

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: <u>enquiries@vca.gov.uk</u> Web: www.vca.gov.uk

21 MARCH 2013

Dear Sir / Madam,

Reference Approval Number: e11\*2002/24\*1144\*02

Communication of approvals in accordance with Directive 2002/24/EC.

Please find enclosed the above-mentioned document certifying the homologation of the vehicle in accordance with Directive 2002/24/EC.

Yours faithfully

A.W. STENNING Head of Technical and Quality Group



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: <u>enquiries@vca.gov.uk</u> Web: <u>www.dft.gov.uk/vca/</u>

#### THE UNITED KINGDOM VEHICLE APPROVAL AUTHORITY

#### COMMUNICATION CONCERNING TYPE-APPROVAL <sup>(1)</sup> / EXTENSION OF TYPE-APPROVAL <sup>(1)</sup> / -REFUSAL OF TYPE-APPROVAL <sup>(1)</sup> / WITHDRAWAL OF TYPE-APPROVAL <sup>(1)</sup> OF A TYPE OF VEHICLE WITH REGARD TO DIRECTIVE 2002/24/EC AS LAST AMENDED BY COMMISSION REGULATION (EU) NUMBER 1137/2008

Type-Approval Number: e11\*2002/24\*1144\*02

Reason for extension: To cover:

- 1) Introduction new engines as alternative for variant 73,7E,7F,93,9E.
- 2) Introduction of 3 new brake pads as alternative.
- 3) Introduction of new rear shock absorber alternative
- 4) Introduction of new front fork as alternative.
- 5) Introduction of new antitheft device as alternative.
- 6) Introduction of 2 new grab handles as alternative.
- 7) Introduction of new front and rear tire.
- 8) Introduction of new rear view mirrors as alternative.
- 9) Removal of commercial names
- 10) Add drawings of motor controllers.
- 11) Change address manufacturer and assembly plant.
- 12) Editorial change of the information document
- 13) Corrections and document updating
- 0. GENERAL
- 0.1. Make(s) (trade name of the manufacturer): GOVECS
- 0.2. Type: 4E
  - 0.2.1. Commercial name(s): Not applicable
- 0.3. Means of identification of type, if marked on the vehicle: VIN digits identification from the 4<sup>th</sup> until 8<sup>th</sup> digits
  - 0.3.1. Location of that marking: Right side of the main frame



MWN267482

- 0.4. Category <sup>(2)</sup>: L3e
- 0.5. Name and address of the vehicle manufacturer:

GOVECS POLAND Sp.z.o.o UI. Graniczna 8c 51-132 Wroclaw Poland

0.5.1. Name(s) and address(es) of assembly plant(s):

GOVECS POLAND Sp.z.o.o UI.Graniczna 8c 51-132 Wroclaw Poland

The undersigned hereby certifies the accuracy of the manufacturer's description in the attached information document of the vehicle type described above, for which one or several representative samples, selected by the competent approval authorities, has (have) been submitted as prototype(s) of the vehicle type and that the attached test results are applicable to the vehicle type.

The vehicle type meets / does not meet.<sup>(1)</sup> the technical requirements of all relevant separate Directives (as last amended) listed in the table of Annex I to Directive 2002/24/EC.

The approval is GRANTED / REFUSED / WITHDRAWN (1)

Place: BRISTOL

Signature:

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

Date: 21 MARCH 2013

Attachments:

Information document, Parts 1 and 2 (Annex II).

Test results (Annex VII).

Name(s) and specimen(s) of the signature of the persons authorised to sign the certificates of conformity and a statement of their position in the company.

A model certificate of conformity.



Delete where not applicable
 According to the classification introduced in Article 1



### **ANNEX VII – TEST RESULTS**

e11\*2002/24\*1144\*02

(Article 5(1), first subparagraph)

(This sheet must be completed by the approval authority and be attached to the vehicle type approval certificate)

In each case, the information must make clear to which variant and version it is applicable. One version may not have more than one result.

1. Results of the sound level tests according to Directive 97/24/EC Chapter 9

Variant/version :	N/A
Moving dB(A) :	N/A
Stationary dB(A) :	N/A
at (min <sup>-1</sup> ) :	N/A

2. Results of the exhaust emission tests according to Directive 97/24/EC Chapter 5 Annex II, as amended by 2009/108/EC

N/A

Variant/version :

2.1. Type I CO (g/km) : N/A HC (g/km) (1) : N/A NOx (g/km) (1) : N/A HC + NOx (g/km) (2) : N/A

2.2	Туре II	
	CO (g/min) (1) :	N/A
	HC (g/min) (1) :	N/A
	CO (% vol) at normal idle speed (2) :	N/A
	Specify the idle speed (2) (3) :	N/A
	CO (% vol) at high idle speed (2) :	N/A
	Specify the idle speed (2) (3) :	N/A
	Engine oil temperature (2) (4) :	N/A
3.	Compression ignition engine :	N/A

 Compression ignition engine : N/A Variant/version : N/A Corrected value of absorption coefficient: N/A (m<sup>-1</sup>)





#### THE UNITED KINGDOM VEHICLE APPROVAL AUTHORITY

APPROVAL NUMBER: e11\*2002/24\*1144\*02

### **INFORMATION PACKAGE CONTENTS**

INDEX

**REVISION NUMBER: 02 (Two)** 

Total number of sheets:	74 (Seventy Four)
Number of separate drawings:	O (Nil)
Number of separate photographs:	0 (Nil)

Reasons for Revision:

See approval certificate

### MWN267482

Revision date & Office stamp



An executive agency of the Department for Transport January 2013 Revision 2



# TEST REPORT:Whole Vehicle Type Approval 2 and 3 wheeled<br/>vehicles and Quadricycles

03-045

Report/Job Number: MWN267482

Page: 1 of 3

21

Proval A

TEST DETAILS	
Subject	EC Whole Vehicle
EC Directive	2002/24/EC – 1137/2008/EC
ECE Regulation	N/A
Location of Test	Scarmagno (TO), Italy
Date of Test	19 and 20 of December 2012
VCA Representative	Luca Taschini
Manufacturer's Representative	Slawomir Kortas
Reason for Test	Introduction new engines as alternative for variant 73, 7E, 7F, 93, 9E.
	Introduction of 3 new brake pads as alternative.
	Introduction of new rear shock absorber as alternative.
	Introduction of new front fork as alternative.
	Introduction of new antitheft device as alternative.
	Introduction of 2 new grab handles as alternative.
	Introduction of new front and rear tire.
	Introduction of new rear view mirrors as alternative.
	Removal of commercial names.
	Add drawings of motor controllers.
	Change address of manufacturer and assembly plant.
	Editorial change of the information document.
	Corrections and document updating.
MANUFACTURER DETAILS	
Manufacturer's Name	GOVECS POLAND Sp. z.o.o.
Manufacturer's Address	UI. Graniczna 8c
	51-132 Wroclaw
	Poland
Model Type & description	Type 4E, variant/version 9E/1, 9E/2, 93/2, 73/1, 7E/1, 7F/1
Category	Motorcycle, L3e
CONCLUSION	The above mentioned vehicle was tested in accordance with
	EC Directive 2002/24EC as amended and was found to
	comply in all respects
	Signature:
	Mue brun
	Name. Luca Taschini
	Position: Test Engineer
	Date: 04 March 2013

ANNEX	No of PAGES	SUBJECT
1		Several reports
2	78	Information document e11 2002-24 1144 Edition 02 /

Proval A

Paragraph	Para	Complies		
VERSION/VARIANT SELECTION RATIONALE: See attached test reports				
Test report number	Subject	Applicable to this vehicle category and configuration?	Complies	
N/A	Maximum torque and maximum net power of the engine	Y	Conf.	
N/A	Anti-tampering	Y	Conf.	
N/A	Fuel tank	N/A	N/A	
N/A	Maximum design speed	Υ	Conf.	
N/A	Masses and dimensions	Υ	Conf.	
N/A	Coupling devices	N/A	N/A	
N/A	Anti air pollution measures	N/A	N/A	
MSN267483	Tyres	Υ	Conf.	
MSN267484	Braking system	Υ	Conf.	
N/A	Lighting installation	Υ	Conf.	
N/A	Audible warning	Υ	Conf.	
N/A	Rear registration plate space	Υ	Conf.	
MSN267485	Electromagnetic compatibility	Υ	Conf.	
N/A	Sound levels	N/A	N/A	
MSN271582	Rear view mirrors	Υ	Conf.	
N/A	External projections	Υ	Conf.	
N/A	Stands	Υ	Conf.	
MSN267480	Anti theft	Y	Conf.	
N/A	Windows wipers & washer	N/A	N/A ata	
MSN271669	Passenger hand holds	Y	Conf. 21-Mar	



vehicles and Quadricycles				
Paragraph	Parameter		Complies	
N/A	Seat belt anchorages	N/A	N/A	
N/A	Speedometer	Υ	Conf.	
N/A	Identification of controls	Y	Conf.	
N/A	Statutory plates	Υ	Conf.	

# Whole Vehicle Type Approval 2 and 3 wheeled vehicles and Quadricycles







# **TEST REPORT:**

### FITTING OF TYRES TO TWO OR THREE WHEEL MOTOR VEHICLES

#### 03-026

Report/Job Number: MSN267483

### Page: 1 of 3

TEST DETAILS	
Subject	FITTING OF TYRES TO TWO OR THREE WHEEL MOTOR
Subject	VEHICLES
	97/24/EC CHAPTER 1 – 2009/108/EC
EC Directive	
ECE Regulation	N/A
Location of Test	Scarmagno (TO), Italy
Date of Test	19 and 20 of December 2012
VCA Representative	Luca Taschini
Manufacturer's Representative	Slawomir Kortas
Reason for Test	Introduction new engines as alternative for variant 73, 7E, 7F, 93, 9E.
	Introduction of 3 new brake pads as alternative.
	Introduction of new rear shock absorber as alternative.
	Introduction of new front fork as alternative.
	Introduction of new antitheft device as alternative.
	Introduction of 2 new grab handles as alternative.
	Introduction of new front and rear tire.
	Introduction of new rear view mirrors as alternative.
	Removal of commercial names.
	Add drawings of motor controllers.
	Change address of manufacturer and assembly plant.
	Editorial change of the information document.
	Corrections and document updating.
MANUFACTURER DETAILS	
Manufacturer's Name	GOVECS POLAND Sp. z.o.o.
Manufacturer's Address	UI. Graniczna 8c
	51-132 Wroclaw
	Poland
Model Type & description	Type 4E, variant/version 9E/1, 9E/2, 93/2, 73/1, 7E/1, 7F/1
Category	Motorcycle, L3e
CONCLUSION	The above mentioned vehicle was tested in accordance with
	EC Directive 97/24/EC CHAPTER 1 as last amended by
	2009/108/EC and was found to comply in all respects
	Signature:
	Alle burn
	Name: Luca Taschini
	Position: Test Engineer
	Date: 04 March 2013

M/CWVTA ITEM 29 (TST REF 138)

roval A



### TEST REPORT: FITTING OF TYRES TO TWO OR THREE WHEEL MOTOR VEHICLES

Paragraph	aragraph Parameter		Complies	
LIST OF ANNE	EXES			
ANNEX	No of PAGES	SUBJECT		
1				
2				
3				

TEST SPECIFICATION/WORST CASE RATIONALE: Tested variant/version 7F/1 which has maximum design speed of 83 km/h, and variant/version 9E/1 which has maximum weight.

- 1 Risk assessment completed and stored in job folder Yes
- 2 Facilities and test equipments are appropriate
- 3 Calibration certificates checked and valid, recorded below

Equipment	Serial No.	Calibration data

Manufacturer's documentation complete

Yes

Yes

MAXIMUM AXLE WEIGHT (variant 9E):	FRONT: 121 kg;	REAR: 176 kg

MAXIMUM SPEED (variant 7F): 83 km/h

### Details of tyres fitted to vehicle:

	Size	LCI	Load kg	Speed Rating	Speed km/h	Approval No:
Front Axle	120/60-13	53	206	J	100	
Rear Axle	120/60-13	53	206	J	100	
Spare	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.





# TEST REPORT: FITTING OF TYRES TO TWO OR THREE WHEEL MOTOR VEHICLES

Paragraph	Parameter	Complies
Annex III	REQUIREMENTS FOR VEHICLES WITH REGARD TO THE FITTING OF THEIR TYRES:	
1.1	General	
	Subject to the provisions of section 2 every tyre fitted to a vehicle, including any spare, must bear the EC component type-approval mark (97/24) or the type-approval mark indicating compliance with ECE Regulation Nos: 30, 54, 64 or 75 as referred to in Article 4 of this Directive	Yes
1.2	Tyre fitment	
1.2.1	All of the tyres fitted to a vehicle must have the same speed categories symbol (Annex II 1.1.5)	Yes
1.2.2	All of the tyres fitted to one axle must be of the same type (see Annex II, section 1.1)	Yes
1.2.3	The space in which the wheel revolves must be such as to allow unrestricted movement when using the maximum permissible size of tyres within the suspension and steering constraints provided by the vehicle manufacturer	Yes
2	Special Cases:	
2.1	Motorcycles with side car, three wheel mopeds, tricycles and quadricycles may be fitted with tyres approved to 92/23/EC	N.A.
2.2	Mopeds, motorcycles type may be fitted	N.A.
2.3	Types for special conditions fitted? Give details:	<u>N.A.</u>
2.4	Types for special conditions fitted to low performance mopeds (Annex 1 92/61/EC) Give details:	<u>N.A.</u>







03-032 rev1

# Report/Job Number: MSN267484

Page: 1 of 12

TEST DETAILS	
Subject	Braking of two or three wheel motor vehicles
EC Directive	93/14/EEC – 2006/27/EC
ECE Regulation	78.02
Location of Test	Scarmagno (TO), Italy
Date of Test	19 and 20 of December 2012
VCA Representative	Luca Taschini
Manufacturer's Representative	Slawomir Kortas
Reason for Test	Introduction new engines as alternative for variant 73, 7E, 7F, 93, 9E.
	Introduction of 3 new brake pads as alternative.
	Introduction of new rear shock absorber as alternative.
	Introduction of new front fork as alternative.
	Introduction of new front and rear tire.
	Removal of commercial names.
	Editorial change of the information document.
	Corrections and document updating.

MANUFACTURER DETAILS	
Manufacturer's Name	GOVECS POLAND Sp. z.o.o.
Manufacturer's Address	UI. Graniczna 8c
	51-132 Wroclaw
	Poland
Model Type & description	Type 4E, variant/version 9E/1, 9E/2, 93/2, 73/1, 7E/1, 7F/1
Category	Motorcycle, L3e

CONCLUSION The above mentioned vehicle was tested in accordance with EC Directive 93/14/EEC as amended by 2006/27/EC and ECE Regulation 78.02 and was found to comply in all respects

Signature: ഹ Luca Taschini Name:

Position: Test Engineer Date: 04 March 2013

LIST OF ANNEXES							
ANNEX	No of PAGES	SUBJECT					
1							
2							
3							
4		ch					

MCWVTA ITEM 31 TR\*\* (TST REF 111)



Deregraph Deremeter Comp			
Paragraph Parameter Comp	Paragraph	Paramotor	Complies

TEST SPECIFICATION/WORST CASE RATIONALE:

It has been tested vehicle variant/version 7F/1 because equipped with all new devices and because it has the greater maximum speed. Only the front brake system has been tested because front and rear device are identical.

All known variants and versions of the this type are covered by this test report.

1 Risk assessment completed and stored in job folder Yes

2 Facilities and test equipments are appropriate

3 Calibration certificates checked and valid, recorded below

Equipment	Serial No.	Calibration data
Speed, distance, MFDD measurement:	AIM Type Evo 3 Pro n°1200369	30/08/2011
Lever effort measurement:	Futek (DSPM) Type LLB250(L1615) n°267293 and 78600	30/08/2011
Wet brake equipment:	TUV wet-brakes equipment	N/A
Weigh equipment:	3 Kg	

#### TEST SPECIFICATION:

ENGINE: GEARBOX: CATEGORY	VEHICLE : SME1422815 Automatic L3e
- SIZE	FRONT AXLE TYRES:
- PRESSURE (bar)	130/60-13 60M
- ROLLING CIRCUMFERENCE	2,2
(mm)	1467
- TREAD DEPTH (mm)	5
- SIZE	REAR AXLE TYRES:
- PRESSURE (bar)	130/60-13 60M
- ROLLING CIRCUMFERENCE	2,2
(mm)	1467
- TREAD DEPTH (mm)	5



Yes



Paragraph	1	Parameter	Complies
		BRAKE SYSTEM:	
-	FRONT AXLE	190mm single disc	
	drum & dia, number/axle, piston sizes, er cyl dia, lever ratios, hand or foot)	1 piston diameter 30,2mm	
maora		222mm lever with master cylinder diameter 1	2,7mm
		Right hand operated	
- FR	ONT BRAKE MATERIAL	Nr.3 different equipment. See information do	cument
		drawings DWG12.2, DWG12.3, DWG12.4.	
- (Disc)	REAR AXLE	Not tested	
	er cyl dia, lever ratios, hand or foot)		
- RE	AR BRAKE MATERIAL	Not tested	
-	PARK BRAKE	N.A.	
	l/foot, axle, brake type, dia, lever		
ratios	) FRONT/REAR	N.A.	
	NDEPENDENT OR	н.д.	
	SPLIT SYSTEM		
	IY BRAKE DISTRIBUTION	No	
VAL			
- AB		No	
	TEST SPECIFICATION	/ WORST CASE RATIONALE:	
	Manufacturer's docume	ntation complete	Yes
	GENERAL CHECKS	(STATICS)	
	Vehicle is as specified	in documentation	Yes
2	Systems correctly mou	unted, made of suitable materials and fitted	
	with locking devices w		Yes
	<b>9</b>	, , , , , , , , , , , , , , , , , , ,	
3.1.1.2	Brake linings asbestos	sfree	
	(Declared on drawings or confirme		Yes
2.2.1	Two independent brak	ing devices with independent controls(L1e,	
	L2e, L3e, L4e, L6e cat		Yes
	OR	<i>c ,</i> ,	
2.2.3.2		ce which operates on all the wheels and a	
	secondary braking dev	•	N.A.
		(100 (100, 100, 10)	
	Brief details:		
		vice brake acting on all wheels – see spec	
	on page 2)		N.A.
			21-Mar.





Paragraph	Parameter	Complies
2.2.2	Brake acting on sidecar wheel (L4e) if required	N.A.
2.2.4.1	Foot controlled service brake acting on all wheels, and a secondary braking device (L5e,L6e,L7e)	N.A.
	Brief details (i.e. foot operated service brake acting on all wheels – see spec on page 2)	N.A.
2.1.2.1	Front and rear braking possible with both hands on the steering control	Yes
2.2.2	Parking brake device (L2e, L5e, L6e, L7e) acting on wheels of at least one axle and with: independent control of service brake control (L5e, L6e, L7e) or independent of braking device acting on other axle(s) (L2e,L6e)	N.A.
2.1.2.3	Parking braking possible from normal driving position	N.A.
2.1.2.3	Parking brake held on by PURELY mechanical device (L2e, L5e, L6e, L7e) {no hydraulic element allowed}	N.A.
2.2.5	The braking devices must act on braking surfaces attached to wheels	Yes
2.2.5	Parts amply dimensioned and readily accessible	Yes
2.2.7.1	Means of adjustment accessible and lever ratios appropriate for reserve travel. (Apply the maximum allowed lever force – there must be more travel available)	Yes
2.2.7	Brakes operate freely	Yes
2.1.2.1	Brakes graduable	Yes
2.2.7.3	Brake components do not contact anything other than intended parts	Yes





Paragraph

Parameter

Complies

Toproval Aut

### DYNAMIC TESTING

### Mass (kg)

Load Condition	Front Axle(s)	Rear Axle(s)	GVW
Laden <sup>++</sup>	107 Kg	164 Kg	271 Kg
Unladen*	88 Kg	110 Kg	198 Kg

\* Includes mass of rider, and test equipment, maybe higher than running order with rider weight due to equipment weight.

<sup>++</sup> If unladen test mass is close to laden GVW testing may only be needed in one condition. The laden requirements must be meet.

#### EQUIPMENT 1: brake pads as described in drawing DWG12.2

#### UNLADEN TESTS

Brake system and Load Condition		Nom Speed km/h	Recd Speed km/h	Recd Dist m	Distance corrected for speed m	Recd MFDD m/sec <sup>2</sup>	Recd line pressure or control effort bar/daN
Front (Or Service)	U	60	62			4,7	12,3
LIMITS FRONT	U	60				4.4	20.0

1.2.1.1 Record Distance and MFDD, both limits must be met.

Comment stability during connect stops: The tests and measurements carried out have shown the stable behaviour of the vehicle.

SPI	SPECIAL TYPE `O' WET TEST - L1e, L2e, L3e AND L4e Exposed disc brakes						
	Brake system and Load condition		Nom Speed km/h	Recd Speed km/h		Deceleration m/s <sup>2</sup>	Recd line pressure or control effort bar/daN
D R Y	Front	U	60	60	MFDD 0.5 to 1.0 sec window	2,5	6,1
W E T	Front	υ	60	60	MFDD 0.5 to 1.0 sec window	2,8	6,2
							21-Mar-13



Paragraph	Parameter	Complies	
	Mean deceleration wet test at least 60% of dry reference (in 0.5 – 1.0 second window)	Front	Yes
		Rear	Yes
	Deceleration during wet test never more than 120% of dry reference	Front	Yes
		Rear	Yes

### LADEN TESTS

#### PARKING BRAKE GRADIENT TEST

N.A.

Vehicle GVW on 18 % hill

Gradient used %	Facing	Control Force	Limit	Complies
N.A.	UP	N.A.	N.A.	N.A.
N.A.	DOWN	N.A.	N.A.	N.A.

### LADEN TESTS

Brake system and Load Condition	l	Nom Speed km/h	Recd Speed km/h	Recd Dist m	Distance corrected for speed m	Recd MFDD m/sec <sup>2</sup>	Recd line pressure or control effort bar/daN
Front	L	60	61			4,6	12,3
(Or Service)		00	01			4,0	12,0
LIMITS	L	<u> </u>					20.0
FRONT		60				4.4	20.0

1.2.1.1 Record Distance and MFDD, both limits must be met.





Paragraph				Complies				
TYPE I TEST: CO	DLD REF	ERENC	E TEST	Γ (LADEN) L3	3 L4. L5. L7	7		
TYPE I TEST: COLD REFERENCE TEST (LADEN) L3 L4, L5, L7 (Type O result can be used, or a lower effort cold reference to avoid wheel lock on hot stop if performance improves)								
Brake system	Nom	Recd	Recd	Distance	MFDD	Recd line		

and Load condition	Nom Speed km/h	Recd Speed km/h	Dist m	corrected for speed m	MFDD m/sec <sup>2</sup>	pressure or control effort bar/daN
Front	60	61			4,6	12,3

TYPE I FADE TEST

### FRONT BRAKE

Speed V km/h Number of applications: 10	Interval Distance 1000 m Control effort for repeated braking: Front 3,8 daN (Force to give MFDD of 3.0)	58 km/h
	010.07	
Number of applications: 10	Front 3,8 daN (Force to give MFDD	

Time elapsed between last fade application and hot Type `O' N.A. test secs

		Nom Speed km/h	Recd Speed km/h	Recd Dist m	Distance corrected for speed m	Recd AV Decel m/sec <sup>2</sup>	Recd line pressure or control effort bar/daN
HOT Type `O'	F	60	60			4,3	12,1
Limit: 60% of cold reference	F	60				2,8	20,0





Paragraph Parameter Complies	Parameter Complies
------------------------------	--------------------

EQUIPMENT 2: brake pads as described in drawing DWG12.3

### UNLADEN TESTS

Brake system and Load Condition		Nom Speed km/h	Recd Speed km/h	Recd Dist m	Distance corrected for speed m	Recd MFDD m/sec <sup>2</sup>	Recd line pressure or control effort bar/daN
Front (Or Service)	U	60	60			4,8	11,9
LIMITS FRONT	U	60				4.4	20.0

1.2.1.1 Record Distance and MFDD, both limits must be met.

Comment stability during connect stops: The tests and measurements carried out have shown the stable behaviour of the vehicle.

SP	SPECIAL TYPE `O' WET TEST - L1e, L2e, L3e AND L4e Exposed disc brakes							
	Brake system and Load condition		Nom Speed km/h	Recd Speed km/h		Deceleration m/s <sup>2</sup>	Recd line pressure or control effort bar/daN	
D R Y	Front	U	60	59	MFDD 0.5 to 1.0 sec window	2,4	7,0	
W E T	Front	U	60	61	MFDD 0.5 to 1.0 sec window	2,7	7,2	

Mean deceleration wet test at least 60% of dry reference (in 0.5 – 1.0 second window)	Front	Yes
	Rear	
		Yes
	Frent	
Deceleration during wet test never more than 120% of dry reference	Front	Yes
	Rear	
	itteai	Vaa





Paragraph	Parameter	Complies

#### LADEN TESTS

### PARKING BRAKE GRADIENT TEST Vehicle GVW on 18 % hill

Complies **Control Force** Gradient used Facing Limit % N.A. N.A. UP N.A. N.A. N.A. DOWN N.A. N.A. N.A.

### LADEN TESTS

Brake system and Load Condition		Nom Speed km/h	Recd Speed km/h	Recd Dist m	Distance corrected for speed m	Recd MFDD m/sec <sup>2</sup>	Recd line pressure or control effort bar/daN
Front (Or Service)	L	60	60			4,8	13,8
LIMITS FRONT	L	60				4.4	20.0

1.2.1.1 Record Distance and MFDD, both limits must be met.

#### TYPE I TEST: COLD REFERENCE TEST (LADEN) L3 L4, L5, L7

(Type O result can be used, or a lower effort cold reference to avoid wheel lock on hot stop if performance improves)

Brake system and Load condition	Nom Speed km/h	Recd Speed km/h	Recd Dist m	Distance corrected for speed m	MFDD m/sec <sup>2</sup>	Recd line pressure or control effort bar/daN
Front	60	60			4,8	13,8

TYPE I FADE TEST

FRONT BRAKE

Speed V km/h	Interval Distance 1000 m
Number of applications: 10	Control effort for repeated braking: Front 3,6 daN (Force to give MFDD of 3.0)

Time elapsed between last fade application and hot Type `O' test secs



58 km/h

N.A.



