

#### THE UNITED KINGDOM VEHICLE APPROVAL AUTHORITY

COMMUNICATION CONCERNING THE APPROVAL GRANTED (1)/APPROVAL EXTENDED (4)/APPROVAL EXTENDED (4)/APPROVAL WITHDRAWN (1) TO A COMPONENT TYPE-APPROVAL CERTIFICATE IN RESPECT OF A NON-ORIGINAL EXHAUST SYSTEM FOR A TYPE OF MOTORCYCLE PURSUANT TO COUNCIL DIRECTIVE 97/24/EC –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 2013/60/EU

EC Component type-approval No: e11\*97/24/9/III/2013/60\*0932\*00

Report No 15-00025-CM-MIL-00, by technical service TÜV SÜD Auto Service, date 13 October 2015

Reason(s) for extension: Not applicable

1. Make of exhaust: Termignoni

2. Type of exhaust: BW13

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
- 7. Component type-approval GRANTED/REFUSED: (1)



8. Place: BRISTOL

9. Date: 30 OCTOBER 2015

10. Signature:

D LAWLOR Head of Technical Standards & Legislation

(1) Delete as appropriate



eme.





## THE UNITED KINGDOM VEHICLE APPROVAL AUTHORITY

APPROVAL NUMBER: e11\*97/24/9/III/2013/60\*0932\*00

## **INFORMATION PACKAGE CONTENTS**

INDEX REVISION NUMBER: Not applicable

Total number of sheets: 07 (Seven)

Reasons for Revision: Not applicable

Revision date &
Office stamp





## INFORMATION DOCUMENT N° BW13/97/24 rev. 00

Date: 09/06/2015 Page 1/2

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: BW13

**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 BW13/97/24 rev. 00

Date: 09/0/2015 Page 2/2

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

Enclosures Drawing no. Date

Drawing of silencer BW13: Silencer 07/10/2015

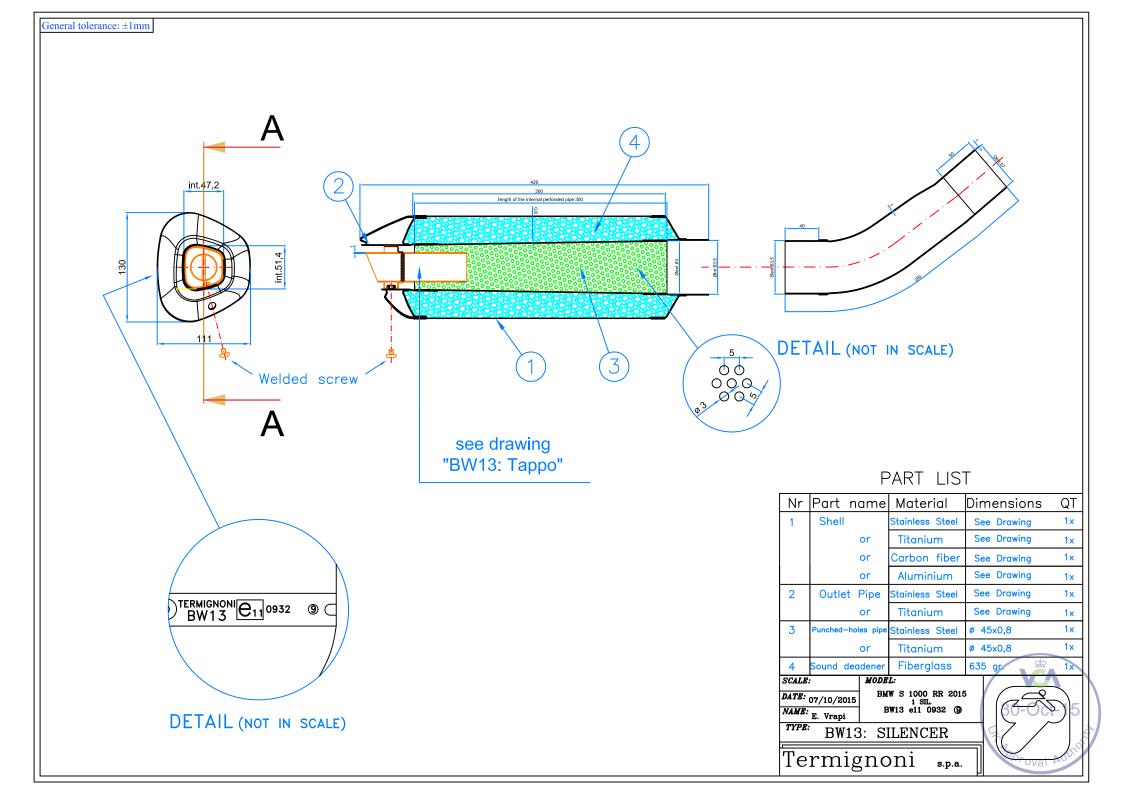
Drawing of reduction BW13: Tappo 07/10/2015

