VCA Headquarters
1 The Eastgate Office Centre
Eastgate Road
Bristol, BS5 6XX
United Kingdom

Switchboard: +44 (0) 117 951 5151
Main Fax: +44 (0) 117 952 4103
Email: enquiries@vca.gov.uk
Web: www.vca.gov.uk

THE UNITED KINGDOM VEHICLE APPROVAL AUTHORITY

COMMUNICATION CONCERNING THE TYPE-APPROVAL (1) OF A TYPE OF SEPARATE TECHNICAL UNIT (1) WITH REGARD TO DIRECTIVE 97/24/EEC, AS LAST AMENDED. RELATING TO A NON-ORIGINAL EXHAUST SYSTEM FOR TWO-WHEEL MOPEDS.

Report No: 374-0025-09-ITA by Technical Service: TÜV Italia Srl, TÜV Süd Group Date: 28 May 2009

Component type approval No.: e11*97/24*97/24/9/III*0659*00

1. Make of exhaust: Termignoni

2. Type of exhaust: SK9

3. Name and address of manufacturer:

   Termignoni S.p.A.
   via della Rampina, 16
   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 attached documentation

6. Date system submitted for testing: 07 May 2009

7. Component type-approval GRANTED (1)

8. Place: BRISTOL

9. Date: 03 JUNE 2009

9. Signature:

A. W. STENNING
Head of Technical and Quality Group

(1) Delete as appropriate

03-Jun-09
UK Approval Authority

VCA Headquarters
1 The Eastgate Office Centre
Eastgate Road
Bristol, BS5 6XX
United Kingdom

Switchboard: +44 (0) 117 951 5151
Main Fax: +44 (0) 117 952 4103
Email: enquiries@vca.gov.uk
Web: www.vca.gov.uk

APPROVAL NUMBER: e11*97/24*97/24/9/III*0659*00

INFORMATION PACKAGE CONTENTS

INDEX

REVISION NUMBER: Not applicable

Total number of sheets:	08 (Eight)
Number of separate drawings:	00 (Nil)
Number of separate photographs:	00 (Nil)

Reasons for Revision: Not applicable

EAK192127

Revision date
&
Office stamp

03-Jun-09
UK Approval Authority

TÜV Italia s.r.l.
TÜV SÜD Gruppe
Via Carducci, 125 – edificio 23
I-20099 Sesto San Giovanni (MI)

Telefon: ++39 - (0)2 - 24130-1
Telefax: ++39 - (0)2 - 24130-395

Automotive

TECHNICAL REPORT

No. 374 - 0025 - 09 - ITA

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 and exhaust systems for two or three-wheel motor vehicles

No. ***97/24/EC*** *including the last amendment* ***2006/120/EC dated 27-Nov.-2006***
concerning ***Chapter 9, annex III***
Approval mark according to annex VI point 6.1.1

03-Jun-09
374002509ITA base
VCA Approval Authority

TÜV Italia s.r.l.
TÜV SÜD Gruppe
Via Carducci, 125 – edificio 23
I-20099 Sesto San Giovanni (MI)

Telefon: ++39 - (0)2 - 24130-1
Telefax: ++39 - (0)2 - 24130-395

Automotive

0. Technical description

0.1.	Make:	Termignoni
0.2.	Type:	**SK9**
0.2.1.	Variants:	Not applicable
0.3.	Name and address of the manufacturer:	Termignoni S.p.A. Via della Rampina, 16 I-15077 Predosa (AL)
0.4.	Name and address of manufacturer's authorized representative:	Not applicable
0.5.	Class of the vehicles the unit is used for:	Motorcycle - L3e

03-Jun-09
374002509ITA base
VCA Approval Authority

TÜV Italia s.r.l.
TÜV SÜD Gruppe
Via Carducci, 125 – edificio 23
I-20099 Sesto San Giovanni (MI)

Telefon: ++39 - (0)2 - 24130-1
Telefax: ++39 - (0)2 - 24130-395

Automotive

I. Test object(s)

1.1.	Description of the vehicles the unit is used for:	Notice enclosure b
1.2.	Identification number:	TERMIGNONI SK9 e11 0659 9
1.2.1.	Structure of the non-original exhaust system:	Non-original exhaust system, consisting out of two silencers left and right, cylindrical ∅ 100 mm, length 300 mm (without endcaps), absorption-reflection- principle with outlet pipe ∅ 38 mm with covering pipe ∅ 64 mm according to drawing no. SK9: SILENCER in combination with non-original inlet section (according to drawing SK9: FINAL BODY) and with original header system. Carbon fiber- alternatively aluminium- alternatively titanium- alternatively stainless steel-cover.
1.2.2.	List of parts:	See Test Report
1.2.3.	Position of the marking:	On the silencers, see enclosures c1.
1.2.4.	Make vehicles tested:	SUZUKI
1.2.5.	Material of the non-original exhaust system:	See Test Report
1.3.	Remarks:	---

