THE UNITED KINGDOM VEHICLE APPROVAL AUTHORITY

COMMUNICATION CONCERNING THE APPROVAL GRANTED [(1)]/ ~~APPROVAL EXTENDED~~ [(1)]/ ~~APPROVAL REFUSED~~ [(1)]/ ~~APPROVAL WITHDRAWN~~ [(1)] TO A COMPONENT TYPE-APPROVAL CERTIFICATE IN RESPECT OF A NON-ORIGINAL EXHAUST SYSTEM FOR A TYPE OF MOTORCYCLE PURSUANT TO COUNCIL DIRECTIVE 97/24/EC –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*0867*00

Report No 13-00044-CM-MIL-00, by technical service TÜV SÜD Automotive, date 28 November 2013

Reason(s) for extension: Not applicable

1. Make of exhaust: Termignoni

2. Type of exhaust: K077

3. Name and address of manufacturer:
Termignoni S.p.A.
Via della Rampina, 1
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 list enclosed

6. Date system submitted for testing: See enclosure

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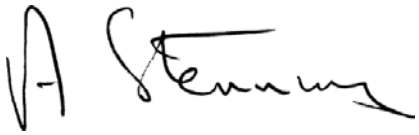
7. Component type-approval GRANTED (1)

8. Place: BRISTOL

9. Date: 11 DECEMBER 2013

10. Signature: 

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

(1) Delete as appropriate

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APPROVAL NUMBER: e11*97/24/9/III*2009/108*0867*00

INFORMATION PACKAGE CONTENTS

INDEX REVISION NUMBER: Not applicable

Total number of sheets: 7 (Seven)

Reasons for Revision: Not applicable

Revision date
&
Office stamp

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

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TERMIGNONI	**INFORMATION DOCUMENT** **N° K077/97/24 rev. 00**	**Date: 21/11/2013** **Page 1/2**

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:*	K077
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 appication:*	*See list enclosed*
7.	*Restriction and instructions for installing:*	*Notice assembly manual and field of application*

Sachverständiger Prüflabor DIN EN ISO/IEC 17025 TÜV SÜD Automotive GmbH

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).

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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)

Enclosures	*Drawing no.*	*Date*
Drawing of rear silencers	K077: SILENCER	18/11/2013
Drawing of composition	K077: ASSEMBLY	18/11/2013
Drawing of reduction	K077: TAPPO	18/11/2013
List of vehicles		
Fitting instructions		

