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02 SEPTEMBER 2009

Dear Sir / Madam,

Reference Approval Number: e11*2002/24*0892*00

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 & Quality Group





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THE UNITED KINGDOM VEHICLE APPROVAL AUTHORITY
EC TYPE-APPROVAL CERTIFICATE

Communication concerning Type-Approval of a type of vehicle
with regard to Directive 2002/24/EC

Type-Approval number: e11*2002/24*0892*00

Reason for extension: N/A

0. GENERAL

0.1. Make(s) (trade name of the manufacturer): XIAOFEILU

0.2. Type: HRTK122
Variant 1: Lithium battery
Variant 2: Silicon battery

0.2.1. Commercial name(s): TIANKE

0.3. Means of identification of type, if marked on the vehicle: N/A

0.3.1. Location of that marking: N/A

0.4. Category ⁽²⁾: L3e

0.5. Name and address of the vehicle manufacturer:
SHANGHAI HUARI ENTERPRISE DEVELOPMENT CO.,LTD
No.101,Qianming East Rd ,Fengjing Industrial Zone, Jingshan District, Shanghai Province,
PEOPLE'S REPUBLIC OF CHINA

0.5.1. Name(s) and address(es) of assembly plant(s):
SHANGHAI HUARI ENTERPRISE DEVELOPMENT CO.,LTD
No.101,Qianming East Rd ,Fengjing Industrial Zone, Jingshan District, Shanghai Province,
PEOPLE'S REPUBLIC OF CHINA

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 the technical requirements of all the relevant separate Directives (as last amended) listed in the table of Annex I to Directive 2002/24/EC.

The approval is GRANTED

Place: BRISTOL

Signature: 

A.W STENNING
Head of Technical & Quality Group

Date: 02 SEPTEMBER 2009

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.

- (1) Delete where not applicable.
(2) According to the classification introduced in Article 1.

CSK206080





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APPROVAL NUMBER: e11*2002/24*0892*00

INFORMATION PACKAGE CONTENTS

INDEX

REVISION NUMBER: Not applicable

Total number of sheets: 53 (Fifty-three)

Number of separate drawings: 0 (Nil)

Number of separate photographs: 0 (Nil)

Reasons for Revision: Not applicable

CSK206080

Revision
date
&
Office stamp

An executive agency of the Department for Transport





VEHICLE CERTIFICATION AGENCY

ANNEX VII – TEST RESULTS

e11*2002/24*0892*00

(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.

Note: The electric motorcycle don't conduct the emission, sound level tests.

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

Variant/version : _____

Moving dB(A) : _____

Stationary dB(A) : _____

at (min_1) : _____

2. Results of the exhaust emission tests according to Directive 97/24/EC Chapter 5 Annex II, as amended by 2006/120/EC

Variant/version : _____

2.1. Type I

CO (g/km) : _____

HC (g/km) (1) : _____

NOx (g/km) (1) : _____

HC + NOx (g/km) (2) : _____

2.2 Type II

CO (g/min) (1) : _____

HC (g/min) (1) : _____

CO (% vol) at normal idle speed (2) : _____

Specify the idle speed (2) (3) : _____

CO (% vol) at high idle speed (2) : _____

Specify the idle speed (2) (3) : _____

Engine oil temperature (2) (4) : _____

3. Compression ignition engine : _____

Variant/version : _____

Corrected value of absorption coefficient: _____

(m-1)

CO at Idle



Shanghai Huari Enterprise Development Co., Ltd.

Information document: 2002 /24- HRTK122-00

Application date: June 2, 2009

Dear Sirs

We as manufacturer ask for a type approval acc. to 2002/24/EC for the following vehicle type:

¹delete where applicable

Vehicle type	:	HRTK122
Vehicle category	:	Two-wheel Motorcycle
Name and address manufacturer	:	SHANGHAI HUARI ENTERPRISE DEVELOPMENT CO.,LTD. N0.101,Qianming Eastrd ,Fengjing Industrial Zone, Jingshan District, Shanghai Province, P.R. China
Name and address of manufacturers representative	:	n.a.

We confirm that the above mentioned application has not been submitted to any Other EEC member state nor has any member state granted a corresponding type approval.

With best regards,

Fu Liping



Mr.Fu Liping/Chief director

SHANGHAI HUARI ENTERPRISE DEVELOPMENT CO.,LTD.



Shanghai Huari Enterprise Development Co., Ltd.

Information document: 2002 /24-HRTK122-00

Application date: June 2, 2009

Document information about : Two- wheel motorcycle

Reference number of information document: 2002 /24-HRTK122-00

Application date: June 2, 2009

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I. 2002/24 INFORMATION DOCUMENT – GENERAL INFORMATION

II. CONTENT OF DRAWINGS

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HRTK122-02	Battery installation	2.
HRTK122-03	Speedometer	3.
HRTK122-04	Front fork Suspension	4.
HRTK122-05	Rear Suspension	5.
HRTK122-06	Brake System	6.
HRTK122-07	Front brake pads assy.	7.
HRTK122-08	Rear brake pads assy.	8.
HRTK122-09	Front brake pad	9.
HRTK122-10	Rear brake pad	10.
HRTK122-11	Front Brake Lever	11.
HRTK122-12	Rear Brake Lever	12.
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HRTK122-28	Controller	30.
HRTK122-29	Electric engine	31.
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III STATEMENT CONCERNING ANTI TAMPERING REQUIREMENTS AND ANTI THEFT DEVICE (IF APPLICABLE)

Shanghai Huari Enterprise Development Co., Ltd.

Information document: 2002 /24-HR TK122-00

Application date: June 2, 2009

2002/24/EC ANNEX II INFORMATION DOCUMENT ^(a)

PART 1A. INFORMATION RELATING JOINTLY TO MOPEDS, MOTOR CYCLES, MOTOR TRICYCLES AND QUADRICYCLES

0. General

- 0.1. Make : XIAOFEILU
- 0.2. Type (state any possible variants and versions: each variant and each version must be identified by a code consisting of numbers or a combination of letters and numbers)
- Variant : Variant 1: Lithium battery
Variant 2: Silicon battery
- Version : n.a.
- 0.2.1. Commercial name (where applicable) : TIANKE
- 0.3. Means of type identification if stated on vehicle ^(b) : n.a.
- 0.3.1. Location of that means of identification : n.a.
- 0.4. Vehicle category ^(c) : L3e
- 0.5. Name and address of manufacturer : SHANGHAI HUARI ENTERPRISE DEVELOPMENT CO., LTD.
N0.101,Qianming Eastrd ,Fengjing Industrial Zone, Jingshan District, Shanghai Province, P.R. China
- 0.5.1. Name(s) and addresse(s) of assembly plants : SHANGHAI HUARI ENTERPRISE DEVELOPMENT CO., LTD.
N0.101,Qianming Eastrd ,Fengjing Industrial Zone, Jingshan District, Shanghai Province, P.R. China
- 0.6. Name and address of manufacturer's authorised representative, if any : n.a.
- 0.7. Location and method of affixing statutory inscriptions to the chassis : Statutory inscription affixed on the right side of frame and near the main stand bracket; VIN number stamped on the right side of chassis
- 0.7.1. The serial numbering of the type begins with No : Variant1: LXDT1ZW0□97000001
Variant2: LXDTXZW0□97000001
The ninth character"□"means check number calculated automatically by VIN-print system, possible character including : "0,1,2,3,4,5,6,7,8,9,X"
- 0.8. Position and method of affixing the component type-approval mark for components and separate technical : Mark on the surface of the component and made by molding



Shanghai Huari Enterprise Development Co., Ltd.

Information document: 2002 /24-HRTK122-00

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units

- 1. General arrangement of the vehicle**
- 1.1. Photos and/or drawings of a typical vehicle : Refer to drawing No. HRTK122-01
- 1.2. Dimensional drawing of the complete vehicle : Refer to drawing No. HRTK122-01
- 1.2.1. Wheelbase : 1440mm
- 1.3. Number of axles and wheels (where appropriate, number of crawler tracks or belts) : 2 axles / 2 wheels
- 1.4. Position and arrangement of engine : In the centre of rear wheel
- 1.5. Number of seating positions : 2
- 1.6. Hand of drive - left or right ⁽¹⁾
- 1.6.1. Vehicle is equipped to be driven in right-hand or left-hand rule of the road traffic ⁽¹⁾ Left and Right
- 2. Masses (in kg) ⁽²⁾**
- | | Lithium | Silicon |
|---|-------------------------|-------------------------|
| 2.0. Unladen mass ^{(d) (i)} : | 132 | 172 |
| 2.1. Mass of vehicle in running order ⁽ⁱ⁾ : | 132 | 172 |
| 2.1.1. Distribution of that mass between the axles : | Front: 58
Rear: 74 | Front: 77
Rear: 95 |
| 2.2. Mass of vehicle in running order , together with rider : | 207 | 247 |
| 2.2.1. Distribution of that mass between the axles : | Front: 100
Rear: 107 | Front: 114
Rear: 133 |
| 2.3. Maximum technically permissible mass declared by the manufacturer : | 282 | 322 |
| 2.3.1. Division of that mass between the axles : | Front: 110
Rear: 172 | Front: 128
Rear: 194 |
| 2.3.2. Maximum technically permissible mass on each of the axles : | Front: 110
Rear: 172 | Front: 128
Rear: 194 |
| 2.4. Maximum hill-starting ability at the maximum technically permissible mass declared by the manufacturer : | 30% | |
| 2.5. Maximum towable mass (where applicable) : | n.a. | |
| 2.6. Maximum mass of the combination : | n.a. | |
- 3. Engine ^(e)**
- 3.0. Manufacturer : Luqiao Aluminium Co., Ltd.

