



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 2009/108/EC.

EC Component type-approval No: e11*97/24/9/III*2009/108*0868*00

Report No: 14-00004-CM-MIL-00, by technical service: TÜV SÜD Auto Service GmbH, date: 25 March 2014

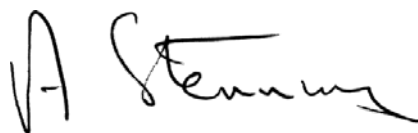
Reason(s) for extension: Not applicable

1. Make of exhaust: Termignoni
2. Type of exhaust: D145
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: 17 February and 19 March 2014
7. Component type-approval GRANTED⁽¹⁾

8. Place: BRISTOL

9. Date: 15 APRIL 2014

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/2009/108*0868*00

INFORMATION PACKAGE CONTENTS

INDEX REVISION NUMBER: Not applicable

Total number of sheets: 12 (Twelve)


Reasons for Revision: Not applicable

Revision date
&
Office stamp

EAQ298109

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



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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 2009/108/EC)

1. *Make (trade name of manufacturer):* Termignoni
2. *Type and general commercial description:* D145
 - 2.1 *Variant:* 01, 02, 03
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 2009/108/EC are mentioned in the motorcycle homologation (notice enclosure 2 of the test report).





INFORMATION DOCUMENT
N° D145/97/24 rev. 00

Date: 25/03/2014
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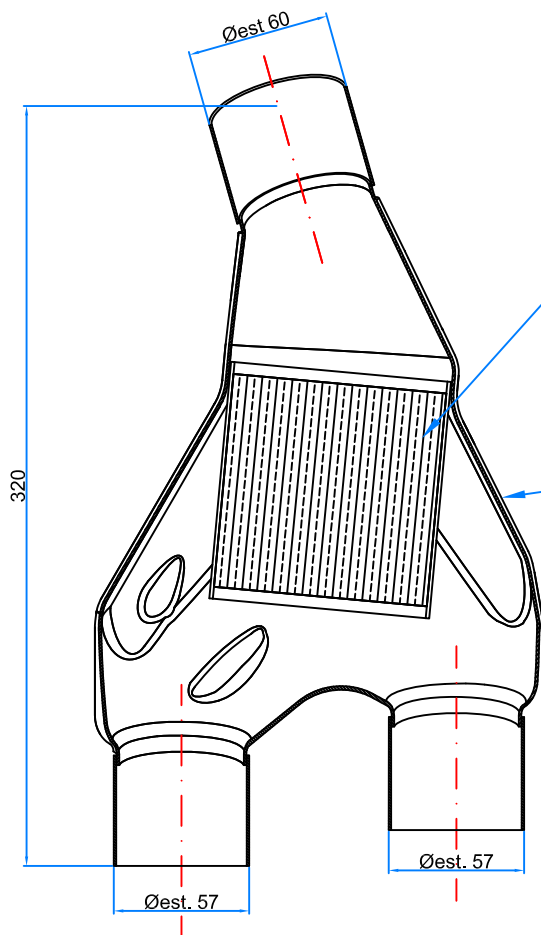
Information Document relating to EC type approval as separate technical unit of exhaust systems for motorcycles (Directive 97/24/EC amended 2009/108/EC)

<i>Enclosures</i>	<i>Drawing no.</i>	<i>Date</i>
<i>Drawing of collectors</i>	D145: FINAL BODY	11/02/2014
<i>Drawing of silencer</i>	D145: LOWER SILENCER	11/02/2014
	D145: UPPER SILENCER	11/02/2014
<i>Drawing of catalytic converter</i>	D145: CATALYTIC CONVERTER	10/02/2014
<i>Drawing of reduction</i>	D145: Tappo tipo "A"	11/02/2014
	D145: Tappo tipo "B"	18/02/2014
	D145: Tappo tipo "C"	18/02/2014
<i>Drawing of composition</i>	D145: ASSEMBLY	10/02/2014
<i>List of vehicles</i>		
<i>Fitting instructions</i>		