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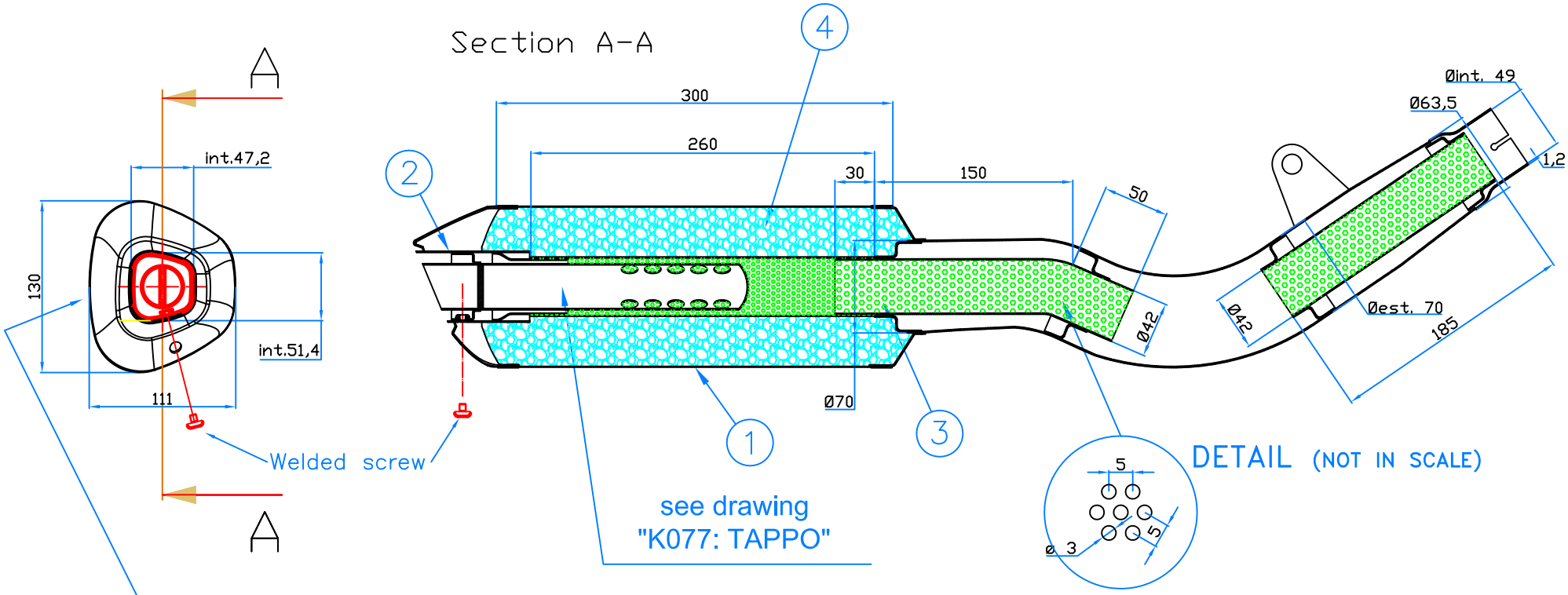
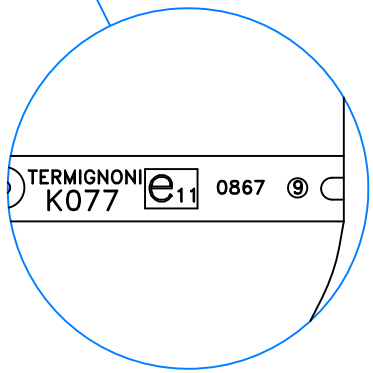
General tolerance: ±1mm





DETAIL (NOT IN SCALE)

PART LIST

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

SCALE:	MODEL: KAWASAKI Z800e 2013 1 SIL. K077 e11 0867 9
DATE: 18/11/2013	
NAME: E. VRAPI	
TYPE: K077: SILENCER	

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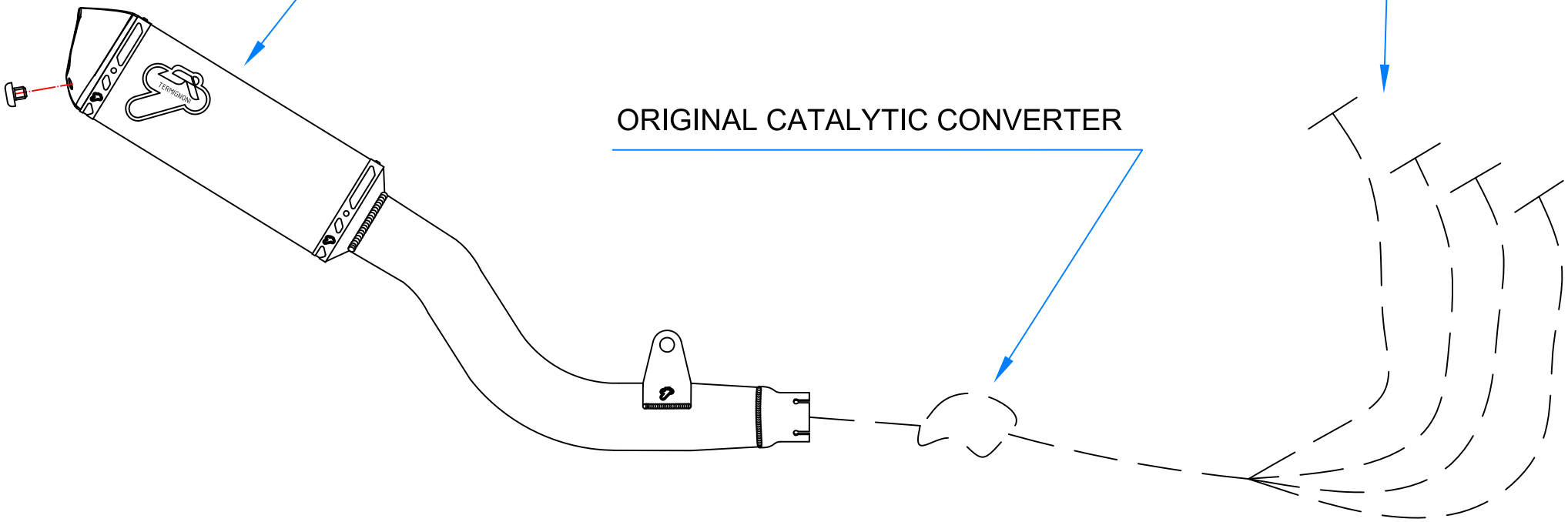
Material: Stainless steel or titanium