Paragraph

Complies

# TEST REPORT: Braking of two or three wheel motor vehicles

		Nom Speed km/h	Recd Speed km/h	Recd Dist m	Distance corrected for speed m	Recd AV Decel m/sec <sup>2</sup>	Recd line pressure or control effort bar/daN
HOT Type `O'	F	60	60			4,1	13,5
Limit: 60% of cold reference	F	60				2,9	20,0

EQUIPMENT 3: brake pads as described in drawing DWG12.4

### UNLADEN TESTS

Brake system and Load Condition		Nom Speed km/h	Recd Speed km/h	Recd Dist m	Distance corrected for speed m	Recd MFDD m/sec <sup>2</sup>	Recd line pressure or control effort bar/daN
Front (Or Service)	U	60	59			4,9	14,7
LIMITS FRONT	U	60				4.4	20.0

Parameter

1.2.1.1 Record Distance and MFDD, both limits must be met.

Comment stability during connect stops: The tests and measurements carried out have shown the stable behaviour of the vehicle.

SP	SPECIAL TYPE `O' WET TEST - L1e, L2e, L3e AND L4e Exposed disc brakes									
	Brake system and Load condition		Nom Speed km/h	Recd Speed km/h		Deceleration m/s <sup>2</sup>	Recd line pressure or control effort bar/daN			
D R Y	Front	U	60	61	MFDD 0.5 to 1.0 sec window	2,5	5,9			
W E T	Front	υ	60	60	MFDD 0.5 to 1.0 sec window	2,4	6,0			



Paragraph	Parameter	Complies	
	Mean deceleration wet test at least 60% of dry	Front	
	reference (in 0.5 – 1.0 second window)		Yes
		Rear	
			Yes
	Deceleration during wet test never more than	Front	
	120% of dry reference		Yes
	,	Rear	
			Yes

### LADEN TESTS

#### PARKING BRAKE GRADIENT TEST

N.A.

Vehicle GVW on 18 % hill

Gradient used %	Facing	Control Force	Limit	Complies
N.A.	UP	N.A.	N.A.	N.A.
N.A.	DOWN	N.A.	N.A.	N.A.

### LADEN TESTS

Brake system and Load Condition		Nom Speed km/h	Recd Speed km/h	Recd Dist m	Distance corrected for speed m	Recd MFDD m/sec <sup>2</sup>	Recd line pressure or control effort bar/daN
Front	L	60	59			4,7	15,1
(Or Service)							
LIMITS	L	<u> </u>					20.0
FRONT		60				4.4	20.0

1.2.1.1 Record Distance and MFDD, both limits must be met.

# TYPE I TEST: COLD REFERENCE TEST (LADEN) L3 L4, L5, L7

(Type O result can be used, or a lower effort cold reference to avoid wheel lock on hot stop if performance improves)

Brake system and Load condition	Nom Speed km/h	Recd Speed km/h	Recd Dist m	Distance corrected for speed m	MFDD m/sec <sup>2</sup>	Recd line pressure or control effort bar/daN
Front	60	59			4,7	15,1





Paragraph	Р	arameter	Complies
	TYPE I FADE TEST		
	FRONT BRAKE		
	Speed V km/h Number of applications: 10	Interval Distance 1000 m Control effort for repeated braking: Front 4,0 daN (Force to give MFDD of 3.0)	58 km/h
	Time elapsed between last f test secs	ade application and hot Type `O'	N.A.

		Nom Speed km/h	Recd Speed km/h	Recd Dist m	Distance corrected for speed m	Recd AV Decel m/sec <sup>2</sup>	Recd line pressure or control effort bar/daN
HOT Type `O'	F	60	60			4,4	14,2
Limit: 60% of cold reference	F	60				2,8	20,0

Conditions during dynamic testing:

Wind speed	N.A.	Ambient temperature	°C	9 °C
Brakes were	not binding or r	ubbing at ambient temp	erature	Yes
		e handling and stability action of the controls e		Yes







### RADIO INTERFERENCE (ELECTROMAGNETIC COMPATIBILITY) - VEHICLE TEST

Report/Job Number: MSN267485

Page 1 of 12

#### **TEST DETAILS** ELECTROMAGNETIC COMPATIBILITY - VEHICLE TEST Subject **EC** Directive 97/24 Chapter 8 - 2009/108/EC ECE Regulation N/A Location of Test Scarmagno (TO), Italy 19 and 20 of December 2012 Date of Test VCA Representative Luca Taschini Manufacturer's Representative Slawomir Kortas Reason for Test Introduction new engines as alternative for variant 73, 7E, 7F, 93.9E. Introduction of 3 new brake pads as alternative. Introduction of new rear shock absorber as alternative. Introduction of new front fork as alternative. Introduction of new antitheft device as alternative. Introduction of 2 new grab handles as alternative. Introduction of new front and rear tire. Introduction of new rear view mirrors as alternative. Removal of commercial names. Add drawings of motor controllers. Change address of manufacturer and assembly plant. Editorial change of the information document. Corrections and document updating.

MANUFACTURER DETAILS	
Manufacturer's Name	GOVECS POLAND Sp. z.o.o.
Manufacturer's Address	UI. Graniczna 8c
	51-132 Wroclaw
	Poland
Model Type & description	Type 4E, variant/version 9E/1, 9E/2, 93/2, 73/1, 7E/1, 7F/1
Category	Motorcycle, L3e
CONCLUSION	The above mentioned vehicle was tested in accordance with

EC Directive 2002/24EC as amended and was found to comply, in all-respects Signature: LO. Name. Luca Taschini Position: Test Engineer

Date: 04 March 2013

LIST OF ANNE	EXES		
ANNEX	No of PAGES	SUBJECT	cha l
			21-Mar-13



Report/Job Number: MSN267485, Page 2 of 12

# TEST REPORT: RADIO INTERFERENCE (ELECTROMAGNETIC COMPATIBILITY)

Paragraph

Parameter

Complie s

# TEST SPECIFICATION/WORST CASE RATIONALE: It has been tested vehicle variant/version 7E/1 because equipped with all new devices.

- 1 Risk assessment completed and stored in job folder Yes
- 2 Facilities and test equipments are appropriate Yes
- 3 Calibration certificates checked and valid, recorded below

Equipment	Serial No.	Calibration data
Semianechoic room SIEMENS 20x11x8 m	N/A	N/A
Test Receiver Rohde&Schwarz ESU26	100188	17/01/2012
Biconical antenna EMCO 3110B	9408-1910	21/05/2012
Log-Periodic Antenna Electro Metrix LPA-25	1117	10/08/2010
Amplifier IFI M406	60821	N/A
Amplifier A/R Mod. 500W 1000A 80-1000 MHz	304066	N/A
Signal Generator Rhode&Schwarz SMR 20	101684	08/11/2011
Power meter Rhode&Schwarz NRVS	841954/007	28/11/2011
Directional Coupler Amplifier research DC6180	14108	19/01/2012
Directional Coupler Amplifier research DC2000	14209	30/01/2012
Antenna Log-periodica A/R Mod.AT 6026A	0329912	N/A
Isotropic Sensore Narda EMC 300 + Type 9.2	C0008 + W0031	14/02/2012

Documentation complete

Vehicle corresponds to that agreed in worst-case meeting





Report/Job Number: MSN267485, Page 3 of 12

# TEST REPORT: RADIO INTERFERENCE (ELECTROMAGNETIC COMPATIBILITY)

Paragra	aph Parameter	Complie s
&	EMISSIONS	
	Measuring equipment complies with CISPR 16-1(93)	Yes
	Type and calibration date:	See table
	TEST LOCATION:	
	O.A.T.S. Is level, clear area free from electromagnetic reflecting surfaces within a circle of minimum radius 30m	Semi- anechoic chamber
	Measuring equipment within test site but only in permitted region (See Figure 1)	Yes
	Ambient noise at least 10 dB below reference limits	Yes
	ANTENNA	
	Types and calibration dates:	See table
	Height and distance: 3 m and 10 m OR 1.8 m and 3 m	N/A Yes
	Antenna's receiving elements no closer than 0.25m to the plane on which the vehicle rests	Yes
	If enclosed test facility is used, antenna's receiving elements no closer than 1.0m to any radio absorbent material or closer than 1.5m to the wall of facility	Yes
	No absorbent material between receiving antenna and vehicle	Yes
	Pre-test sweep supplied to show compliance throughout frequency range 30 to 1000 MHz	Yes
	Test frequencies chosen from pre-test data	Yes





Report/Job Number: MSN267485, Page 4 of 12

# TEST REPORT: RADIO INTERFERENCE (ELECTROMAGNETIC COMPATIBILITY)

Para	agraph	aph Parameter	
V	NARROWBAND TEST		
	Initial test carried out		Yes
	Ignition switched on		Yes
	Electronic systems in normal operat	ing mode	Yes
	Comments:		
	Detector used and bandwidth		Yes





# T REPORT:RADIO INTERFERENCE (ELECTROMAGNETIC03-042COMPATIBILITY) - VEHICLE TEST

Report/Job Number: MSN267485

Page 5 of 12

Electric motorcycle type 4E, variant 7F, equipped with engine type AMK6143 - NARROWBAND TEST RESULTS

Frequency Range	Frequency	Left Har	nd Side	Right Ha	and Side	Correction Factor	Maximum Value	Limit
(MHz)	(MHz)	Horizontal dB (µ V/m)	Vertical dB (µ V/m)	Horizontal dB (µ V/m)	Vertical dB (µ V/m)	dΒ (μ V/m)	dB (µ V/m)	dΒ (μ V/m)
30 - 45	36,5	25	26	22,7	27	Already included in the results	27	34,0
45 - 80	62,6	28	29	25	28,6	Already included in the results	29	34,0
80 - 130	112	25	27	22	27	Already included in the results	27	34,8
130 - 170	170	25	24	20	25	Already included in the results	25	35,2
170 - 225	224	20	20	21	20	Already included in the results	22	38,7
225 - 300	287	22	25	25	27	Already included in the results	27	39,5
300 - 400	349	25	27	26,5	27	Already included in the results	27	41,4
400 - 525	500	27	27	28	27	Already included in the results	28	45,0
525 - 700	600	35	35	33	36,5	Already included in the results	36,5	45,0
700 - 850	830	33	33	34	35	Already included in the results	35	45,0
850 - 1000	966	37	35	36	37	Already included in the results	37	45,0

21-Mar-13



Report/Job Number: MSN267485 , Page 6 of 12

# TEST REPORT: RADIO INTERFERENCE (ELECTROMAGNETIC COMPATIBILITY)

D	
Paragraph	
i ulugiupii	

Parameter

Complie s

### Electric motorcycle type 4E, variant 7F, equipped with engine type TSB13492D - NARROWBAND TEST RESULTS

Frequency Range	Frequency	Left Har	nd Side	Right Ha	and Side	Correction Factor	Maximum Value	Limit
(MHz)	(MHz)	Horizontal dB (µ V/m)	Vertical dB (μ V/m)	Horizontal dB (µ V/m)	Vertical dB (µ V/m)	dB (µ V/m)	dB (µ V/m)	dΒ (μ V/m)
30 - 45	44,5	20	25	21	29	Already included in the results	29	34,0
45 - 80	66,6	21	28	25	30	Already included in the results	30	34,0
80 - 130	83,4	20	27	23	27	Already included in the results	27	35,2
130 - 170	144,0	23	22	23	24	Already included in the results	24	38,7
170 - 225	198,9	20	22	22	22	Already included in the results	22	39,8
225 - 300	300,0	25	26	26	24	Already included in the results	26	41,1
300 - 400	349,7	25	25	28	25	Already included in the results	28	43,1
400 - 525	496,6	30	29	31	27	Already included in the results	31	45,0
525 - 700	695,0	31	30	30	34	Already included in the results	34	45,0
700 - 850	784,8	34	33	34	34	Already included in the results	34	45,0
850 - 1000	894,0	37	35	38	37	Already included in the results	38	45,0

VEHICLE CERTIFICATION
TEST REPORT:
03-042

# RADIO INTERFERENCE (ELECTROMAGNETIC COMPATIBILITY) - VEHICLE TEST

# Report/Job Number: MSN267485

Page 7 of 12

### IV BROADBAND TEST - SEE ANNEX 2 FOR TEST RESULTS

Engine is at normal operating temperature and running at correct speed Single cylinder 2500rpm +/-10% > one cylinder 1500rpm +/- 10%	
Electric motors 75% of maximum operating power	Yes
Speed setting mechanism not influencing electromagnetic radiation	Yes
Other sources of broadband noise at maximum current drain	No
List:	

Detector used and bandwidth

Yes





# T REPORT:RADIO INTERFERENCE (ELECTROMAGNETIC03-042COMPATIBILITY) - VEHICLE TEST

### Report/Job Number: MSN267485

Page 8 of 12

21-Mar-1

#### Electric motorcycle type 4E, variant 7F, equipped with engine type AMK6143 - BROADBAND TEST RESULTS

Frequency Suggested	Frequency	Left Har	nd Side	Right Ha	and Side	Correction Factor	Maximum Value	Limit
(MHz)	(MHz)	Horizontal dB (µ V/m)	Vertical dB (μ V/m)	Horizontal dB (µ V/m)	Vertical dB (μ V/m)	dΒ (μ V/m)	dB (µ V/m)	dB (µ V/m)
45	45	22	24	18	25	Already included in the results	25	44,0
65	65	25	27	23	30	Already included in the results	30	44,0
90	90	19	23	20	24	Already included in the results	24	45,2
150	150	20	20	21	20	Already included in the results	21	48,7
180	180	18	19	19	20	Already included in the results	20	49,8
220	220	20	20	18	20	Already included in the results	20	51,1
300	300	20	20	22	20	Already included in the results	22	53,1
450	450	22	20	25	22	Already included in the results	25	55,0
600	600	34	35	32	35	Already included in the results	35	55,0
750	750	28	30	30	30	Already included in the results	30	55,0
900	900	31	30	33	33	Already included in the results	33	55,0



Report/Job Number: MSN267485 , Page 9 of 12

# TEST REPORT: RADIO INTERFERENCE (ELECTROMAGNETIC COMPATIBILITY)

Paragraph
-----------

Parameter

Complie s

### Electric motorcycle type 4E, variant 7F, equipped with engine type TSB13492D - BROADBAND TEST RESULTS

Frequency Suggested	Frequency	Left Han	nd Side	Right Ha	and Side	Correction Factor	Maximum Value	Limit
(MHz)	(MHz)	Horizontal dB (µ V/m)	Vertical dB (μ V/m)	Horizontal dB (µ V/m)	Vertical dB (μ V/m)	dΒ (μ V/m)	dB (µ V/m)	dB (µ V/m)
45	45	23	26	25	23	Already included in the results	26	44,0
65	65	25	26	24	28	Already included in the results	28	44,0
90	90	20	24	22	24	Already included in the results	24	45,2
150	150	20	20	19	20	Already included in the results	20	48,7
180	180	20	22	21	20	Already included in the results	22	49,8
220	220	22	23	19	20	Already included in the results	23	51,1
300	300	22	24	20	22	Already included in the results	24	53,1
450	450	24	26	21	25	Already included in the results	26	55,0
600	600	30	31	30	33	Already included in the results	33	55,0
750	750	30	32	30	30	Already included in the results	32	55,0
900	900	34	36	32	33	Already included in the results	36	55,0



# RADIO INTERFERENCE (ELECTROMAGNETIC COMPATIBILITY) - VEHICLE TEST

Report/Job Number: MSN267485

Page 10 of 12

#### IV IMMUNITY

TEST FACILITY DESIGNATION/NO:	
CALIBRATION: Date:	
Antenna type(s) and frequency range(s): Log-periodica A/R mod. AT 6026A – 26 Mhz, 6 Ghz (serial number 0329912)	
Antenna polarization -	Vertical
Antenna height -	1,8 m
Antenna elements no closer than 0.25 m to plane on which vehicle rests	Yes
and no closer than 1.0 m to any absorber	Yes
and no closer than 1.5 m to any wall	Yes
No absorbent material between antenna and vehicle	Yes
REFERENCE POINT	
- as Appendix 1 or 2 -	as Appendix 2
- distance from antenna -	3 m
- on vehicle centre line	Yes
- height 1.0 ± 0.05m or 2.0 ± 0.05m -	1.0 ± 0.05m
Extraneous equipment in place during calibration	No
Forward power used to define test field	Yes
OR another parameter directly related	No
Calibration steps $\leq$ 2% of previous frequency	Yes
Field store at a sector maining FOO/ of a sector big minimum OOO/ of	

Field strength contour minimum 50% of nominal in minimum 80% of calibration steps





Report/Job Number: MSN267485 , Page 11 of 12

# TEST REPORT: RADIO INTERFERENCE (ELECTROMAGNETIC COMPATIBILITY)

Paragraph	Parameter	Complie s
TEST ARRAN	NGEMENTS	
Vehicle		
- unladen exc	cept test equipment	Yes
- on appropria	ately loaded dynamometer	No
- OR insulate	ed axle stands	Yes
- headlights o	n dipped beam	Yes
- left or right d	lirection indicator flashing	Yes
- all other sys of vehicle	stems which affect driver's control on as in normal operation	Yes
- no connecti	ons to test area	Yes
- reports for c	other systems attached	No
- only non-pe	erturbing monitoring equipment	Yes
- facing anter	nna on centre line	Yes
- OR other (st	tate position)	N/A
Antenna elem	nents no closer than 0.5m to outer body surface of vehicle	Yes
TLS $\ge$ 75% of	f length of vehicle	Yes
Antenna and t calibration	test equipment layout to the same specification as for	Yes
Pre-test swee 20 to 1000 Mł	ep supplied to show compliance throughout frequency range Hz	Yes
Test frequence	cies chosen from pre-test data	Yes
Test signal dv	vell time sufficient (minimum 2 seconds)	Yes
Vehicle speed	d: 40 km/h and gear:	21-Mai

21-Mar-13



Report/Job Number: MSN267485 , Page 12 of 12

# TEST REPORT: RADIO INTERFERENCE (ELECTROMAGNETIC COMPATIBILITY)

Paragrap	h Parameter	Complie s
	Modulated test signal peak value equals unmodulated sine wave peak value whose test limits are defined in paragraph 6.4.2 of Annex I (For Modulation, carrier wave power is reduced by 5.1 dB to conserve peaks)	Yes
	Test signal is R.F. sine wave amplitude modulated by a 1 kHz sine wave at a modulation depth of 0.8 $\pm$ 0.04	Yes

#### ALL VARIANTS/VERSIONS VEHICLES IMMUNITY TEST RESULTS

Frequency [ MHz ]	Vertical [ V/m ]	Horizontal [ V/m ]
27	30,0	30,0
45	30,0	30,0
65	30,0	30,0
90	30,0	30,0
150	30,0	30,0
180	30,0	30,0
220	30,0	30,0
300	30,0	30,0
450	30,0	30,0
600	30,0	30,0
750	30,0	30,0
900	30,0	30,0

 6.4.2.2
 No malfunction at 30 V/m or below
 Yes

 6.4.2.1
 Malfunction between 25 and 30 V/m over less than 10% of 20 to 1000 MHz
 No

 6.1.4
 Tests not performed at chamber resonant frequencies
 Yes







### **TEST REPORT:**

### FITTING OF REAR VIEW MIRRORS TO TWO OR THREE WHEEL MOTOR VEHICLES (UNBODIED)

03-028rev1

Report/Job Number: MSN271582

# Page: 1 of 3

TEST DETAILS	
Subject	FITTING OF MIRRORS TO TWO OR THREE WHEEL
	MOTOR VEHICLES (UNBODIED)
EC Directive	97/24/EC CHAPTER 4 (ANNEX III) – 2006/27/EC
ECE Regulation	N/A
Location of Test	Scarmagno (TO), Italy
Date of Test	19 and 20 of December 2012
VCA Representative	Luca Taschini
Manufacturer's Representative	Slawomir Kortas
Reason for Test	Introduction of new rear view mirrors as alternative
	Corrections and document updating

MAN	IUF	ACT	UREF	R DETAILS
	-			

Manufacturer's Name Manufacturer's Address

Model Type & description

Category

GOVECS POLAND Sp. z.o.o. UI. Graniczna 8c 51-132 Wroclaw Poland Type 4E, variant/version 9E/1, 9E/2, 93/2, 73/1, 7E/1, 7F/1 Motorcycle, L3e

CONCLUSION	The above mentioned vehicle was tested in accordance with
	EC Directive 97/24/EC CHAPTER 4 (ANNEX III) as amended
	by 2009/108 and was found to comply in all respects
	Signature:
	Name: Luca Taschini
	Position: Test Engineer
	Date: 04 March 2013

LIST OF ANNEXES				
ANNEX	No of PAGES	SUBJECT		
1				
2				
3				
4				

M/CWVTA ITEM 38 TR\*\* (TST REF 140)



### TEST REPORT: FITTING OF MIRRORS TO TWO OR THREE WHEEL MOTOR VEHICLES

Paragraph	Parameter	Complies
1	Risk assessment completed and stored in job folder	Yes
2	Facilities and test equipments are appropriate	Yes
3	Calibration certificates checked and valid, recorded below	N/A

Equipment	Serial No.	Calibration data

TEST SPECIFICATION/WORST CASE RATIONALE: It has been tested vehicle variant/version 7F/1 because equipped with all new devices. All variant/version mentioned in the information document are covered by this test report.

See definition of unbodied in 2006/27/EC – explain specification below.

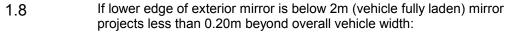
Manufacturer's documentation complete

Yes

Mirrors Fitted to the vehicle:

	Approval No:	Nominal R mm	Measured R
			mm
Exterior Left	E11-001167		
Exterior Right	E11-001167		

1.1	All mirrors remain stable under normal operating conditions	Yes
1.2	Centre of reflecting surface ≥280 mm from median longitudinal plane of the vehicle: Exterior Left: 370 mm Exterior Right: 370 mm	Yes
1.3	Normal driving position gives clear view of the road to side(s) and to the rear of the vehicle:	Yes
1.6	Angle between median longitudinal plane of the vehicle and line from the centre of the ocular points and the centre of the mirror is not more than 55°	Yes
	Actual angle: 48°	
1.7	Exterior mirrors do not project beyond bodywork more than necessary for field of vision	Yes







# TEST REPORT: FITTING OF MIRRORS TO TWO OR THREE WHEEL MOTOR VEHICLES

Paragraph		Parameter	Complies
	Actual projection left 0	),075 m	
	Actual projection right C	),075 m	
2.3	If single exterior mirror is fi	itted it is on the appropriate side	N/A
3	Adjustment:		
3.1	Mirrors are adjustable from	n the driving position	Yes







# **TEST REPORT:** Protective devices intended to prevent unauthorised use of two or three wheel motor vehicles

03-010

Report/Job Number: MSN267480

# Page: 1 of 4

roval A

TEST DETAILS	
Subject	Protective devices intended to prevent unauthorised use of two
	or three wheel vehicles
EC Directive	93/33/EEC as amended by 1999/23/EC
ECE Regulation	62.00
Location of Test	Scarmagno (TO), Italy
Date of Test	19 and 20 of December 2012
VCA Representative	Luca Taschini
Manufacturer's Representative	Slawomir Kortas
Reason for Test	Introduction new engines as alternative for variant 73, 7E, 7F, 93, 9E.
	Introduction of 3 new brake pads as alternative.
	Introduction of new rear shock absorber as alternative.
	Introduction of new front fork as alternative.
	Introduction of new antitheft device as alternative.
	Introduction of 2 new grab handles as alternative.
	Introduction of new front and rear tire.
	Introduction of new rear view mirrors as alternative.
	Removal of commercial names.
	Add drawings of motor controllers.
	Change address of manufacturer and assembly plant.
	Editorial change of the information document.
	Corrections and document updating.
MANUFACTURER DETAILS	
Manufacturer's Name Manufacturer's Address	GOVECS POLAND Sp. z.o.o.
	UI. Graniczna 8c, 51-132 Wroclaw - Poland
Model Type & description Category	Type 4E, variant/version 9E/1, 9E/2, 93/2, 73/1, 7E/1, 7F/1 Motorcycle, L3e
Category	
CONCLUSION	The above mentioned vehicle was tested in accordance with
	EC Directive 2002/24EC as amended and was found to
	comply, in all respects
	Signature:
	Aug plin
	Name: Luca Taschini
	Position: Test Engineer

Date: 04 March 2013

LIST OF ANNEXES		
ANNEX	No of PAGES	SUBJECT
1		the second se
2		
		MCWVTA ITEM 41 TR** (TST REF 56)



#### VEHICLE CERTIFICATION AGENCY AGENCY TEST REPORT: Protective devices intended to prevent unauthorised use of two or three wheel motor vehicles

Para	graph Parameter	Complies
	TEST SPECIFICATION/ WORST CASE RATIONALE: It has been tested anti- theft device described in drawing number DWG23.1 of manufacturer information document.	
	Manufacturer's documentation complete	Yes
	GENERAL CHECKS	
2.4	Type Number of device (1, 2, 3 or 4)	2
	Type 1: solely and positively operated on the steering alone,	
	Type 2: positively operated on the steering in conjunction with the device which de-activates the engine,	
	Type 3: pre-loaded, operating on the steering in conjunction with the device which de-activates the engine,	
	Type 4: positively operated on the transmission	
	Device is as specified in documentation	Yes
3	GENERAL SPECIFICATIONS	
3.2.1	Vehicle cannot be steered or driven/moved forward in a straight line with device engaged	Yes
3.2.2	Transmission prevented from functioning with device engaged (Type 4 only)	N/A
3.2.2	If activation is by control of parking device, does this act in conjunction with device for de-activating engine (Type 4 only)	N/A
3.2.3	Key extraction only possible with bolt in fully engaged or fully disengaged position	Yes
	No intermediate position of key will risk bolt engagement (with or without key inserted)	Yes
3.3	Only one key used	Yes





#### VEHICLE CERTIFICATION AGENCY AGENCY TEST REPORT: Protective devices intended to prevent unauthorised use of two or three wheel motor vehicles

Para	graph Parameter	Complies
3.4	Special tools required for dismantling	Yes
	Cannot be easily rendered ineffective or destroyed	Yes
3.5	Original equipment	Yes
	Lock securely assembled in protective device:	Yes
3.6	Manufacturer certifies 1000 different combinations:	Yes
3.7	Key and lock not visibly coded:	Yes
3.8	Nearest key in combination does not turn lock cylinder with a torque of less than 0.245 mdaN:	Yes
3.8.1	Design of tumblers meets requirements:	Yes
3.8.2 3.9	Risk of accidental locking excluded:	Yes
3.10	Device withstood torque application of 20 mdaN in both directions (excluding Type 4)	Yes
	No damage sustained to steering mechanism likely to compromise safety (excluding Type 4)	Yes
3.11	Steering can only be locked at a minimum angle of 20 <sup>°</sup> to the left and/or right of straight ahead position (excluding Type 4):	Yes
4	SPECIFIC REQUIREMENTS	
4.1.1	Lockable only by movement of key (handlebars being in appropriate	
	position for bolt to engage in slot) (Types 1 and 2 only)	Yes
4.1.2	Pre-loading of bolt only possible by separate action combined with or in addition to turning of key (type 3 only)	N/A
	Removal of key not possible after bolt has been pre-loaded other than in accordance with 5.1.3 (Type 3 only)	N/A
4.2	Bolt prevented from engaging when device is in position which permits starting of engine (Types 2 and 3 only)	Yes