Drawing of composition BW13: Assembly 07/10/2015

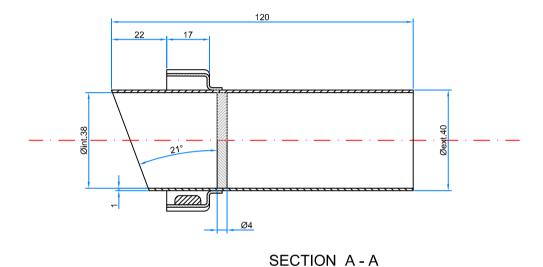
List of vehicles

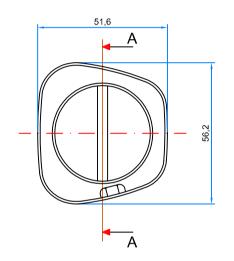
Fitting instructions





General tolerance: ±1mm MATERIAL: S.Steel or Titanium





s.p.a.

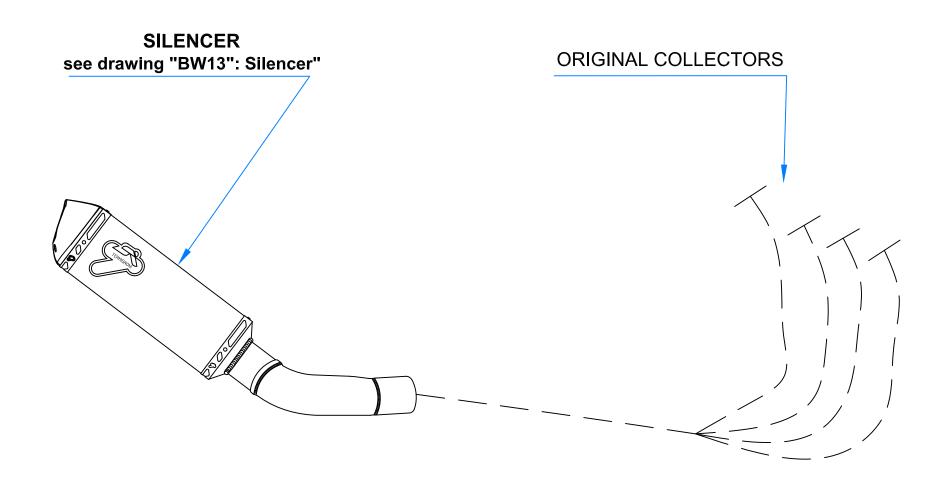
SCALA: MODEL: *DATUM*: 07/10/2015 BMW S 1000 RR 2015 1 Sil. NAME: BW13 e11 0932 E. Vrapi Tipe:

BW13: Tappo

Termignoni



Cod. TERMIGNONI TER402R



| SCALE: | MODEL: | BMW S 1000 RR 2015 | 1 SIL. | BW13 e11 0932 | 9

BW13: ASSEMBLY

Termignoni s



## INFORMATION DOCUMENT N° BW13/97/24 rev. 00 - List of the vehicles

No. of ve- hicle	Manufacturer	Make	Commercial name	Vehicle type (and no. of homologation)	Engine type	Stroke	Engine capacity in cm <sup>3</sup>	Rated maximum engine power in kW/min <sup>-1</sup>	Additional remarks:	Composition as shown in enclosure no. 1
			T	T	T	_	1	1	1	
1)		BMW	S 1000 RR	K10 e1*2002/24*0421*	104EA	- 4-stroke	999	146,0 / 13500	with cat*	1) 2) 3) 4)
2)	BAYERISCHE		HP4					142,0 / 13000		
3)	MOTOREN WERKE AG		S 1000 R		104EC			118,0 / 11000		
4)			S 1000 XR							

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





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 Fart. IVA - C.F. 00862/80061 Iscriz. C.C.I.A.A. AL 130295 Iscriz. Tribunale Reg. Soc. 7721 N. Export AL 009063 C.C. IT 00862780061

#### 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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Techn. Report No.: 15-00025-CM-MIL-00
Manufacturer: Termignoni S.p.A

15077 Predosa (AL)

Type: BW13 Page 1/6

# **TEST REPORT**No. 15-00025-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
>	Granting of a type approval
	Extension/correction to type approval no.