- -



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Application date: June 2, 2009

3.1.	Make	:	QUANSHUN
3.1.1.	Type (stated on the engine, or other means of identification)	:	60V50080
3.1.2.	Location of engine number (if applicable)	:	Side face of motor, Refer to drawing No. HR TK122-29
3.2.	Spark- or compression -ignition engine ⁽¹⁾	:	n.a.
3.2.1.	Specific characteristics of the engine		
3.2.1.1.	Operating cycle (four or two-stroke, spark or compression ignition) ⁽¹⁾	:	n.a.
3.2.1.2.	Number, arrangement and firing order of cylinders	:	n.a.
3.2.1.2.1.	Bore ^(f)	:	n.a.
3.2.1.2.2.	Stroke ^(f)	:	n.a.
3.2.1.3.	Cylinder capacity ^(g)	:	n.a.
3.2.1.4.	Compression ratio ⁽²⁾	:	n.a.
3.2.1.5.	Drawings of cylinder head, piston(s), piston rings and cylinder(s)	:	n.a.
3.2.1.6.	Idling speed	:	n.a.
3.2.1.7.	Maximum net power output	:	n.a.
3.2.1.8.	Net maximum torque	:	n.a.
3.2.2.	Fuel	:	n.a.
3.2.3.	Fuel tank		
3.2.3.1.	Maximum capacity ⁽²⁾	:	n.a.
3.2.3.2.	Drawing of tank with indication of material used	:	n.a.
3.2.3.3.	Diagram clearly indicating the position of the tank on the vehicle	:	n.a.
3.2.3.4.	Approval number of the fuel tank fitted	:	n.a.
3.2.4.	Fuel supply		
3.2.4.1.	Via carburettor(s)	:	n.a.
3.2.4.1.1.	Make(s)	:	n.a.
3.2.4.1.2.	Type(s)	:	n.a.
3.2.4.1.3.	Number fitted	:	n.a.
3.2.4.1.4.	Settings ⁽²⁾		
	i.e. of		
3.2.4.1.4.1.	Diffusers	:	n.a.
3.2.4.1.4.2.	Level in float chamber	:	n.a.
3.2.4.1.4.3.	Mass of float	:	n.a.
3.2.4.1.4.4.	Float needle	:	n.a.
	or		

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3.2.4.1.4.5.	Fuel curve as a function of the air flow and setting required in order to maintain that curve	: n.a.
3.2.4.1.5.	Cold-starting system ⁽¹⁾	: n.a.
3.2.4.1.5.1.	Operating principle(s)	: n.a.
3.2.4.2.	By fuel injection (solely in the case of compression ignition) (yes/no)	: n.a.
3.2.4.3.	By fuel injection (solely in the case of spark-ignition)	: n.a.
3.2.4.4.	Fuel pump	: n.a.
3.2.5.	Electrical equipment	
3.2.5.1.	Nominal voltage	: n.a.
3.2.5.2.	Generator	
3.2.5.2.1.	Type	: n.a.
3.2.5.2.2.	Nominal power	: n.a.
3.2.6.	Ignition	
3.2.6.1.	Make(s)	: n.a.
3.2.6.2.	Type(s)	: n.a.
3.2.6.3.	Operating principle	: n.a.
3.2.6.4.	Ignition advance curve or operating set point ⁽²⁾	: n.a.
3.2.6.5.	Static timing ⁽²⁾	: n.a.
3.2.6.6.	Points gap ⁽²⁾	: n.a.
3.2.6.7.	Dwell angle ⁽²⁾	: n.a.
3.2.6.8.	Anti-radio interference system	
3.2.6.8.1.	Terminology and drawing of anti-radio interference equipment	: n.a.
3.2.6.8.2.	Indication of the nominal DC resistance value and, in the case of resistive ignition leads, statement of nominal resistance per metre	: n.a.
3.2.7.	Cooling system (liquid/air) ⁽¹⁾	
3.2.7.1.	Nominal setting for the engine-temperature control device	: n.a.
3.2.7.2.	Liquid	
3.2.7.2.1.	Nature of liquid	: n.a.
3.2.7.2.2.	Circulating pump(s)	: n.a.
3.2.7.3.	Air	
3.2.7.3.1.	Blower	: n.a.
3.2.8.	Induction system	
3.2.8.1.	Supercharging	: n.a.
3.2.8.1.1.	Make(s)	: n.a.

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3.2.8.1.2.	Type(s)	:	n.a.
3.2.8.1.3.	Description of system [example: maximum boost pressure in kPa, waste gate (where appropriate)]	:	n.a.
3.2.8.2.	Intercooler	:	n.a.
3.2.8.3.	Description and drawings of induction pipe work and accessories (plenum chamber, heating device, additional air intakes, etc.)	:	n.a.
3.2.8.3.1.	Description of induction manifold (with drawings and/or photos)	:	n.a.
3.2.8.3.2.	Air filter, drawings or	:	n.a.
3.2.8.3.2.1.	Make(s)	:	n.a.
3.2.8.3.2.2.	Type(s)	:	n.a.
3.2.8.3.3.	Inlet silencer, drawings or	:	n.a.
3.2.8.3.3.1.	Make(s)	:	n.a.
3.2.8.3.3.2.	Type(s)	:	n.a.
3.2.9.	Exhaust system		
3.2.9.1.	Drawing of complete exhaust system	:	n.a.
3.2.10.	Minimum cross-section of the inlet and exhaust ports	:	n.a.
3.2.11.	Induction system or equivalent data		
3.2.11.1.	Maximum valve lift, opening and closing angles in relation to the dead centres, or data concerning the settings of other possible systems	:	n.a.
3.2.11.2.	Reference and/or setting ranges ⁽¹⁾	:	n.a.
3.2.12.	Anti-air pollution measures adopted		
3.2.12.1.	Crankcase-gas recycling device, solely in the case of four-stroke engines (description and drawings)	:	n.a.
3.2.12.2.	Additional anti-pollution devices (where present and not included under another heading)	:	n.a.
3.2.12.2.1.	Description and/or drawings	:	n.a.
3.2.13.	Location of the coefficient of absorption symbol (compression-ignition engines only)	:	n.a.
3.3.	Electric traction motor		
3.3.1.	Type (winding, excitation)	:	Winding
3.3.1.1.	Maximum continuous rated power ^(k)	:	5000w

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3.3.1.2.	Operating voltage	:	60V	
3.3.2.	Battery		Lithium	Silicon
3.3.2.1.	Number of cells	:	5 groups: One battery has 6 cells, one group has two batteries	5 groups: One battery has 6 cells, one group has two batteries
3.3.2.2.	Mass	:	Total:31kg	Total:65kg
3.3.2.3.	Capacity	:	Total:38Ah	Total:46Ah
3.3.2.4.	Location	:	In the middle of the vehicle Refer to drawing No. HRTK122-02	In the middle of the vehicle Refer to drawing No. HRTK122-02
3.4.	Other motors or combinations of motors (specific information concerning the parts of those motors)	:	n.a.	
3.5.	Cooling system temperatures permitted by the manufacturer	:	n.a.	
3.6.	Lubrication system	:	n.a.	
4.	Transmission ^(h)			
4.1.	Diagram of transmission system	:	n.a.	
4.2.	Type (mechanical, hydraulic, electrical, etc.)	:	n.a.	
4.3.	Clutch (type)	:	n.a.	
4.4.	Gearbox	:	n.a.	
4.4.1.	Type	:	n.a.	
4.4.2.	Method of selection	:	n.a.	
4.5.	Gear ratios	:	n.a.	
4.5.1.	Brief description of the electrical and/or electronic components used in the transmission	:	n.a.	
4.6.	Maximum speed of vehicle and gear in which it is reached (in km/h) ⁽ⁱ⁾	:	Lithium 80 km/h, n.a.	Silicon 80 km/h, n.a.
4.7.	Speedometer			
4.7.1.	Make(s)	:	GUIDU	
4.7.2.	Type(s)	:	HRTK122	
4.7.3.	Photographs and/or drawings of the complete system	:	Refer to drawing	No.HRTK122-03
4.7.4.	Speed range displayed	:	0~100km/h,0~60mph	
4.7.5.	Tolerance of the measuring mechanism of the speedometer	:	+5km/h	

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- 4.7.6. Technical constant of the speedometer : 8.35 rpm/degree
- 4.7.7. Method of operation and description of the drive mechanism : Front wheel makes worm wheel turn to drive worm, soft-axes to meter worm
- 4.7.8. Overall transmission ratio of the drive mechanism : 22:12

5. Suspension

- 5.1. Drawing of suspension arrangement : Refer to drawing No. HRTK122-04, HRTK122-05
- 5.1.1. Brief description of the electrical and/or electronic components used in the suspension : n.a.
- 5.2. Tyres (category, dimensions and maximum loading) and rims (standard type) :

	Tire	Approval No.	Rolling circumference	Tire Pressure	Rim size
Front	130/60-13 53J	E4-75R-0002525	1486mm	225Kpa	3.50×13
Rear	130/60-13 53J	E4-75R-0002525	1486mm	225Kpa	3.50×13

- 5.2.1. Nominal rolling circumference : See section 5.2 table
- 5.2.2. Tyre pressures recommended by the manufacturer : See section 5.2 table
- 5.2.3. Tyre/wheel combinations : See section 5.2 table
- 5.2.4. Minimum-speed category symbol compatible with the theoretical maximum design speed of the vehicle : F
- 5.2.5. Minimum load-capacity index with the maximum load on each tyre : Front:37
Rear:51
- 5.2.6. Categories of use compatible for the vehicle : Normal

6. Steering

- 6.1. Steering gear and control
- 6.1.1. Type of gear : Telescopic fork steering stem manual controlled by driver
- 6.1.2. Brief description of the electrical and/or electronic components used in the steering system : n.a.

7. Braking

- 7.1. Diagram of braking devices : Refer to drawing No. HRTK122-06
- 7.2. Front disc / drum brake ⁽¹⁾ : Front: disc



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Rear registration plate lamp	1	/	white	/		DYDS-H02	E11-50R-001202
Rear reflector	1	/	red	/	DBM or K-LITE	KM-202	IA E9-02 1268
Side reflecting devices	2	/	amber	/	DBM or K-LITE	KM-101	IA E9-02 1270

- 8.2. Diagram showing the location of the lighting and light-signalling devices : Refer to drawing No. HRTK122-14
- 8.3. Hazard warning lamps (where fitted) : n.a.
- 8.4. Additional requirements relating to special vehicles : n.a.
- 8.5. Brief description of the electrical and/or electronic components used in the lighting system and in the light-signalling system : n.a.