#### VEHICLE CERTIFICATION AGENCY AGENCY TEST REPORT: Protective devices intended to prevent unauthorised use of two or three wheel motor vehicles

Paragraph Parameter		Complies
4.3	Impossible to prevent device functioning when set (Type 3 only)	N/A
4.4	Device subjected to wear test for 2500 cycles (Type 3 only)	
	Device in good working order and complies with 5.7,5.8, 5.9 and 6.3 after wear test (Type 3 only)	N/A

Instrumentation	Make and type	Calibration
Load cell	Maha 2291519	31-08-2011
Measuring tape	Stanley 33-921	23-08-2011







### **TEST REPORT:**

# Passenger hand holds on two wheel motor vehicles

03-007

Report/Job Number: MSN271669

Page: 1 of 3

	Γ
TEST DETAILS Subject EC Directive ECE Regulation Location of Test Date of Test VCA Representative Manufacturer's Representative Reason for Test	Passenger hand holds on two wheel motor vehicles 93/32/EEC and 1999/24/EC N/A Scarmagno (TO), Italy 19 and 20 of December 2012 Luca Taschini Slawomir Kortas Introduction new engines as alternative for variant 73, 7E, 7F, 93, 9E. Introduction of 3 new brake pads as alternative. Introduction of new rear shock absorber as alternative. Introduction of new front fork as alternative. Introduction of new front fork as alternative. Introduction of new antitheft device as alternative. Introduction of 2 new grab handles as alternative. Introduction of new front and rear tire. Introduction of new rear view mirrors as alternative. Removal of commercial names. Add drawings of motor controllers. Change address of manufacturer and assembly plant. Editorial change of the information document. Corrections and document updating.
MANUFACTURER DETAILS Manufacturer's Name Manufacturer's Address Model Type & description Category	GOVECS POLAND Sp. z.o.o. UI. Graniczna 8c, 51-132 Wroclaw - Poland Type 4E, variant/version 9E/1, 9E/2, 93/2, 73/1, 7E/1, 7F/1 Motorcycle, L3e
CONCLUSION	The above mentioned vehicle was tested in accordance with EC Directive 93/32 as last amended by 1999/24/EC and was found to comply in all respects Signature: Name: Luca Taschini Position: Test Engineer Date: 04 March 2013

LIST OF ANNEX	KES		
ANNEX	No of PAGES	SUBJECT	
1			

EWVTA ITEM 43 TR\*\* (TST REF 101)



### TEST REPORT: Passenger hand holds on two wheel motor vehicles

Paragraph	Parameter	Complies

TEST SPECIFICATION/WORST CASE RATIONALE: Have been tested the devices described in drawing numbers DWG29.3 and DWG29.4 of manufacturer information document

1 Risk assessment completed and stored in job folder Yes

2 Facilities and test equipments are appropriate Yes

3 Calibration certificates checked and valid, recorded below

Equipment	Serial No.	Calibration data
Dynamometer 03	DIN_01	03.08.2010

Manufacturer's documentation complete		Yes
Method of load application:		
Vehicle loaded with no more than 75 kg fo passenger in normal seating positions	r rider and 75 kg for	Yes
Rear wheel of vehicle anchored to floor to	Yes	
Test for Strap		
Strap positioned for ease of use		N.A.
Grip position symetrical to the median long vehicle	N.A.	
Load applied vertically to the centre of the	surface of the Strap	N.A.
Magnitude of load applied (>2000N)	Ν	N.A.
Area over which load applied	mm <sup>2</sup>	N.A.
Pressure (force/area)	N/mm <sup>2</sup>	N.A.
Maximum pressure less than 2 MPa or 2N	//mm <sup>2</sup>	N.A.
Test for Hand Grip		

Load applied vertically to the centre of the surface of each hand grip

Ν

Magnitude of load applied (>2000N)

Yes



# TEST REPORT: Passenger hand holds on two wheel motor vehicles

Paragraph	Parameter		Complies
	Area over which load applied	mm <sup>2</sup>	1100
	Pressure (force/area)	N/mm <sup>2</sup>	1.92
	Maximum pressure less than 2 MPa or 2N	/mm <sup>2</sup>	Yes
	Strap/hand grips and its attachements cap required load without snapping	able of withstanding	Yes





4E

# ORD.No.: e11\_2002-24\_1144 - Edition:02 DIRECTIVE 2002/24/EC

### SUBJECT : MOTORCYCLE TYPE 4E

### This document concerns the following variants and versions :

Variant / Version	Notes (brief technical description)
9E/1	Electric engine, 96V battery, 4kW motor, max speed 63 km/h, mechanical transmission with one speed forward, front brake disc and rear brake drum.
9E/2	Electric engine, 96V battery, 4kW motor, max speed 63 km/h, mechanical transmission with one speed forward, front and rear brake disc.
93/2	Electric engine, 96V battery, 3kW motor, max speed 63 km/h, mechanical transmission with one speed forward, front and rear brake disc.
73/1	Electric engine, 72V battery, 3kW motor, max speed 63 km/h, mechanical transmission with one speed forward, front and rear brake disc.
7E/1	Electric engine, 72V battery, 4kW motor, max speed 63 km/h, mechanical transmission with one speed forward, front and rear brake disc.
7F/1	Electric engine, 72V battery, 6kW motor, max speed 83 km/h, mechanical transmission with one speed forward, front and rear brake disc.

### Document revisions:

Date	Reason of revision
01.10.2010	First submission
01.04.2011	Reason for extension: -New codification of previous version from "3" to "1" -Introduction of new variants 93, 73, 7E and 7F. -Introduction of new version 2. -Introduction of new braking devices, new side stand, new bluetooth ignition control systems, new engine types, new lithium batteries and new gear ratios. -Inclusion of max speed 83 km/h - variant 7F. -Inclusion of max speed 63 km/h - variant 93 with silicon battery. -Inclusion of max speed 63 km/h - variant 7E, 73 with lithium battery. -Inclusion Vehicle Identification Number in Appendix 1.
12.12.2012	Reason for extension: -Introduction new engines as alternative for variant 73, 7E, 7F, 93, 9E. -Introduction of 3 new brake pads as alternative. -Introduction of new rear shock absorber as alternative. -Introduction of new front fork as alternative. -Introduction of new antitheft device as alternative. -Introduction of 2 new grab handles as alternative. -Introduction of new front and rear tire. -Introduction of new rear view mirrors as alternative. -Add drawings of motor controllers. -Change address of manufacturer and assembly plant. -Removal of commercial names. -Editorial change of the information document. 21-Mar-13
	01.10.2010

# ORD.No.: e11\_2002-24\_1144 – Edition:02 DIRECTIVE 2002/24/EC

DWG02           DWG02.1           DWG03         1.           DWG03.1         1.           DWG04	3.1; 0.7         1.1         1.1         1.1         2; 1.2.1         2; 1.2.1         1; 3.1.2         1; 3.1.2         1; 3.1.2         1; 3.1.2         1; 3.1.2         3.2.4         3.2.4         3.2.4         5.1         5.1         5.1         5.1         5.1         5.1         5.1         5.1         5.1         5.1	VIN and statutory plate location.         Pictures of typical vehicle.         Pictures of typical vehicle.         Dimensional drawing of complete vehicle.         Dimensional drawing of complete vehicle.         Position and arrangement of engine.         Type of engine and position of the engine identification label.         Type of engine and position of the engine identification label.         Type of engine and position of the engine identification label.         Type of engine and position of the engine identification label.         Type of engine and position of the engine identification label.         Type of engine and position of the engine identification label.         Type of engine and position of the engine identification label.         Type of engine and position of the engine identification label.         Type of engine and position of the engine identification label.         Type of engine and position of the engine identification label.         Type of engine and position of the engine identification label.         Dimensional drawing of battery.         Dimensional drawing of battery.         Dimensional drawing of battery.         Picture of transmission system.         Picture of speedometer.         Drawing of rear suspension arrangement.         Drawing of rear shock absorber.         Drawing of frear shock absorber.	
DWG02           DWG02.1           DWG03         1.           DWG03.1         1.           DWG04.1         3.1.           DWG04.2         3.1.           DWG04.3         3.1.           DWG04.4         3.1.           DWG05         3.           DWG05.1         3.           DWG06         0           DWG07         4           DWG08.1         0           DWG09         0           DWG09.2         0           DWG10         7	1.1         1.1         2; 1.2.1         2; 1.2.1         1, 3.1.2         1; 3.1.2         1; 3.1.2         1; 3.1.2         1; 3.1.2         3.2.4         3.2.4         3.2.4         3.2.4         5.1         5.1         5.1         5.1         5.1         5.1         5.1         5.1	Pictures of typical vehicle.         Pictures of typical vehicle.         Dimensional drawing of complete vehicle.         Dimensional drawing of complete vehicle.         Position and arrangement of engine.         Type of engine and position of the engine identification label.         Type of engine and position of the engine identification label.         Type of engine and position of the engine identification label.         Type of engine and position of the engine identification label.         Type of engine and position of the engine identification label.         Type of engine and position of the engine identification label.         Type of engine and position of the engine identification label.         Type of engine and position of the engine identification label.         Type of engine and position of the engine identification label.         Type of engine and position of the engine identification label.         Dimensional drawing of battery.         Dimensional drawing of battery.         Dimensional drawing of battery.         Picture of speedometer.         Picture of speedometer.         Drawing of rear suspension arrangement.         Drawing of rear shock absorber.         Drawing of rear shock absorber.	
DWG03         1.           DWG03.1         1.           DWG04	2; 1.2.1 2; 1.2.1 1.4 1; 3.1.2 1; 3.1.2 1; 3.1.2 1; 3.1.2 1; 3.1.2 1; 3.1.2 3.2.4 3.2.4 3.2.4 4.1 4.7.3 5.1 5.1 5.1 5.1 5.1	Pictures of typical vehicle.         Dimensional drawing of complete vehicle.         Dimensional drawing of complete vehicle.         Position and arrangement of engine.         Type of engine and position of the engine identification label.         Type of engine and position of the engine identification label.         Type of engine and position of the engine identification label.         Type of engine and position of the engine identification label.         Type of engine and position of the engine identification label.         Type of engine and position of the engine identification label.         Type of engine and position of the engine identification label.         Type of engine and position of the engine identification label.         Type of engine and position of the engine identification label.         Dimensional drawing of battery.         Dimensional drawing of battery.         Dimensional drawing of battery.         Picture of speedometer.         Picture of speedometer.         Drawing of rear suspension arrangement.         Drawing of rear shock absorber.         Drawing of rear shock absorber.	
DWG03.1         1.           DWG04	2; 1.2.1 1.4 1; 3.1.2 1; 3.1.2 1; 3.1.2 1; 3.1.2 1; 3.1.2 1; 3.1.2 3.2.4 3.2.4 4.1 4.7.3 5.1 5.1 5.1 5.1 5.1	Dimensional drawing of complete vehicle.         Dimensional drawing of complete vehicle.         Position and arrangement of engine.         Type of engine and position of the engine identification label.         Type of engine and position of the engine identification label.         Type of engine and position of the engine identification label.         Type of engine and position of the engine identification label.         Type of engine and position of the engine identification label.         Type of engine and position of the engine identification label.         Type of engine and position of the engine identification label.         Type of engine and position of the engine identification label.         Type of engine and position of the engine identification label.         Battery location.         Dimensional drawing of battery.         Dimensional drawing of battery.         Picture of transmission system.         Picture of speedometer.         Drawing of rear suspension arrangement.         Drawing of rear shock absorber.         Drawing of rear shock absorber.	
DWG03.1         1.           DWG04	2; 1.2.1 1.4 1; 3.1.2 1; 3.1.2 1; 3.1.2 1; 3.1.2 1; 3.1.2 1; 3.1.2 3.2.4 3.2.4 4.1 4.7.3 5.1 5.1 5.1 5.1 5.1	Dimensional drawing of complete vehicle.         Position and arrangement of engine.         Type of engine and position of the engine identification label.         Type of engine and position of the engine identification label.         Type of engine and position of the engine identification label.         Type of engine and position of the engine identification label.         Type of engine and position of the engine identification label.         Type of engine and position of the engine identification label.         Type of engine and position of the engine identification label.         Type of engine and position of the engine identification label.         Type of engine and position of the engine identification label.         Dippe of engine and position of the engine identification label.         Type of engine and position of the engine identification label.         Type of engine and position of the engine identification label.         Type of engine and position of the engine identification label.         Battery location.         Battery location.         Dimensional drawing of battery.         Dimensional drawing of battery.         Picture of transmission system.         Picture of speedometer.         Drawing of rear suspension arrangement.         Drawing of rear shock absorber.         Drawing of rear shock absorber.	
DWG04.1         3.1.           DWG04.2         3.1.           DWG04.3         3.1.           DWG04.4         3.1.           DWG04.5         3.1.           DWG05         3.1           DWG05.1         3           DWG06         3           DWG07         4           DWG08         4           DWG08.1         5           DWG09         5           DWG09.1         5           DWG10         5	1; 3.1.2 1; 3.1.2 1; 3.1.2 1; 3.1.2 1; 3.1.2 3.2.4 3.2.4 3.2.4 4.1 4.7.3 5.1 5.1 5.1 5.1 5.1 5.1	Position and arrangement of engine.         Type of engine and position of the engine identification label.         Type of engine and position of the engine identification label.         Type of engine and position of the engine identification label.         Type of engine and position of the engine identification label.         Type of engine and position of the engine identification label.         Type of engine and position of the engine identification label.         Type of engine and position of the engine identification label.         Type of engine and position of the engine identification label.         Type of engine and position of the engine identification label.         Type of engine and position of the engine identification label.         Dimensional drawing of battery.         Dimensional drawing of battery.         Dimensional drawing of battery.         Picture of speedometer.         Picture of speedometer.         Drawing of rear suspension arrangement.         Drawing of rear shock absorber.         Drawing of rear shock absorber.	
DWG04.2         3.1.           DWG04.3         3.1.           DWG04.4         3.1.           DWG04.5         3.1.           DWG05         3.1           DWG05         3           DWG05.1         3           DWG05.2         3           DWG06         3           DWG07         4           DWG08.1         3           DWG09         3           DWG09.1         3           DWG10         3	1; 3.1.2 1; 3.1.2 1; 3.1.2 3.2.4 3.2.4 3.2.4 3.2.4 4.1 4.7.3 5.1 5.1 5.1 5.1 5.1 5.1	Type of engine and position of the engine identification label.         Type of engine and position of the engine identification label.         Type of engine and position of the engine identification label.         Type of engine and position of the engine identification label.         Type of engine and position of the engine identification label.         Type of engine and position of the engine identification label.         Type of engine and position of the engine identification label.         Type of engine and position of the engine identification label.         Type of engine and position of the engine identification label.         Type of engine and position of the engine identification label.         Dimensional drawing of battery.         Dimensional drawing of battery.         Dimensional drawing of battery.         Picture of transmission system.         Picture of speedometer.         Drawing of rear suspension arrangement.         Drawing of rear shock absorber.         Drawing of rear shock absorber.	
DWG04.2         3.1.           DWG04.3         3.1.           DWG04.4         3.1.           DWG04.5         3.1.           DWG05         3.1           DWG05         3           DWG05.1         3           DWG05.2         3           DWG06         3           DWG07         4           DWG08.1         3           DWG09         3           DWG09.1         3           DWG10         3	1; 3.1.2 1; 3.1.2 1; 3.1.2 3.2.4 3.2.4 3.2.4 3.2.4 4.1 4.7.3 5.1 5.1 5.1 5.1 5.1 5.1	Type of engine and position of the engine identification label.         Type of engine and position of the engine identification label.         Type of engine and position of the engine identification label.         Type of engine and position of the engine identification label.         Type of engine and position of the engine identification label.         Type of engine and position of the engine identification label.         Type of engine and position of the engine identification label.         Dipped engine and position of the engine identification label.         Dimensional drawing of battery.         Dimensional drawing of battery.         Dimensional drawing of battery.         Picture of transmission system.         Picture of speedometer.         Drawing of rear suspension arrangement.         Drawing of rear shock absorber.         Drawing of rear shock absorber.	
DWG04.3         3.1.           DWG04.4         3.1.           DWG05         3.1.           DWG05         3           DWG05.1         3           DWG05.2         3           DWG06         3           DWG07         4           DWG08         3           DWG08.1         3           DWG09         3           DWG09.1         3           DWG10         3	1; 3.1.2 1; 3.1.2 1; 3.1.2 3.2.4 3.2.4 3.2.4 3.2.4 4.1 4.7.3 5.1 5.1 5.1 5.1 5.1 5.1	Type of engine and position of the engine identification label.         Type of engine and position of the engine identification label.         Type of engine and position of the engine identification label.         Type of engine and position of the engine identification label.         Battery location.         Dimensional drawing of battery.         Dimensional drawing of battery.         Picture of transmission system.         Picture of speedometer.         Drawing of rear suspension arrangement.         Drawing of rear shock absorber.         Drawing of rear shock absorber.	
DWG04.4         3.1.           DWG05         3.1.           DWG05         3           DWG05.1         3           DWG05.2         3           DWG06         3           DWG07         4           DWG08         4           DWG08.1         4           DWG09         4           DWG09.2         5           DWG10         5	1; 3.1.2 1; 3.1.2 3.2.4 3.2.4 3.2.4 4.1 4.7.3 5.1 5.1 5.1 5.1 5.1 5.1	Type of engine and position of the engine identification label.         Type of engine and position of the engine identification label.         Battery location.         Dimensional drawing of battery.         Dimensional drawing of battery.         Picture of transmission system.         Picture of speedometer.         Drawing of rear suspension arrangement.         Drawing of rear shock absorber.         Drawing of rear shock absorber.	
DWG04.5         3.1.           DWG05         3           DWG05.1         3           DWG05.2         3           DWG06         3           DWG07         4           DWG08         4           DWG08.1         5           DWG09         5           DWG09.1         5           DWG10         5	1; 3.1.2 3.2.4 3.2.4 3.2.4 4.1 4.7.3 5.1 5.1 5.1 5.1 5.1 5.1 5.1	Type of engine and position of the engine identification label.         Battery location.         Dimensional drawing of battery.         Dimensional drawing of battery.         Picture of transmission system.         Picture of speedometer.         Drawing of rear suspension arrangement.         Drawing of rear shock absorber.         Drawing of rear shock absorber.	
DWG05         3           DWG05.1         3           DWG05.2         3           DWG06         3           DWG07         4           DWG08         4           DWG08.1         1           DWG08.2         1           DWG09         1           DWG09.1         1           DWG10         1	3.2.4 3.2.4 3.2.4 4.1 4.7.3 5.1 5.1 5.1 5.1 5.1 5.1 5.1	Battery location.         Dimensional drawing of battery.         Dimensional drawing of battery.         Picture of transmission system.         Picture of speedometer.         Drawing of rear suspension arrangement.         Drawing of rear shock absorber.         Drawing of rear shock absorber.	
DWG05.2         3           DWG06         0           DWG07         4           DWG08         0           DWG08.1         0           DWG08.2         0           DWG09         0           DWG09.1         0           DWG09.2         0           DWG10         0	3.2.4 4.1 4.7.3 5.1 5.1 5.1 5.1 5.1 5.1 5.1	Dimensional drawing of battery.         Dimensional drawing of battery.         Picture of transmission system.         Picture of speedometer.         Drawing of rear suspension arrangement.         Drawing of rear shock absorber.         Drawing of rear shock absorber.	
DWG06 DWG07 DWG08 DWG08.1 DWG08.2 DWG09 DWG09.1 DWG09.2 DWG10 DWG10.1	4.1 4.7.3 5.1 5.1 5.1 5.1 5.1 5.1 5.1	Dimensional drawing of battery.         Picture of transmission system.         Picture of speedometer.         Drawing of rear suspension arrangement.         Drawing of rear shock absorber.         Drawing of rear shock absorber.	
DWG06 DWG07 DWG08 DWG08.1 DWG08.2 DWG09 DWG09.1 DWG09.2 DWG10 DWG10.1	4.1 4.7.3 5.1 5.1 5.1 5.1 5.1 5.1 5.1	Picture of transmission system.         Picture of speedometer.         Drawing of rear suspension arrangement.         Drawing of rear shock absorber.         Drawing of rear shock absorber.	
DWG07         4           DWG08         6           DWG08.1         7           DWG08.2         7           DWG09         7           DWG09.1         7           DWG09.2         7           DWG10         7           DWG10.1         7	4.7.3 5.1 5.1 5.1 5.1 5.1 5.1 5.1	Picture of speedometer.         Drawing of rear suspension arrangement.         Drawing of rear shock absorber.         Drawing of rear shock absorber.	
DWG08 DWG08.1 DWG08.2 DWG09 DWG09.1 DWG09.2 DWG10 DWG10.1	5.1 5.1 5.1 5.1 5.1 5.1	Drawing of rear suspension arrangement. Drawing of rear shock absorber. Drawing of rear shock absorber.	
DWG08.1 DWG08.2 DWG09 DWG09.1 DWG09.2 DWG10 DWG10.1	5.1 5.1 5.1 5.1	Drawing of rear shock absorber. Drawing of rear shock absorber.	
DWG08.2 DWG09 DWG09.1 DWG09.2 DWG10 DWG10.1	5.1 5.1 5.1	Drawing of rear shock absorber.	
DWG09 DWG09.1 DWG09.2 DWG10 DWG10.1	5.1 5.1		
DWG09.1 DWG09.2 DWG10 DWG10.1	5.1		
DWG09.2 DWG10 DWG10.1		Drawing of front fork.	
DWG10 7 DWG10.1 7		Drawing of front fork.	
DWG10.1	7.3.1	Drawing of front brake caliper.	
	7.3.1	Drawing of front brake caliper.	
DWG11	7.3.1	Drawing of rear brake drum.	
	7.3.1	Drawing of rear brake caliper.	
	7.3.2	Drawing of front brake pads.	
	7.3.2	Drawing of front brake pads.	
	7.3.2	Drawing of front brake pads.	
	7.3.2	Drawing of front brake pads.	
	7.3.2	Drawing of front brake pads.	
	7.3.2	Drawing of rear brake pads.	
	7.3.2	Drawing of rear brake pads.	
	7.3.3	Drawing of left brake lever.	
	7.3.3	Drawing of left brake lever.	
	7.3.3	Drawing of right brake lever.	
	7.3.3	Drawing of right brake lever.	
	7.4	Drawing of front brake disc.	
	7.4	Drawing of rear brake disc.	
	8.2	Head light lamp position.	
	8.2	Front and rear direction indicator lamp position.	
	8.2	Side and rear retro-reflector position.	
	9.2.1	Arrangement of symbols, controls, tell-tales and indicators.	
	9.3.2	Drawing of statutory plate.	
	9.4.2	Drawing of ignition key switch with steering lock.	
	9.4.2	Drawing of ignition key switch with steering lock.	
	4.5.1	Picture of bluetooth ignition control system.	
	9.5.5	Location of the audible warning device.	
	9.6	Location of rear registration plate and licence plate light.	
	1.1.4	Location of rear view mirrors.	
	1.2.2	Location of central stand.	

2/13

**4E** 

# ORD.No.: e11\_2002-24\_1144 - Edition:02 DIRECTIVE 2002/24/EC

DWG28.1	B 1.2.2	Location of side stand.
DWG29	B 1.4.2	Location of hand-hold for a passenger.
DWG29.1	B 1.4.2	Location of hand-hold for a passenger.
DWG29.2	B 1.4.2	Location of hand-hold for a passenger.
DWG29.3	B 1.4.2	Location of hand-hold for a passenger.
DWG29.4	B 1.4.2	Location of hand-hold for a passenger.
DWG30	B 1.6	Drawing of anti tampering control label.
DWG31	-	Drawing of motor controller
DWG31.1	-	Drawing of motor controller
DWG32	0.7.1	Table of vehicle identification number system.



**4E** 

# ORD.No.: e11\_2002-24\_1144 – Edition:02 DIRECTIVE 2002/24/EC

A. INFORMATION RELATING JOINTLY TO MOPEDS, MOTORCYCLES, MOTOR TRYCYCLES AND QUADRICYCLES

0.	General description	
0.1	Make:	GOVECS.
0.2.	Туре:	4E.
	Variant and version:	9E/1, 9E/2, 93/2, 73/1, 7E/1, 7F/1.
0.2.1	Commercial name:	Not applicable.
0.3.	Means of type identification if stated on vehicle:	V.I.N.
0.3.1	Location of that means of identification:	Right side of the main frame. See attached drawings No. DWG01.
0.4	Vehicle category:	Motorcycle, L3e (according to 2002/24/EC).
0.5	Name and address of manufacturer:	GOVECS Poland Sp. z o.o. ul. Graniczna 8c 51-132 Wroclaw Poland See point 0.5
0.5.1	Name(s) and address(es) of assembly plants:	Not applicable.
0.6	Name and address of manufacturer's authorized representative, if any:	
0.7.	Position and method of affixing statutory inscriptions to the chassis:	Statutory plate fixed on the back by rivet. See attached drawings No. DWG01.
0.7.1	The serial numbering of the type begins with No.:	SVE4E?????W000001. Marked on the surface component made by molding.
0.8	Position and method of affixing the component type – approval mark for components and separate technical units:	
1.	General arrangement of vehicles	See attached drawing No. DWC02; DWC02 1
1.1	Photos and / or drawings of a typical vehicle:	See attached drawing No. DWG02; DWG02.1. See attached drawing No. DWG03; DWG03.1.
1.2.	Dimensional drawing of the complete vehicle:	See attached drawing No. DWG03; DWG03.1.
1.2.1	Wheelbase:	Two axles, two wheels.
1.3	Number of axels and wheels:	See attached drawings No. DWG04.
1.4	Position and arrangement of engine:	2
1.5	Number of seating positions:	- Both
1.6.	Hand of drive – left or right:	For right-hand and left-hand.
161	Vehicle is equipped to be driven in right-hand or left-hand	-

1.6.1 Vehicle is equipped to be driven in right-hand or left-hand rule of the road traffic:



**4E** 

# ORD.No.: e11\_2002-24\_1144 - Edition:02 DIRECTIVE 2002/24/EC

### 2. Masses (kg)

Туре	Variant/Version	Unladen/Running order	Running order + Rider	Maximum Permissibile
		weight		
		Front: 72	Front: 103	Front: 121
4E	9E/1, 9E/2, 93/2	Rear: 75	Rear: 119	Rear: 176
		Total: 147	Total: 222	Total: 297
	7E/1, 73/1	Front: 56	Front: 87	Front: 99
		Rear: 56	Rear: 100	Rear: 163
		Total: 112	Total: 187	Total: 262
		Front: 58	Front: 87	Front: 107
	7F/1	Rear: 63	Rear: 109	Rear: 164
		Total: 121	Total: 196	Total: 271

2.0	Unladen mass:	See point 2.
2.1.	Mass of vehicle in running order:	See point 2.
2.1.1.	Distribution of that mass between the axles:	See point 2.
2.2.	Mass of the vehicle in running order, together with rider:	See point 2.
2.2.1	Distribution of that mass between the axles:	See point 2.
2.3.	Maximum technically permissible mass declared by the manufacturer:	See point 2.
2.3.1	Distribution of that mass between the axels:	See point 2.
2.3.2	Maximum technically permissible mass on each of the axles:	See point 2.
2.4	Maximum hill-starting ability at the maximum technically permissible mass declared by the manufacturer:	18%
2.5	Maximum towable mass (where applicable):	Not applicable.
2.6	Maximum mass of the combination:	Not applicable.



