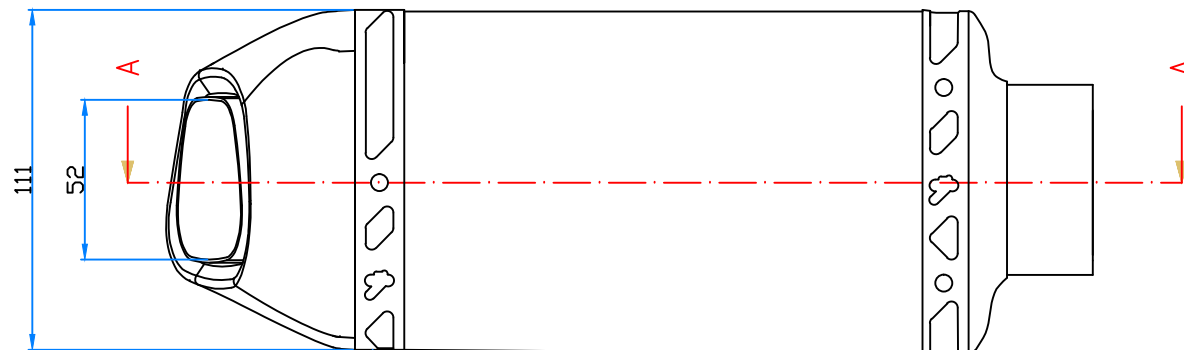
Termignoni S.p.A.



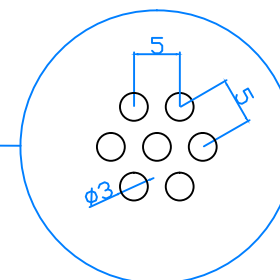
10-Mar-15

UK Approval Authority

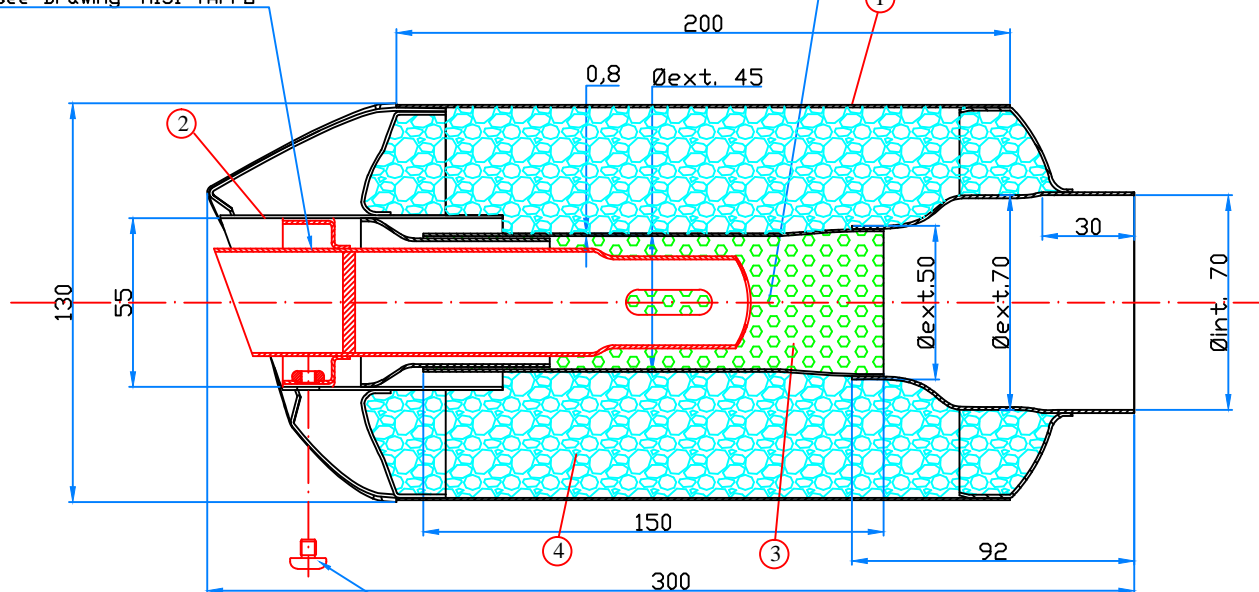
General tolerance: $\pm 1\text{mm}$



DETAIL NOT IN SCALE



See Drawing "H131 TAPPO"