03-Jun-09
374002509ITA base
EC Approval Authority

TÜV Italia s.r.l.
TÜV SÜD Gruppe
Via Carducci, 125 – edificio 23
I-20099 Sesto San Giovanni (MI)

Telefon: ++39 - (0)2 - 24130-1
Telefax: ++39 - (0)2 - 24130-395

Automotive

II. Test Report

2.1.	Test equipment:	The tests were effected with an equipment that corresponds to the test requirements
2.2.	Condition under which the above mentioned test Records have been achieved:	See Test Report enclosure
2.2.1	Summary of the Test Records:	See Test Report enclosure
2.3.	General information about the Tests:	
2.3.1.	Weather condition:	See Test Report enclosure
2.3.2.	Place of the test:	See Test Report enclosure
2.3.3.	Date of the test:	See Test Report enclosure

03-Jun-09
374002509ITA base
VCA Approval Authority

TÜV Italia s.r.l.
TÜV SÜD Gruppe
Via Carducci, 125 – edificio 23
I-20099 Sesto San Giovanni (MI)

Telefon: ++39 - (0)2 - 24130-1
Telefax: ++39 - (0)2 - 24130-395

Automotive

III. Enclosures

a. Test Report
Composition of the non original exhaust system;
Field of application;
Test Records.

	Number	Pages	Date
1	374-0026-09-ITA	6	28/05/2009

b. Information Document n° SK9/97/24 rev. 00 07/05/2009

c1. Drawing SK9: SILENCER 16/04/2009

c2. Drawing SK9: ASSEMBLY 16/04/2009

c3. Drawing SK9: TAPPO 16/04/2009

c4. Drawing SK9: FINAL BODY 16/04/2009

03-Jun-09
374002509ITA base
VCA Approval Authority

TÜV Italia s.r.l.
TÜV SÜD Gruppe
Via Carducci, 125 – edificio 23
I-20099 Sesto San Giovanni (MI)

Telefon: ++39 - (0)2 - 24130-1
Telefax: ++39 - (0)2 - 24130-395

Automotive

IV. Final confirmation

The named information document and the described type correspond to the Directive 97/24/EC chapter 9, annex III including the last amendment 2006/120/EC.
There are no technical objections against granting an EC Type-approval.

This technical report consists of sheet 1 to 6.

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

Recognised Expert
Pietro Vergani

pv Sesto San Giovanni (MI),
the 28.05.2009

194200

03-Jun-09
374002509ITA base
VCA Approval Authority

TÜV Italia s.r.l.
TÜV SÜD Gruppe
Via Carducci, 125 – edificio 23
I-20099 Sesto San Giovanni (MI)

Telefon: ++39 - (0)2 - 24130-1
Telefax: ++39 - (0)2 - 24130-395

Automotive

TEST REPORT

No. 374 - 0026 - 09 - ITA

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 and exhaust systems for two or three-wheel motor vehicles

No. 97/24/EC including the last amendment 2006/120/EC dated 27-Nov.-2008 concerning chapter 9, annex III
Approval mark according to annex VI point 6.1.1

0. General information

0.1.	Make:	Termignoni
0.2.	Type:	**SK9**
0.2.1.	Variants:	Not applicable
0.3.	Name and address of manufacturer:	Termignoni S.p.A. Via della Rampina, 16 I-15077 Predosa (AL)
0.4.	Name and address of manufacturer's authorized representative:	Not applicable

VCA
03-Jun-09
374002609ITA - GSXR 1000 K9
VCA Approval Authority

TÜV Italia s.r.l.
TÜV SÜD Gruppe
Via Carducci, 125 – edificio 23
I-20099 Sesto San Giovanni (MI)

Telefon: ++39 - (0)2 - 24130-1
Telefax: ++39 - (0)2 - 24130-395

Automotive

0.5.	No. of information document: Date:	SK9/97/24 rev. 00 07/05/2009
1.0.	Class of the vehicles the unit is used for:	Motorcycle - L3e (according to 2002/24/EC amended 2006/120/EC)
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:

Technical unit, consisting out of two silencers left and right, cylindrical ∅ 100 mm, length 300 mm (without endcaps), absorption- reflection- principle with outlet pipe ∅ 38 mm with covering pipe ∅ 64 mm according to drawing no. SK9: SILENCER in combination with non-original inlet section (according to drawing SK9: FINAL BODY) and with original header system.

2.2.	Place of marking:	On the silencer, see drawing SK9: 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 left and right side of the vehicle

3. Test report

The tests were carried out in 1 series A at 07/05/2009.