# Vehicle type:

4E

6/13

# ORD.No.: e11\_2002-24\_1144 - Edition:02 DIRECTIVE 2002/24/EC

3.	Engine	
3.0	Manufacturer:	Parker Hannifin – Division SSD SBC, Via Gounod 1, 20092 Cinisello Balsamo (MI), Italy. Letrika - Polje15, 5290 Sempeter pri Gorici, Slovenia – as alternative. Teco Electro Devices - 11-1, An-Tung Rd., Chung-Li Industrial District, Taoyuan County 320, Taiwan - as alternative.
3.1	Make:	Parker Hannifin or Letrika or Teco as alternative.
3.1.1	Type (stated on the engine):	Parker MBH1051406 - for variant 9E/1. Parker SMH10032065 - for variant 9E/2, 93/2, 73/1, 7E/1. Parker SMH1004506 - alternative for variant 9E/2, 93/2, 73/1, 7E/1. Letrika AMK6143 - alternative for variant 9E/2, 93/2, 73/1, 7E/1. Parker SME1422815 - for variant 7F/1. Teco TSB13492D – alternative for variant 7F/1. See attached drawing No. DWG04.1; DWG04.2; DWG04.3; DWG04.4; DWG04.5.
3.1.2	Location of engine number:	See attached drawing No. DWG04.1; DWG04.2; DWG04.3; DWG04.4; DWG04.5.
3.2.	Spark or compression ignition engine	Not Applicable.
3.3.	Electric traction engine	
3.3.1	Туре:	DC Brushless Permanent-Magnet Synchonous Motor
3.3.1.1	Maximum continuous rated power:	3.0kW - for variant 73, 93. 4.0kW - for variant 7E, 9E. 6.0kW - for variant 7F.
3.3.1.2	Operating voltage:	96V – for variant 93, 9E. 72V – for variant 73, 7E, 7F.
3.3.2	Battery	
3.3.2.1	Number of cells:	8 – for variant 93, 9E. 1 – for variant 73, 7E, 7F.
3.3.2.2	Mass:	56kg – for variant 93, 9E. 32kg – for variant 73, 7E, 7F.
3.3.2.3	Capacity:	20Ah – for variant 93, 9E. 40Ah – for variant 73, 7E, 7F.
3.3.2.4	Location:	See attached drawing No. DWG05; DWG05.1; DWG05.2.
3.4	Other motors or combination of motors (specific informations concerning those parts of motors):	Not applicable.
3.5.	Temperature permitted by the manufacturer:	Not applicable.
from 3.5.1. to 3.5.2.2		Not applicable.
3.6.	Lubrication system:	Not applicable.
from 3.6.1. to 3.6.3.1.2		Not applicable.



7/13

### ORD.No.: e11\_2002-24\_1144 – Edition:02 DIRECTIVE 2002/24/EC

#### 4. Transmission See attached drawing No. DWG06 4.1 Diagram of transmission system: Electric Motor Transmission Rear Wheel output Belt 4.2 Type (mechanical, hydraulic, electrical, etc.): Mechanical. 4.3 Clutch (type): Not applicable. 4.4. Gearbox Not applicable. 4.4.1 Type: 4.4.2 Method of selection: Not applicable. 4.5. Gearratios

Variant 9E, 93, 7E, 73

R3	Rt		
6,46:1	6,46:1		
R3= final drive ratio (ratio of rotational speed of gearbox output shaft to rotational speed of driven wheels). Rt = overall ratio.			

#### Variant 7F

R3	Rt			
3,81:1	3,81:1			
R3= final drive ratio (ratio of rotational speed of gearbox output shaft to rotational speed of driven wheels). Rt = overall ratio.				

4.5.1 Brief description of the electrical and/or electronic components used in the trasmission:

Bluetooth ignition control system BlueID or Bluekey as alternative. The key code is powered by secure Bluetooth signal. The device does not have blocking device for the steering column. See attached drawing No. DWG24.

63 km/h - for variant 9E, 93, 7E, 73.

See attached drawing No. DWG07.

83 km/h - for variant 7F.

- 4.6 Maximum speed of vehicle and gear in which it is reached (km/h):
- 4.7 Speedometer
- 4.7.1 Make(s):
- 4.7.2 Type(s):
- 4.7.3 Photos and/or drawings of the complete system:
- 4.7.4 Range of speeds displayed:
- 4.7.5 Tollerance of the speedometer's measuring mechanism
- 4.7.6 Technical constant of the speedometer:
- 4.7.7 Method of operation and description of the drive mechanism:
- 4.7.8 Overall transmission ratio of the drive mechanism

0 to 999 km/h

SANSAN

SS163

+ 1 km/h - 5 km/h

Not controlled by speedometer. Speedometer simply displays value from CAN message.

Display information provided on CAN data bus.

Not applicable.



Not applicable.

### ORD.No.: e11\_2002-24\_1144 - Edition:02 DIRECTIVE 2002/24/EC

### 5. Suspension

5.2.1

- 5.1. Drawing of suspension arrangement:
- 5.1.1 Brief description of the electrical and/or electronic components used in the suspension:

See attached drawing No. DWG08; DWG08.1; DWG08.2, DWG09; DWG09.1; DWG09.2

5.2 Tyres (dimensions and maximum loading) and rims (standard type):

	Dimensions	Minimum Load Capacity Index	Minimum Speed Category Index	Rims
Front	130/60-13			
Optional	120/70-13	53	J	
Rear	130/60-13			3,5x13
Optional	120/70-13	53	J	
Nominal rolling c	ircumference:		30/60-13 – 1,467m. 20/70-13 – 1,504m.	

		120/70-13 – 1,504m.
5.2.2	Tyre pressure recommended by the manufacturer:	Front tyre 220 kPa. Rear tyre 220 kPa.
5.2.3	Tyres / rims combination(s):	Not applicable.
5.2.4	Minimum speed - category symbol compatible with the theoretical maximum design speed of the vehicle:	E – for variant 9E, 93, 7E, 73. G – for variant 7F.
5.2.5	Minimum load – capacity index with the maximum load on each tyre:	Front: 37 Rear: 49
5.2.6	Categories of use compatible for the vehicle:	Normal.



### Vehicle type:

Not applicable.

### 9/13

Yooroval Author

**4E** 

### ORD.No.: e11\_2002-24\_1144 – Edition:02 DIRECTIVE 2002/24/EC

### 6. Steering

- 6.1. Steering gear and control
- 6.1.1 Type of gear:
- 6.1.2 Brief description of the electrical and/or electronic components used in the steering system:

Direct connection between telescopic fork and handlebar.

used in the steering

#### 7. Braking

7.2

7.2.1

7.2.2

7.3

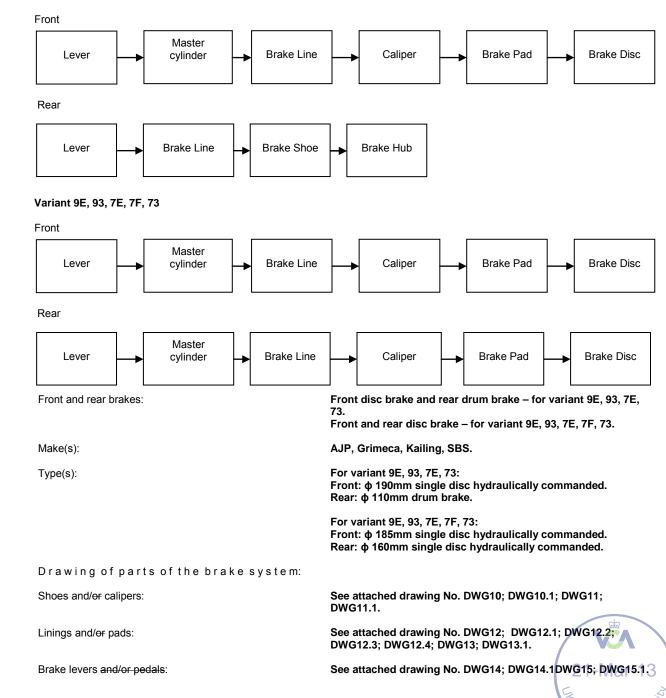
7.3.1

7.3.2

7.3.3

7.1 Diagram of braking devices:

Variant 9E, 93, 7E, 73



Not applicable.

### ORD.No.: e11\_2002-24\_1144 – Edition:02 DIRECTIVE 2002/24/EC

7.3.4 Hydraulic reservoirs (where applicable):

See attached drawing No. DWG14; DWG14.1DWG15; DWG15.1.

See attached drawing No. DWG16; DWG17.

7.4 Other devices (where applicable):drawing and description

7.5 Brief description of the electrical and/or electronic components used in the braking system:

### 8. Lighting and light-signalling devices

8.1 List of all devices (mentioning the number, make(s), model, component type-approval mark(s), the maximum intensity of the main-beam headlamps, colour the corresponding tell-tale):

All lamps are Light Emiting Diodes (LED) with the only exception being the headlight which is a standard automotive lamp.

ale).						
Lamp function	QTY	Colour	Tell-tale	Make	TYPE	Approval mark
Main beam / head lamp	1	White	Blue	ECIE	334	E3-50R-002670
Dipped beam / head	1	White	No	ECIE	334	E3-50R-002670
Front position lamp	2	White	No	ECIE	334	E3-50R-002670
Front direction indicator	2	Amber	Green	ECIE	96 97	E3-50R-0048580 E3-50R-0048579
Rear direction indicator	2	Amber	Green	K-Lite	M302	E4-50R-001443
Rear position lamp	1	Red	No	JUTE	T003	E9-50R-001153
Stop lamp	1	Red	No	JUTE	T003	E9-50R-001153
Licence Plate Light	1	White	No	ECIE	346	E3-50R-002731 extension 04
Side retro-reflector	4	Amber	No	ECIE	108	E3-02.49951
Rear retro-reflector	1	Red	No	ECIE	91	E3-02.48328

8.2 Diagram showing the location of the lighting and lightsignaling devices: See attached drawing No. DWG18; DWG19; DWG20.

- 8.3 Hazard warning lamps (where fitted):
- 8.4 Additional requirements relating to special vehicle:
- 8.5 Brief description of the electrical and/or electronic components used in the lighting system and in the light-signalling system:

Not applicable. Not applicable. Not applicable.



11/13

# ORD.No.: e11\_2002-24\_1144 - Edition:02 DIRECTIVE 2002/24/EC

9.	Equipment	
9.1.	Coupling devices (where applicable)	Not applicable.
9.1.1	Type(s): hook/ring/other:	Not applicable.
9.1.2	Photographs and/or drawing showing the position and the construction of the coupling devices:	Not applicable.
9.2.	Arrangement and identification of controls , tell- tales and indicators:	
9.2.1	Photographs and/or drawings of the arrangement of the symbols, controls, tell-tales and indicators:	See attached drawing No. DWG21.
9.3.	Statutory inscriptions	
9.3.1	Photographs and/or drawings showing the location of the statutory inscriptions and the chassis number:	See attached drawing No. DWG01.
9.3.2	Photographs and/or drawings showing the official part of the inscriptions (with statement of dimensions):	See point 9.3.1 See attached drawing No. DWG22.
9.3.3	Photographs and/or drawings of the chassis number (with statement of dimensions):	See point 9.3.1 Text Height: 6mm, Length: 80mm, Text Depth: min. 0,5mm
9.4.	Device(s) to protect against unauthorize	ed use
9.4.1	Type of device(s):	Ignition Key switch with Steering Lock.
9.4.2	Summary description of device(s) used:	Ignition key switch is a key blocking device. The lock and key code is not visible. See attached drawing No. DWG23; DWG23.1.
9.5	Audible warning device(s)	
9.5.1	Summary description of device(s) used and their purpose:	Electro magnetic actuated diaphragm Horn.
9.5.2	Make(s):	LI XIANG
9.5.3	Type(s):	DL128C
9.5.4	Type approval mark:	E4-28R-000067
9.5.5	Drawing(s) showing the location of the audible warning device(s) in relation to the structure of the vehicle	See attached drawing No. DWG25.
9.5.6	Details of the method of attachement, including the part of the vehicle structure to which the auduble warning device(s) is (are) attached:	
9.6.	Location of rear registration plate (indicate variants where necessary; drawing may be used as appropriate):	See attached drawing No. DWG26.
9.6.1	Inclination of plane in relation to the vertical:	See point 9.6



ARSAUTO, QIAOYU

See point 1.1.2

threaded studs.

Not applicable.

Not applicable.

DWG29.3; DWG29.4.

See attached drawing No. DWG30.

Not applicable.

Handle.

The left and right mirrors are threaded into the left and right

switch boxes which have provisions to accept the mirrors

See attached drawing No. DWG29; DWG29.1; DWG29.2;

Central stand or side stand as alternative. See attached drawing No. DWG28; DWG28.1.

**4E** 

### ORD.No.: e11\_2002-24\_1144 – Edition:02 DIRECTIVE 2002/24/EC

### B. INFORMATION RELATING SOLELY TO TWO-WHEEL MOPEDS AND MOTORCYCLE

- 1. Equipment
- 1.1 Rear-view mirror(s)
- 1.1.1 Make:
- 1.1.2 Component type-approval mark:

Make:	Variant / Part No.:	Type approval mark:
ARSAUTO	715.110	E3-0057462
QIAOYU	QY 182	E4-81R-000215
QIAOYU	QY 138	E7-81R-000503
QIAOYU	QY 1106	E11-001167

- 1.1.3 Variant:
- 1.1.4 Drawing(s) showing the location of the rear-view mirror(s) in **See attached drawing No. DWG27.** relation to the structure of the vehicle:
- 1.1.5 Precise information concerning the type of attachement, including that part of the vehicle structure to which the rearview mirror is attached:
- 1.2 Stand
- 1.2.1 Type
- 1.2.2 Drawing showing the location of the stand(s) in relation to the structure of the vehicle:
- 1.3 Attachment for motorcycle sidecars:
- 1.3.1 Photographs and/or drawings showing the location and the construction:
- 1.4 Hand-hold for a passenger:
- 1.4.1 Type:
- 1.4.2 Photographs and/or drawings showing the location:
- 1.5 For mopeds fitted with pedals and, if directive 97/24/EC Chapter 3, Annex I, point 3.5 applies, description of the measures taken in order to ensure safety:
- 1.6
   Design and position of the label referred to in Directive 97/24/EC Chapter 7:

INFORMATION RELATING SOLELY TO THREE-WHEEL MOPEDS, MOTOR TRICYCLES AND QUADRICYCLES

From item 1. to 2.10.5

C.

Not applicable.



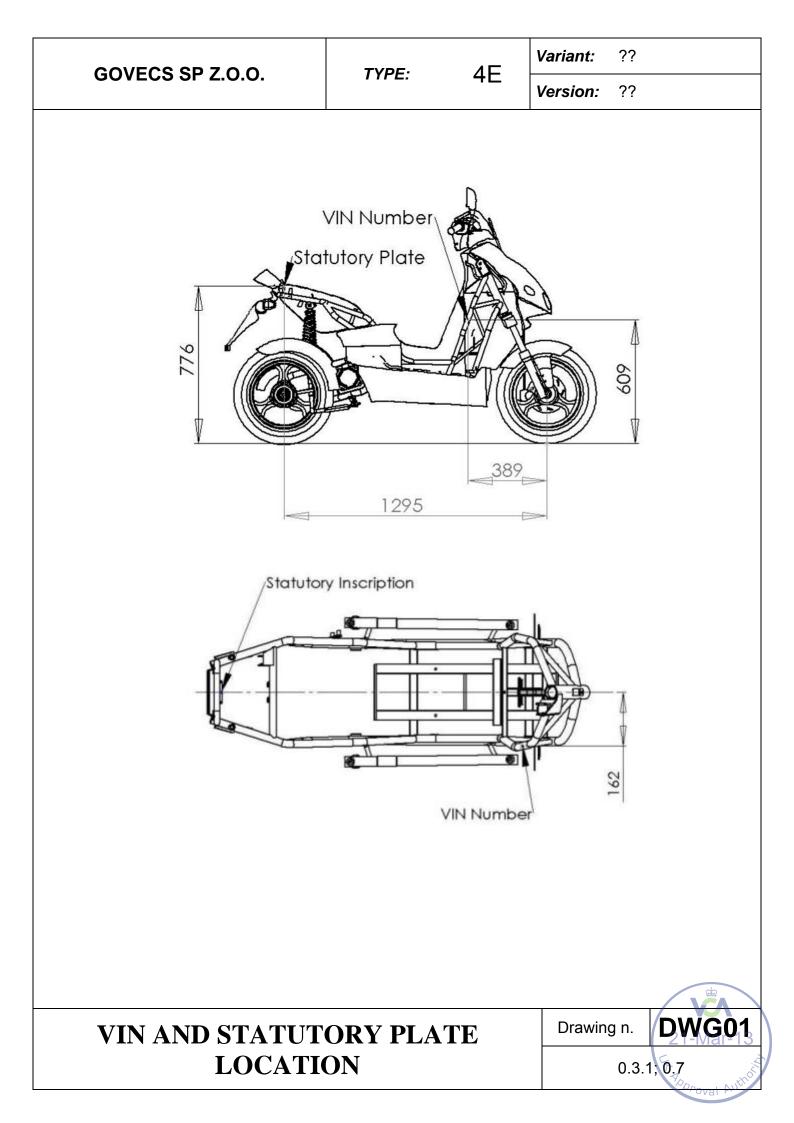
Poproval AU

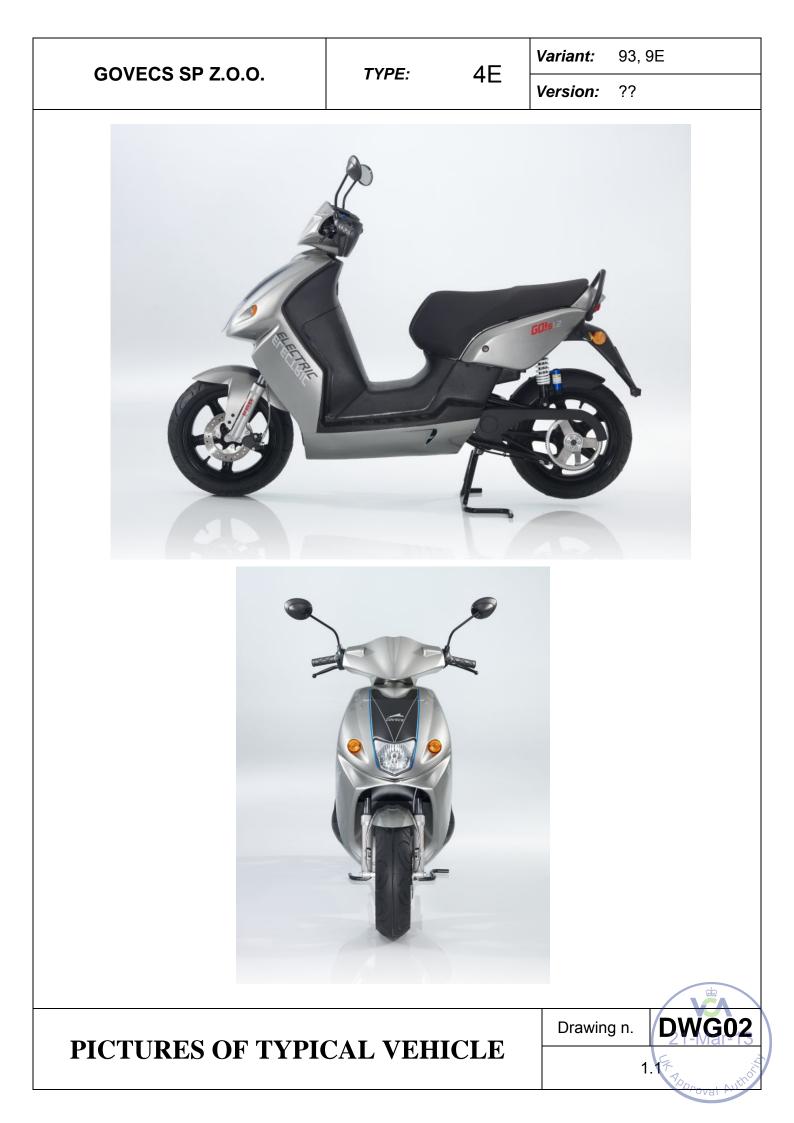
**4E** 

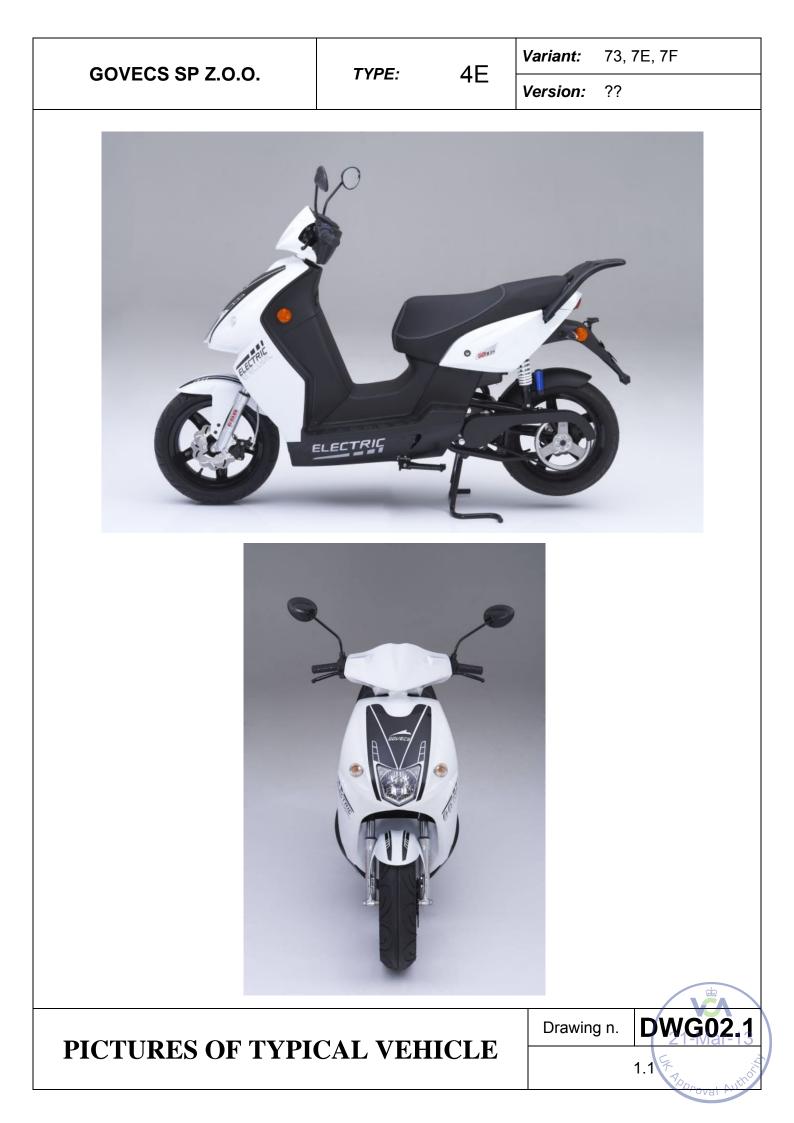
# ORD.No.: e11\_2002-24\_1144 - Edition:02 DIRECTIVE 2002/24/EC

### PART 2: SEPARATE DIRECTIVE APPROVAL NUMBERS

HEADING	SEPARATE			EXTENSION	VARIANTS AND
N°	DIRECTIVE N°	SUBJECT	APPROVAL N°	DATE	VERSIONS COVERED
		Maximum torque and			
18	95/1/EC	maximum engine net power			
19	97/24/EC Ch.7	Anti-tampering measures for			
19	97724/EC CII.7	mopeds and motorcycles			
20	97/24/EC Ch.6	Fuel tank			
25	95/1/EC	Maximum design speed of vehicle			
26	93/93/EEC	Masses and dimensions			
27	97/24/EC Ch.10	Trailer coupling devices			
28	97/24/EC Ch.5	Anti-air pollution measures			
29	97/24/EC Ch.1	Tyres			
31	93/14/EEC	Braking system			
		Installation of lighting and			
32	2009/67/EC	light-signalling devices on the vehicle			
33	97/24/EC Ch.2	Lighting and light-signalling devices	See 8.		
34	93/30/EEC	Audible warning device	See 9.5		
05		Position for the mounting of			
35	2009/62/EC	rear registration plate			
36	97/24/EC Ch.8	Electromagnetic compatibility			
37	97/24/EC Ch.9	Sound level and exhaust system			
38	97/24/EC Ch.4	Rear view mirror	See B 1.1		
39	97/24/EC Ch.3	External projection			
		Stand (except in the case of			
40	2009/78/EC	vehicle having three or more wheels)			
41	93/33/EEC	Device to prevent			
		unauthorized use of the vehicle			
42	97/24/EC Ch.12	Windows, windscreen			
		wipers, windscreen washers, and so on Passenger hand hold for twowheel			
43	2009/79/EC	Vehicles			
		Anchorage points for safety			
44	97/24/EC Ch.11	belts and safety belts			
45	2000/7/EC	Speedometer			
40	2000/20/50	Identifications of controls,			
46	2009/80/EC	tell-tales and indicators			
47	2009/139/EC	Statutory inscriptions			21-Mar-13