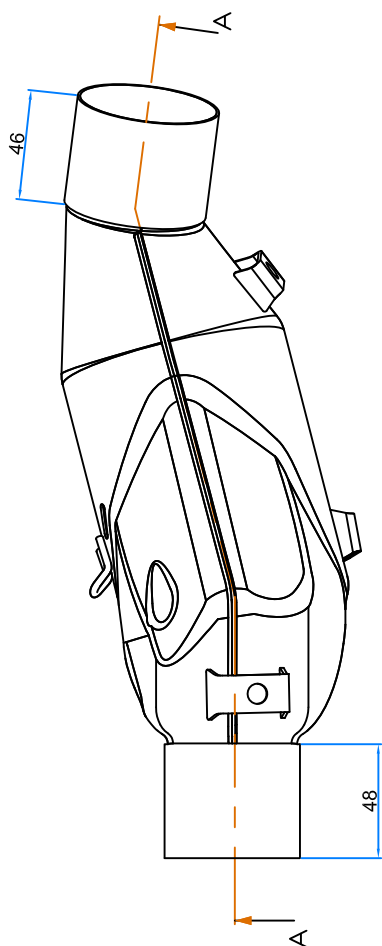
INFORMATION DOCUMENT N° D145/97/24 rev. 00 - List of the vehicles

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)	DUCATI Motor Holding S.p.A..	DUCATI	Monster	M6 e9*2002/24*6025*00	1198WH	4-stroke	1198	101 / 8750	with cat	1) 2) 3.1) 4) or 1) 2) 3.2) 4) or 1) 2) 3.3) 4)
2)								94 / 9000		
3)								74 / 8750		
4)								88 / 7250		



see drawing "D145:Catalytic converter"

TERMIGNONI **e11** 0868 ⑤
D145



SCALE:

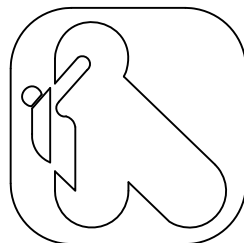
MODEL:

DUCATI Monster 1008
Final body code D145
D145 e11 0868 ⑤

DATE: 11/02/2014

DES: C. Zappia

TYPE: D145: Final body

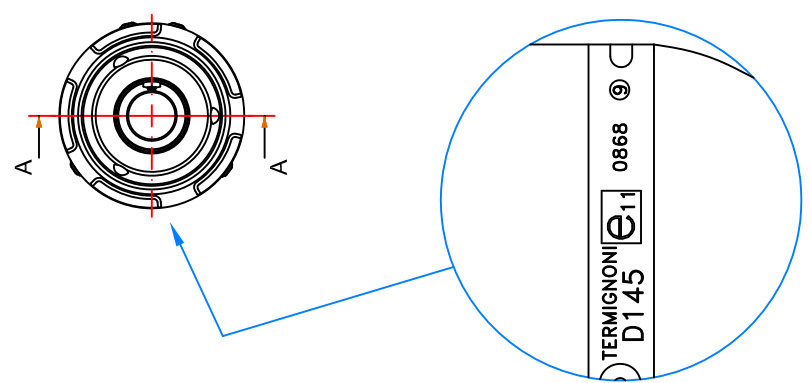
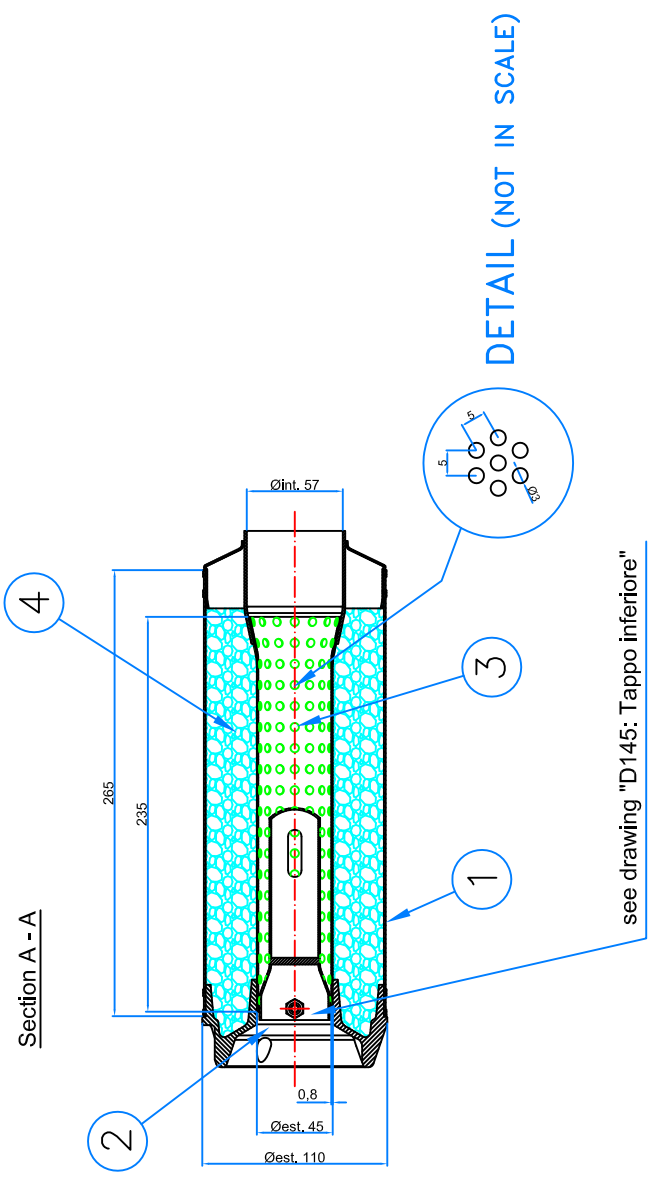


info@termignoni.it

Termignoni S.p.A.