VCA Approval Authority
03-Jun-09
374002609ITA - GSXR 1000 K9

TÜV Italia s.r.l.
TÜV SÜD Gruppe
Via Carducci, 125 – edificio 23
I-20099 Sesto San Giovanni (MI)

Telefon: ++39 - (0)2 - 24130-1
Telefax: ++39 - (0)2 - 24130-395

Automotive

3. **Test report** (continuation)

Series A: (no. 1)

3.1. Vehicle

	(0.1)	Make:	SUZUKI
3.1.1.	(0.2.)	Type / variant / version:	WVCY / 1 / 1
3.1.2.	(0.5.)	Manufacturer	Suzuki Motor Corporation
3.1.3. 3.1.3.1		Homologation no.: Extension:	e4*2002/24*2132 01
3.1.4.		Vehicle identification no.:	* JS1CY111100101258*
3.1.5.		Year of manufacture:	2009
3.1.6.	(2.1)	Weight of the vehicle:	205 kg

3.2. (3.) Engine

3.2.1.	(3.0.)	Manufacturer:	Notice 3.1.2
	(3.1.)	Make:	SUZUKI
3.2.2.	(3.1.1)	Type:	T717
3.2.3.		Engine capacity:	999 cm^3
3.2.4.	(3.2.1.7)	Rated maximum engine power:	136 kW at 12000 min^{-1}

03-Jun-09
374002609ITA - GSXR 1000 K9
VCA Approval Authority

TÜV Italia s.r.l.
TÜV SÜD Gruppe
Via Carducci, 125 – edificio 23
I-20099 Sesto San Giovanni (MI)

Telefon: ++39 - (0)2 - 24130-1
Telefax: ++39 - (0)2 - 24130-395

Automotive

3. **Test report** (continuation)

3.3.	**(4.)**	**Transmission**	
	(4.1)	Drawing of transmission:	Notice vehicle homologation no. s. 3.1.3.
3.3.1.	(4.2)	Kind of transmission:	Mechanical
	(4.3)	Clutch (kind):	Wet multi-plate type
	(4.4)	Gearbox	
3.3.2.	(4.4.1)	Kind	Mechanical
	(4.4.2)	Kind of activity:	Foot shifted
3.3.4.		No of gears	6
3.3.5.	(4.5.)	Transmission ratios: primary / final	 1,617 / 2,470
	(4.6.)	Top speed:	295 km/h
	(5.2.)	Tires: front rear	 120/70 ZR17 190/50 ZR17
3.4.		Assembly of the exhaust system (no. of parts, enclosure 1):	1.0., c1., c2., c3., c4.

VCA Approval Authority
03-Jun-09
374002609ITA - GSXR 1000 K9

TÜV Italia s.r.l.
TÜV SÜD Gruppe
Via Carducci, 125 – edificio 23
I-20099 Sesto San Giovanni (MI)

Telefon: ++39 - (0)2 - 24130-1
Telefax: ++39 - (0)2 - 24130-395

Automotive

3.5. Power measurement

3.5.1. The tested max. power and the engine speed are in the ± 5% tolerance in comparison with the original exhaust system.

3.5.2. Testing of top speed with non-original exhaust system:
Not applicable, because vehicle class : motorcycle

3.6. Conditioning

By pulsation

3.7. Test results

The results of
3.7.1. Sound testing
3.7.2. Power measurement
3.7.3. Top speed
are attached in the enclosure 3.
The results of the sound tests with the original and non original exhaust systems fulfil point 3.5.2.1.1 of Directive 97/24/EC chapter 9, including last amendment 2006/120/EC. 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.
Emission test has not been carried out because the non original exhaust system does change neither catalyst nor vehicle performance.

3.7.5. The described non-original exhaust system / technical unit is suitable for an application at the vehicles listed in enclosure 2.

3.7.6. The general specifications concerning point 3.5.1 of Directive 97/24/EC Chapter 9 (including last amendment 2006/120/EC) were checked and were fulfilled by the non original exhaust system / technical unit.

VCA
03-Jun-09
374002609ITA - GSXR 1000 K9
VCA Approval Authority

TÜV Italia s.r.l.
TÜV SÜD Gruppe
Via Carducci, 125 – edificio 23
I-20099 Sesto San Giovanni (MI)

Telefon: ++39 - (0)2 - 24130-1
Telefax: ++39 - (0)2 - 24130-395

Automotive

4. Enclosures

Enclosure 1, Composition of the non original exhaust system (Page 1)

Enclosure 2, Field of application (Page 1)

Enclosure 3, Test results (Page 1)

5. Summary

The named information document and the described type correspond to the Directive 97/24/EC including the amendment 2006/120/EC chapter 9, annex III.
There are no technical objections against granting an EC Type-approval.