SECTION A-A

Welded Screw

PART LIST

Nr	Part name	Material	Dimensions	Qt.
1	Shell	Alluminium	Sp2mmx200mm	1x
		Carbon fiber	Sp1mmx200mm	1x
		Titanium	Sp0.8mmx200mm	1x
		Stainless steel	Sp0.8mmx200mm	1x
2	Outlet pipe	Stainless steel	SEE DRAWING	1x
		Titanium	SEE DRAWING	1x
3	Punched-holes pipe	Stainless steel	ø45x0,8	1x
		Titanium	ø45x0,8	1x
4	Sound proof Material	Fiberglass	-	1x

Scale: 1:1

Date: 10/02/2015

Name: M. Garampazzi

Type: H131: SILENCER

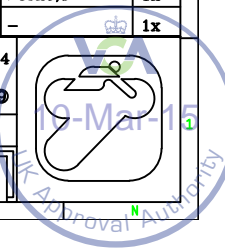
Model: HONDA CB650f 2014

code H131

H131 e11 0927

Termignoni

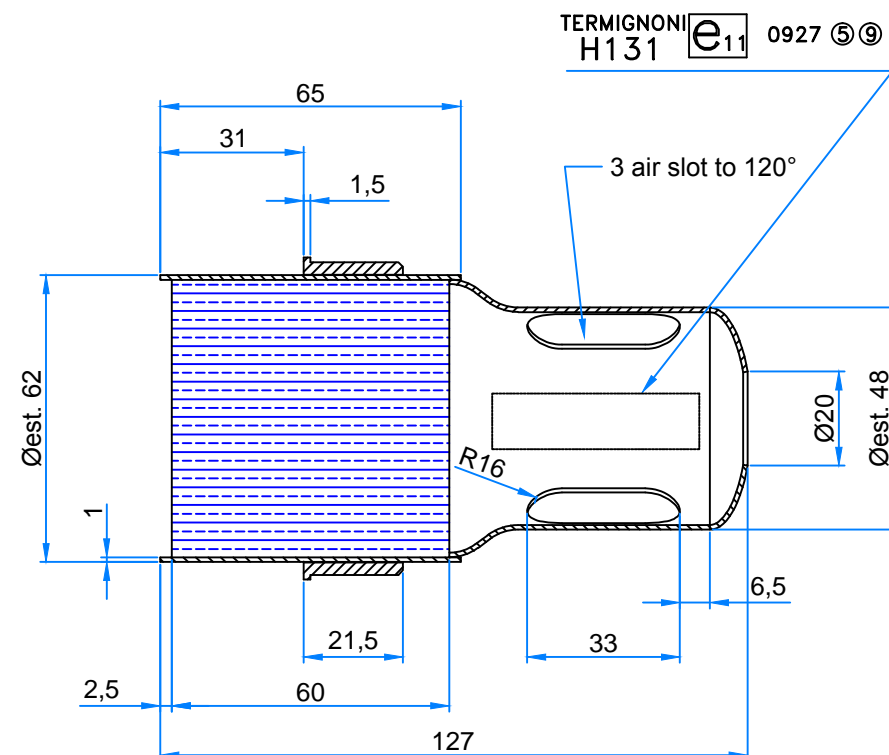
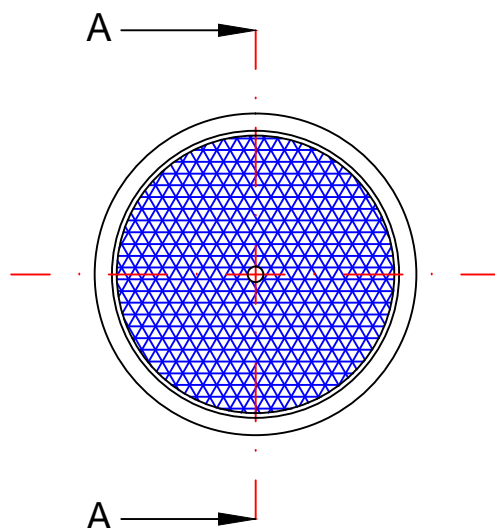
S.p.A.



General tolerance: $\pm 1\text{mm}$

MATERIAL: S.Steel or Titanium

Section A - A



CHARACTERISTICS

DIMENSIONS : Øi 60x60 mm.