9. EQUIPMENT

- 9.1. Coupling devices (where applicable)
 - 9.1.1. Type (hook/ring/other) ⁽¹⁾ : n.a.
 - 9.1.2. Photograph and/or drawings showing the position and the construction of the coupling devices : n.a.
- 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 : Refer to drawing No. HRTK122-15
- 9.3. Statutory inscriptions
 - 9.3.1. Photographs and/or drawings showing the location of the statutory inscriptions and the chassis number : Refer to drawing No. HRTK122-16
 - 9.3.2. Photographs and/or drawings showing the official part of the inscription (with statement of dimensions) : Refer to drawing No. HRTK122-17(1), HRTK122-17(2)
 - 9.3.3. Photographs and/or drawings of the chassis number (with statement of dimensions) : Refer to drawing No. HRTK122-27(1), HRTK122-27(2)
- 9.4. Device(s) to protect against unauthorised use
 - 9.4.1. Type of device(s) : Type 2
 - 9.4.2. Summary description of device(s) used : Steering lock, Refer to drawing No. HRTK122-18
- 9.5. Audible warning device(s)

- -



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- 9.5.1. Summary description of device(s) used and their purpose : Electro magnetic actuated diaphragm
- 9.5.2. Make(s) : CHANGJIE
- 9.5.3. Type(s) : CHANGJIE DL-60
- 9.5.4. Type-approval mark : e9*93/30*93/30*1026*00
- 9.5.5. Drawing(s) showing the location of the audible warning device(s) in relation to the structure of the vehicle : Refer to drawing No. HRTK122-19
- 9.5.6. Details of the method of attachment, including the part of the vehicle structure to which the audible warning device(s) is (are) attached : Refer to drawing No. HRTK122-19
- 9.6. Location of rear registration plate (indicate variants where necessary; drawings may be used as appropriate) : Refer to drawing No. HRTK122-20
- 9.6.1. Inclination of plane in relation to the vertical : 25° facing upward

- -



Shanghai Huari Enterprise Development Co., Ltd.

Information document: 2002 /24-HRTK122-00

Application date: June 2, 2009

B. INFORMATION RELATING SOLELY TO TWO-WHEEL MOPEDS AND MOTORCYCLES

- 1. Equipment**
- 1.1. Rear-view mirror(s) (please provide the following information for each rear-view mirror)
- 1.1.1. Make : QY 149
- 1.1.2. Component type-approval mark : L E7 81R-000507
- 1.1.3. Variant : n.a.
- 1.1.4. Drawing(s) showing the location of the rear-view mirror(s) in relation to the structure of the vehicle : Refer to drawing No. HRTK122-21
- 1.1.5. Precise information concerning the type of attachment, including that part of the vehicle structure to which the rear-view mirror is attached : Refer to drawing No. HRTK122-22
- 1.2. Stand
- 1.2.1. Type (central and/or side) : central and/or side ⁽¹⁾
- 1.2.2. Drawing showing the location of the stand(s) in relation to the structure of the vehicle : Refer to drawing No. HRTK122-23
- 1.3. Attachments for motorcycle sidecars (where applicable)
- 1.3.1. Photographs and/or drawings showing the location and the construction : n.a.
- 1.4. Hand-hold for a passenger
- 1.4.1. Type (strap and/or handle) : ~~strap and/or~~ handle ⁽¹⁾
- 1.4.2. Photographs and/or drawings showing the location : Refer to drawing No. HRTK122-24
- 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 : n.a.
- 1.6. Design and position of the label referred to in Directive 97/24/EC, Chapter 7 : Refer to drawing No. HRTK122-25

Shanghai Huari Enterprise Development Co., Ltd.

Information document:2002/24- HRTK122-00

Application date: June 2,2009

To whom it may concern,

For the vehicle type: HRTK122

Acc. to 97/24/EC chapter 7, annex, No. 3 .8

We here with declare, that the electric engine's maximum continuous rated power is 5000 W and operating voltage is 60V. Modification or disconnection of the device or its wiring system do not have the effect of increasing the motorcycle's maximum design speed by more than 10 %.

Acc. to 93/33/EC annex 1, No.3.6

The vehicle's key locking system incorporates more than 1000 different combinations.

Fu Liping



Mr.Fu Liping/Chief director

SHANGHAI HUARI ENTERPRISE DEVELOPMENT CO.,LTD.



Shanghai Huari Enterprise Development Co., Ltd.

101#, Qianming East Rd, Fengjing Industrial Zone, Jingshan District, Shanghai Province, P.R. China

EC CERTIFICATE OF CONFORMITY

The undersigned:

Mr. Fu Liping

Hereby certifies that the following vehicle:

- 0.1. Make: XIAOFEILU
- 0.2. Type: HRTK122
- Variant: Variant 1: Lithium battery
- Version: n.a.
- 0.2. Commercial name(s) (where appropriate): TIANKE
1
- 0.4. Vehicle category: L3e
- 0.4. Vehicle category according to Directive B
1 97/24/EC, Chapter 7 (if applicable):
- 0.5. Name and address of the manufacturer: SHANGHAI HUARI ENTERPRISE
DEVELOPMENT CO., LTD.
No.101, Qianming East Rd, Fengjing Industrial
Zone, Jingshan District, Shanghai Province,
P.R. China
- 0.6. Location of the statutory plate: R, X:1100, Y:200, Z:280
- Vehicle identification number: LXDT1ZW0□97000001
- 0.7. Location of the vehicle identification number on the chassis: C, X:300, Y:5, Z:450

Conforms in all respects to the type described in EC type-approval

— EC type-approval number: e11*2002/24*XXXX*00

— dated: MMMM DD, YYYY

The vehicle can be permanently registered without requiring any further approvals, for driving on the right/left and for using metric/imperial units for the speedometer.

Shanghai Province,
P.R.China
(place)



(signature)

MMMM DD, YYYY

(date)

Director

(position)



Shanghai Huari Enterprise Development Co., Ltd.

101#, Qianming East Rd., Fengjing Industrial Zone, Jingshan District, Shanghai Province, P.R. China

Additional information

1.	Number of axles:	2	and wheels:	2	
3.	Wheel base:	1440			mm
6.1	Length:	1980			mm
7.1	Width:	670			mm
8.	Height:	1190			mm
12.1.	Mass of the vehicle (with bodywork) in running order:	132			kg
12.2.	Unladen mass of the vehicle:	132			kg
14.1.	Technically permissible maximum laden mass:	282			kg
14.2	Distribution of this mass among the axles:				
	1.	110	kg	2.	172
14.3.	Technically permissible mass on each axle:				kg
	1.	110	kg.	2.	172
17.	Maximum mass of trailer:				kg
	(braked): ---		kg	(unbraked):---	kg
19.1.	Maximum vertical load at the coupling point for a trailer:	---			kg
20.	Engine manufacturer:	Luqiao Aluminium Co., Ltd.			
21.	Engine type as marked on the engine:	60V50080			
21.2.	Engine number:	60V500800904280006			
22.	Working principle:	Electric			
23.	Number and arrangement of cylinders:	---			
24.	Cylinder capacity:	---			cm ³
25.	Fuel:	---			
26.	Maximum net power or maximum continuous rated power as applicable:				
		5	KW	at	--
26.1.	Ratio: maximum net power or maximum continuous rated power/mass of the vehicle in running order:			0.038	min ⁻¹ (KW/kg)
28.	Gearbox (type):	--			
29.	Gear ratios:				
32.	Tyre size designation:				
	Axle 1:	130/60-13		Axle 2:	130/60-13
37.	Body:	yes/no			
41.	Number and configuration of doors :	not applicable			
42.1.	Number and position of seats:	2 r1:1C r2:1C			
43.1.	Approval mark of coupling device, if fitted:	not applicable			
44.	Maximum speed:	80			km/h
45.	Sound level : 97/24/EC chapter 9 , with amending of 2006/27/EC				
	Stationary: ---		dB(A)	at engine speed: ---	min ⁻¹
	Drive-by: ---		dB(A)		
46.	Exhaust emissions: 97/24/EC chapter 5, with amending of 2006/120/EC				
	Type I test:	CO : ---	g/km	HC: ---	g/km
		NO _x : ---	g/km	HC+ NO _x : ---	g/km
	Type II test:	for mopeds: CO : --	g/min	HC: ---	g/min
		for motorcycles and tricycles: CO : ---			% vol
	Visible air pollution caused by an engine with compression ignition: ---				
	— corrected value of absorption coefficient : ---				m ⁻¹
47.	Fiscal power or national code number (s) :				
	Belgium :	Bulgaria		Czech Republic:	Denmark
	Germany:	Estonia:		Greece :	Spain:
	France:	Ireland:		Italy:	Cyprus:
	Latvia:	Lithuania:		Luxembourg:	Hungary:
	Malta:	Netherlands:		Austria:	Poland:
	Portugal:	Romania:		Slovenia:	Slovakia:
	Finland:	Sweden:		United kingdom :	
50.	Remarks :	---			
51.	Exemptions :	---			



Shanghai Huari Enterprise Development Co., Ltd.

101#, Qianming East Rd., Fengjing Industrial Zone, Jingshan District, Shanghai Province, P.R. China

Statement Concerning Authority Of Signature On COC Paper

We, SHANGHAI HUARI ENTERPRISE DEVELOPMENT CO.,LTD. declare that the undersigned, Mr. Fu Liping, the General Manager of our company, will be the authorized persons to sign the COC paper of the moped.

Type: HRTK122

Specification of signature of COC:

Fu Liping



Mr. Fu Liping

SHANGHAI HUARI ENTERPRISE DEVELOPMENT CO.,LTD.

Date: June 2, 2009



Shanghai Huari Enterprise Development Co., Ltd.