SILENCER
see drawing "K077: Silencer"

ORIGINAL COLLECTORS

ORIGINAL CATALYTIC CONVERTER



SCALE:	*MODEL:* KAWASAKI Z800e 2013 1 SIL. K077 e11 0867 ⑨
DATE: 18/11/2013	
NAME: E. VRAPI	
TYPE: K077: ASSEMBLY	

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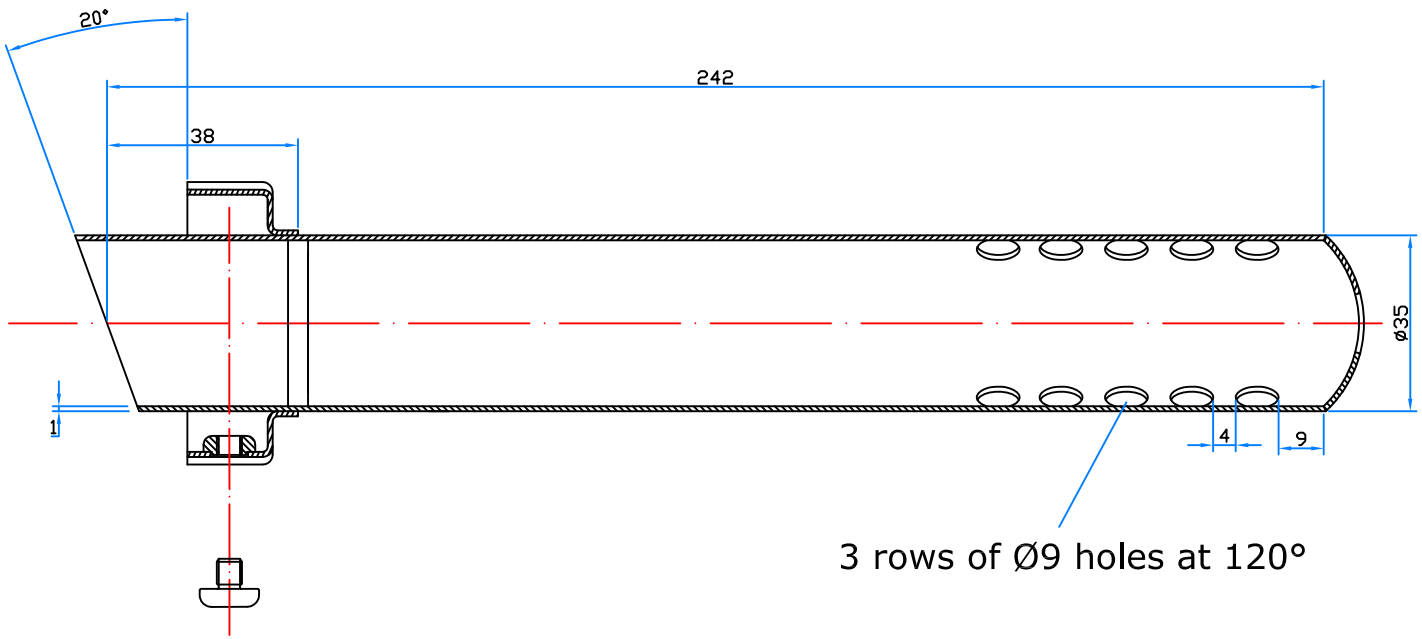
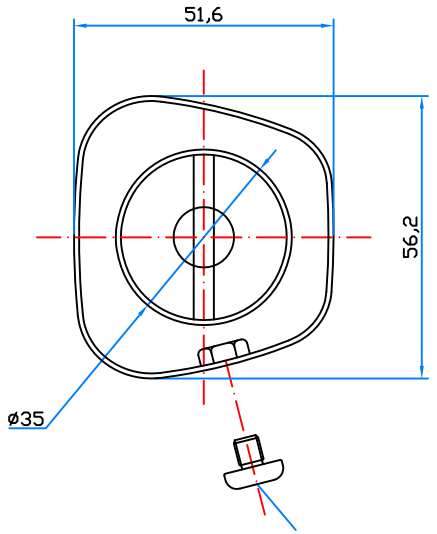
www.termignoni.it