CPSI : 400

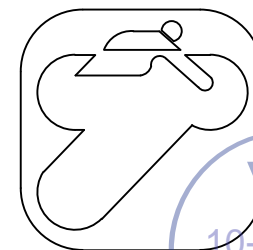
FORMULATION : Pt/Pd/Rh

RATIO : 1/13/1

LOADING : 140 gr/ft³

SCALA: 1:1	MODEL: HONDA CB650f 2014 code: H131 H131 e11 0927 ⑤ ⑨
DATUM: 11/02/2015	
NAME: M.Garampazzi	
Tip: H131: Catalytic converter	

Termignoni s.p.a.



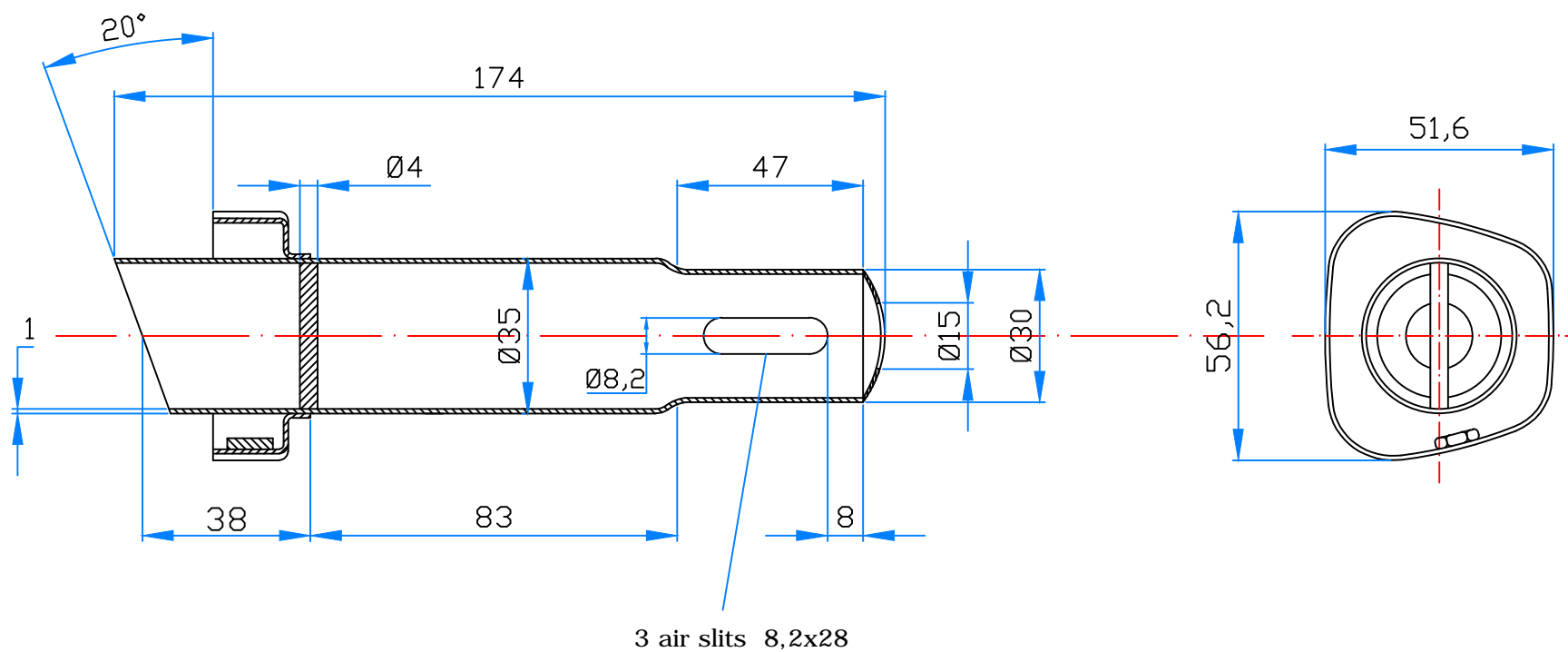
10-Mar-15



Cod. TERMIGNONI TY170