101#, Qianming East Rd, Fengjing Industrial Zone, Jingshan District, Shanghai Province, P.R. China

EC CERTIFICATE OF CONFORMITY

The undersigned:

Mr. Fu Liping

Hereby certifies that the following vehicle:

- 0.1. Make: XIAOFEILU
- 0.2. Type: HRTK122
- Variant: Variant 2: Silicon battery
- Version: n.a.
- 0.2. Commercial name(s) (where appropriate): TIANKE
1
- 0.4. Vehicle category: L3e
- 0.4. Vehicle category according to Directive B
1 97/24/EC, Chapter 7 (if applicable):
- 0.5. Name and address of the manufacturer: SHANGHAI HUARI ENTERPRISE DEVELOPMENT CO., LTD.
No.101, Qianming East Rd, Fengjing Industrial Zone, Jingshan District, Shanghai Province, P.R. China
- 0.6. Location of the statutory plate: R, X:1100, Y:200, Z:280
- Vehicle identification number: LXDTXZW0□97000001
- 0.7. Location of the vehicle identification number on the chassis: C, X:300, Y:5, Z:450

Conforms in all respects to the type described in EC type-approval

— EC type-approval number: e11*2002/24*XXXX*00

— dated: MMMM DD, YYYY

The vehicle can be permanently registered without requiring any further approvals, for driving on the right/left and for using metric/imperial units for the speedometer.

Shanghai Province,
P.R.China

(place)



(signature)

MMMM DD, YYYY

(date)

Director

(position)



Shanghai Huari Enterprise Development Co., Ltd.

101#, Qianming East Rd., Fengjing Industrial Zone, Jingshan District, Shanghai Province, P.R. China

Additional information

1.	Number of axles:	2	and wheels:	2	
3.	Wheel base:	1440			mm
6.1	Length:	1980			mm
7.1	Width:	670			mm
8.	Height:	1190			mm
12.1.	Mass of the vehicle (with bodywork) in running order:	172			kg
12.2.	Unladen mass of the vehicle:	172			kg
14.1.	Technically permissible maximum laden mass:	322			kg
14.2	Distribution of this mass among the axles:				
	1.	128	kg	2.	194
14.3.	Technically permissible mass on each axle:				kg
	1.	128	kg.	2.	194
17.	Maximum mass of trailer:				kg
	(braked): ---		kg	(unbraked):---	kg
19.1.	Maximum vertical load at the coupling point for a trailer:	---			kg
20.	Engine manufacturer:	Luqiao Aluminium Co., Ltd.			
21.	Engine type as marked on the engine:	60V50080			
21.2.	Engine number:	60V500800904280006			
22.	Working principle:	Electric			
23.	Number and arrangement of cylinders:	---			
24.	Cylinder capacity:	---			cm ³
25.	Fuel:	---			
26.	Maximum net power or maximum continuous rated power as applicable:				
		5	KW	at	--
26.1.	Ratio: maximum net power or maximum continuous rated power/mass of the vehicle in running order:			0.029	min ⁻¹ (KW/kg)
28.	Gearbox (type):	--			
29.	Gear ratios:				
32.	Tyre size designation:				
	Axle 1:	130/60-13		Axle 2:	130/60-13
37.	Body:	yes/no			
41.	Number and configuration of doors :	not applicable			
42.1.	Number and position of seats:	2	r1:1C	r2:1C	
43.1.	Approval mark of coupling device, if fitted:	not applicable			
44.	Maximum speed:	80			km/h
45.	Sound level : 97/24/EC chapter 9 , with amending of 2006/27/EC				
	Stationary: ---		dB(A)	at engine speed: ---	min ⁻¹
	Drive-by: ---		dB(A)		
46.	Exhaust emissions: 97/24/EC chapter 5, with amending of 2006/120/EC				
	Type I test:	CO : ---	g/km	HC: ---	g/km
		NO _x : ---	g/km	HC+ NO _x : ---	g/km
	Type II test:	for mopeds: CO : --	g/min	HC: ---	g/min
		for motorcycles and tricycles: CO : ---			% vol
	Visible air pollution caused by an engine with compression ignition: ---				
	— corrected value of absorption coefficient : ---				m ⁻¹
47.	Fiscal power or national code number (s) :				
	Belgium :	Bulgaria	Czech Republic:	Denmark	
	Germany:	Estonia:	Greece :	Spain:	
	France:	Ireland:	Italy:	Cyprus:	
	Latvia:	Lithuania:	Luxembourg:	Hungary:	
	Malta:	Netherlands:	Austria:	Poland:	
	Portugal:	Romania:	Slovenia:	Slovakia:	
	Finland:	Sweden:	United kingdom :		
50.	Remarks :	---			
51.	Exemptions :	---			



Shanghai Huari Enterprise Development Co., Ltd.

101#, Qianming East Rd., Fengjing Industrial Zone, Jingshan District, Shanghai Province, P.R. China

Statement Concerning Authority Of Signature On COC Paper

We, SHANGHAI HUARI ENTERPRISE DEVELOPMENT CO., LTD. declare that the undersigned, Mr. Fu Liping, the General Manager of our company, will be the authorized persons to sign the COC paper of the moped.

Type: HRTK122

Specification of signature of COC:

Fu Liping



Mr. Fu Liping

SHANGHAI HUARI ENTERPRISE DEVELOPMENT CO., LTD.

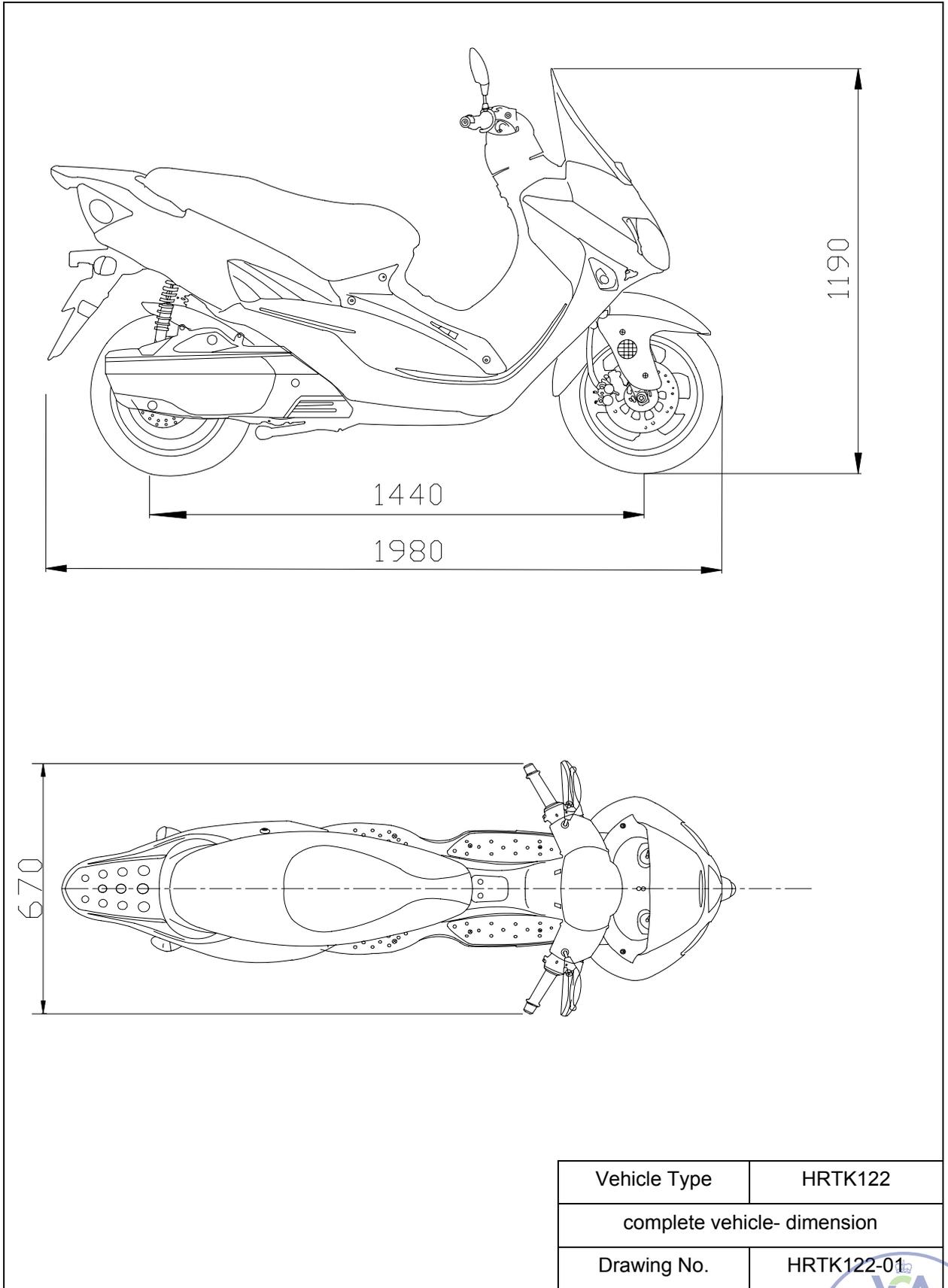
Date: June 2, 2009



Shanghai Huari Enterprise Development Co., Ltd.