This test report contains the pages 1 to 6 and enclosures

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

Recognised Expert
Pietro Vergani

pv Sesto San Giovanni (MI),
the 28.05.2009

194200

VCA
03-Jun-09
374002609ITA - GSXR 1000 K9
VCA Approval Authority

TÜV Italia s.r.l.
TÜV SÜD Gruppe

Via Carducci, 125 – edificio 23
I-20099 Sesto San Giovanni (MI)

Telefon: ++39 - (0)2 - 24130-1
Telefax: ++39 - (0)2 - 24130-395

Automotive

E N C L O S U R E 1 ***to test report no.*** **374-0026-09-ITA**
Type: **SK9**
Manufacturer: **Termignoni S.p.A.**

Composition of the 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.
1.0.	Header pipes	Original parts	-
c1.	Rear silencers	Cylindrical ∅ 100 mm, length 300 mm (without endcaps), absorption- reflection-principle with outlet pipe ∅ 38 mm with covering pipe ∅ 64 mm	Drawing SK9: SILENCER
c2.	Drawing of composition	Notice drawing	Drawing SK9: ASSEMBLY
c3.	Reduction	Notice drawing	Drawing SK9: TAPPO
c4.	Final body	Notice drawing	Drawing SK9: FINAL BODY

UK Approval Authority
03-Jun-09

TÜV Italia s.r.l.
TÜV SÜD Gruppe
Via Carducci, 125 – edificio 23
I-20099 Sesto San Giovanni (MI)
Telefon: ++39 - (0)2 - 24130-1
Telefax: ++39 - (0)2 - 24130-395

Automotive

E N C L O S U R E 2 ***to test report no.*** **374-0026-09-ITA**
Type: **SK9**
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)	Suzuki Motor Co.	SUZUKI	GSX-R 1000 K9	WVCY (e4*2002/24* 2132*)	T717	4-stroke	999	136 / 12000	with cat *)	1.0., c1., c2., c3., c4.

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

UK Approval Authority 03-Jun-09

TÜV Italia s.r.l.
TÜV SÜD Gruppe

Via Carducci, 125 – edificio 23
I-20099 Sesto San Giovanni (MI)

Telefon: ++39 - (0)2 - 24130-1
Telefax: ++39 - (0)2 - 24130-395

Automotive

E N C L O S U R E 3 ***to test report no.*** **374-0026-09-ITA**
Type: **SK9**
Manufacturer: **Termignoni S.p.A.**

Test results

- Noise and Power Test

					Sound levels driving vehicle in dB(A)					Sound levels stationary vehicle in dB(A)			
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*	136/12000	136/12000	-	-	2 / 3	80	78,50	79,50	50	96	95	97	6000

*) test series

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

TERMIGNONI	**INFORMATION DOCUMENT** **N° SK9/97/24 rev. 00**	**Date: 07/05/2009** **Page 1/2**

Information Document relating to EC type approval as separate technical unit of exhaust systems for motorcycles (Directive 97/24/EC amended 2006/120/EC)

1.	*Make (trade name of manufacturer)*:	Termignoni
2.	*Type and general commercial description:*	SK9
3.	*Name and address of manufacturer:*	Termignoni S.p.A. via della Rampina, 16 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 TÜV SÜD

Further details according to directive 97/24/EC, chapter 9, annex III, enclosure 2 A including amendment 2006/120/EC are mentioned in the motorcycle homologation (notice enclosure 2 of the test report).

VCA 03-Jun-09 UK Approval Authority

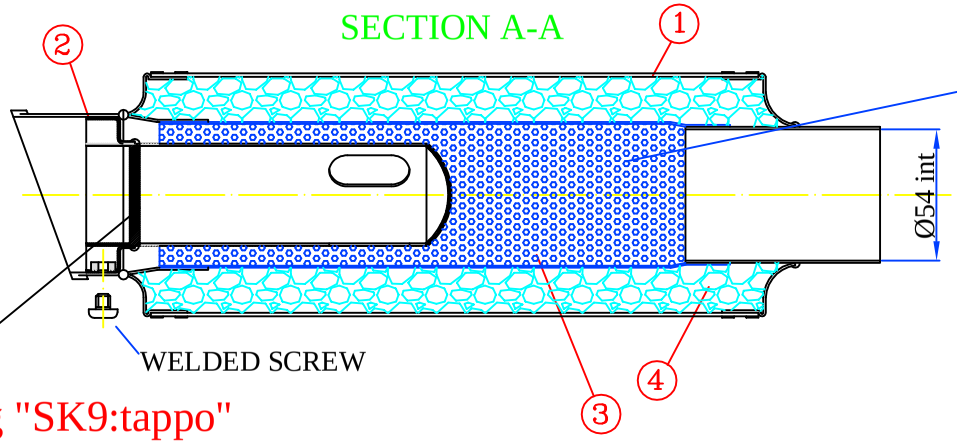
Information Document relating to EC type approval as separate technical unit of exhaust systems for motorcycles (Directive 97/24/EC amended 2006/120/EC)