General tolerance: $\pm 1\text{mm}$

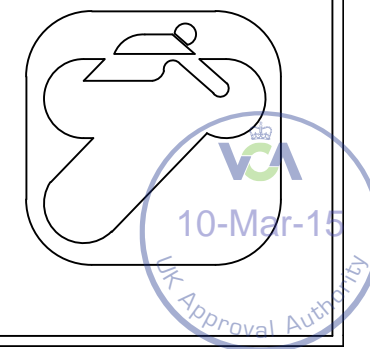
MATERIAL: S.Steel or Titanium



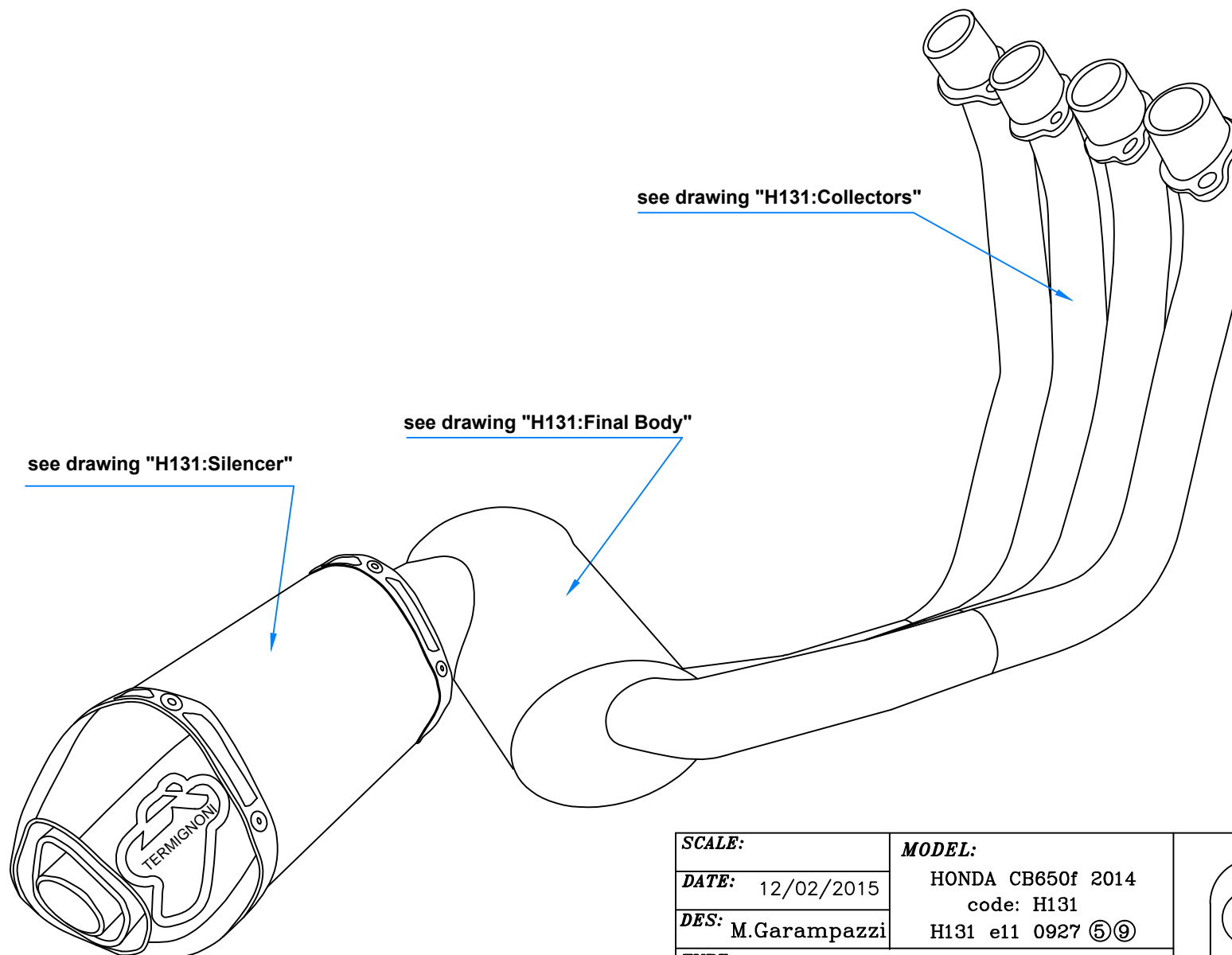
SCALA: 1:1	MODEL: HONDA CB650f 2014 code: H131 H131 e11 0927 ⑤ ⑨
DATUM: 11/02/2015	
NAME: M.Garampazzi	

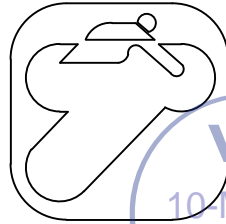
Tip: H131: Tappo

Termignoni s.p.a.