Information document:2002 /24- HRTK122-00

Application date: June 2, 2009



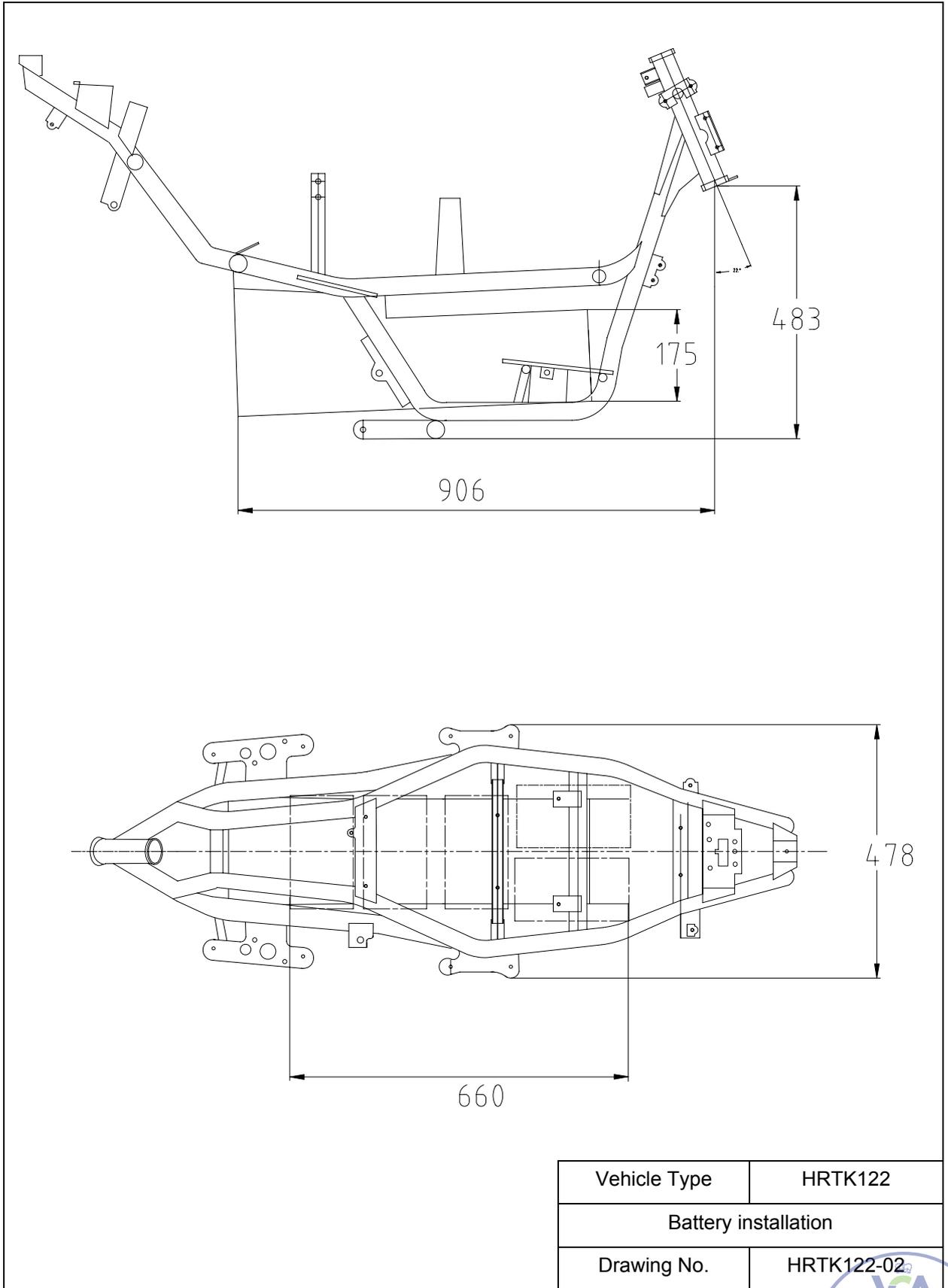
Vehicle Type	HRTK122
complete vehicle- dimension	
Drawing No.	HRTK122-01



Shanghai Huari Enterprise Development Co., Ltd.

Information document:2002 /24- HRTK122-00

Application date: June 2, 2009



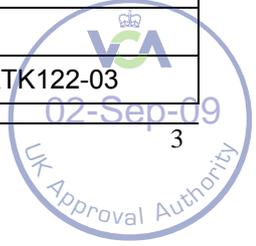
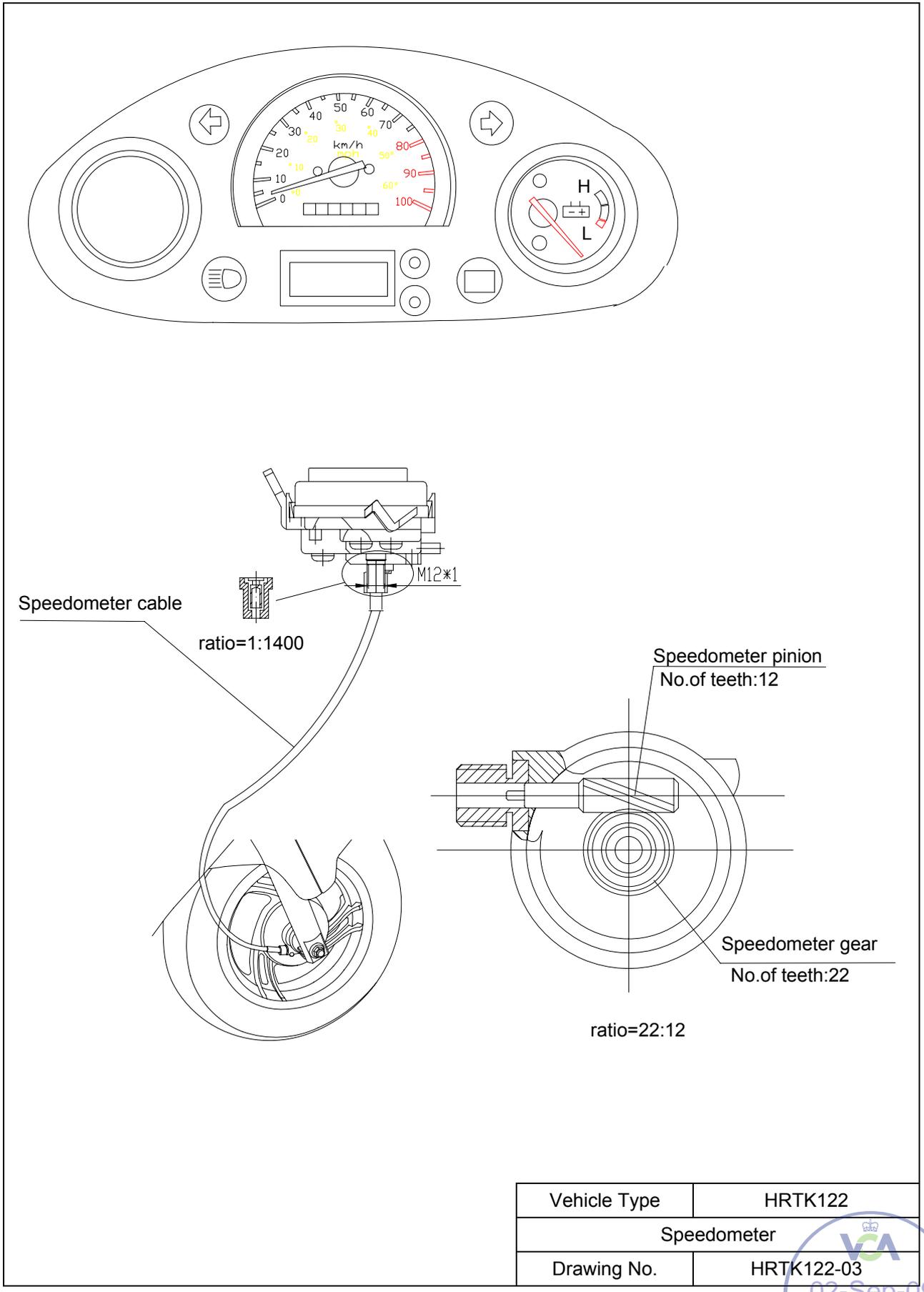
Vehicle Type	HRTK122
Battery installation	
Drawing No.	HRTK122-02



Shanghai Huari Enterprise Development Co., Ltd.

Information document:2002 /24- HRTK122-00

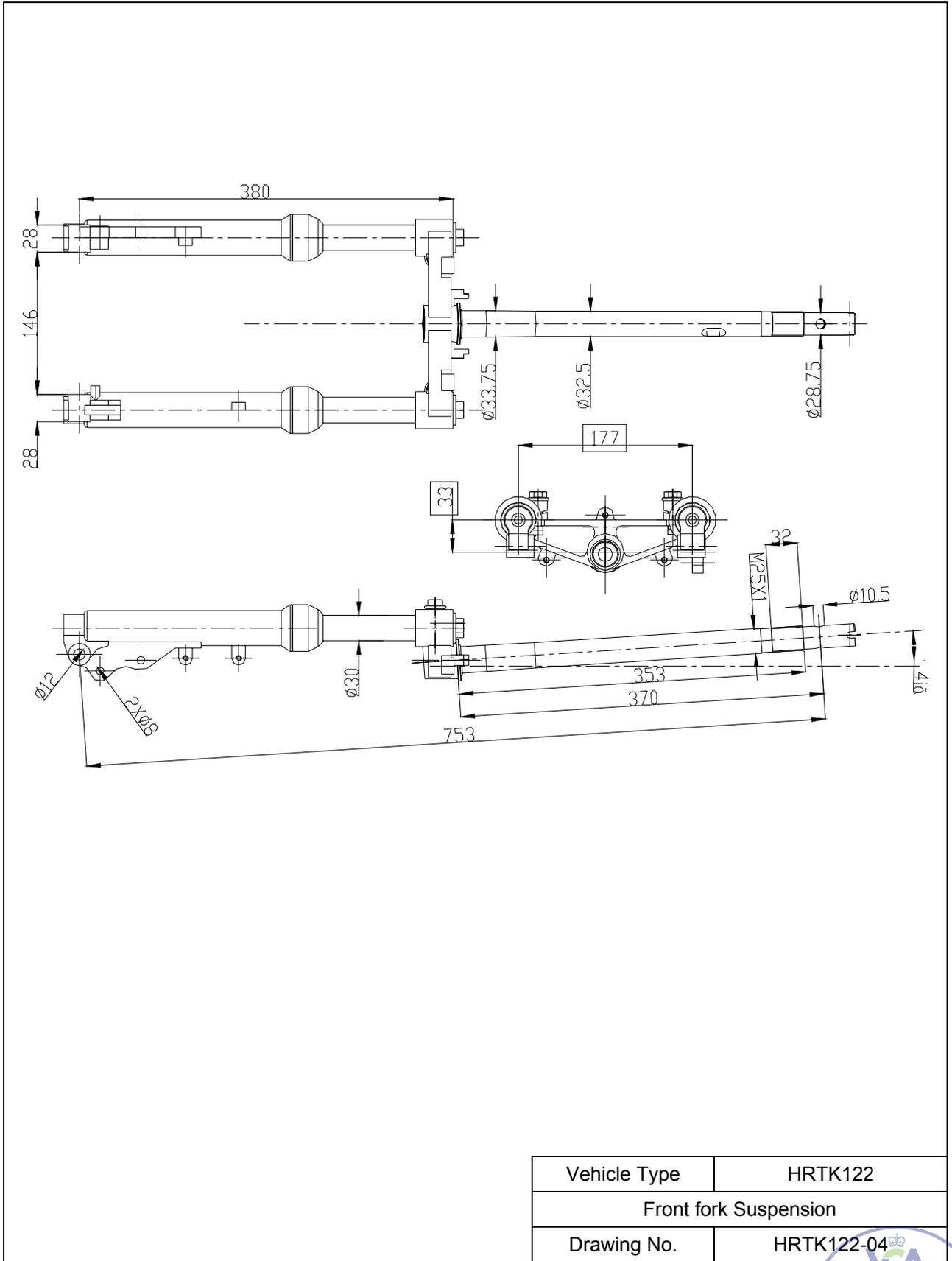
Application date: June 2, 2009



Shanghai Huari Enterprise Development Co., Ltd.