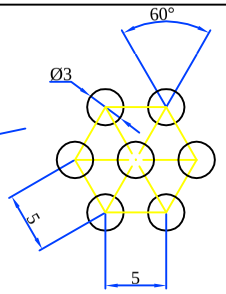
Enclosures:

		Drawing no.	*Date*
c1.	*Drawing of rear silencer*	SK9: SILENCER	16/04/2009
c2.	*Drawing of composition*	SK9: ASSEMBLY	16/04/2009
c3.	*Drawing of reduction*	SK9: TAPPO	16/04/2009
c4.	*Drawing of final body*	SK9: FINAL BODY	16/04/2009
c5.	*List of vehicles*		
c6.	*Fitting instructions*		

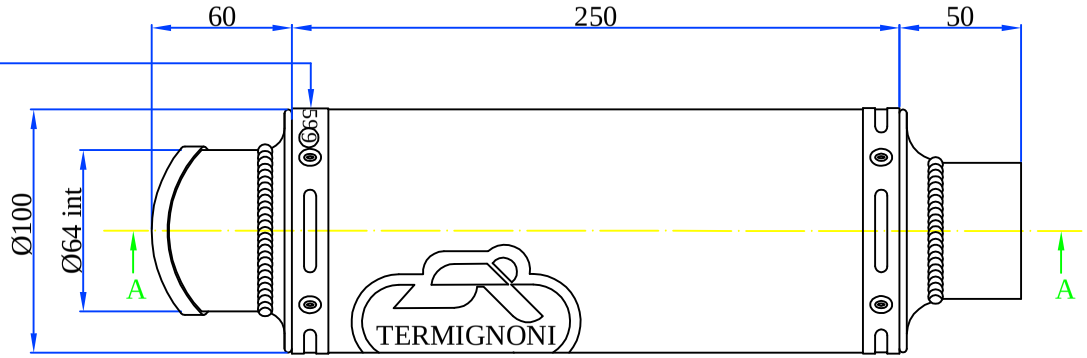
VCA 03-Jun-09 UK Approval Authority

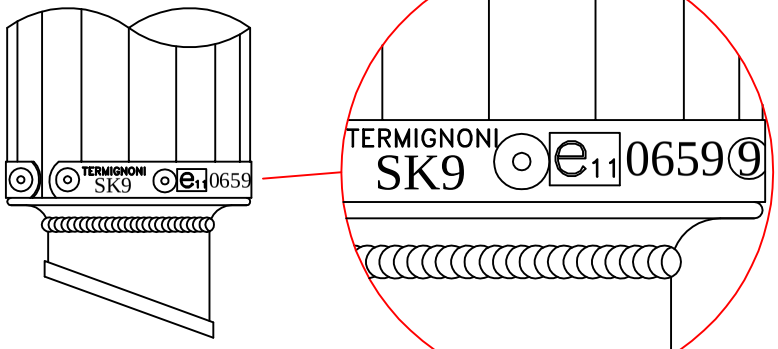
Left and right silencers are the same





See drawing "SK9:tappo"





DETAIL (NOT IN SCALE)

PART LIST

No.	Part name	Material	Dimensions	Qt.
1	Shell	Aluminium	See drawing	1x
	or	Stainless Steel	See drawing	1x
	or	Carbon fiber	See drawing	1x
	or	Titanium	See drawing	1x
2	Outlet Pipe	Stainless Steel	See drawing	1x
	or	Titanium	See drawing	1x
3	Punched-holes pipe	Stainless Steel	ø 60x0,8	1x
	or	Titanium	ø 60x0,8	1x
4	Sound deadener	Fiberglass	210 g	1x

SCALE:

DATE: 16.04.09

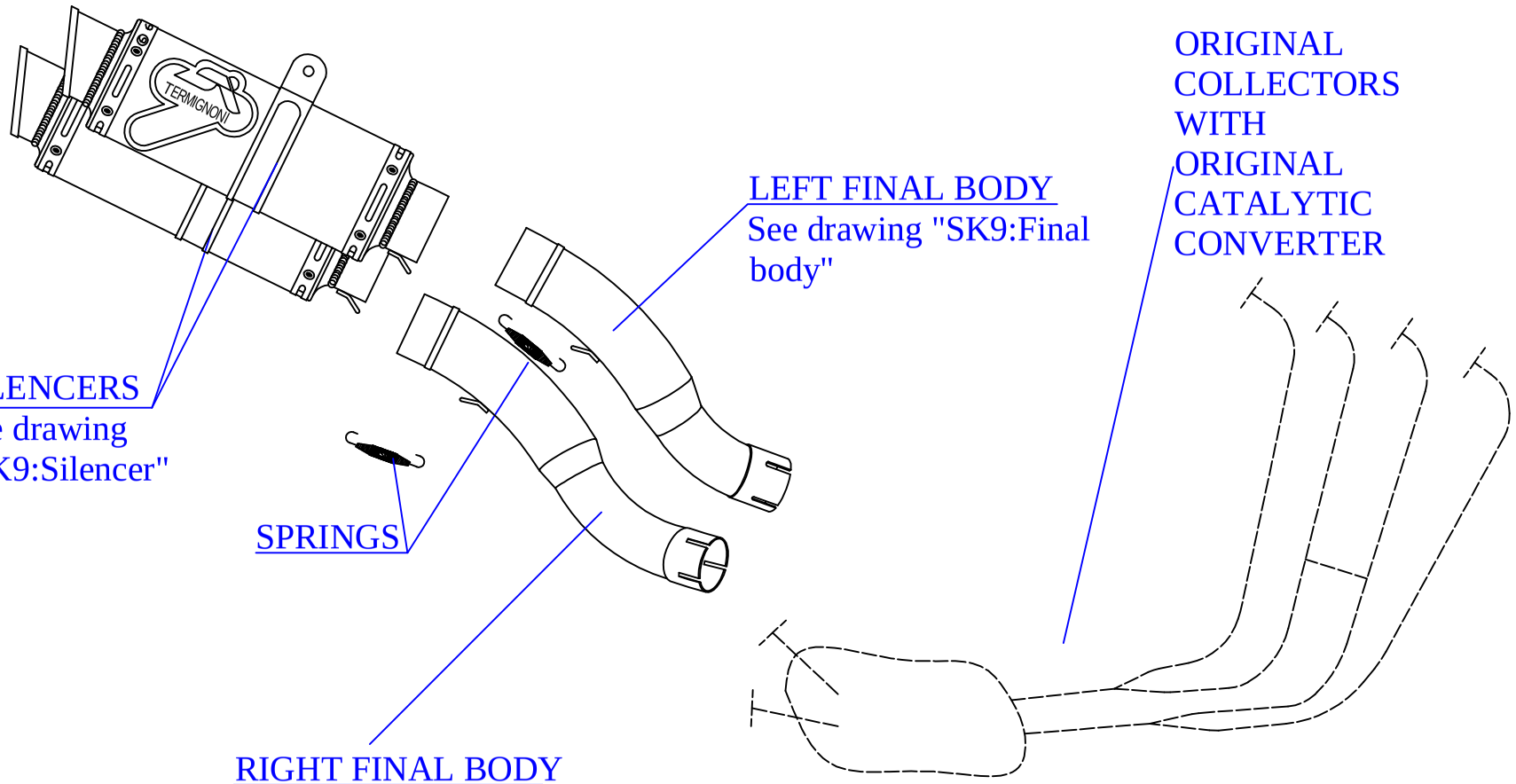
NAME: D.Zancanaro

Model: SUZUKI GSX-R 1000 '09 2 Sil GP code S062 SK9 e11 0659 9

Type: SK9: SILENCER

Termignoni S.p.A.

03-Jun-09 UK Approval Authority



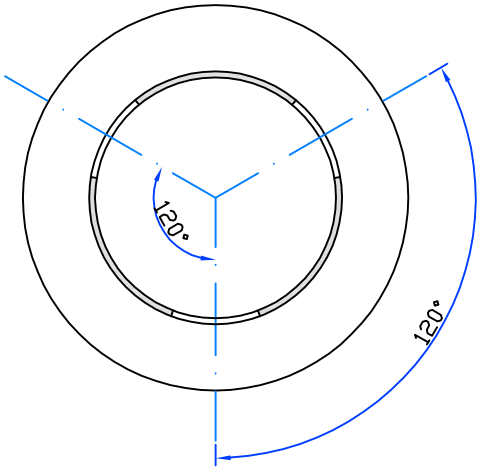
SCALE:	MODEL: SUZUKI GSX-R 1000 '09 2 Sil GP cod. S062 SK9 e11 0659 ⑨
DATE: 16.04.09	
DESIGNER: D.Zancanaro	
TYPE: SK9: ASSEMBLY	