Cod. TERMIGNONI TER471



SCALE:	MODEL:	
DATE: 12/02/2015	HONDA CB650f 2014	
DES: M.Garampazzi	code: H131	
TYPE: H131: Assembly	H131 e11 0927 ⑤⑨	
Termignoni S.p.A.		info@termignoni.it 10-Mar-15 Approval Authority

INFORMATION DOCUMENT N° H131/97/24 rev. 00 - List of the vehicles

No. of vehicle	Manufacturer	Make	Commercial name	Vehicle type (and no. of homologation)	Engine type	Stroke	Engine capacity in cm ³	Rated maximum engine power in kW/min ⁻¹	Additional remarks:	Composition as shown in enclosure no. 1
1)	THAI HONDA MANUFACTURING CO. LTD.	HONDA	CB650FA, CB650F	RC75 e13*2002/24*0678*	RC74E	4-stroke	649	64,0 / 11000	with cat	1) 2) 3) 4) (*)

(*) The Catalytic converter with separate marking TERMIGNONI H131 e11 0927 (5) (9) must be correctly placed in the assembly , in order to fulfil the requirements of the complete exhaust system.

The installation of the muffler, separated by the catalytic converter, is not allowed and doesn't fulfil the directive requirements





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Via della Rampina, 1
15077 PREDOSA (AL) Italy
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Fax +39 0131.71696
www.termignoni.it
Part. IVA - C.F. 00862780061
Iscriz. C.C.I.A.A. AL 130295
Iscriz. Tribunale Reg. Soc. 7721
N. Export AL 009063
C.C. IT 00862780061
Cap. Soc. € 1.000.000,00 int. vers.

FITTING INSTRUCTIONS

For Termignoni exhaust systems

A. Dismantling the original exhaust system

1. Remove any casing impeding clear access
2. Detach the silencer support(s) and the original silencer from the branch pipe and/or exhaust manifold

B. Fitting Termignoni silencer(s)

1. Fit the Termignoni silencer(s) to the original branch pipe, or use the Termignoni branch pipe to fit the exhaust manifold
2. Attach the silencer(s) with the mounting(s) supplied with the vehicle, leaving the screws and bolts loose
3. Adjust the exhaust system so that when fully inserted it is at least 5 mm from any other component of the vehicle
4. Tighten all screws and bolts
5. Test the vehicle and check all connections, tightening the screws and bolts if necessary
6. After about 100 km check all the connections again and tighten the screws and bolts if necessary

WARNING:

Take care when working on the exhaust system after testing the vehicle since the surfaces could be very hot



Techn. Report No.: 15-00003-CM-MIL-00
Manufacturer: Termignoni S.p.A
15077 Predosa (AL)
Type: H131

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TEST REPORT

No. 15-00003-CM-MIL-00

about a test of a non-original exhaust system or a component
as a separate technical unit for motorcycles according to the directive of the Council of the
European Community for adaptation to the laws of the Member States relating to the
permissible sound level, pollution and exhaust systems for two or three-wheel motor vehicles

No. 97/24/EC including the amendment 2013/60/EU
Concerning chapter 9, annex III

Approval status	
<input checked="" type="checkbox"/>	Granting of a type approval
<input type="checkbox"/>	Extension/correction to type approval no. --

Techn. Report No.: 15-00003-CM-MIL-00
Manufacturer: Termignoni S.p.A
15077 Predosa (AL)
Type: H131

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Reason for extension:

It will be changed: Not applicable

It will be updated: Not applicable

0. General information

- 0.1. Make: TERMIGNONI
- 0.2. Type: H131
- 0.2.1. Variants n.a.
- 0.3. Name and address of manufacturer: Termignoni S.p.A.
Via della Rampina, 1
I-15077 Predosa (AL)
Italy
- 0.4. Name and address of authorized agent: n.a.
- 0.5. No. of information document: H131/97/24 rev. 00
Date: 16.02.2015
- 1.0. Class of the vehicles the unit is used for: L3e
- 1.1. Description of the vehicles
the unit is used for: notice enclosure 2

2. Composition of the separate technical unit

- 2.1. Kind of technical unit: Non-original exhaust system, consisting out of one silencer on the right, maximum shape 130x110 mm and, length 300 mm, absorption-reflection principle with outlet pipe \varnothing 35 mm according to drawing no. H131: Silencer and H131: Tappo. Equipped with catalytic converter inside of the inlet section of silencer according to drawings no. H131_Final body and H131:Catalytic converter and in combination with non original header system, according to drawing no. H131_Collectors. Aluminium-alternatively stainless steel alternatively titanium alternatively carbon fiber-cover.