Information document:2002 /24- HRTK122-00

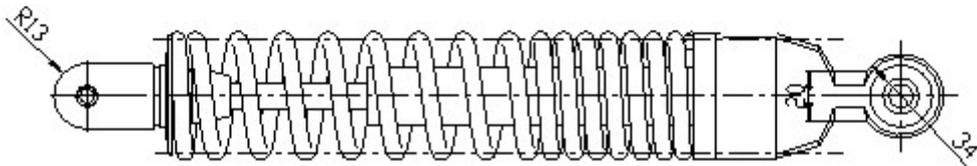
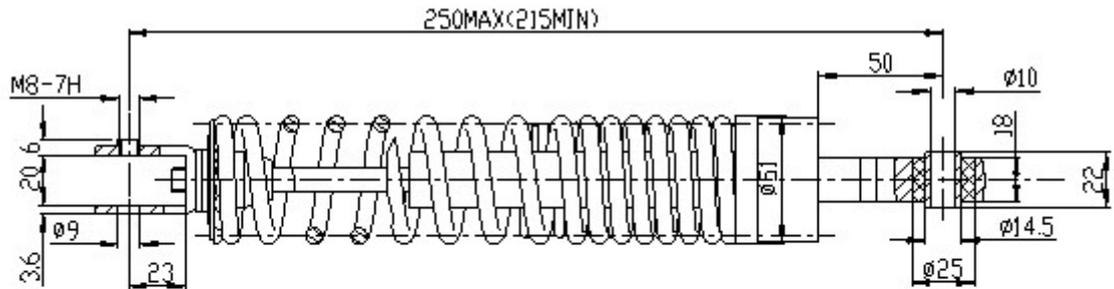
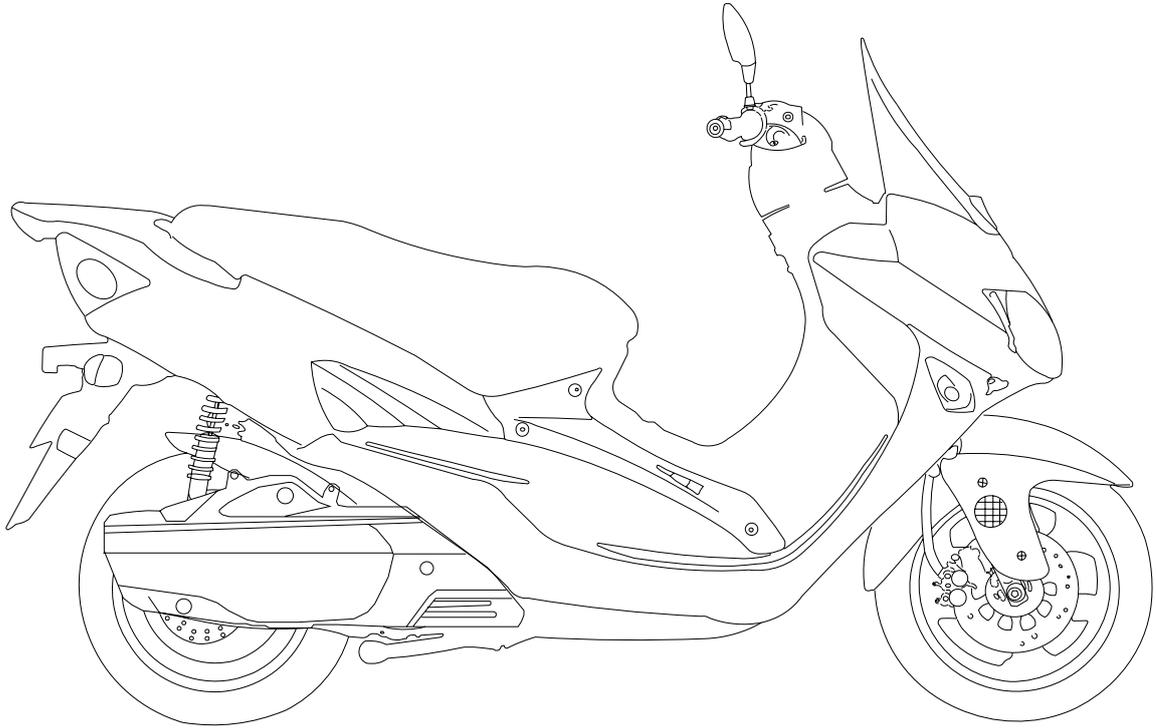
Application date: June 2, 2009



Shanghai Huari Enterprise Development Co., Ltd.

Information document:2002 /24- HRTK122-00

Application date: June 2, 2009



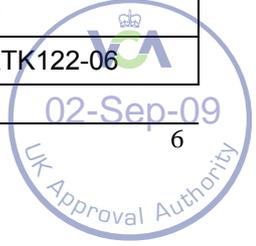
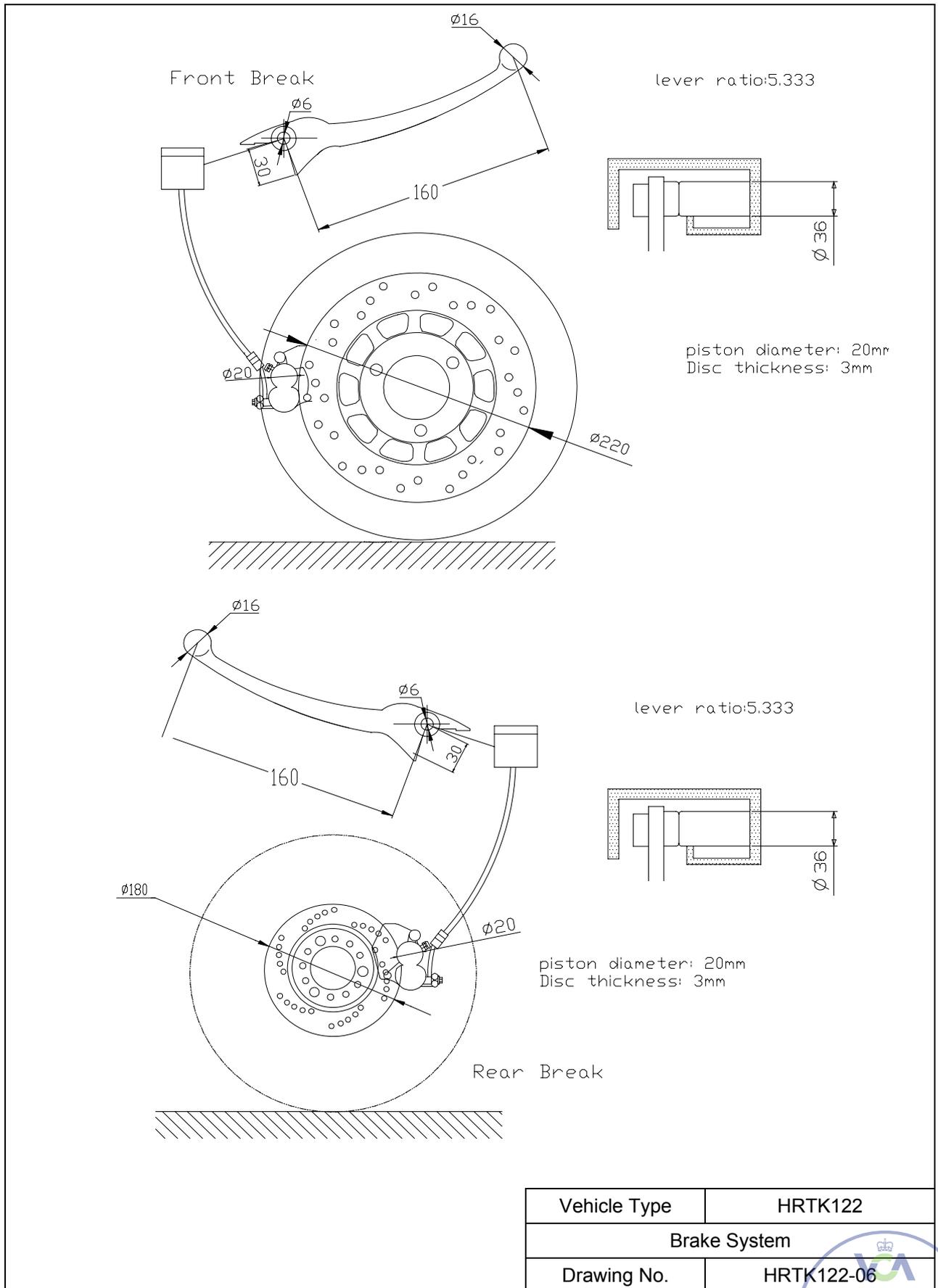
Vehicle Type	HRTK122
Rear Suspension	
Drawing No.	HRTK122-05

02-Sep-09

Shanghai Huari Enterprise Development Co., Ltd.