General tolerance: ± 1mm



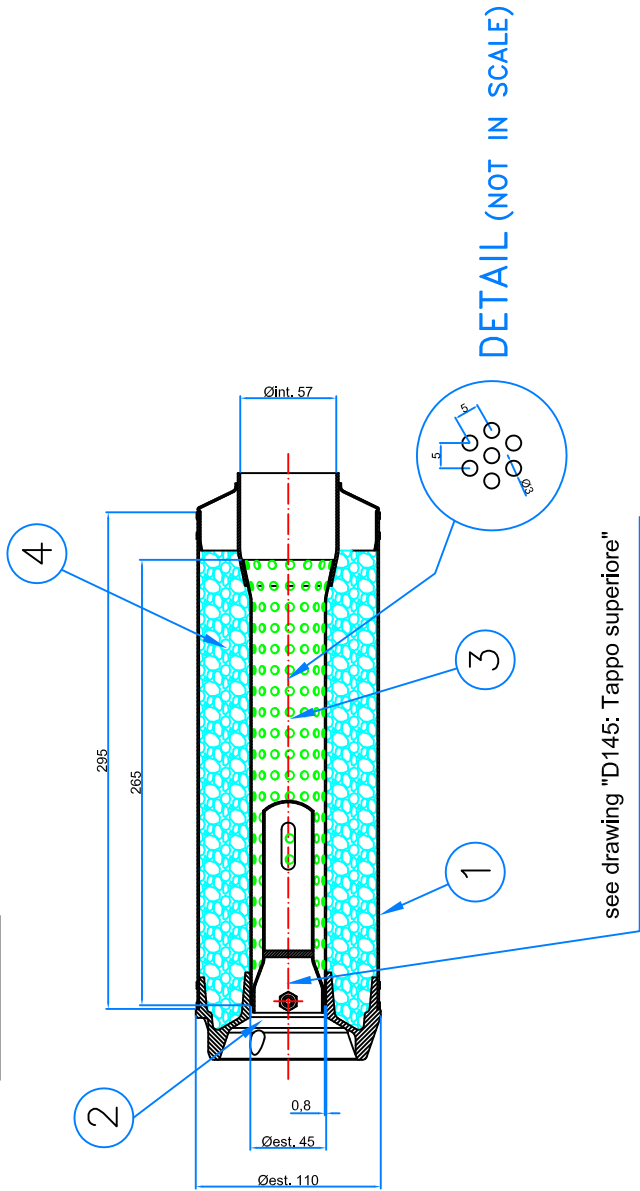
PART LIST

Nr	Part name	Material	Dimensions	QT
1	Shell	Carbon fiber	See Drawing	1x
2	Outlet Pipe	Stainless Steel	See Drawing	1x
3	Punched-holes pipe	Titanium	See Drawing	1x
4	Sound deadener	Stainless Steel	Ø 45x0,8	1x
		Titanium	Ø 45x0,8	1x
		Fiberglass	635 gr.	1x

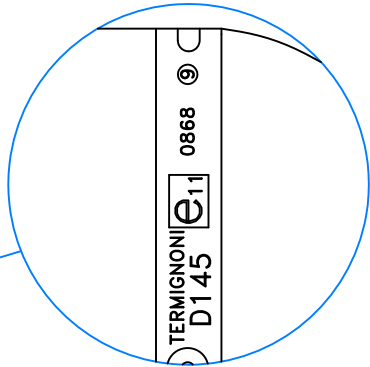
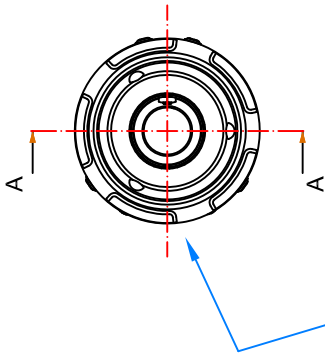
SCALE:		MODEL:
DATE: 11/02/2014	Ducati Monster 1008	
NAME: C. Zappia	Lower silencer code D145	
TYPE: D145: Lower Silencer		