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Manufacturer: Termignoni S.p.A
15077 Predosa (AL)
Type: H131

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- 2.2. Place of marking: On the silencer, see drawing:
H131: Silencer
On the final body, see drawing:
H131_Final body
On the catalytic converter, see drawing:
H131:Catalytic converter
On the collectors, see drawing:
H131_Collectors
- 2.3. Assembly of the exhaust system for testing
(no. of parts, enclosure 1): Notice 3.4
- 2.4. Position and direction of the tail pipe: On the right side of the vehicle

3. Test report

The tests were carried out in 2 series A at 02/02/2015 and B at 09/02/2015

3.1. **Vehicle**

- (0.1) Make: HONDA
- 3.1.1. Type / Variant / Version: RC75/2/1
- 3.1.1.1 Model: CB650FA
- 3.1.2. Manufacturer THAI HONDA MANUFACTURING CO. LTD.
- 3.1.3. Homologation no.: e13*2002/24*0678*
- 3.1.3.1 Extension: 00
- 3.1.4. Vehicle identification no.: *MLHRC75B0E5000007*
- 3.1.5. Year of manufacture: 2014
- 3.1.6. Kilometers: 1839
- 3.1.7. Total weight: 191 kg

3.2. **Engine**

- 3.2.1. Manufacturer: Notice 3.1.2
- Trade name: HONDA
- 3.2.2. Type: RC74E

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Manufacturer: Termignoni S.p.A
15077 Predosa (AL)
Type: H131

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- 3.2.3. Engine capacity: 649 cm³
3.2.4. Rated maximum engine power: 64 kW at 11000 min⁻¹

3.3. Transmission

- 3.3.1. Kind of transmission: Mechanical
3.3.4. Gearbox: 6 Speed
3.3.5. Transmission ratios:
primary / final See point 3.1.3
Top speed: See point 3.1.3
Tires:
front 120/70 ZR17M/C (58W)
rear 180/55 ZR17M/C (73W)

- 3.4. **Assembly of the exhaust system**
(no. of parts, enclosure 1): 1) 2) 3) 4)

3.5. Acoustic measurements

- 3.5.1. Manufacturer of the sound level meter: Brüel & Kjaer
3.5.2. Type of the sound level meter: 2236
3.5.3. Drive by noise, stationary noise:
according to the Council Directive No. 97/24/EC with the amendment 2013/60/EU chapter 9 III.
3.5.4. Load condition during drive by test: Unloaded weight plus 80kg driver
3.5.5. Deviation at calibration: < 0.2 dB(A)

3.6. Power measurement

- 3.6.1. Testing of max. power with non-original exhaust system:

The tested max. power und the engine speed are in the 5% tolerance in comparison with the original exhaust system. (see enclosure)

Techn. Report No.:	15-00003-CM-MIL-00
Manufacturer:	Termignoni S.p.A 15077 Predosa (AL)
Type:	H131

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3.6.2. Testing of top speed with non-original exhaust system:

Not applicable, because vehicle class: Motorcycle L3e

3.7. Conditioning

by pulsation

3.8. Pollution Test

Testing of pollution with aftermarket catalytic converter in combination with non-original exhaust system against the limits mentioned in 97/24/Chap. 5 Annex II, regarding the type approval of the test bikes.

3.9. Test results

- The results of
- 3.9.1. Noise testing
 - 3.9.2. Power measurement
 - 3.9.3. Top speed
 - 3.9.4. Emission test
- are attached in the enclosure.

All motorcycles with the same serial exhaust system and same or fewer performance mentioned in enclosure 2, can be taken into the field of application due to the measurement with the above named motorcycle/s.

- 3.9.5. The described non-original exhaust system / technical unit is suitable for an application at the vehicles listed in enclosure 2.
- 3.9.6. The general specifications concerning 97/24/EC capt.9 annex III point 3.5.1 were checked and fulfilled regarding the technical possibilities by the non-original exhaust system / technical unit.