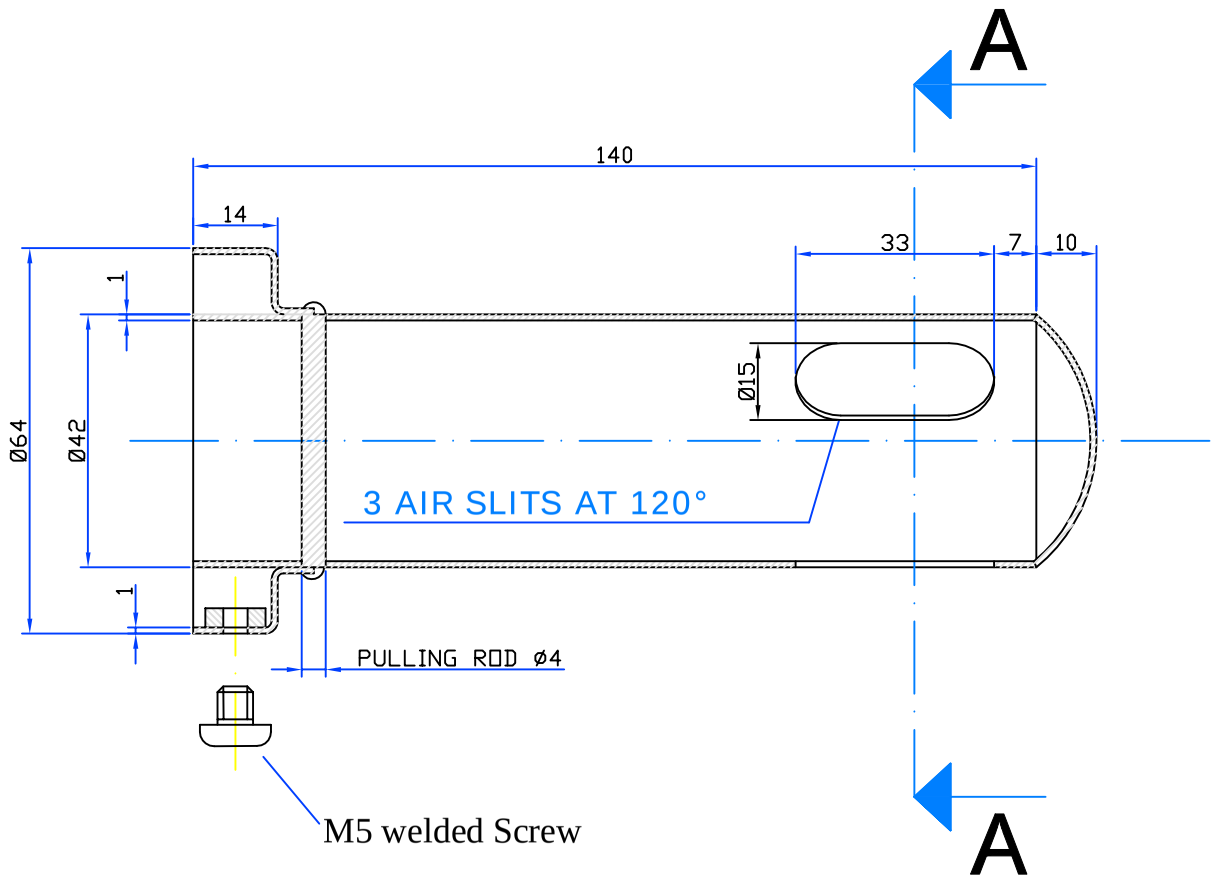
Termignoni S.p.A.

www.termignoni.it

UK Approval Authority 03-Jun-09

SEZ A-A





Material:
stainless steel or titanium

SCALE:	MODEL: SUZUKI GSX-R 1000 '07 2 sil STR COD S062 SK9 e11 0659 ⓔ
DATE: 16.04.09	
NAME: D.Zancanaro	
TYPE: SK9: TAPPO	

Termignoni S.p.A.