Termignoni s.p.a.	
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Section A - A



DETAIL (NOT IN SCALE)



DETAIL (NOT IN SCALE)

PART LIST

Nr	Part name	Material	Dimensions	QT
1	Shell	Carbon fiber	See Drawing	1x
2	Outlet Pipe or	Stainless Steel Titanium	See Drawing See Drawing	1x 1x
3	Punched-holes pipe or	Stainless Steel Titanium	Ø 45x0,8 Ø 45x0,8	1x 1x
4	Sound deadener	Fiberglass	635 gr.	1x

SCALE:

MODEL:

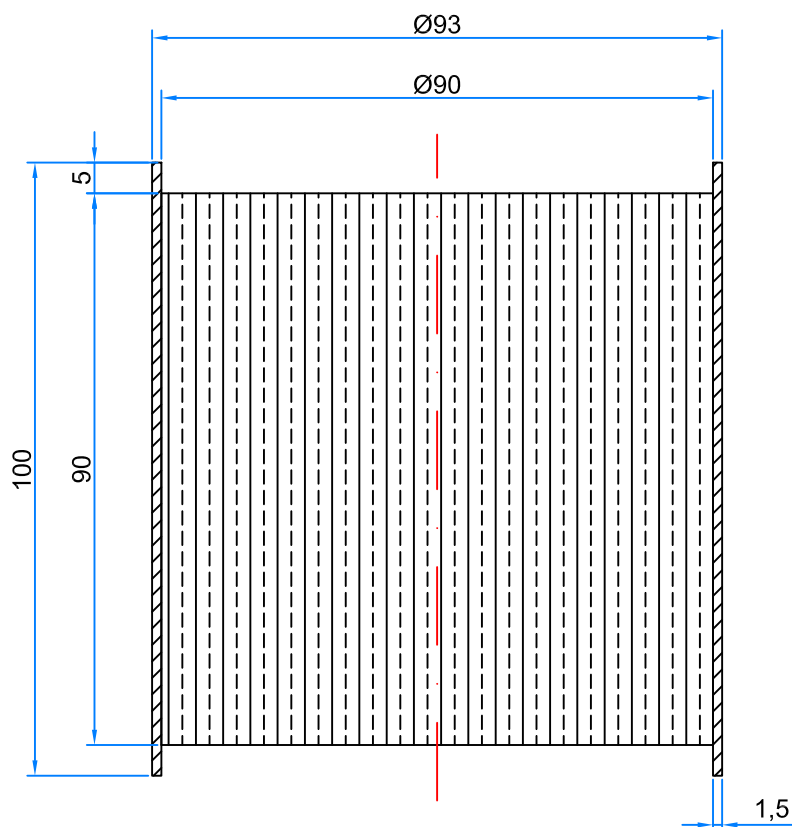
DATE: 11/02/2014

NAME: C. Zappia

TYPE: D145: Upper Silencer

Ducati Monster 1008
Lower silencer code D145
D145 e11 0868 9 C

Termignoni s.p.a.



CHARACTERISTICS

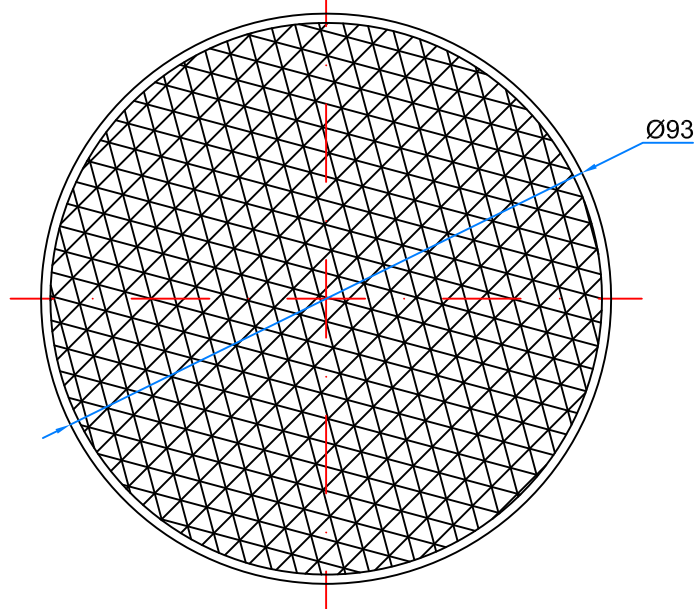
DIMENSIONS : Øi 90x90 mm.