Information document:2002 /24- HRTK122-00

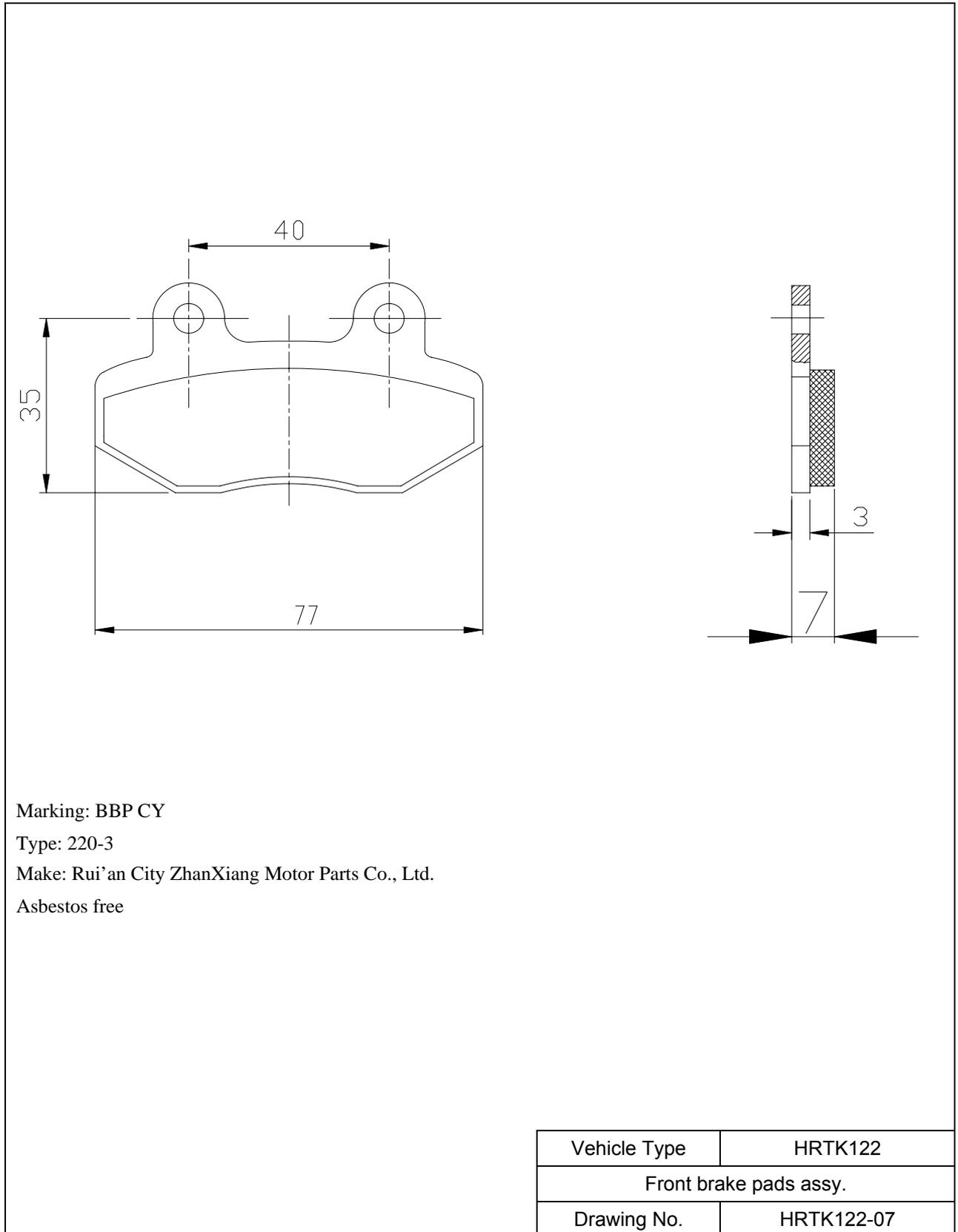
Application date: June 2, 2009



Shanghai Huari Enterprise Development Co., Ltd.

Information document:2002 /24- HRTK122-00

Application date: June 2, 2009



Marking: BBP CY

Type: 220-3

Make: Rui'an City ZhanXiang Motor Parts Co., Ltd.

Asbestos free

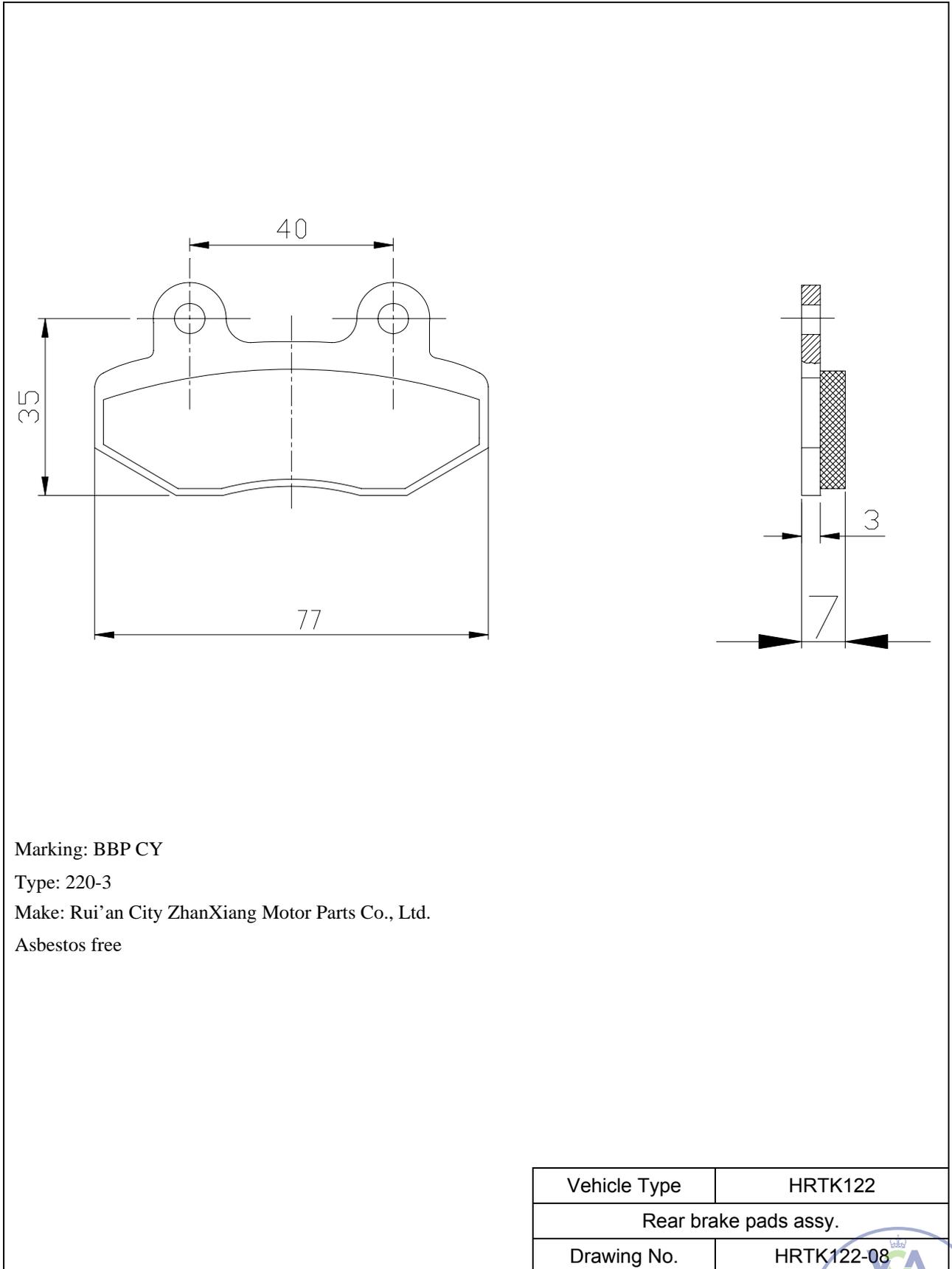
Vehicle Type	HRTK122
Front brake pads assy.	
Drawing No.	HRTK122-07



Shanghai Huari Enterprise Development Co., Ltd.

Information document:2002 /24- HRTK122-00

Application date: June 2, 2009



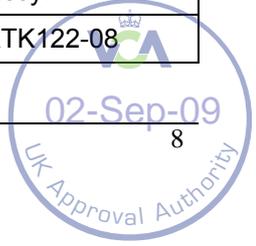
Marking: BBP CY

Type: 220-3

Make: Rui'an City ZhanXiang Motor Parts Co., Ltd.

Asbestos free

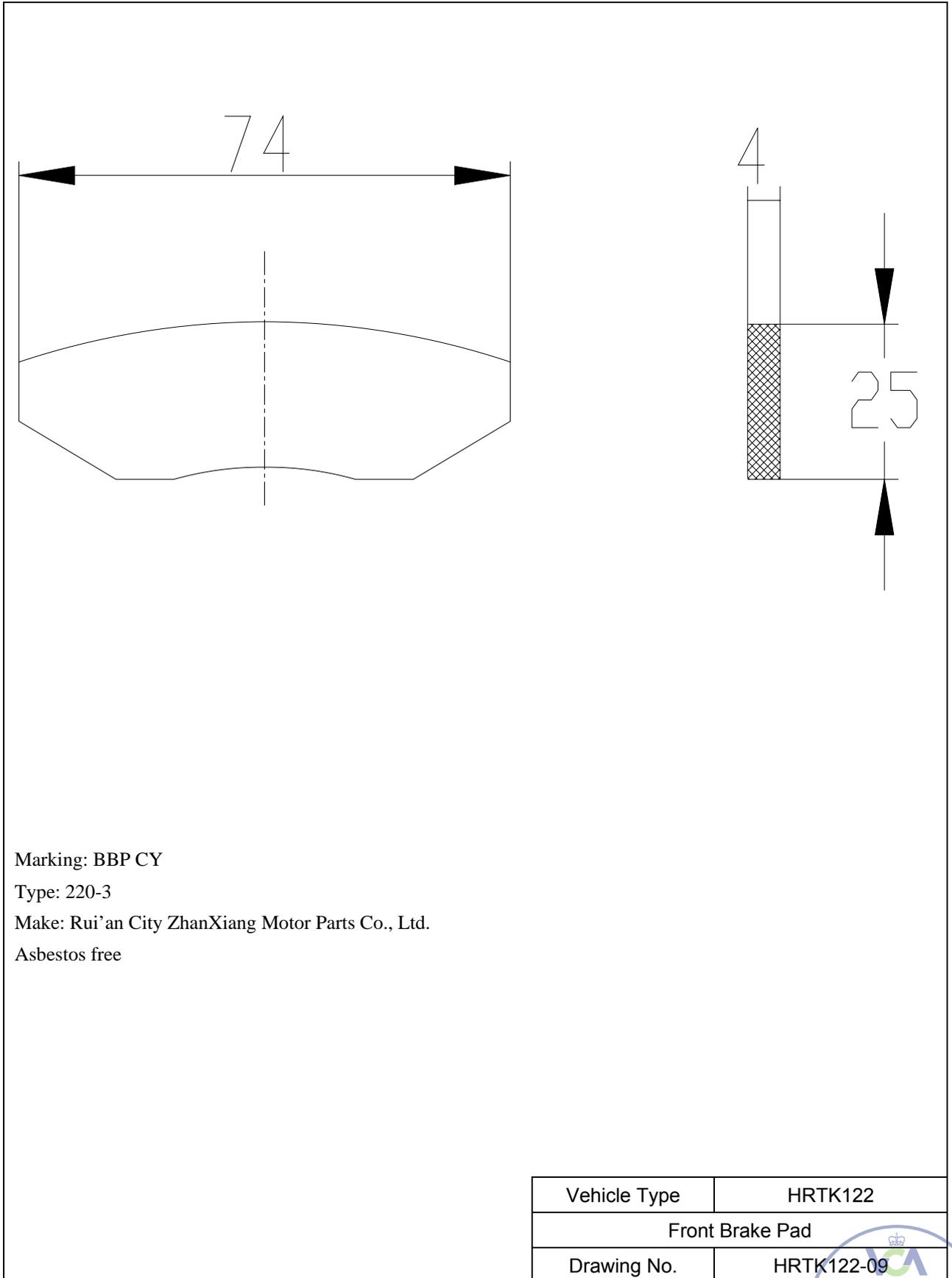
Vehicle Type	HRTK122
Rear brake pads assy.	
Drawing No.	HRTK122-08