General tolerance: ±1mm

MATERIAL: S.Steel or Titanium



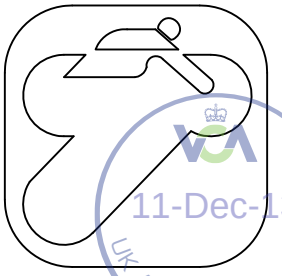
3 rows of Ø9 holes at 120°



Welded screw

SCALA:	*MODEL:* KAWASAKI Z800e 2013 1 Sil. K077 e11 0867 ⑨
DATUM: 18/11/2013	
NAME: E. VRAPI	
Tipe: K077: tappo	

Termignoni s.p.a.



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info@termignoni.it

Cod. TERMIGNONI TER403

INFORMATION DOCUMENT N° K077/97/24 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)	KAWASAKI HEAVY INDUSTRIES LTD.	KAWASAKI	Z 800 / Z 800 ABS	ZR800A (e4*2002/24*2908)	ZR800AE	4	806	83,0/10200	with cat *)	1) 2) 3) 4)
2)								78,0/10000		
3)								72,0/7500		

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Termignoni s.p.a.
Via della Rampina, 1
15077 PREDOSA (AL) Italy
Telef. +39 0131.71666
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

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TÜV SÜD Automotive GmbH
Westendstraße 199
D-80686 München

TEST REPORT
No. 13-00044-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

0. General information

0.1.	Make:	TERMIGNONI
0.2.	Type:	K077
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: Date:	K077/97/24 21.11.2013
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

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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 130x111 mm, shell length 300 mm (without endcap), absorption-reflection principle with an outlet pipe ∅i 33 mm according to drawing no. K077: Tappo in combination with original header system. Aluminium-alternatively stainless steel alternatively titanium alternatively carbon fiber-cover.
2.2	Place of marking:	On the silencer, see drawing K077: 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
2.5.	Test samples submitted for testing at:	29/04/2013

3. Test report

The tests were carried out in 1 series A on 29/04/2013

3.1. Vehicle

(0.1)	Make:	KAWASAKI
3.1.1.	Type:	ZR800A
3.1.1.1	Model:	Z 800
3.1.2.	Manufacturer	KAWASAKI HEAVY INDUSTRIES LTD.
3.1.3.	Homologation no.:	e4*2002/24*2908*
3.1.4.	Vehicle identification no.:	*JKBZR800AADA02140*
3.1.5.	Year of manufacture:	2013
3.1.6.	Kilometers:	3410
3.1.7.	Total weight:	304 kg