CPSI : 200

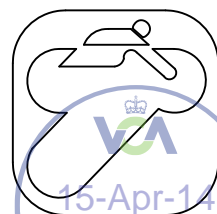
FORMULATION : Pt/Pd/Rh

RATIO : 5/32/1

LOADING : 60 gr/ft 3



SCALE:	MODEL:
DATE: 10/02/2014	DUCATI Monster 1008
DES: C. Zappia	Catalytic converter code D145
TYPE:	D145 e11 0868 (5) (9)
D145: Catalytic converter	
Termignoni s.p.a.	



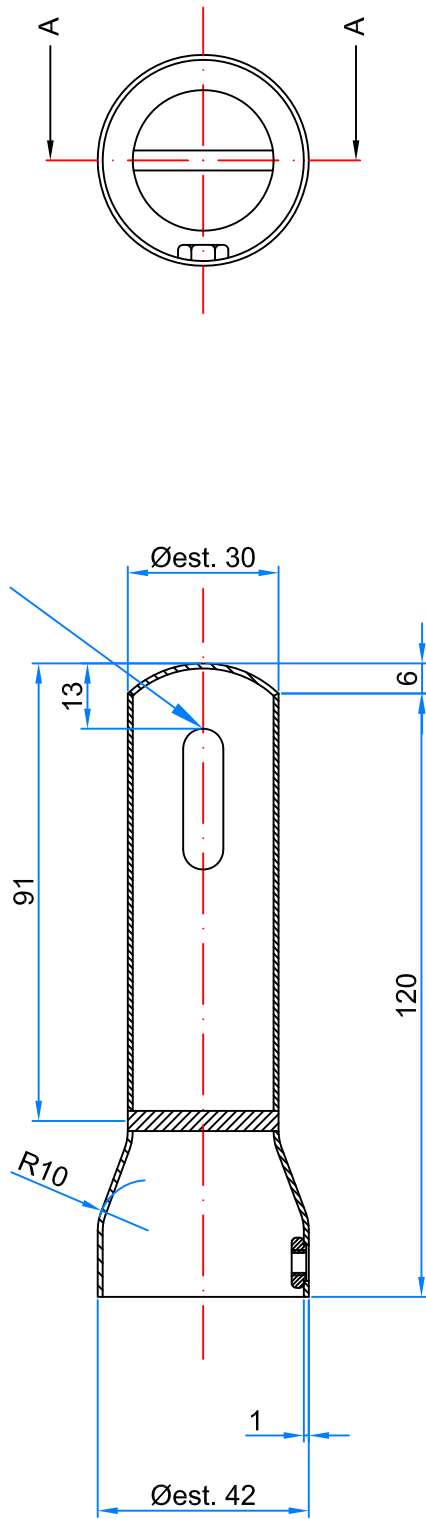
info@termignoni.it

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

MATERIAL: S.Steel or Titanium

Section A - A

3 air slot 120°, Ø8x28



SCALA:

MODEL:

Ducati Monster 1008

Tappo code: D145

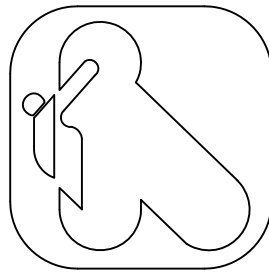
D145 e11 0868 ⑤ ⑨

DATE: 11/02/2014

NAME: E. VRAPI

Type: D145: Tappo tipo "A"

Termignoni s.p.a.