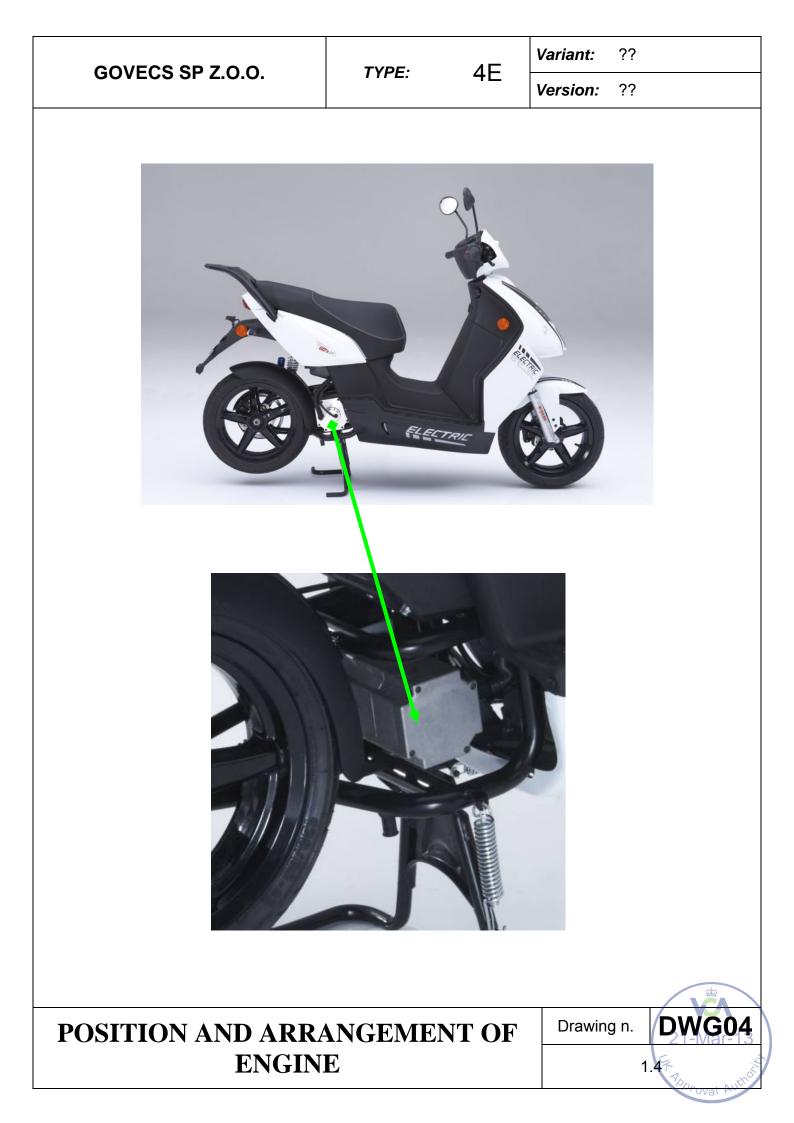










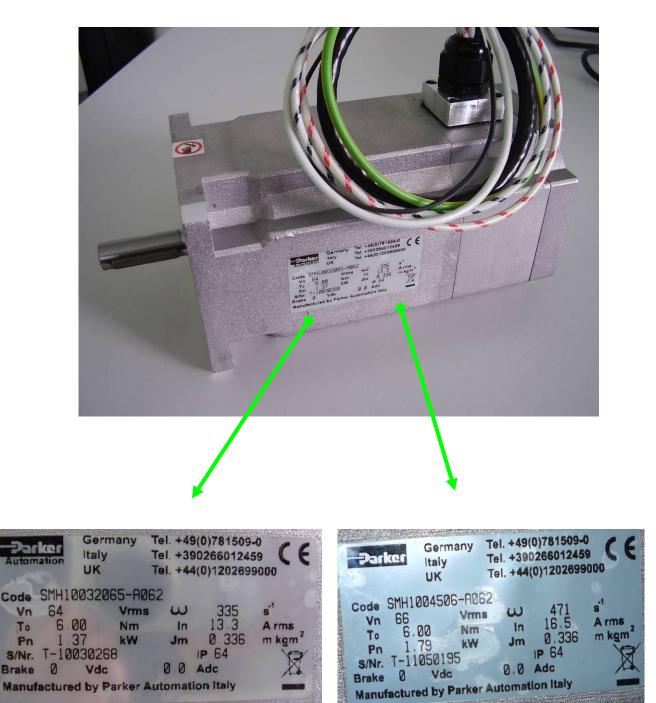


GOVECS SP Z.O.O.	TYPE:	4E -	Variant: 9E	
			Version: 1	
	MBH105140	6		
	1			
Ale	Y		_	
19			1 m	
		187	10	
		16	169	
			MA	
	State Many PA String And			-
		L	10	
12				
		and the second	and the second second	
Che II	Via E./	Aattei , 22 ATE (Bergam	CC	
		aly)	0 6 6	
Code Mp	11051400	3		
			Arms	
Pn	2 9 5 KW	JID N	m Kgm²	
Freno 0	0006/71	Acc Pot	\$5	
	tured by SBC M	ral.	n-21501 A/89 (Italy)	
() manarati		mana	(inity)	E
				the
			Drawing n	
TYPE OF ENGINE AN			Drawing n.	
ENGINE IDENTIFIC	ATION LA	BEL	3.1	1.1; 3.1.2

Version:

### SMH10032065 AND SMH1004506 AS AN ALTERNATIVE

4F



# TYPE OF ENGINE AND POSITION OF ENGINE IDENTIFICATION LABEL

Drawing n. DWG04.2

3.1.1; 3.1.2



GOVECS S	SP Z.O.O.
----------	-----------

TYPE:

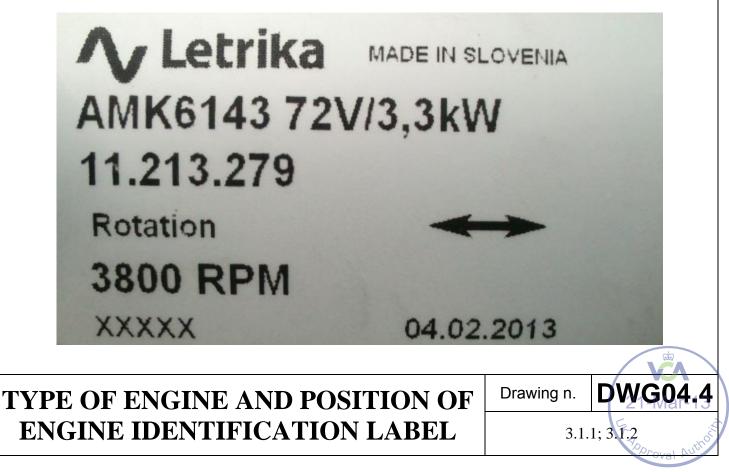
4F

*t:* 93/2, 9E/2, 73/1, 7E/1

Version:

### AMK6143 (AS AN ALTERNATIVE FOR SMH10032065 AND SMH1004506)





GOVECS S	P Z.O.O.
----------	----------

TYPE:

Variant: 7F

Version: ??

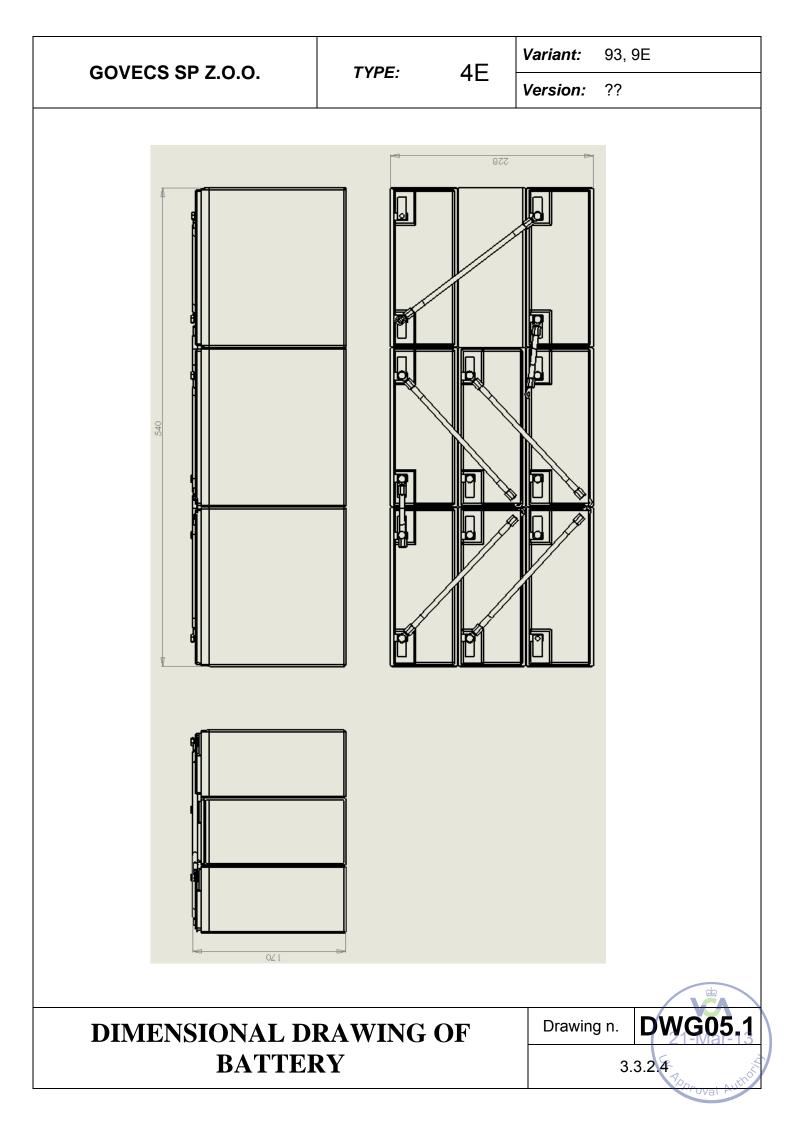
### TSB13492D (AS AN ALTERNATIVE FOR SME1422815)

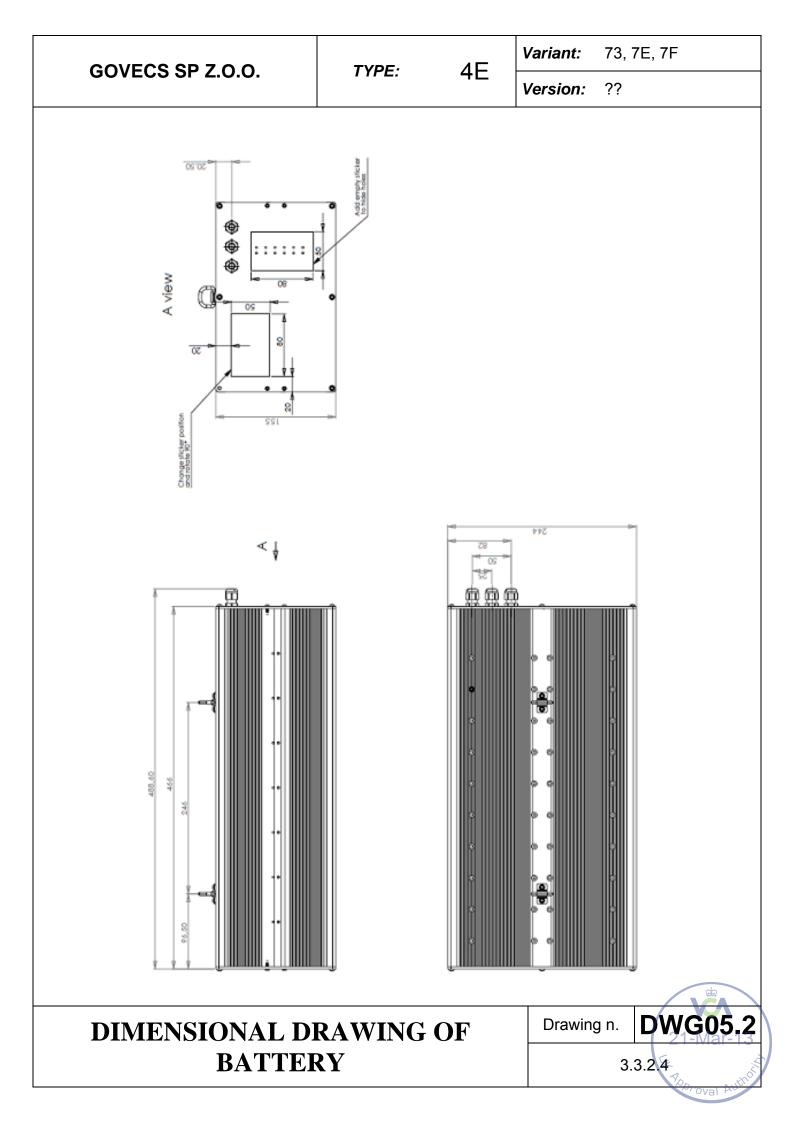
4E



AC SERVO MOTOR	
MODEL: TSB13492D-9NEG-DN	
Pr: <u>4.9</u> KW, Nr: <u>3600</u> rpm	
Ir: <u>56</u> A,Tr: <u>13</u> kg-cm	
NO. OB12BB01-0001 CE	
TECO ELECTRO DEVICES CO., LTO. MADE IN TAIWAN	
<b>FYPE OF ENGINE AND POSITION OF</b>	Drawing n. DWG04.5
ENGINE IDENTIFICATION LABEL	3.1.1; 3.1.2







4E



VARIANT 73, 7E, 93, 9E

MOTOR SPROCKET: DIAMETER 32MM QUANTITY OF COGS: 13

WHEEL SPROCKET: DIAMETER 212MM QUANTITY OF COGS: 84 VARIANT 7F

MOTOR SPROCKET: DIAMETER 60MM QUANTITY OF COGS: 22

WHEEL SPROCKET: DIAMETER 212MM QUANTITY OF COGS: 84

PICTURE OF TRANSMISSION SYSTEM

Drawing n.

4

DWG06

	Variant: Version:	4E	TYPE:	GOVECS SP Z.O.O.

POSITION SENSOR IN THE MOTOR IS TO FIND OUT CURRENT MECHANICAL ROTOR POSITION. THIS SIGNAL IS USED FOR DETERMINING CURRENT SPEED. THE POSITION SENSOR IS A HALL-CHIP ON THE ELECTRONIC WITH A TARGET MAGNET ON THE ROTOR SHAFT. THE SIGNALS OF THE HALL-CHIP A READ IN AS ANALOG VOLTAGES.

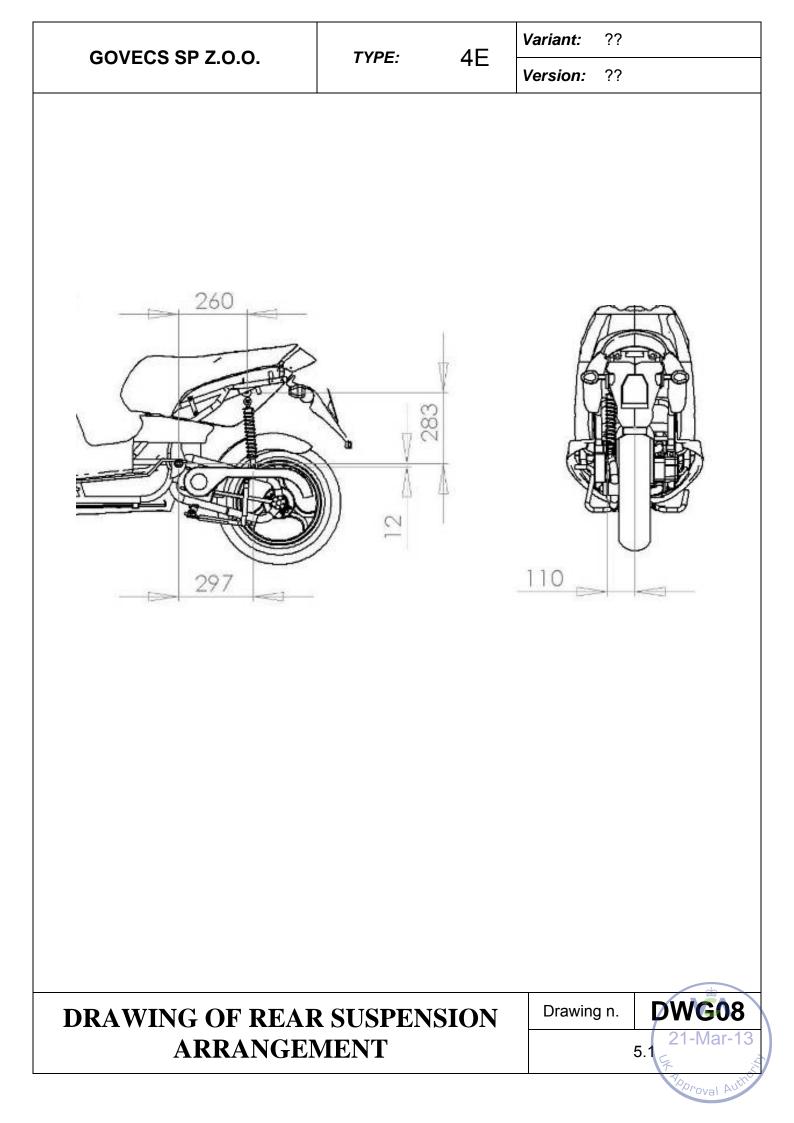
THE DISPLAYED VALUE IS CALCULATED BY MULTIPLYING WITH A CERTAIN FACTOR.

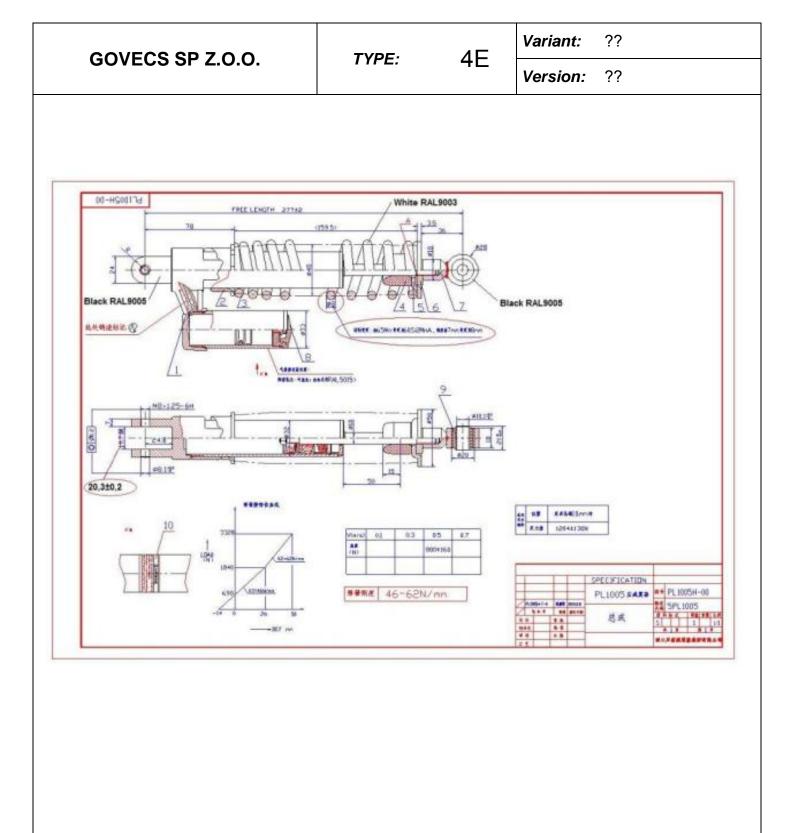
PICTURE OF SPEEDOMETER

Drawing n.

4.7.3

**DWG07** 



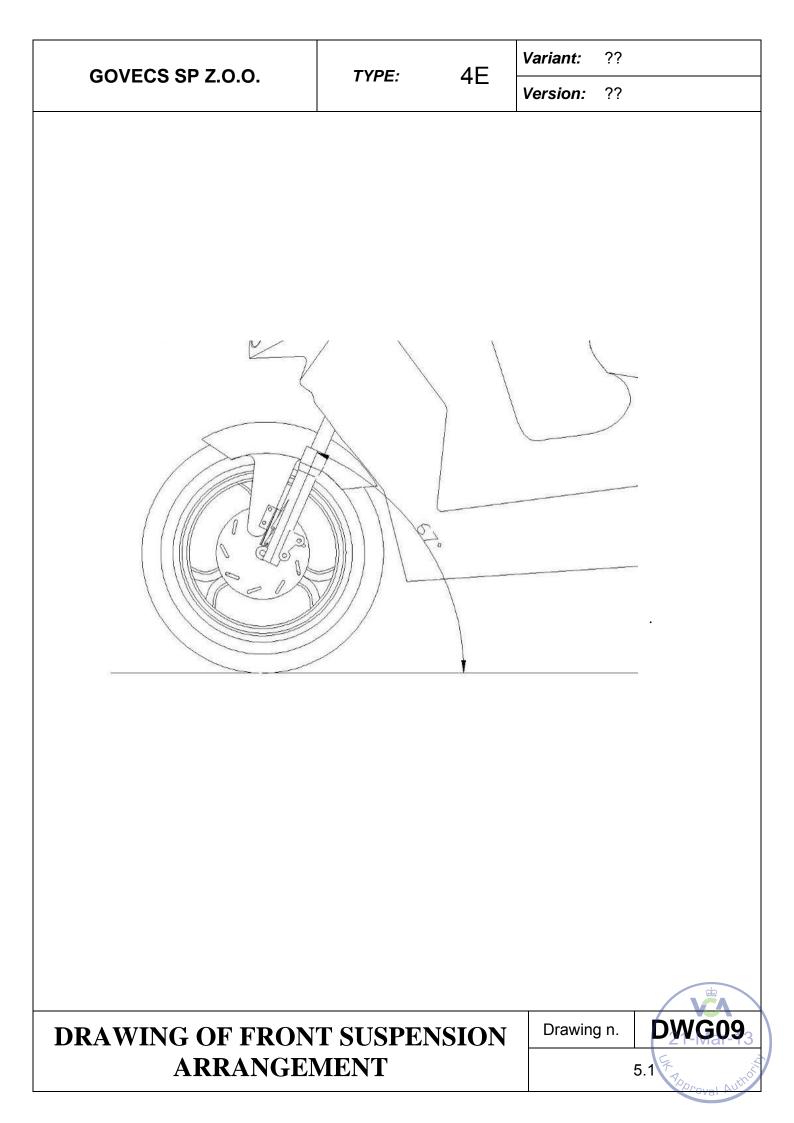


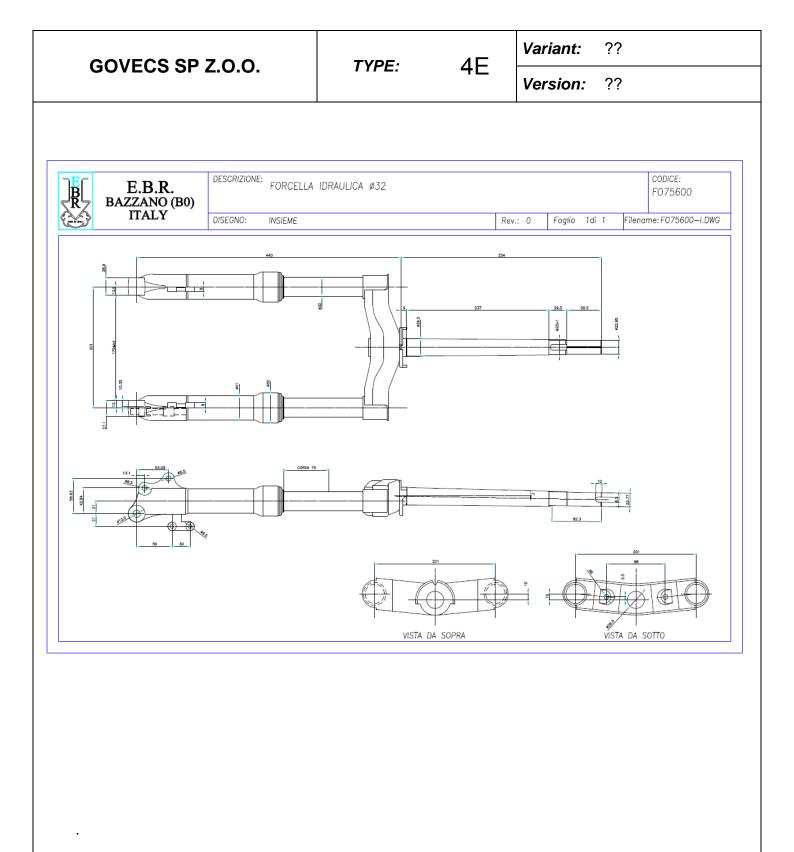
## DRAWING OF REAR SHOCK ABSORBER

Drawing n.