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3.2. Engine

3.2.1.	Manufacturer:	KAWASAKI HEAVY INDUSTRIES LTD.
	Trade name:	--
3.2.2.	Type:	ZR800AE
3.2.3.	Engine capacity:	806 cm^3
3.2.4.	Rated maximum engine power:	83,0 kW at 10200 min^{-1}

3.3. Transmission

3.3.1.	Kind of transmission:	Manual
3.3.4	Gearbox:	6 gears
3.3.5.	Transmission ratios: primary / final	Notice vehicle homologation no. s. 3.1.3
	Top speed:	Notice vehicle homologation no. s. 3.1.3
	Tires: front rear	 120/70 ZR17 M/C 180/55 ZR17 M/C

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 2009/108/EC chapter 9 III.	
3.5.4	Load condition during drive by test:	Unloaded weight plus driver
3.5.5.	Deviation at calibration:	< 0.2 dB(A)

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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

Emission test has not been carried out because the non original exhaust system does change neither cathalyst then vehicle performance.

3.9. Test results

The results of
3.9.1. Noise testing
3.9.2. Power measurement
3.9.3. Top speed
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.

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4. Enclosures

Enclosure 1, Composition of the non original exhaust system + original parts
Enclosure 2, Field of application
Enclosure 3, Test results
Information Document

5. Summary

The named information document and the described type correspond to the Directive 97/24/EC including the amendment 2009/108/EG chapter 9, annex III.
There are no technical objections against granting an EC Type-approval.
The vehicle submitted for testing has been considered worst case for the approval procedure, due to its maximum power and technical features. Test results has been taken from system type approval K075 because the two silencers differ only from the inlet section's mechanical connection.
The technical service is accredited for the named testing procedure by the Kraftfahrt-Bundesamt, Federal Republic of Germany, by the KBA-Accreditation.

München, 28.11.2013
The Expert

Sachverständiger Prüflabor DIN EN ISO/IEC 17025 TÜV SÜD Automotive GmbH

Pietro Vergani
Prüflabor DIN EN ISO/IEC 17025

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TÜV SÜD Automotive GmbH
Westendstraße 199
D-80686 München

E N C L O S U R E 1

To test report no. **13-00044-CM-MIL-00**
Type: **K077**
Manufacturer: **Termignoni S.p.A.**

Composition of the non original exhaust system + original parts

No.	Components parts, dimensions in mm	Dimensions of the part in mm or original part / replacement part	Part no. or homologation no.
1)	Collectors	Original parts	--
2)	Catalytic converter	Original parts	--
3)	Reduction	Notice drawing	K077: Tappo
4)	Silencer (outlet pipe ∅ 33)	One silencer on the right, maximum shape 130x111 mm, shell length 300 mm (without endcap), absorption-reflection principle with an outlet pipe ∅i 33 mm	K077: Silencer

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Westendstraße 199
D-80686 München

E N C L O S U R E 2

To test report no. **13-00044-CM-MIL-00**
Type: **K077**
Manufacturer: **Termignoni S.p.A.**

Field of application

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)	KAWASAKI HEAVY INDUSTRIES LTD.	KAWASAKI	Z 800e / Z 800e ABS	ZR800C (e4*2002/24*2909)	ZR800CE	4	806	70,0/9500	with cat *)	1) 2) 3) 4)
2)								35,0/8500		

*) The original catalytic converter remain in the original exhaust system. A degradation of catalyst efficiency is not expected.

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Westendstraße 199
D-80686 München

E N C L O S U R E 3

To test report no. **13-00044-CM-MIL-00**
Type: **K077**
Manufacturer: **Termignoni S.p.A.**

Test results

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 mea-sured*	*Non original measured*	*at km/h*	*Vehicle type hom.*	*Original mea-sured*	*Non original measured*	*at min^{-1}*
1) A*	83,0/10200	80,4/10200	-	-	2/3	80	80	78	50	91	91	90	5100

*) *Test series*

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

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