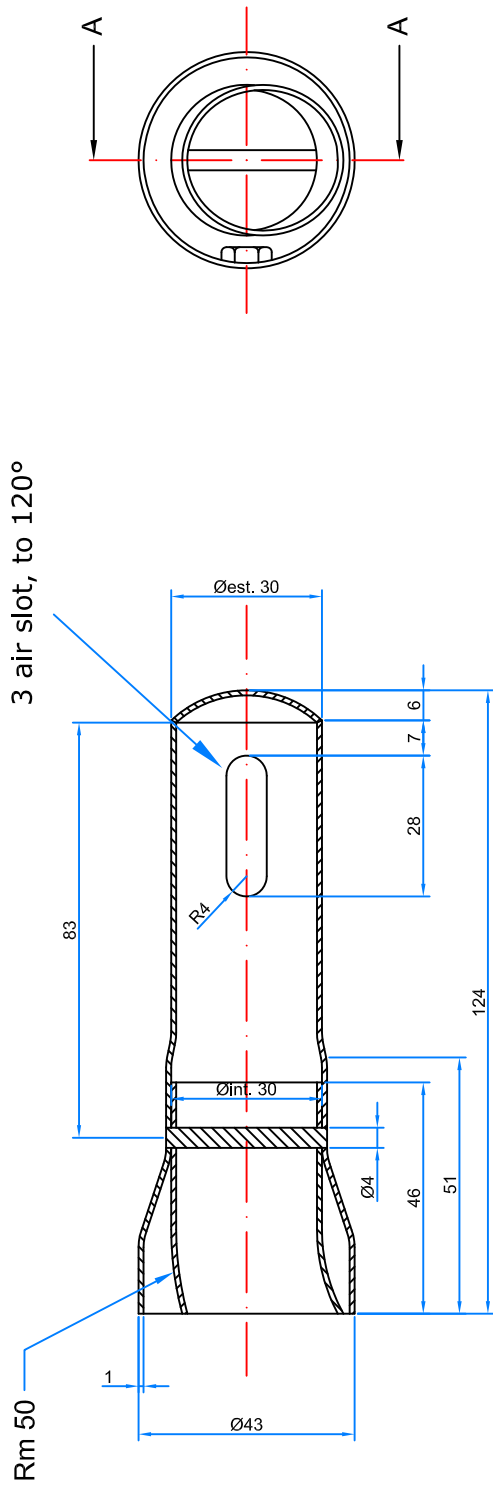
info@termignoni.it



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

MATERIAL: S.Steel or Titanium

Section A - A



SCALA: 1:1

MODEL:

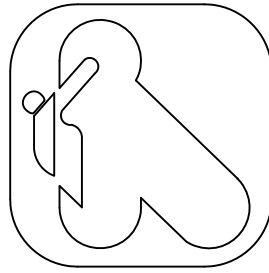
Ducati Monster 1008
Tappo code: D145
D145 e11 0868 ⑤⑨

DATUM: 18/02/2014

NAME: E. VRAPI

Type: D145: Tappo tipo "B"

Termignoni s.p.a.



info@termignoni.it

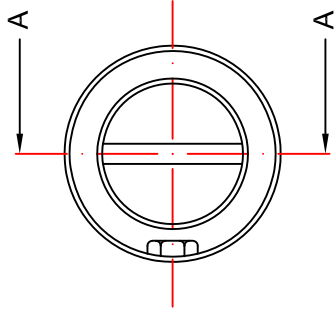
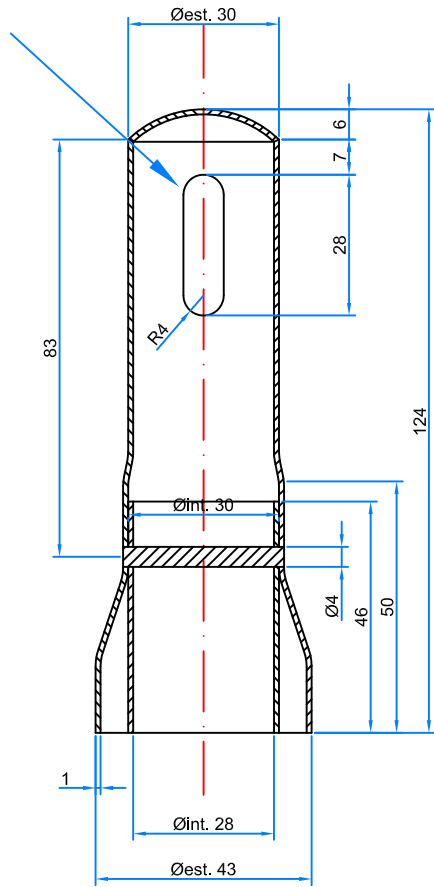


General tolerance: $\pm 1\text{mm}$

MATERIAL: S.Steel or Titanium

Section A - A

3 air slot, to 120°



SCALA: 1:1

MODEL:

Ducati Monster 1008
Tappo code: D145
D145 e11 0868 ⑤⑨

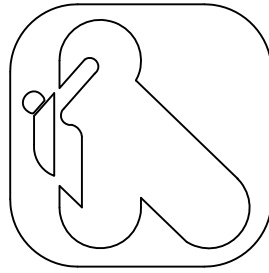
DATUM: 18/02/2014

NAME: E. VRAPI

Type: D145: Tappo tipo "C"