DWG08.1 21-Mar-13 5.1

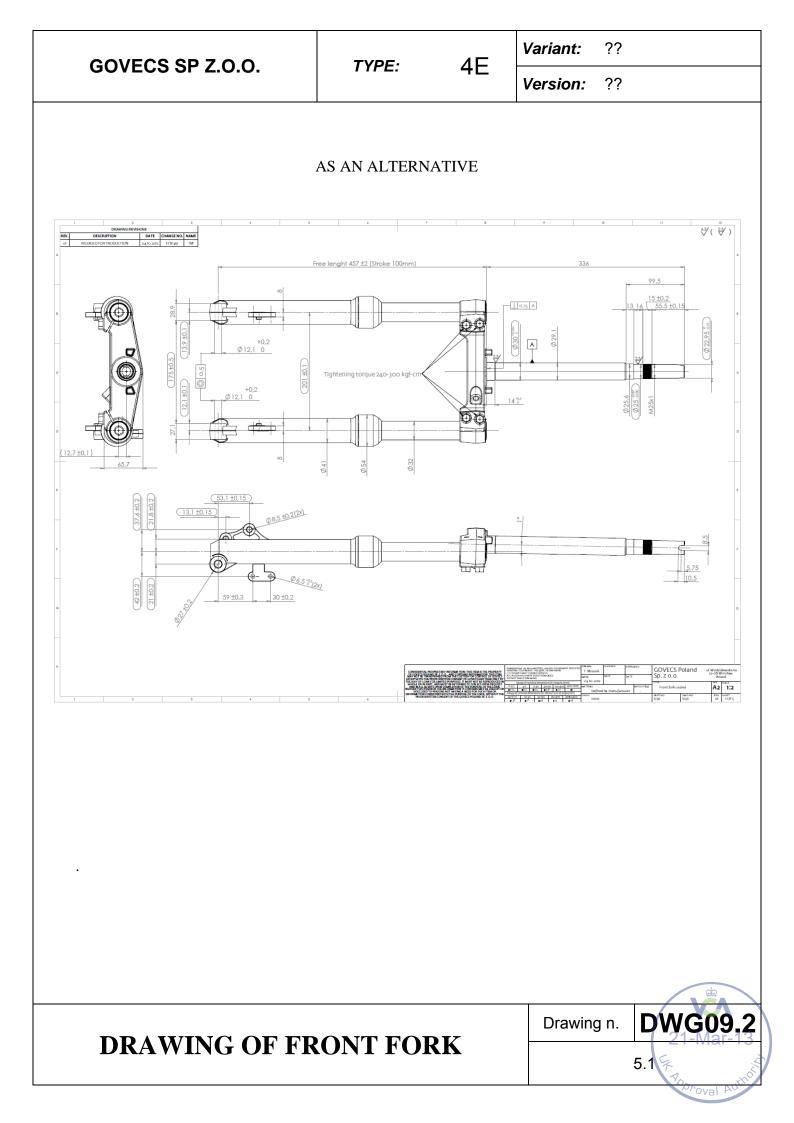
		45	Variant:	??		
GOVECS SP Z.O.O.	TYPE:	4E	Version:	??		
K2=4.59±0.32kgf/mm (45 N/mm)		(Lmax 292 Lmin )			27.5 27.5 M8x1. 27.5 27.5 M8x1. 27.5	
DRAWING OF RE ABSORB		CK	Drawing			3.2

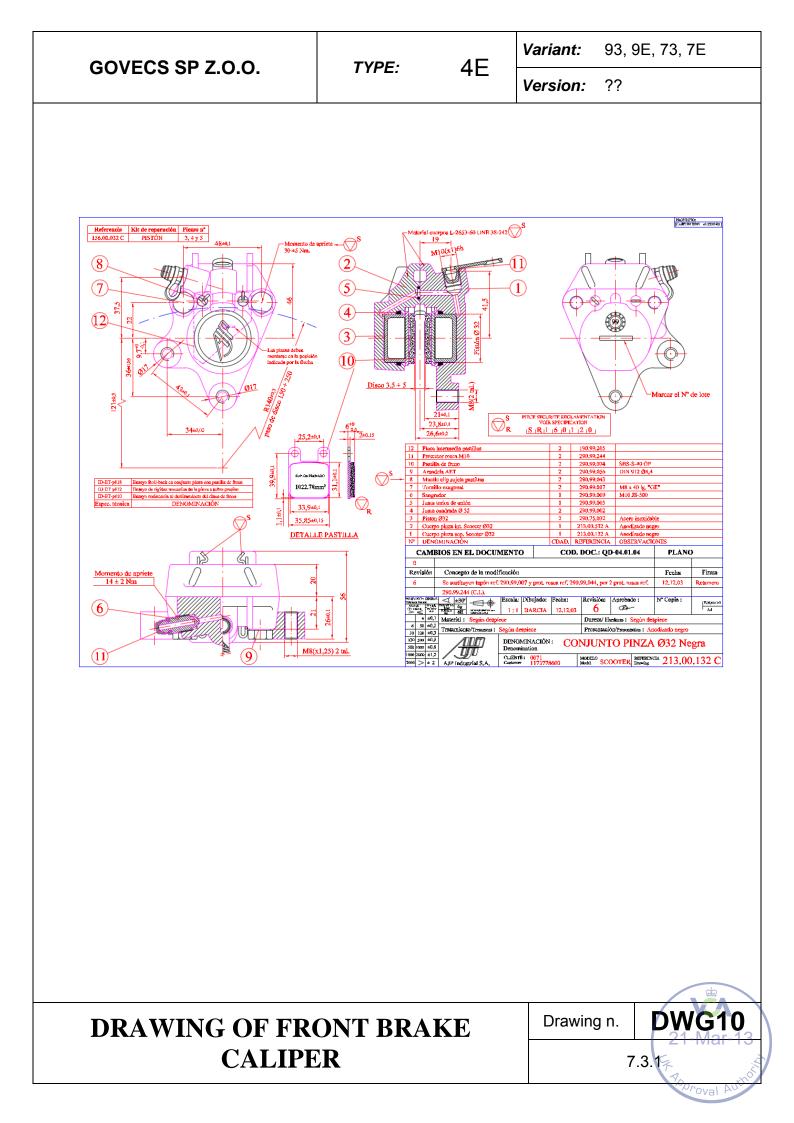


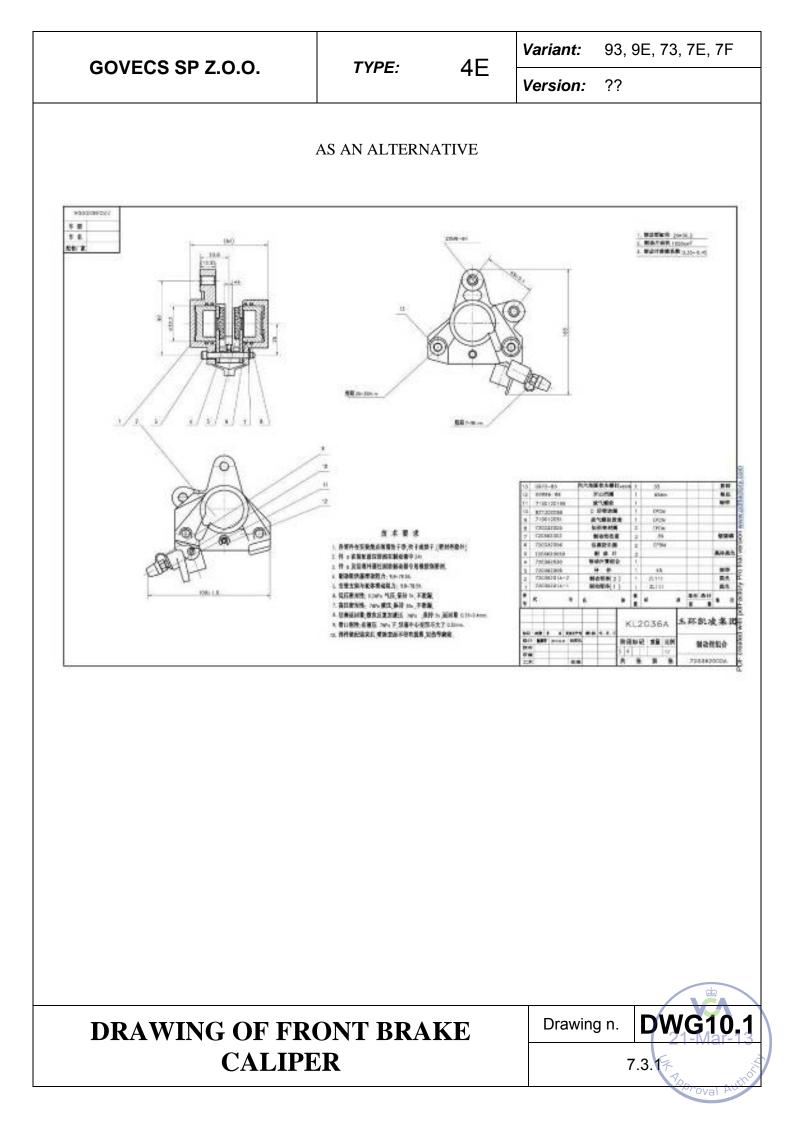


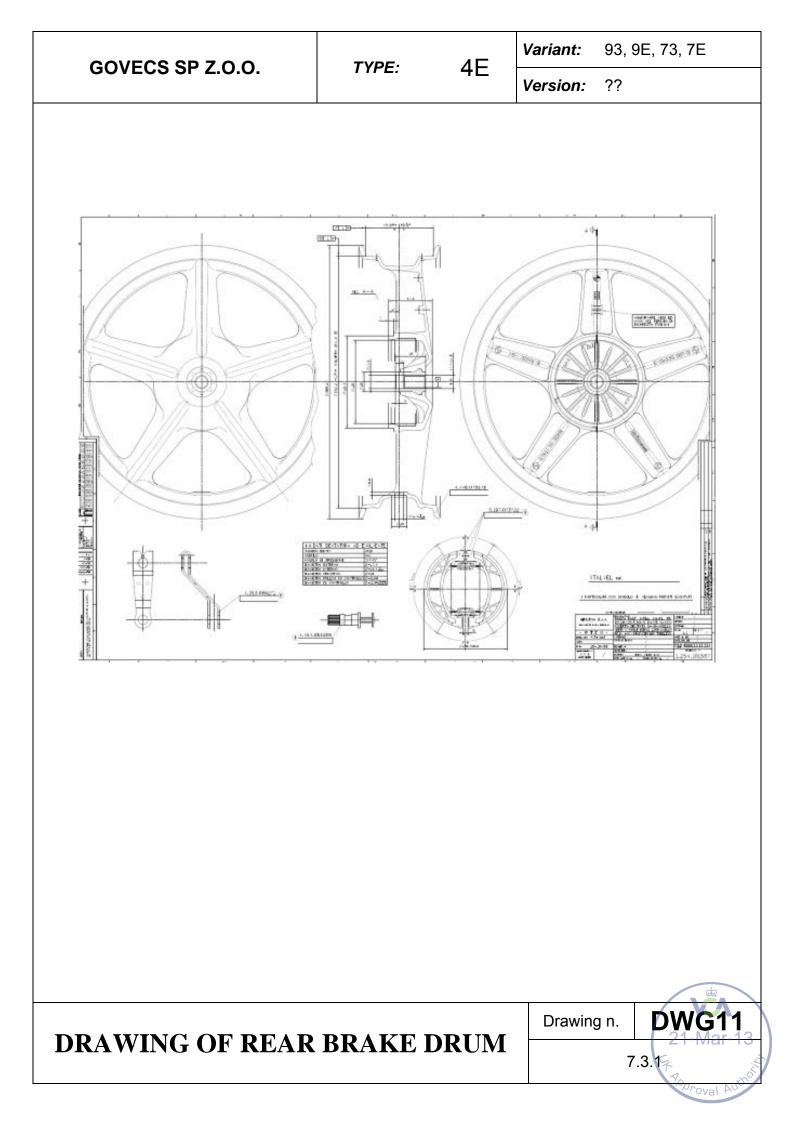


Poproval AU





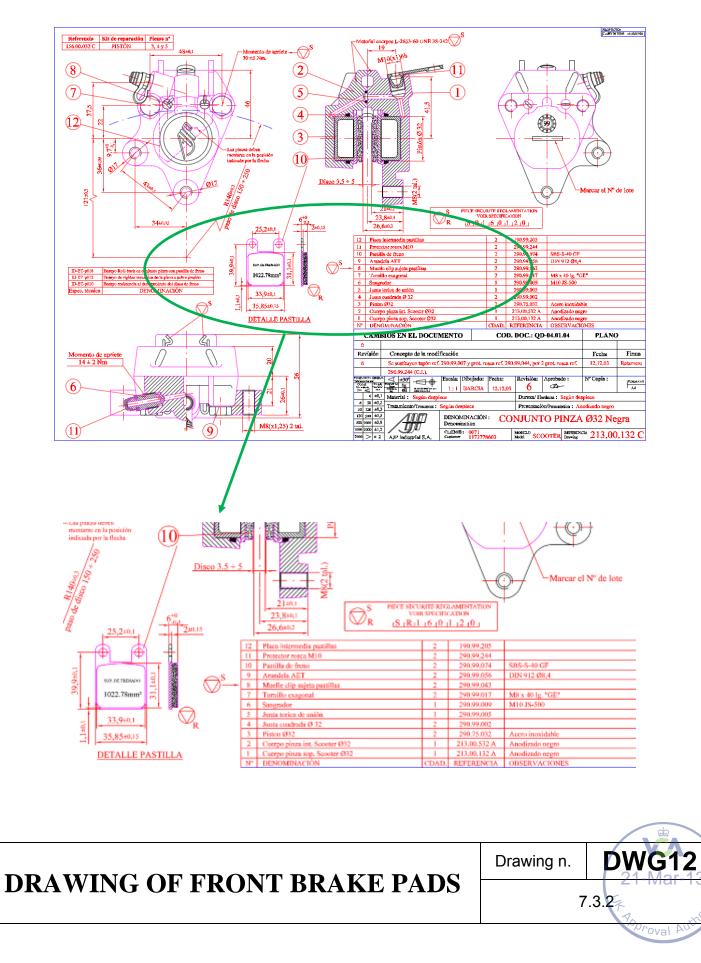




GOVECS SP Z.O.O.	TYPE:	4E	Variant: 93, 9E, 73, 7E, 7F
GOVECS SP 2.0.0.	ITPE:	40	Version: ??
	AS AN ALTERN	ATIVE	
			Note:     Point of any contraction       Note:
DRAWING OF RE CALIPE		<b>KE</b>	Drawing n. DWG11.1 21 Mar 13 7.3.1 France of the second se

GOVECS SP Z.O.O.	TYPE:		Variant:	93, 9E, 73, 7E
GOVECS SF 2.0.0.	ITFE.	40	Version:	??





## **DRAWING OF FRONT BRAKE PADS**

	F.A.S.S.     F.A.S.S.     F.A.S.S.     F.M.M.LL     E.F.M.C.     E.M.M.LL     T.A.S.E.S.     M.M.M.M.M.M.M.M.M.M.M.M.M.M.M.M.M.		Contraction of the second			sampi sampi inspect sam	name client address ested by nple point ple quantity ing basic No. ion equipment upling plan conclution		inspectic s terial CO.,Ltd. illage,JiuBao ity,Zhejiang 'illage,JiuBao ity,Zhejiang	n report mod trade r test cat sample dat send productic inspectic stah	de mark legory grade le	  : mineral com	authoriz 2010-08- Wei L position pads	25 i
	<ul> <li>第15単位</li> <li>序出地址</li> <li>生产単位</li> <li>払利地点</li> <li>た込む量</li> <li>払利地点</li> <li>だ込む量</li> <li>払利地系</li> <li>地域の調査</li> <li>地域の調査</li> <li>地域の調査</li> <li>地域の調査</li> <li>して</li> <li>し</li></ul>	(A、B、C、D)	前 桥 位置关系 称五年2 后年来主要之子 在中国第一位的一个一个一个一个一个一个一个一个一个一个一个一个一个一个一个一个一个一个一			te sam sampi inspecti	client address ested by nple point ple quantity ing basic No. ion equipment	HCD108 Mowefter Friction Mat Four Group, Three V Town,HangZhou C Four Group, Three V Town,HangZhou C	inspectic s terial CO.,Ltd. illage,JiuBao ity,Zhejiang 'illage,JiuBao ity,Zhejiang	m report moo trade r test cat sample dat send productik inspectic	de de mark grade grade le		authoriz 2010-08- Wei L: position	25 i
	<ul> <li>第5条件</li> <li>第3条件</li>     &lt;</ul>	(A、-B、-C、-D) 低月慶愛特優雄社科有限公司 部に留低州市に午区九邊城三府 市 2 片 - 2 片 - X設協分新仪 - 低 X財協切耐分析。協称 - - - - - - - - - - - - -	有 将 位于 称 位于 和 二 本 二 本 二 本 二 本 三 本 三 本 三 本 三 本 三 本 三 本 三 本 三 本 三 本 三 本 三 本 三 本 二 本 二 本 二 本 二 本 二 本 二 本 二 本 二 本 二 本 二 本 二 本 二 本 二 本 二 本 二 本 二 本 二 本 二 二 二 二 二 二 二 二 二 二 二 二 二			te sam sampi inspecti	client address ested by nple point ple quantity ing basic No. ion equipment	HCD108 Mowefter Friction Mat Four Group, Three V Town,HangZhou C Four Group, Three V Town,HangZhou C	inspectic s terial CO.,Ltd. illage,JiuBao ity,Zhejiang 'illage,JiuBao ity,Zhejiang	m report moo trade r test cat sample dat send productik inspectic	de de mark grade grade le		authoriz 2010-08- Wei L: position	25 i
	第15単位           評価地址           上デルご           出料地点           二二品数量           社会会社           社会社           社会	(A、-B、-C、-D)	有 将 位于 称 位于 和 二 本 二 本 二 本 二 本 三 本 三 本 三 本 三 本 三 本 三 本 三 本 三 本 三 本 三 本 三 本 三 本 二 本 二 本 二 本 二 本 二 本 二 本 二 本 二 本 二 本 二 本 二 本 二 本 二 本 二 本 二 本 二 本 二 本 二 二 二 二 二 二 二 二 二 二 二 二 二			te samji sampi	client address ested by nple point ple quantity ing basic No.	HCD108 Mowefter Friction Mat Four Group, Three V Town,HangZhou C Four Group, Three V Town,HangZhou C	inspectic s terial CO.,Ltd. illage,JiuBao ity,Zhejiang 'illage,JiuBao ity,Zhejiang	m report moo trade r test cat sample dat send productik inspectic	de mark legory grade le ler on date on item		authoriz 2010-08- Wei L: position	25 i
	<ul> <li>学び単位</li> <li>デ出出込</li> <li>生デルの</li> <li>払利地点</li> <li>た込む量</li> <li>払行払気量</li> <li>払行払気量</li> <li>払行払気量</li> <li>払行払気量</li> <li>払行払気量</li> <li>払行払気量</li> <li>込む公司</li> <li>込む公司</li> <li>必</li> <li>必</li> <li></li> <li></li></ul> <li></li> <	(A、-B、-C、-D)	有 将 位于 称 位于 和 二 本 二 本 二 本 二 本 三 本 三 本 三 本 三 本 三 本 三 本 三 本 三 本 三 本 三 本 三 本 三 本 二 本 二 本 二 本 二 本 二 本 二 本 二 本 二 本 二 本 二 本 二 本 二 本 二 本 二 本 二 本 二 本 二 本 二 二 二 二 二 二 二 二 二 二 二 二 二			to samj samj	client address ested by nple point ple quantity	HCD108 Mowefter Friction Mai Four Group, Three V Town,HangZhou C Town,HangZhou C	inspectio terial CO.,Ltd. 'illage,JiuBao ity,Zhejiang 'illage,JiuBao	m report moo trade r test cat sample dat send productio	de mark legory grade le ler on date		authoriz 2010-08- Wei L	25 i
	一個化學信 評批出社 生产单位 胎科地点 打品放量 結杯基本 被給及器 物的代知/現乎	(A、-B、-C、-D) 成月慶愛持衛隊は有限公司 部に留板州市に平区九慶靖三府 村田 市 - 2月 - 2月 - - - - - - - - - - - - -	育 標 位職決到 特旦等位 影祥日期 審 榜 人 主产日展 地設項目 样品状态			te	client address ested by	HCD108 Mowefter Friction Mai Four Group, Three V Town,HangZhou C Four Group, Three V	inspectio terial CO.,Ltd. 'illage,JiuBao ity,Zhejiang 'illage,JiuBao	m report mod trade r test cat sample dat	de mark legory grade		authoriz 2010-08-	 
	委15年位 詳細地社 生产单心 始終地点 和助散量 植物基本 被除化器	(A、-B、-C、-D) 成月慶愛持衛隊は有限公司 部に留板州市に平区九慶靖三府 村田 市 - 2月 - 2月 - - - - - - - - - - - - -	育 標 位職決到 特旦等位 影祥日期 審 榜 人 主产日展 地設項目 样品状态				client address	HCD108 Mowefter Friction Mai Four Group, Three V Town,HangZhou C Four Group, Three V	inspectio terial CO.,Ltd. 'illage,JiuBao ity,Zhejiang 'illage,JiuBao	trade r test cat	de mark tegory grade		authoriz	.e
	委15年位 詳細地社 生产单心 始終地点 和助散量 植物基本 被除化器	(-A、-B、-C、-D) 成用量等発電器材料有限公司 部位電気用金灯中区九氢構築材 台口電  2片 	向 标 位徽类到 称显等级 资料日期 管 养 人 生产日采 检验项目				client	HCD108 Mowefter Friction Mai Four Group, Three V Town,HangZhou C Four Group, Three V	inspectio terial CO.,Ltd. 'illage,JiuBao ity,Zhejiang 'illage,JiuBao	mod mod trade r test cat	de mark tegory			
	- 愛行単位  洋田地社   左戸単立   拓村地点   石品数量	(-A、-B、-C、-D) 成用量等発電器材料有限公司 部位電気用金灯中区九氢構築材 台口電  2片 	向 标 位徽类到 称显等级 资料日期 管 养 人 生产日采 检验项目				client	HCD108 Mowefter Friction Ma Four Group, Three V	inspectio	mod mod trade r test cat	de mark tegory			
	委任单位 详细地址 生产单位 指科地点	(-A、-B、-C、-D) 或用藥應將藥藥材料有限公司 部口聲低用者正平面九邊構正相 材容医 	向 标 检验类到 称显等级 资料日期 客 养 人					HCD108 Mowefter Friction Mat	inspectio	on report moc	de			
	·委征单位 详细地址 生产单位	(-A、-B、-C、-D) 截期慶愛精泰線材料有限公司 浙江省杭州市江平区九氢镇三村	向 标 检验类别 种品等级 剪择日篇	 委托 			name		inspectio	m report	de			
	委任单位 详细地社	(-A、-B、-C、-D) 截期慶愛精泰線材料有限公司 浙江省杭州市江平区九氢镇三村	向 标 检验类别 将品等级				name		inspectio	on report		on center 		
	爱信单位	(-A、-B、-C、-D) 截期慶愛精泰線材料有限公司 浙江省杭州市江平区九氢镇三村	向 禄 检验类到。					national non-me		on report		on center		
		(-A, -B, -C, -D)	肉 禄					national non-me			inspectio	on center		
-	产品名称			-				national non-me	etal produc	ts quality	inspectio	on center		
-			No. States		14									
		家非会属矿制品质 检验报 1 *#6 (09216) +		全 验 中 心 共 1页 第2										
									•				•	
TION	ONSISTENT WI	NOT HAVING A NEED FOR SU TH THE PURPOSE OF THE LOA INT OF THE GOVECS POLAND	AN. WITHOUT	T THE Range of n up to 10 ±1*	nominal dimensions for s	horter arm of angle (mm)	FINISH XXX	co oy manufacturer	XXX PART 1761		DWG NO. 1761	RE	-	
OF LOA OR IN NALL EV THIS IT	AN FOR LIMITED PART, AND MUS /ENTS UPON CO EM NOR THE IN	/ INFORMATION: THIS ITEM IS 0., AND CONTAINS INFORMAT ROM THE CUSTODY OR CONT TEN CONSENT OF GOVECS AN D PURPOSES. IT MUST NOT BE ST BE RETURNED TO GOVECS OMPLETION OF THE PURPOSE IFORMATION IT CONTAINS M NOT HAVING A NEFD EN SII	E REPRODUC UPON REQU OF THE LOA AY BE USED E	ED IN Ra IEST 0.5-3 BY OR ±0.1	ange of nominal dimensi 3-6 6-30 30 ±0.1 ±0.2 ±	0ns for lengths (mm) 0-120 120-400 400-1000 0.3 ±0.5 ±0.8	MATERIAL		EIGHT (kg)	Set of front b	rake pads	A	e scale	:1
ECS PC T BE TH	LAND SP. Z O.C ANSFERRED FI IE PRIOR WRIT	C., AND CONTAINS INFORMAT ROM THE CUSTODY OR CONT TEN CONSENT OF GOVECS AN	TION. THIS IT	- SIGNIF - ALL BURS A - DO NOT SC	TOLERANCE ISO 2768-1 ICANT CHARACTERISTI NND SHARP EDGES REM CALE DRAWING	OVED	DATE 2012-10-04	DATE DATE		). Z 0.0.		52-01 [	dzisławs 17 Wrocła Poland	aw
				- DIMENSIO	NS IN MILLIMETERS UN	ILESS OTHERWISE SPECIFIE	ED DRAWN K.Maruda	CHECKED APPROVE		OVECS I	Poland	ul. Wo	dzisławs	ka 6a
		6,5							Note: Both l	orake pao	ds are sy	/mmetrie	cal.	
		4		-	_1,3	3	R48,5	TP-S-S-S-S-S-S-S-S-S-S-S-S-S-S-S-S-S-S-S						
		$\nabla$	⊻	-										с
		49,6	۵ —					40,6						
		4		<b>∏</b>	R3	5	7	22						в
						P 11	13	B R 1 - 10		0				

#### FOR FRONT AND REAR DISC BRAKE SOLUTION

4E

4

DESCRIPTION

RELEASED FOR PRODUCTION

**REV.** 01

2

DATE

04.10.2012

CHANGE NO.

ECN xxx

DRAWING REVISIONS

3

NAME

KM

7.3.2

5

GOVECS SP Z.O.O.	TYPE:	4E	Variant:	93, 9E, 73, 7E, 7F
		76	Version:	??
AS AN ALTERNA	TIVE FOR FRONT AN	ID REAR DI	SC BRAKE	SOLUTION
			о 39.7—	49.5 - 6.3
Technical Datasheet	09.09.2004/JV	,		
Lining	<b>Friction</b>			
SBS-S-40GF (HF)				
	Friction versus Operating Temperature			
<u>General Description</u> SBS-S-40GF is a TÜV approved non asbestos organic friction material with a stable friction coefficient under both wet and dry conditions.	0.70         0.60           0.60         0.40           0.20         0.40           0.20         0.40           0.10         200         300         400	500		
Application	M <sub>B</sub> =120Nm Temperature(deg.C.) V=8,6m/s			
General purpose touring bikes.				
	Friction versus Lining Pressure			
Recommended Mating Surface Stainless steel. Good quality fine grained perlitic cast iron - GG15-20.	E 0.70 0.60 0.30 0.30 0.30 0.00 0.00 0.5	1.0		
	T <sub>o</sub> =100°C Lining Pressure(MPa)			
Recommended Operating Range	V=20,1m/s			

#### **Physical properties**

Density (g/cm<sup>3</sup>): 3 Shear strength (N/cm<sup>2</sup>): min. 350 Rockwell hardness (HRR): 100-125

Maximum temperature: approx. 400 °C

DRAWING OF FRONT BRAKE PADS

Friction Coefficient 0,50 0,20 0,20 0,10 0,10

T\_=100°C P=0,8MPa

0

10

Rubbing Speed(m/s)

20

30

DWG12.2

7.3.2

Drawing n.