Techn. Report No.: 15-00025-CM-MIL-00 Manufacturer: Termignoni S.p.A

15077 Predosa (AL)

Type: BW13 Page 2/6

#### 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: BW13

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: BW13/97/24 rev. 00

Date: 13.10.2015

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 130x111 mm and, total length 420 mm (with endcap), absorption-reflection principle with outlet pipe Ø 38 mm according to drawings no. BW13: Silencer and no. BW13: 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:

BW13: Silencer





Techn. Report No.: 15-00025-CM-MIL-00
Manufacturer: Termignoni S.p.A

15077 Predosa (AL)

Type: BW13 Page 3/6

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. <u>Test repo</u>rt

The tests were carried out in 1 series A at 07/10/2015

#### 3.1. Vehicle

(0.1) Make: BMW

3.1.1. Type / Variant / Version: K10/0D10/A

3.1.1.1 Model: S 1000 RR

3.1.2. Manufacturer BAYERISCHE MOTOREN WERKE AG

3.1.3. Homologation no.: e1\*2002/24\*0421\*

3.1.3.1 Extension: 06

3.1.4. Vehicle identification no.: \*WB10D1000FZ328451\*

3.1.5. Year of manufacture: 2015

3.1.6. Kilometers: 1412

3.1.7. Total weight: 204 kg

#### 3.2. Engine

3.2.1. Manufacturer: Notice 3.1.2

Trade name: BAYERISCHE MOTOREN WERKE AG

3.2.2. Type: 104EA

3.2.3. Engine capacity: 999 cm<sup>3</sup>

3.2.4. Rated maximum engine power: 146 kW at 13500 min<sup>-1</sup>





Techn. Report No.: 15-00025-CM-MIL-00
Manufacturer: Termignoni S.p.A

15077 Predosa (AL)

Type: BW13 Page 4/6

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 190/55 ZR17M/C (75W)

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.: 15-00025-CM-MIL-00 Manufacturer: Termignoni S.p.A

Termignoni S.p.A 15077 Predosa (AL)

Type: BW13 Page 5/6

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

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

Information Document





Techn. Report No.: 15-00025-CM-MIL-00 Manufacturer:

Termignoni S.p.A 15077 Predosa (AL)

Type: **BW13** Page 6/6

#### 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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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/enterpri
Approval Authority of the Netherlands (RDW)	Niederlande/ The Netherlands	RDWT-082-01	oval-authorities-technical- services/technical-
National Standards Authority of	Irland/	Technical Service	services/index_en.htm
Ireland (NSAI)	Ireland	Number: 49	
Vehicle Safety Certification Center (VSCC)	Taiwan/ Taiwan	DE04-06-2	http://www.vscc.org.tw/English/Default.aspx

München, 13.10.2015

Pietro Vergani Authorized Signatory





**ENCLOSURE 1** 

To test report no.

Type: Manufacturer:

15-00025-CM-MIL-00 **BW13** Termignoni S.p.A.

## Composition of the original exhaust system + original parts

Page 1/1

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	Original part			
2)	Catalytic converter	Original part			
3)	Reduction	Notice drawing	Drawing BW13: Tappo		
4)	Silencer (outlet pipe Ø 38 mm)	One silencer on the right, maximum shape 130x111 mm and, total length 420 mm (with endcap), absorption-reflection principle with outlet pipe Ø 38 mm	Drawing BW13: Silencer		





**ENCLOSURE 2** 

To test report no.

Type: Manufacturer:

15-00025-CM-MIL-00 BW13 Termignoni S.p.A.

Field of application Page 1/1

No. of ve- hicle	Manufacturer	Make	Commercial name	Vehicle type (and no. of homologation)	Engine type	Stroke	Engine capacity in cm <sup>3</sup>	Rated maximum engine power in kW/min <sup>-1</sup>	Additional remarks:	Composition as shown in enclosure no. 1
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2)			HP4					142,0 / 13000		
3)			S 1000 R		104EC			118,0 / 11000		
4)			S 1000 XR							

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





**ENCLOSURE 3** 

To test report no.

Type:

Manufacturer:

15-00025-CM-MIL-00 BW13 Termignoni S.p.A.

Test results Page 1/1

1	Vo.	Engine	Engine power	Vmax	Vmax	measure	Limit	Original	Non	at	Vehicle	Original	Non	at
(	of	power	non original	original	non	d in gear	Value	mea-	original	km/h	type	mea-	original	min <sup>-1</sup>
١	vehicle	original	kW/min <sup>-1</sup>		original	ratio	**)	sured	measured		hom.	sured	measured	
		kW/min⁻¹		km/h	km /h		•							
ŀ	1) A*	146,0 / 13500	141,4 / 13500	-	-	2/3	80	78	77	50	99	99	98	6750

<sup>\*)</sup> Test series



<sup>\*\*)</sup> Limit value of directive which was valid by vehicle type homologation