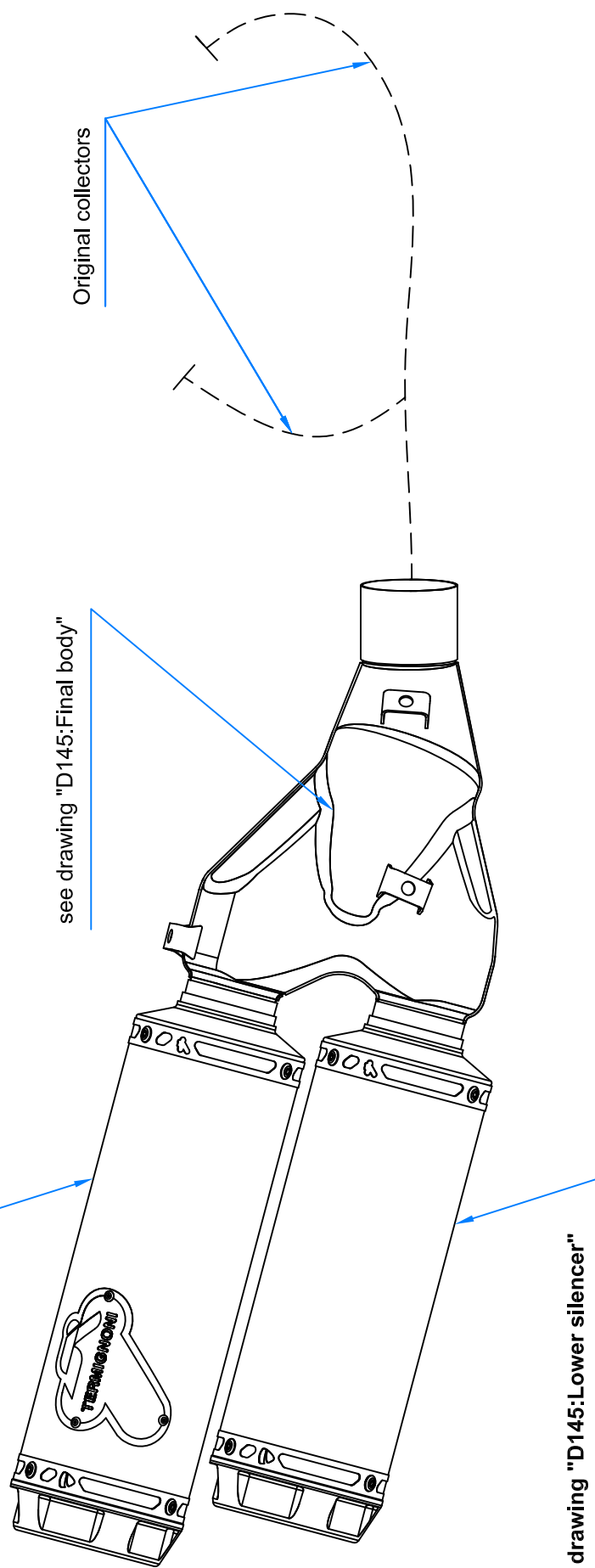
Termignoni s.p.a.

Code TERMIGNONI: TER513



info@termignoni.it

see drawing "D145:Upper silencer"



Original collectors

see drawing "D145:Final body"

see drawing "D145:Lower silencer"

SCALE:

MODEL:

DUCATI Monster 1008

Silencer code D145

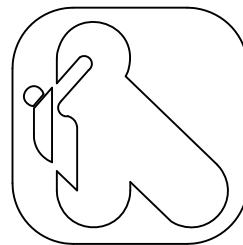
D145 e11 0868 ⑤⑨

DATE: 10/02/2014

DES: C. Zappia

TYPE: D145: Assembly

Termignoni S.p.A.



info@termignoni.it





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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.: 14-00004-CM-MIL-00
Manufacturer: Termignoni S.p.A
15077 Predosa (AL)
Type: D145

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TEST REPORT

No. 14-00004-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 2009/108/EG
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.: 14-00004-CM-MIL-00
Manufacturer: Termignoni S.p.A
15077 Predosa (AL)
Type: D145

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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: D145
- 0.2.1. Variants 01 (with Tappo Tipo "A").
02 (with Tappo Tipo "B").
03 (with Tappo Tipo "C").
- 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: D145/97/24 rev. 00
Date: 25.03.2014
- 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 two silencer on the right, Ø 110 mm and, total length 265 mm and 295 mm, absorption-reflection principle with outlet pipe Ø 43 or 42 mm with covering pipe Ø 45 mm according to drawing no. D145: Upper Silencer and D145: Lower Silencer, D145: Tappo A, D145: Tappo B and D145: Tappo C. Equipped with catalytic converter inside of the inlet section of system according to drawings no.

Techn. Report No.: 14-00004-CM-MIL-00
Manufacturer: Termignoni S.p.A
15077 Predosa (AL)
Type: D145

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D145: Final body and D145: Catalytic converter.