		TVDE.		Variant:	93,	9E, 73, 7E, 7F
GOVECS SP Z.(	5.0.	TYPE:	4E	Version:	??	
AS AN ALTE	RNATIVE FO	OR FRONT AND I	REAR DI	SC BRAKE S	OLUT	ION
49,6	RJ 55			40,6		
4	1,3	national non-meta	al products		on cent	er
6,5			inspection			
	name	Copper base semimeta material	l friction	mode		2V8Y-0014-L
		Hangzhou Yuhuang Qianc	hao Friction	trade mark		FJ
	client	Material CO.,Lt	d.	test category		authorize
		Cangqian Railway Station Town, Yuhuang District,				
	address	City		sample grade		
	tested by			date		2012-01-14
	icsicu by			uaic		2012-01-14
	sample point			sender		Luo Fuguan
	sample quantity	2 pcs		production date		
	sampling basic No.			inspection item	mineral	composition determinatio
	inspection equipment	X-ray diffraction an	alyzer	status		disc brake pads
	sampling plan					
	test conclution	By X-r	ray diffraction	analysis,no found any	asbestos 1	minerals.
		- т		only morentees the te	stad same	1
	remarks	1	he test report	only guarantees the te	sted sam	bies

	700		Varian	<i>t:</i> 93, 9E, 73, 7E, 7
GOVECS SP 2	2.0.0.	<i>TYPE:</i> 4	E Versio	<b>n:</b> ??
AS AN AL	TERNATIVE	FOR FRONT AND REAR	DISC BRAK	E SOLUTION
49,6	R3,3		40,6	
4		national non-metal product	s quality inspect	ion center
		inspection		
	name	inspection Sintered copper alloy friction material		FJ009
	name		n report	
	name client	Sintered copper alloy friction material Hangzhou Yuhuang Qianchao Friction Material CO.,Ltd.	n report mode	FJ009
		Sintered copper alloy friction material Hangzhou Yuhuang Qianchao Friction	n report mode trade mark	FJ009 FJ
	client	Sintered copper alloy friction material Hangzhou Yuhuang Qianchao Friction Material CO.,Ltd. Cangqian Railway Station, Cangqian Town, Yuhuang District, Hangzhou	n report mode trade mark test category	FJ009 FJ
	client address tested by sample point	Sintered copper alloy friction material Hangzhou Yuhuang Qianchao Friction Material CO.,Ltd. Cangqian Railway Station, Cangqian Town, Yuhuang District, Hangzhou	n report mode trade mark test category sample grade date sender	FJ009 FJ authorize
	client address tested by sample point sample quantity	Sintered copper alloy friction material Hangzhou Yuhuang Qianchao Friction Material CO.,Ltd. Cangqian Railway Station, Cangqian Town, Yuhuang District, Hangzhou	n report mode trade mark test category sample grade date date sender production date	FJ009 FJ authorize 
	client address tested by sample point sample quantity sampling basic No.	Sintered copper alloy friction material Hangzhou Yuhuang Qianchao Friction Material CO.,Ltd. Cangqian Railway Station, Cangqian Town, Yuhuang District, Hangzhou City 	n report mode trade mark test category sample grade date sender production date inspection item	FJ009 FJ authorize 2011-06-29 Luo Fuguan  mineral composition determination
	client address tested by sample point sample quantity sampling basic No. inspection equipment	Sintered copper alloy friction material Hangzhou Yuhuang Qianchao Friction Material CO.,Ltd. Cangqian Railway Station, Cangqian Town, Yuhuang District, Hangzhou City	n report mode trade mark test category sample grade date date sender production date	FJ009 FJ authorize 
	client address tested by sample point sample quantity sampling basic No.	Sintered copper alloy friction material Hangzhou Yuhuang Qianchao Friction Material CO.,Ltd. Cangqian Railway Station, Cangqian Town, Yuhuang District, Hangzhou City 	n report mode trade mark test category sample grade date sender production date inspection item	FJ009 FJ authorize  2011-06-29 Luo Fuguan  mineral composition determination disc brake pads

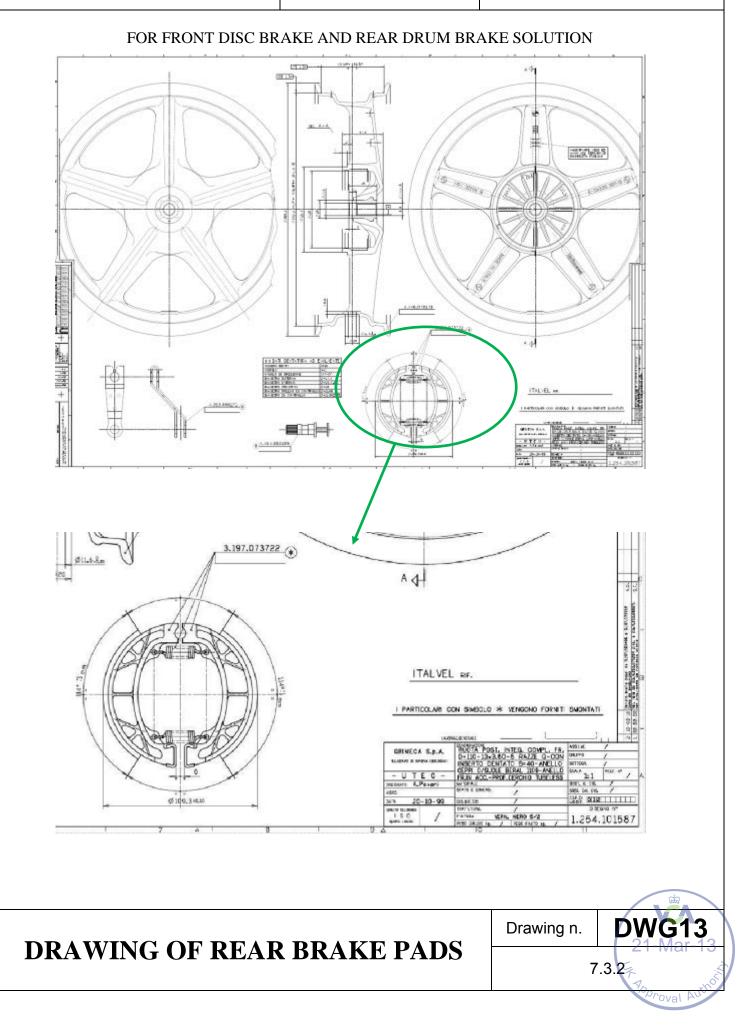
7.3.2

**DRAWING OF FRONT BRAKE PADS** 

GOVECS	SP Z.C	).0.
--------	--------	------

4E

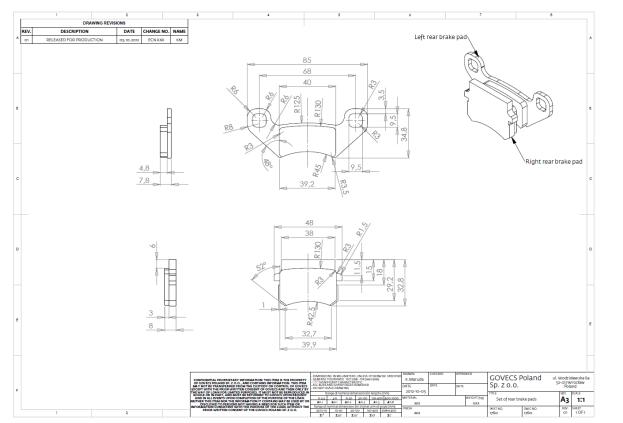
Version: ??



Version: ??

#### FOR FRONT AND REAR DISC BRAKE SOLUTION

4E



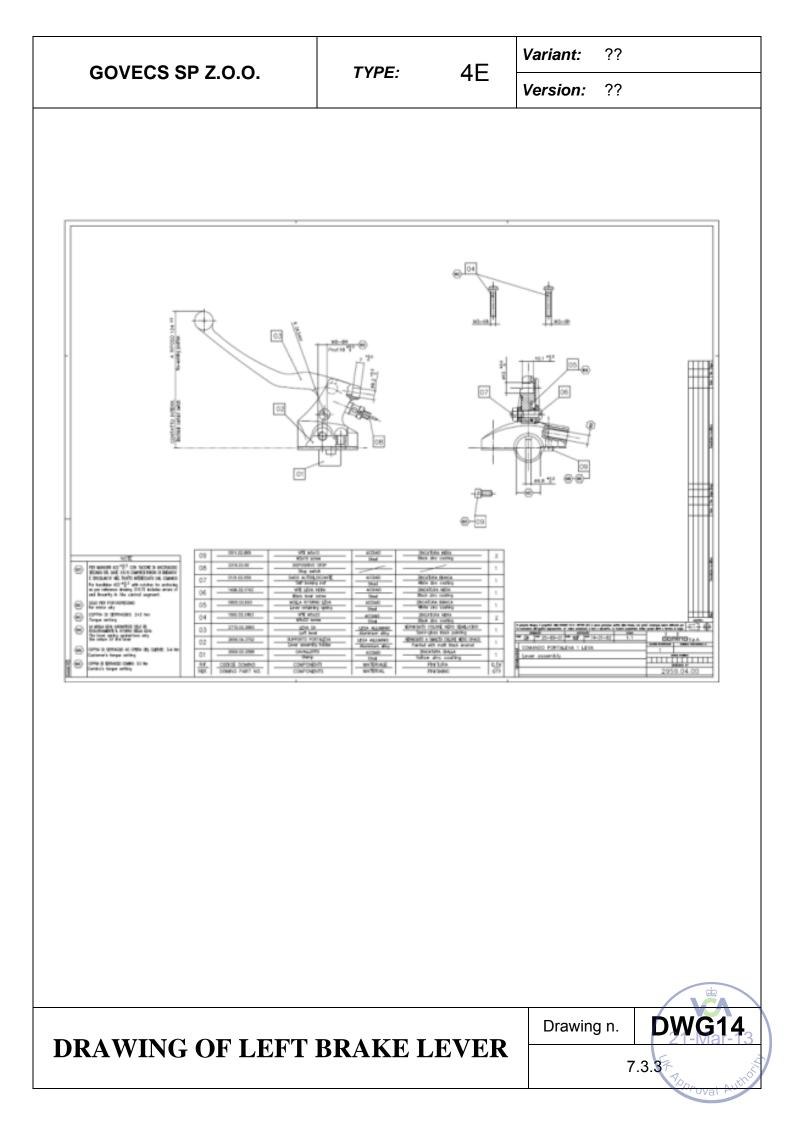
	检验报告	1		
留李旗检(朝)	李尔 (09216) 号		共 1页 第 1页	
产品名称	HCD108 材质	规格型号		
	(-A, -B, -C, -D)	商标		
一要信单位	杭用臺或特摩擦材料有限公司	检验类别	委托	
详细地社	部江省杭州市江千区九量镇三村 村四信	将品等级	-	
生产单位	-	密释日籍	2010 年8月25日	
抽料地点	-	密 桦 人	ida-Ais	
2.885	2月	生产日常	-	
植彩菇紫	-	检验项目	新转成分分析	
装設化群	X-統結分析仪	样品状态	小盘冲	
的时代加速于	-			
8	從 X一對論初射分析,這样品	A REAL PROPERTY AND	K (atea)	
12		1 all	精制建作	
12				
5 12	但对来样负责			
批准:	建治して 単核: Auron	鑛3	e, ifpiz	

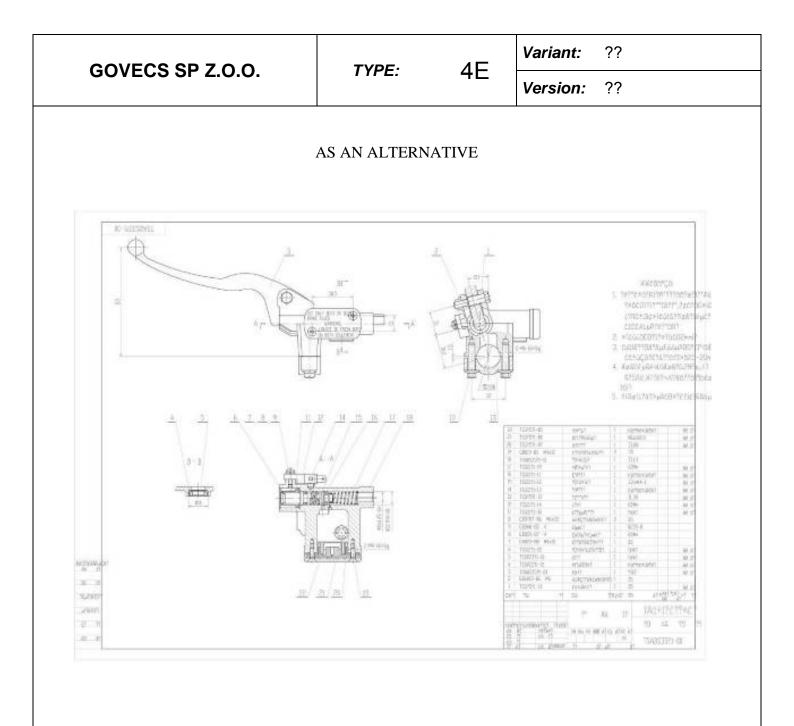
**DRAWING OF REAR BRAKE PADS** 

inspection report								
name	HCD108	mode						
		trade mark						
client	Mowefter Friction Material CO.,Ltd.	test category	authorize					
address	Four Group, Three Village, JiuBao Town, HangZhou City, Zhejiang	sample grade						
tested by	Four Group, Three Village, JiuBao Town, HangZhou City, Zhejiang	date	2010-08-25					
sample point		sender	Wei Li					
sample quantity	2pcs	production date						
sampling basic No.		inspection item	mineral composition determination					
nspection equipment	X-ray diffraction analyzer	status	pads					
sampling plan								
test conclution	By X-ray diffraction	analysis,no found an	y asbestos minerals.					
remarks	The test report	only guarantees the	tested samples					

Drawing n.

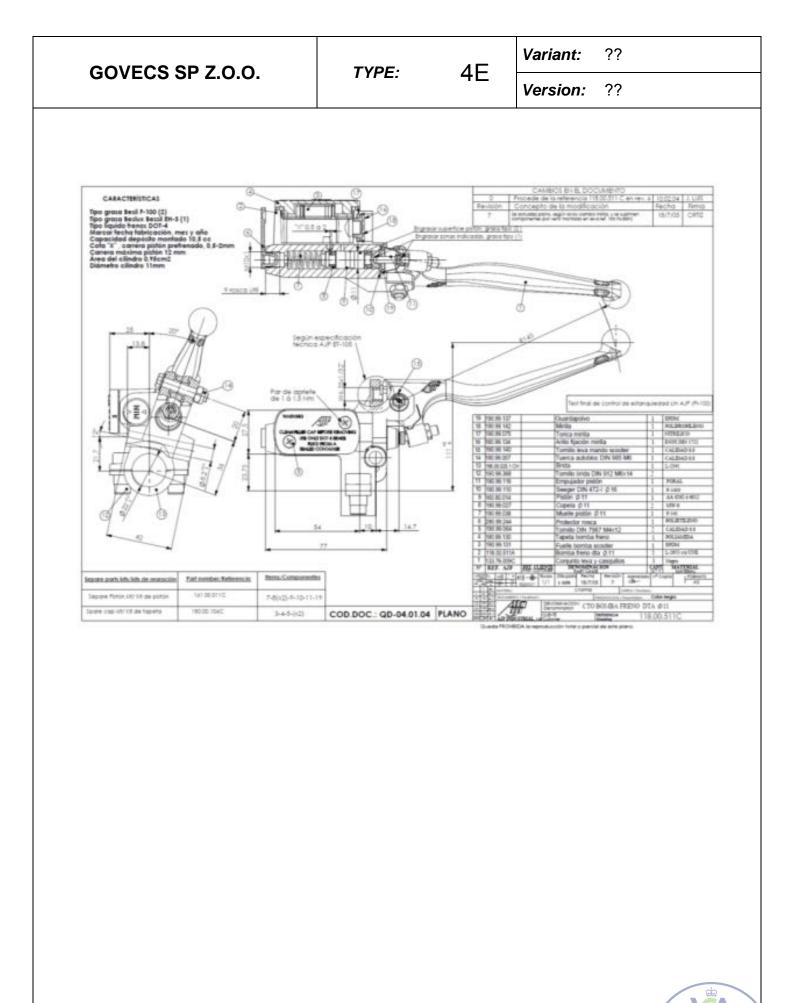
DWG13.1





### **DRAWING OF LEFT BRAKE LEVER**

Drawing n. DWG14.1

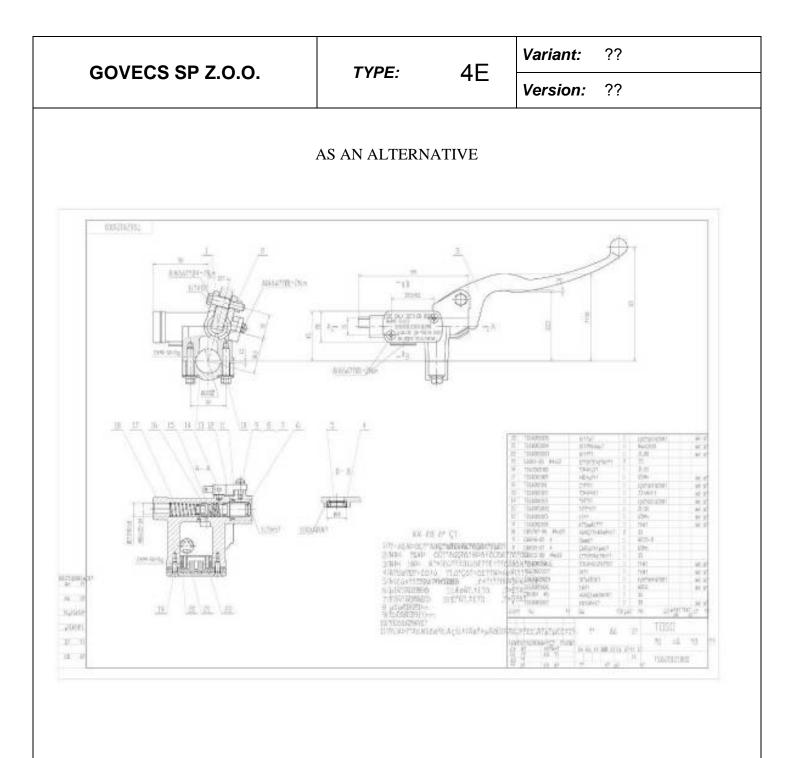


## **DRAWING OF RIGHT BRAKE LEVER**

Drawing n.

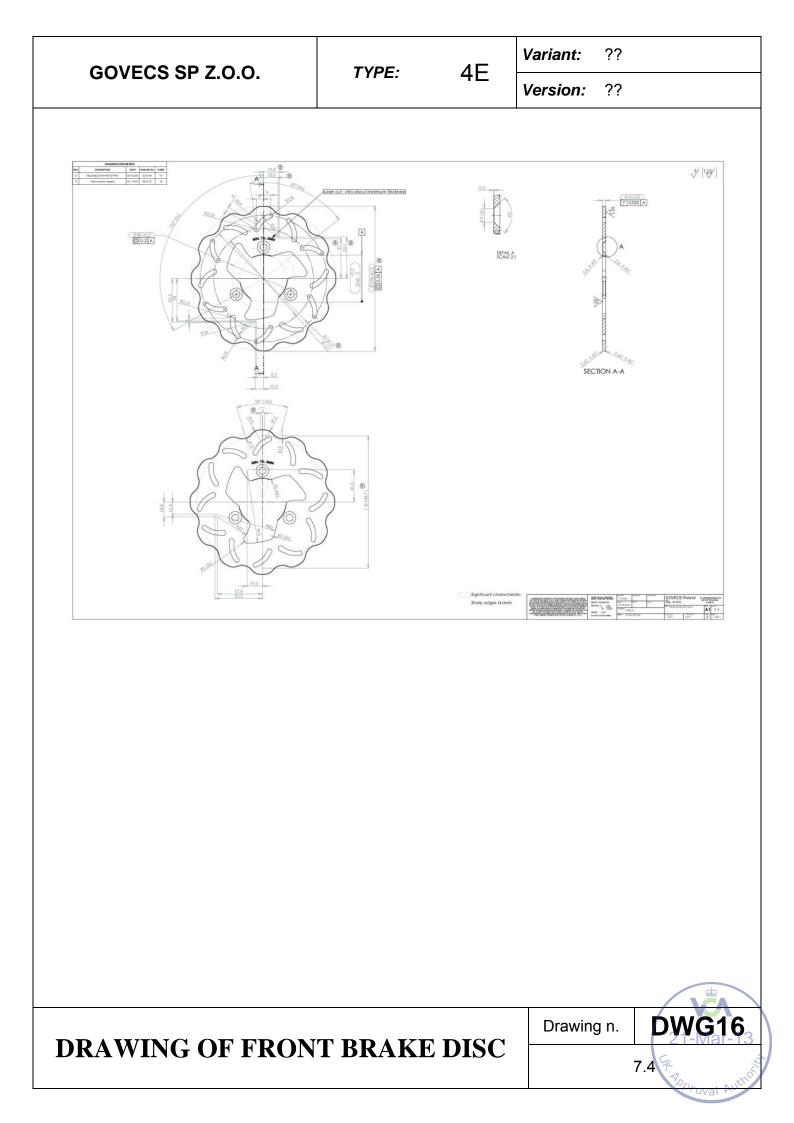
7.3.3

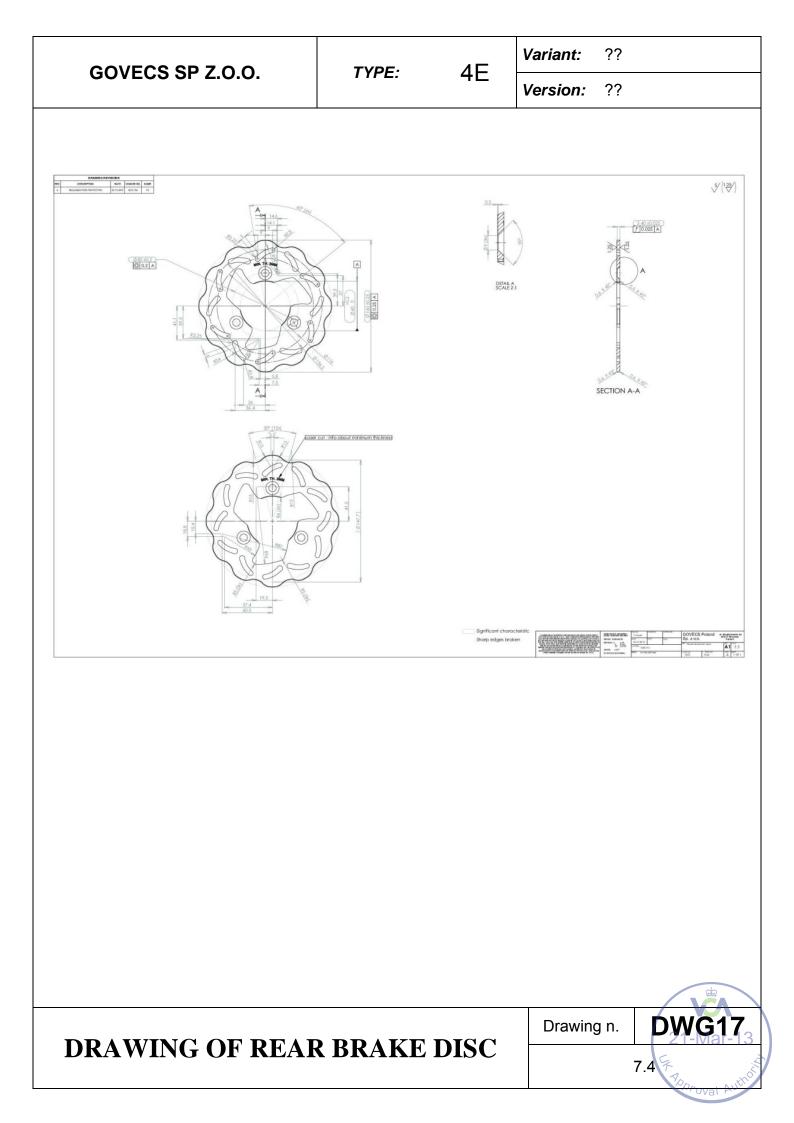
DWG15



### **DRAWING OF RIGHT BRAKE LEVER**

Drawing n. DWG15.1







GOVECS SP Z.O.O.

Version: ??