4. Enclosures

Enclosure 1, Composition of the non original exhaust system
Enclosure 2, Field of application
Enclosure 3, Test results
Enclosure 4, Test results according pollution
Information Document

Techn. Report No.: 15-00003-CM-MIL-00
Manufacturer: Termignoni S.p.A
15077 Predosa (AL)
Type: H131

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5. Summary

The information folder as mentioned under No. 0.5 and the type described therein are in compliance with the test specification mentioned above. The worst-case was selected in accordance with document "Preparation of Test Reports".

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Designated as Technical Service by:

Approval authority	Country	Registration-number	Actual scope list
Kraftfahrt-Bundesamt (KBA)	Deutschland/ Germany	KBA-P 00100-10	www.kba.de
Vehicle Certification Agency (VCA)	Vereintes Königreich/ United Kingdom	VCA-TS-006	http://ec.europa.eu/enterprise/sectors/automotive/approval-authorities-technical-services/technical-services/index_en.htm
Approval Authority of the Netherlands (RDW)	Niederlande/ The Netherlands	RDW-99050009 01	
National Standards Authority of Ireland (NSAI)	Irland/ Ireland	Technical Service Number: 49	
Vehicle Safety Certification Center (VSCC)	Taiwan/ Taiwan	DE04-06-2	http://www.vsc.org.tw/English/Default.aspx

München, 16.02.2015



Pietro Vergani
Authorized Signatory

ENCLOSURE 1

To test report no.
Type:
Manufacturer:

15-00003-CM-MIL-00
H131
Termignoni S.p.A.

Composition of the original exhaust system + original parts

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No.	Components parts, dimensions in mm	Dimensions of the part in mm or original part / replacement part	Part no. or homologation no.
1)	Collectors and final body	Notice drawing	Drawing H131_Collectors and Drawing H131_Final body
2)	Catalytic converter	Ø 60x127	Drawing H131: Catalytic converter
3)	Reduction	Notice drawing	Drawing H131: Tappo
4)	Silencer (outlet pipe Ø 35x174 mm)	One silencer on the right, maximum shape 130x110 mm and, length 300 mm, absorption-reflection principle with outlet pipe Ø 35 mm	Drawing H131: Silencer



ENCLOSURE 2

To test report no.

Type:

Manufacturer:

15-00003-CM-MIL-00

H131

Termignoni S.p.A.

Field of application

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No. of vehicle	Manufacturer	Make	Commercial name	Vehicle type (and no. of homologation)	Engine type	Stroke	Engine capacity in cm ³	Rated maximum engine power in kW/min ⁻¹	Additional remarks:	Composition as shown in enclosure no. 1
1)	THAI HONDA MANUFACTURING CO. LTD.	HONDA	CB650FA, CB650F	RC75 e13*2002/24*0678*	RC74E	4-stroke	649	64,0 / 11000	with cat	1) 2) 3) 4) (*)

(*) The Catalytic converter with separate marking TERMIGNONI H131 e110927 (5) (9) must be correctly placed in the assembly , in order to fulfil the requirements of the complete exhaust system.

The installation of the muffler, separated by the catalytic converter, is not allowed and doesn't fulfil the directive requirements



ENCLOSURE 3

To test report no.
Type:
Manufacturer:

15-00003-CM-MIL-00
H131
Termignoni S.p.A.

Test results

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No. of vehicle	Engine power original kW/min ⁻¹	Engine power non original kW/min ⁻¹	Vmax original km/h	Vmax non original km /h	measure d in gear ratio	Limit Value **)	Original mea- sured	Non original measured	at km/h	Vehicle type hom.	Original mea- sured	Non original measured	at min ⁻¹
1) A*	64,0 / 11000	63,1 / 11000	-	-	2/3	80	79	80	50	95	95	95	5500

*) Test series

**) Limit value of directive which was valid by vehicle type homologation

ENCLOSURE 4

To test report no.
Type
Manufacturer:

15-00003-CM-MIL-00
H131
Termignoni S.p.A.

Test results according pollution

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Type I

Equivalent flywheel mass	290 kg
--------------------------	--------

	CO [g/km]	HC [g/km]	NO _x [g/km]
Test 1	0,998	0,268	0,061
Test 2	1,022	0,270	0,067
Test 3	--	--	--
Average	1,010	0,269	0,064
Limits C, II (Vh≥150cm³)	2,62	0,33	0,22

Type II

Running condition	CO [Vol %]	Engine rpm [min ⁻¹]	Engine oil temperature [K]
Nominal idle speed	0,00	1300	371
Exceeded idle speed	0,00	2400	371