- 2.2. Place of marking: On the silencer, see drawing:
D145: Lower silencer
D145: Upper silencer
- 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 rear right side of the vehicle

3. Test report

The tests were carried out in 2 series A at 17/02/2014 and B at 19/03/2014

3.1. **Vehicle**

- (0.1) Make: DUCATI
- 3.1.1. Type / Variant / Version: M6
- 3.1.1.1 Model: Monster
- 3.1.2. Manufacturer: DUCATI Motor Holding S.p.A..
- 3.1.3. Homologation no.: e9*2002/24*6025*00
3.1.3.1 Extension: 00
- 3.1.4. Vehicle identification no.: *ZDMM600AADB000016*
- 3.1.5. Year of manufacture: 2014
- 3.1.6. Kilometers: 1753
- 3.1.7. Total weight: 211 kg

3.2. **Engine**

- 3.2.1. Manufacturer: Notice 3.1.2
Trade name: DUCATI
- 3.2.2. Type: 1198WH

Techn. Report No.: 14-00004-CM-MIL-00
Manufacturer: Termignoni S.p.A
15077 Predosa (AL)
Type: D145

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3.2.3. Engine capacity: 1198 cm³

3.2.4. Rated maximum engine power: 101 kW at 8750 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 1:1,848 / 1:2,733

Top speed: 255 km/h

Tires:
front 120/70ZR17 M/C (58W)
rear 190/55ZR17 M/C (75W)

3.4. Assembly of the exhaust system

(no. of parts, enclosure 1):
1) 2) 3.1) 4) or
1) 2) 3.2) 4) or
1) 2) 3.3) 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 2009/108/EC
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)

Techn. Report No.: 14-00004-CM-MIL-00
Manufacturer: Termignoni S.p.A
15077 Predosa (AL)
Type: D145

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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)

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.

Techn. Report No.: 14-00004-CM-MIL-00
Manufacturer: Termignoni S.p.A
15077 Predosa (AL)
Type: D145

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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

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".
The test report may be reproduced and published in full and by the client only. It can be reproduced partially with the written permission of the test laboratory only.

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	DE04-06-1	http://www.vsc.org.tw/English/Default.aspx

München, 25.03.2014



Pietro Vergani
Authorized Signatory

ENCLOSURE 1

To test report no.

Type:

Manufacturer:

14-00004-CM-MIL-00

D145

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	Notice drawing	Drawing D145: Final body
2)	Catalytic converter	Ø 43 x 110 mm	Drawing D145: CATALYTIC CONVERTER
3.1)	Reduction	Notice drawing	Drawing D145: Tappo tipo "A"
3.2)	Reduction	Notice drawing	Drawing D145: Tappo tipo "B"
3.3)	Reduction	Notice drawing	Drawing D145: Tappo tipo "C"
4)	Silencer (outlet pipe Ø 43 or 42 mm)	Two silencer on the right, Ø 110 mm and, total length 265 mm and 295 mm, absorption- reflection- principle with an outlet pipe Ø 43 or 42 mm with covering pipe Ø 45 mm	Drawing D145: LOWER SILENCER and Drawing D145: UPPER SILENCER

ENCLOSURE 2

To test report no.

14-00004-CM-MIL-00

Type:

D145

Manufacturer:

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)	DUCATI Motor Holding S.p.A..	DUCATI	Monster	M6 e9*2002/24*6025*00	1198WH	4-stroke	1198	101 / 8750	with cat	1) 2) 3.1) 4) or 1) 2) 3.2) 4) or 1) 2) 3.3) 4)
2)								94 / 9000		
3)								74 / 8750		
4)								88 / 7250		

ENCLOSURE 3

To test report no.

Type:

Manufacturer:

14-00004-CM-MIL-00

D145

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	measured in gear ratio	Limit Value **)	Original measured	Non original measured	at km/h	Vehicle type hom.	Original measured	Non original measured	at min ⁻¹
1) A*	101,0/8750	101,3 / 8750	-	-	2/3	80	80	80	50	103	93	96	4375
2) B*		100,5 / 8750	--	--				80				97	
3) C*		100,7 / 8750	--	--				80				96	

*) Test series

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

Remarks:

The alternative caps (mentioned in drawings D145: Tappo tipo "A", D145: Tappo tipo "B" and D145: Tappo tipo "C") have been tested in the test series A, B, and C

ENCLOSURE 4

To test report no.

14-00004-CM-MIL-00

Type:

D145

Manufacturer:

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	2,067	0,222	0,063
Test 2	1,076	0,145	0,025
Test 3	-	-	-
Average	1,572	0,184	0,044
Limits C, II (Vh≥150cm ³)	2,62	0,33	0,22

Type II

Running condition	CO [Vol %]	Engine rpm [min ⁻¹]	Engine oil temperature [K]
Nominal idle speed	0,11	1250	368
Exceeded idle speed	0,09	2300	368