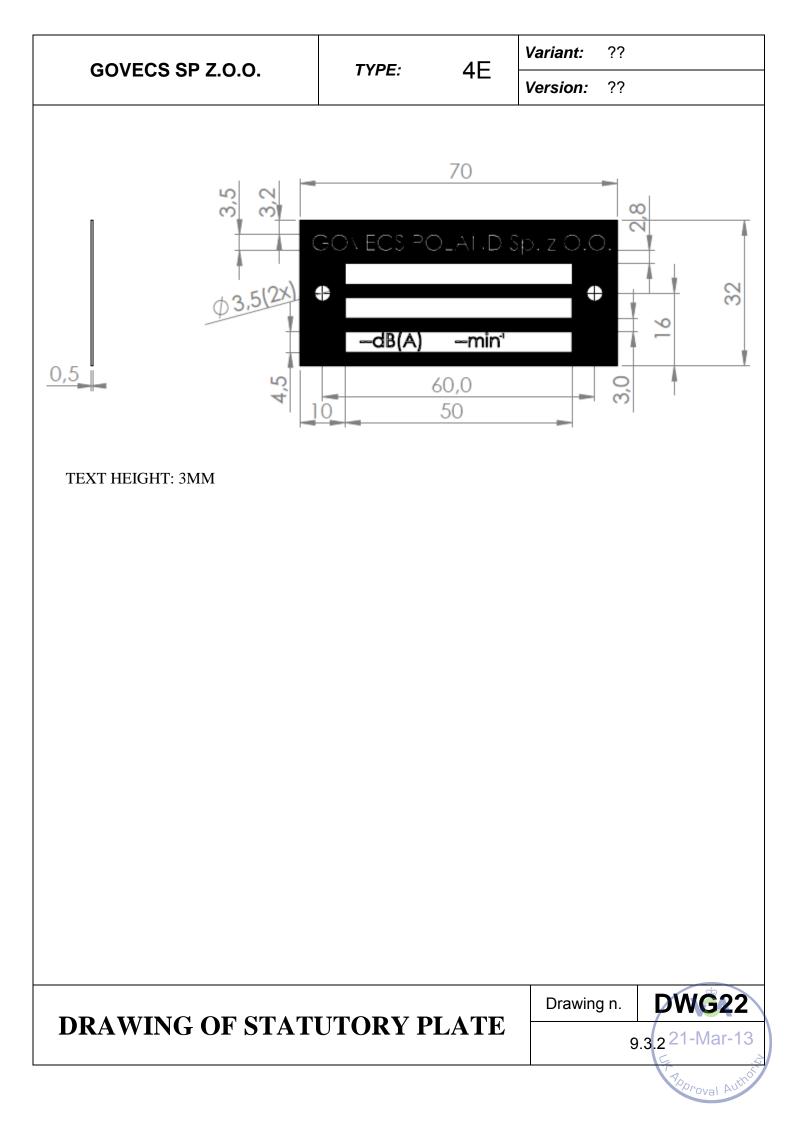
#### DIPPED BEAM LAMP POSITION AND FRONT POSITION LAMP POSITION

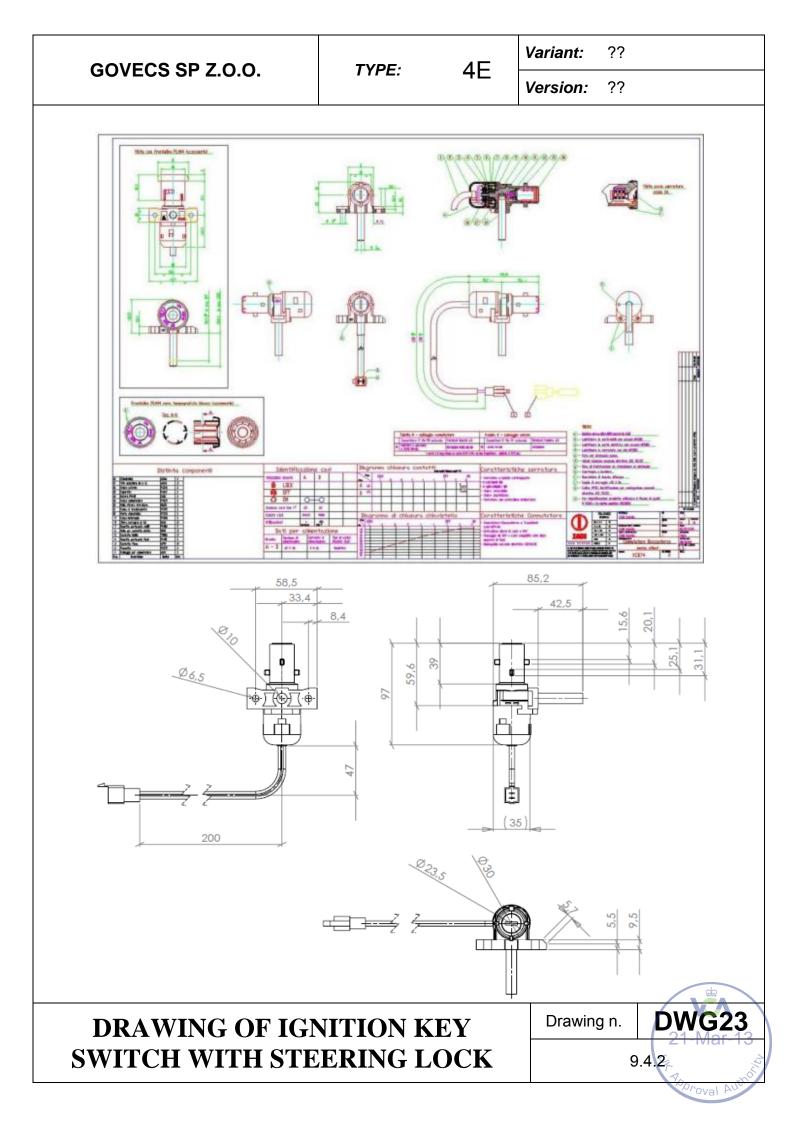
4E

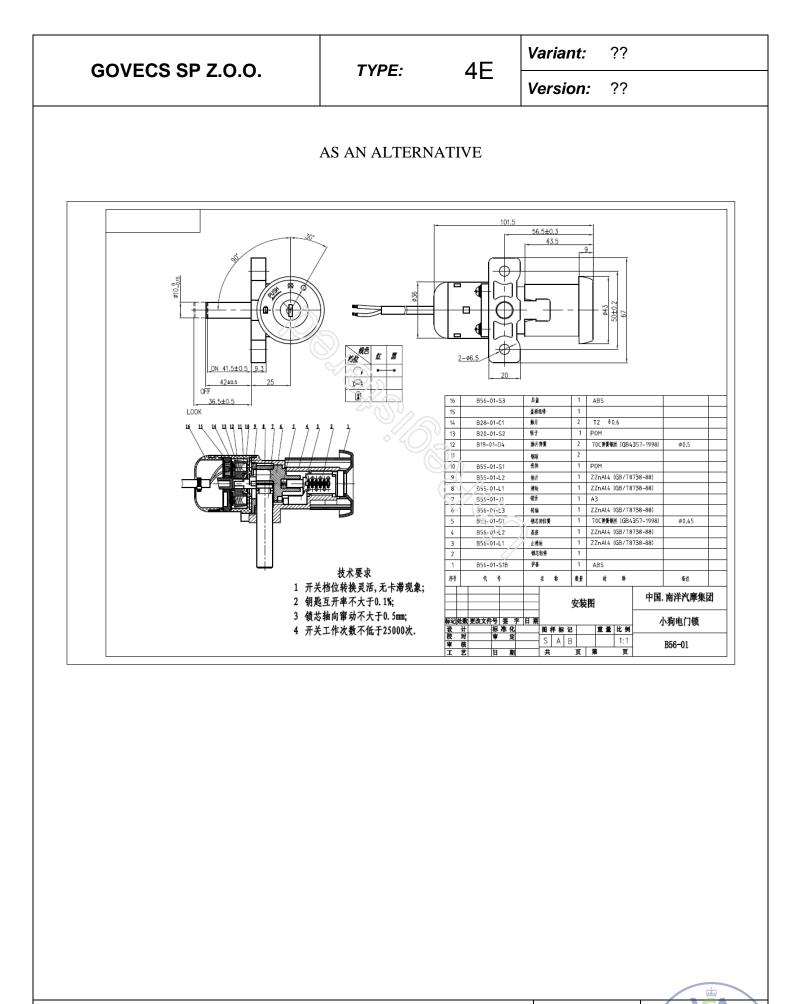


GOVECS SP Z.O.O.	TYPE:	4E	Variant: Version:	?? ??
SIDE AND RE	EAR RETRO-REI	FLECTOR PC	SITION	
States of the st				200
			425	
SIDE AND REAR RETI POSITIC		ECTOF	Drawin	g n. <b>DWG20</b> 8.2

GOVECS SP Z.O.O.	TYPE:	4E	Variant: ??	
		40	Version: ??	
LH DIRECTION INDICATOR	RI	H DIRECTIO	ON INDICATOR	
MAIN - BEAM TELL-TALE	1			
Lighting switch         Dipped-BEAM / MAIN-BEAM         Since and a state of the state of t			CUT-	OFF SWITCH
DIRECTION INDICATOR SWITCH			AUDIBLE W DEVICE CON	
ARRANGEMENT C	<b>OF SYMB</b>	DLS,	Drawing n.	DWG21
CONTROLS, TELL INDICAT	-TALES A	-		21-Mar-13 9.2.1







## DRAWING OF IGNITION KEY SWITCH WITH STEERING LOCK

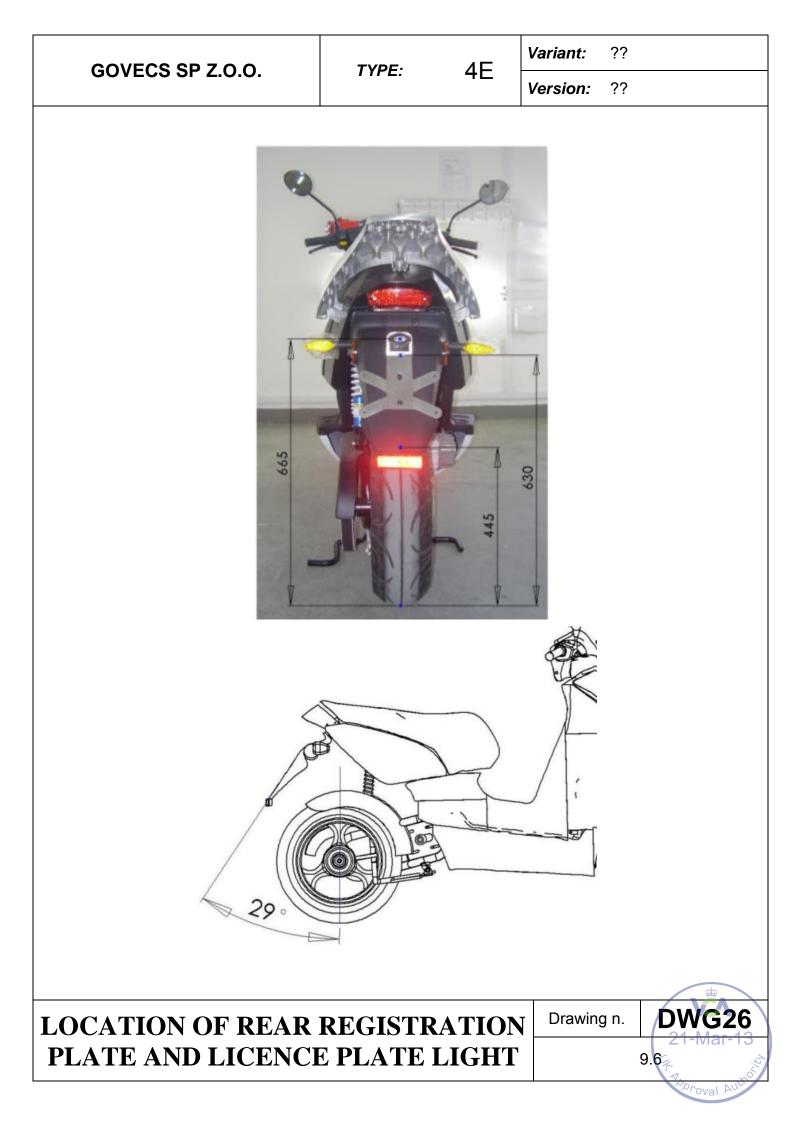
Drawing n. **DWG23.1** 

9.4.2

Voroval Autho







# LOCATION OF REAR VIEW MIRRORS





QIAOYU 138



ARSAUTO



QIAOYU 1106

470

410

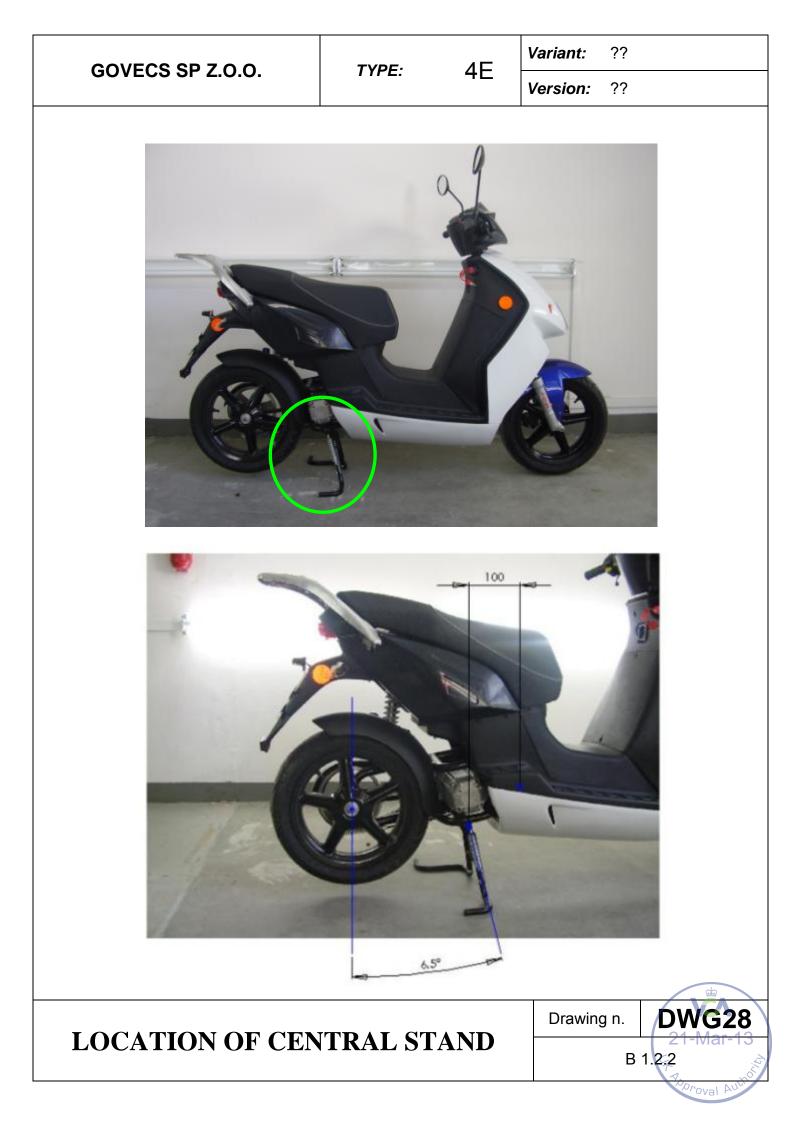
470

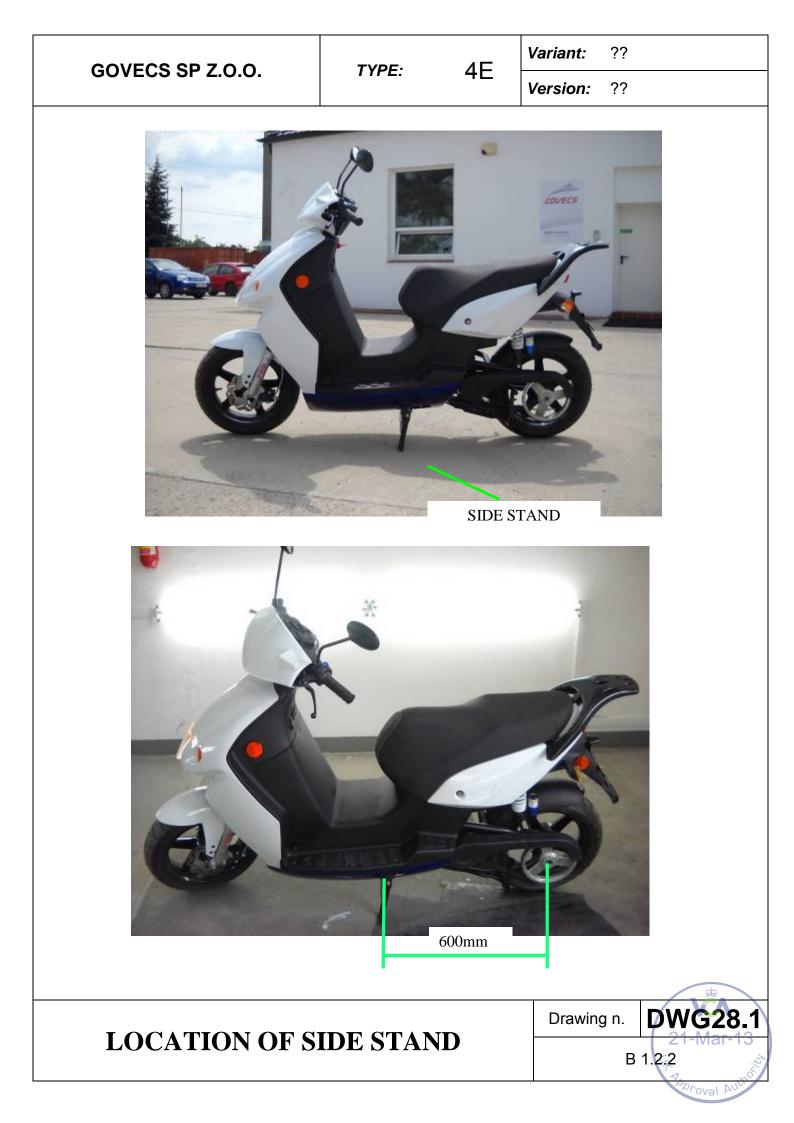
1240

410

#### GOVECS SP Z.O.O.

4E



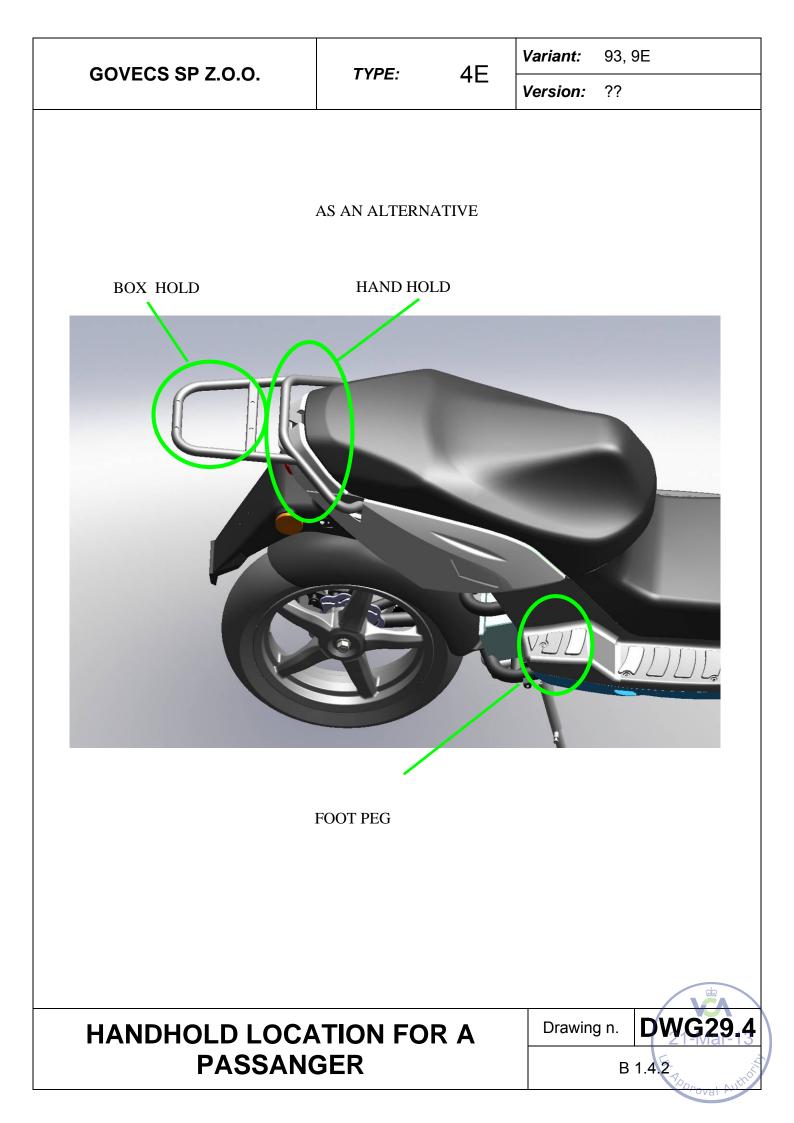


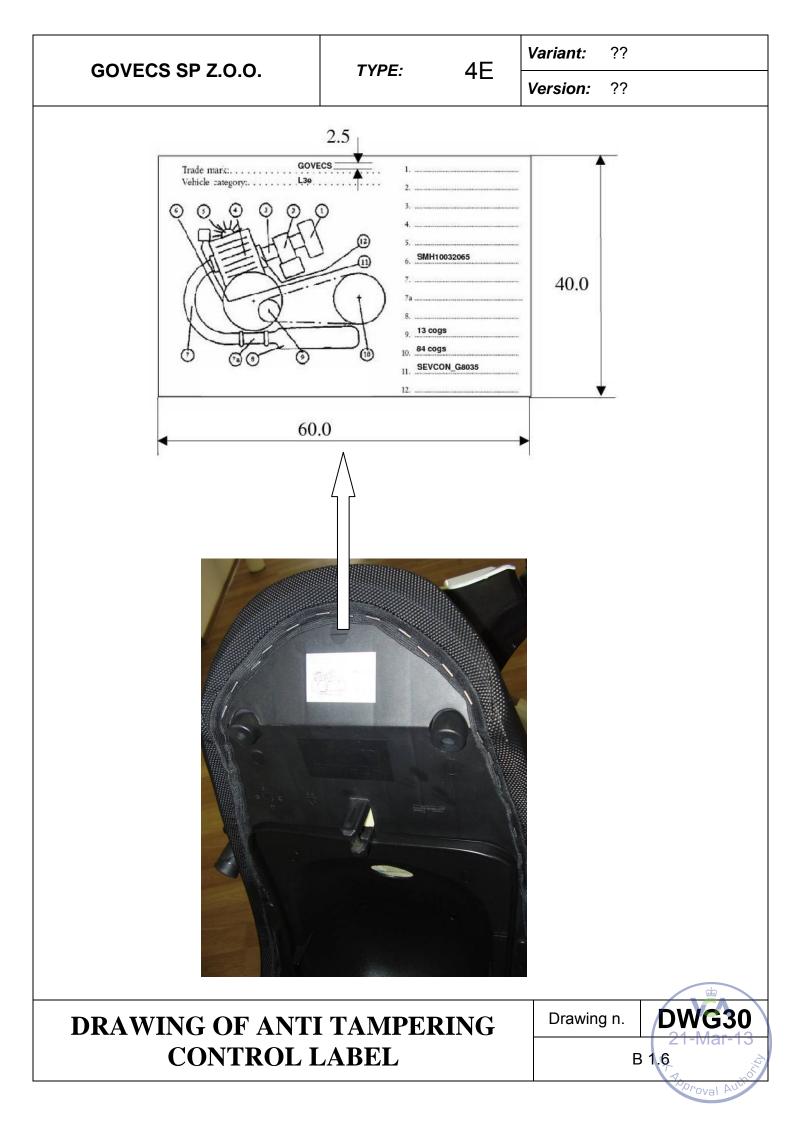


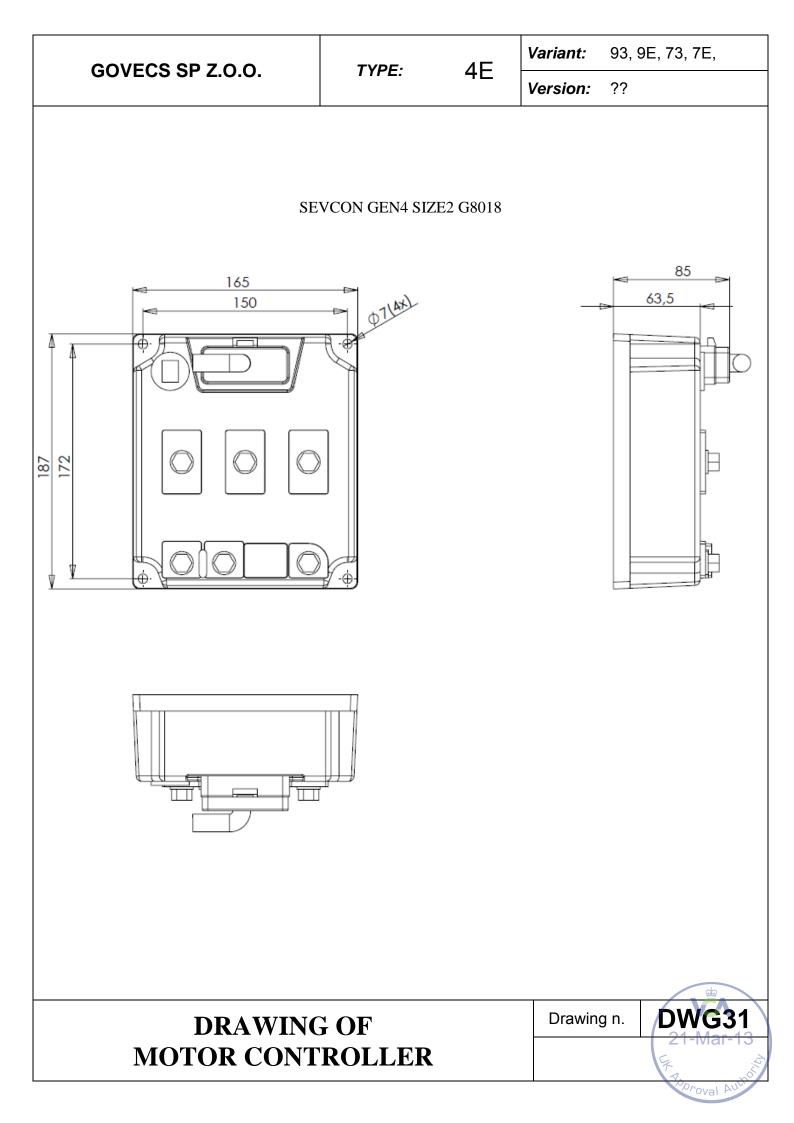


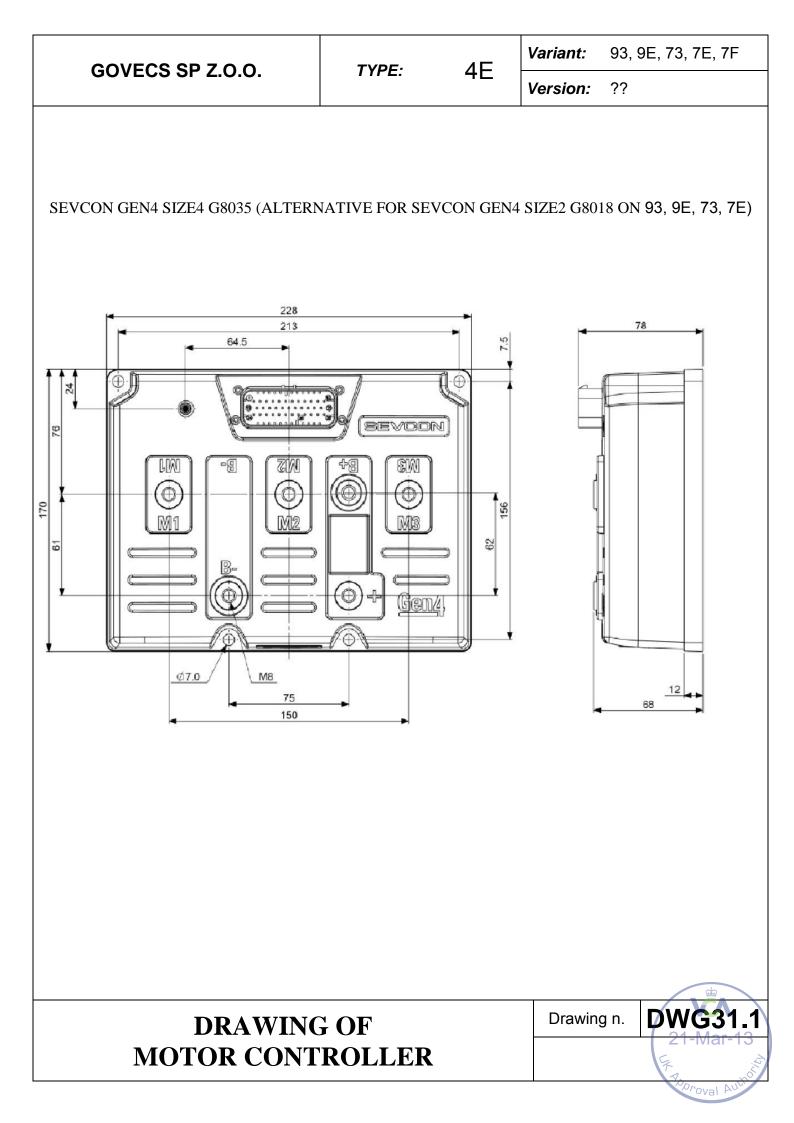












TYPE:

4E

Variant: ??

Version: ??