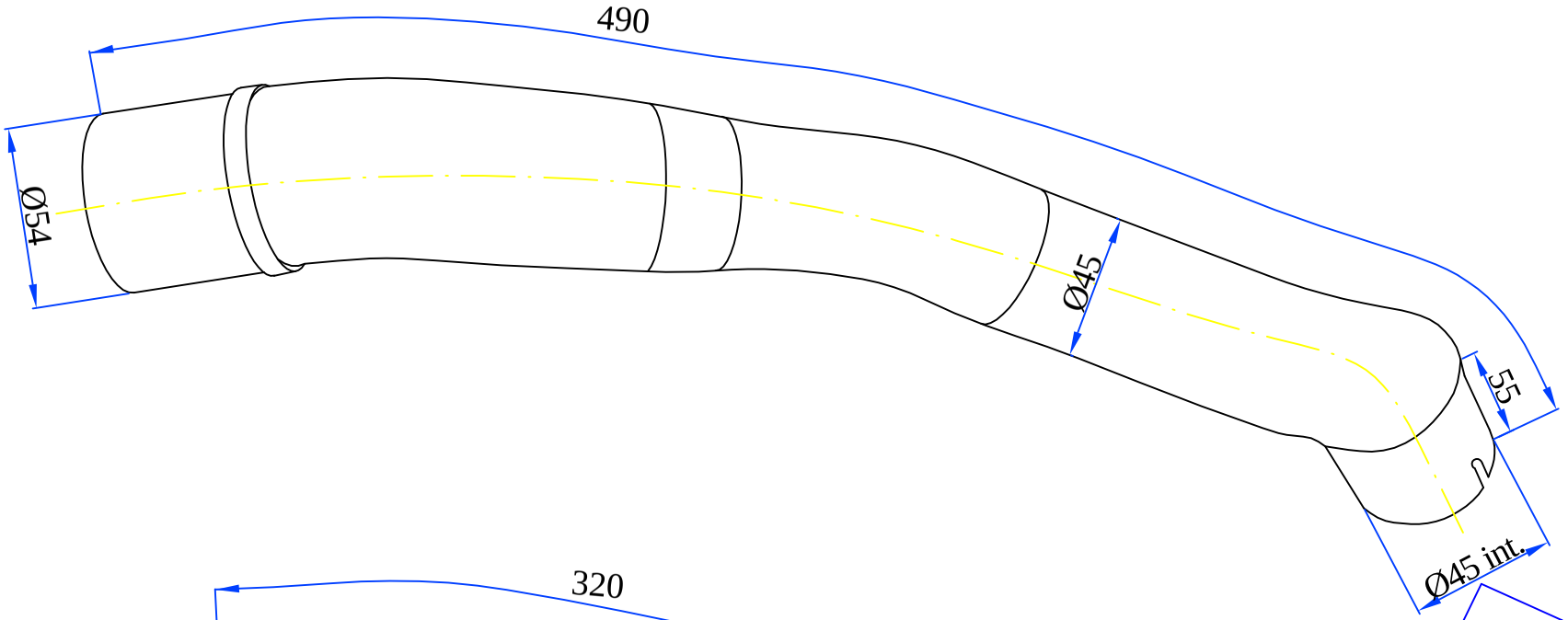
info@termignoni.it

TERMIGNONI CODE: TER200

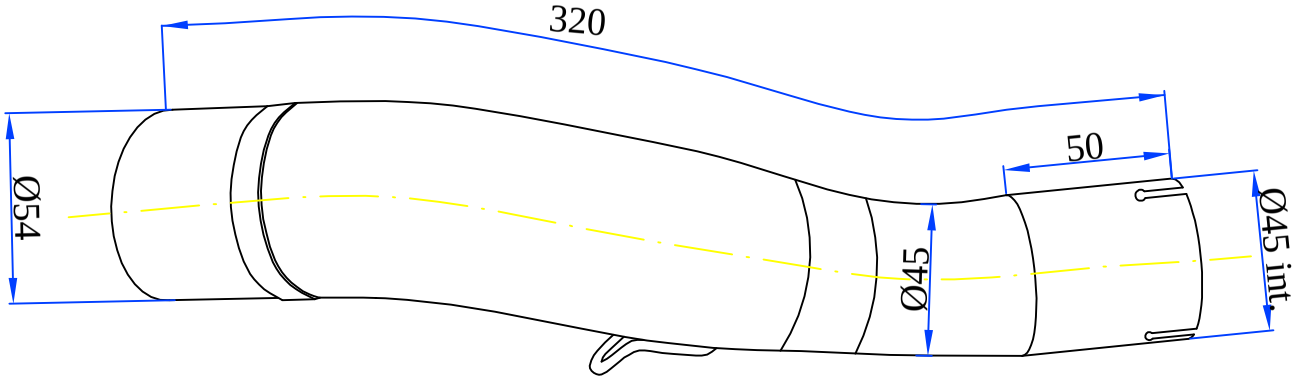
03-Jun-09 UK Approval Authority

MATERIAL: S.Steel or Titanium

LEFT SILENCER



RIGHT SILENCER



SCALE:	MODEL: SUZUKI GSX-R 1000 '09 2 Sil GP cod. S062 SK9 e11 0659 9
DATE: 16.04.09	
NAME: D.Zancanaro	
TYPE: SK9: FINAL BODY	

Termignoni S.p.A.

info@termignoni.it

03-Jun-09 UK Approval Authority

INFORMATION DOCUMENT N° SK9/97/24 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)	Suzuki Motor Co.	SUZUKI	GSX-R 1000 K9	WVCY (e4*2002/24* 2132*)	T717	4-stroke	999	136 / 12000	with cat *)	1.0., c1., c2., c3., c4.

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

UK Approval Authority 03-Jun-09

TERMIGNONI S.p.A
Via della Rampina, 16
15077 Predosa (AL)
Italy
C.F. e P.IVA 00862780061

Phone +39 0131 71666
Fax +39 0131 71696
info@termignoni.it
www.termignoni.it

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

VCA
03-Jun-09
UK Approval Authority