Shanghai Huari Enterprise Development Co., Ltd.

Information document:2002 /24- HRTK122-00

Application date: June 2, 2009



Marking: BBP CY

Type: 220-3

Make: Rui'an City ZhanXiang Motor Parts Co., Ltd.

Asbestos free

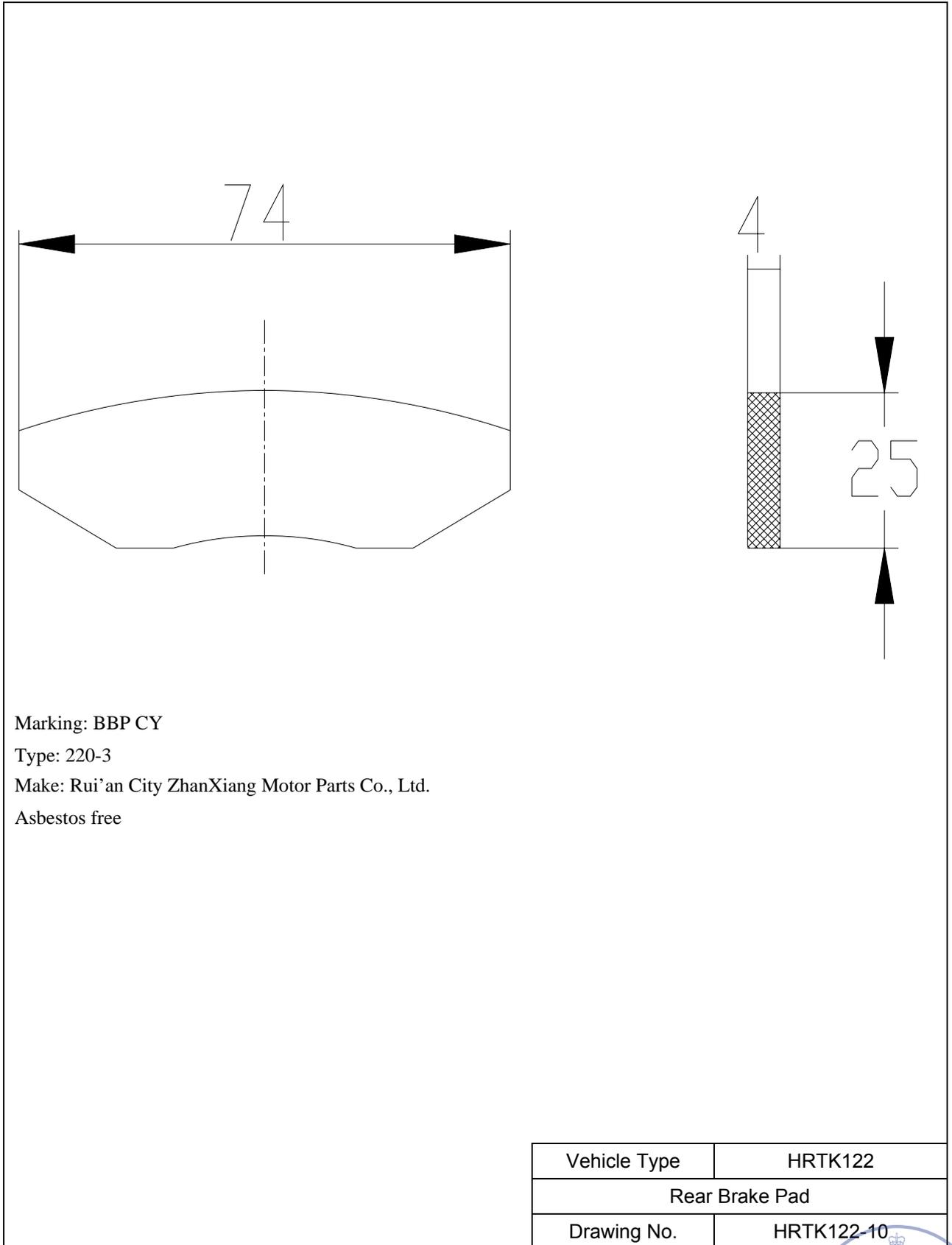
Vehicle Type	HRTK122
Front Brake Pad	
Drawing No.	HRTK122-09



Shanghai Huari Enterprise Development Co., Ltd.

Information document:2002 /24- HRTK122-00

Application date: June 2, 2009



Marking: BBP CY

Type: 220-3

Make: Rui'an City ZhanXiang Motor Parts Co., Ltd.

Asbestos free

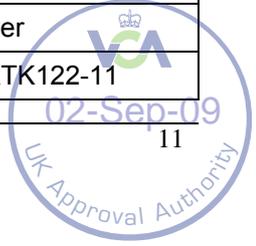
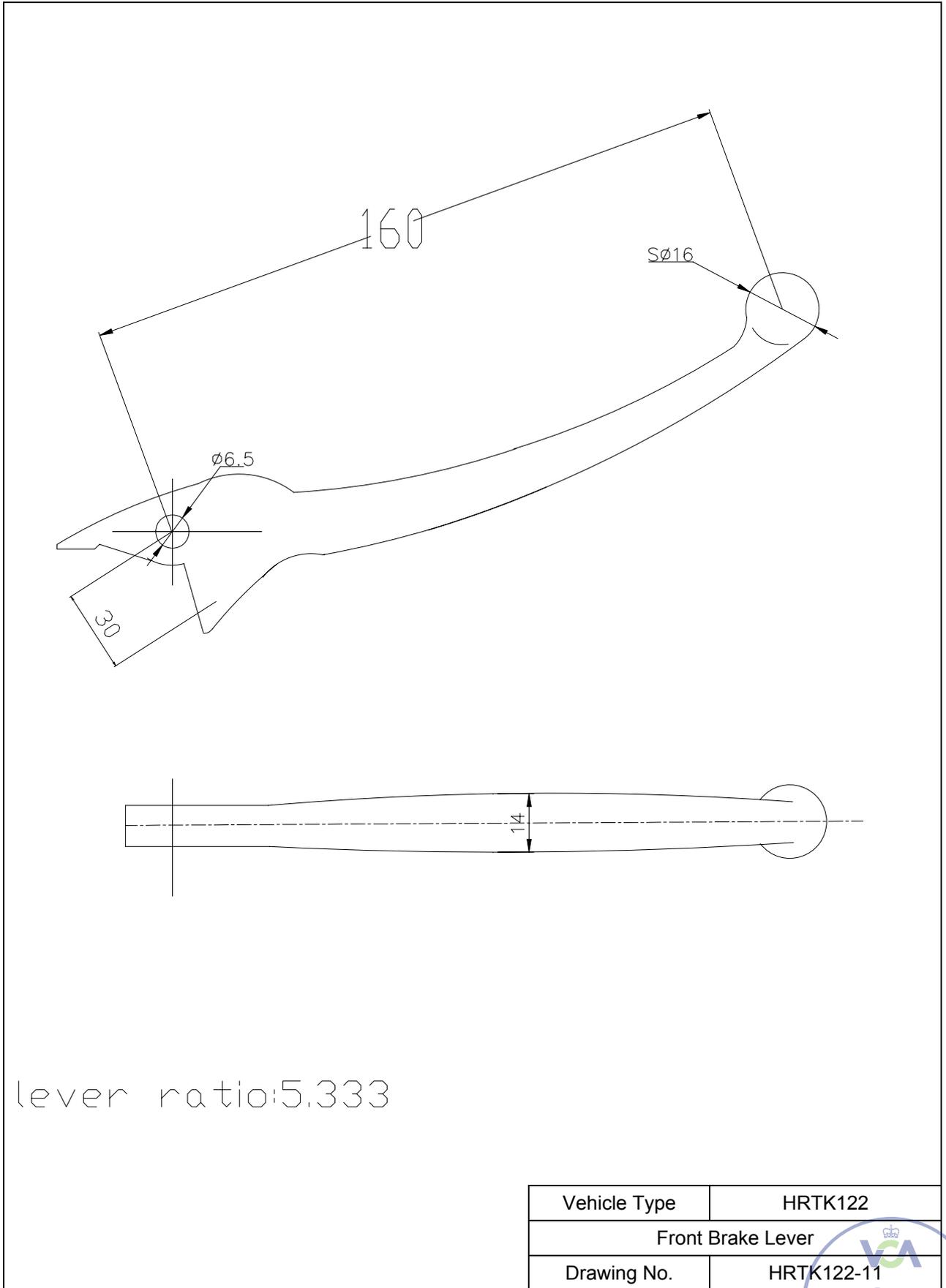
Vehicle Type	HRTK122
Rear Brake Pad	
Drawing No.	HRTK122-10



Shanghai Huari Enterprise Development Co., Ltd.

Information document:2002 /24- HRTK122-00

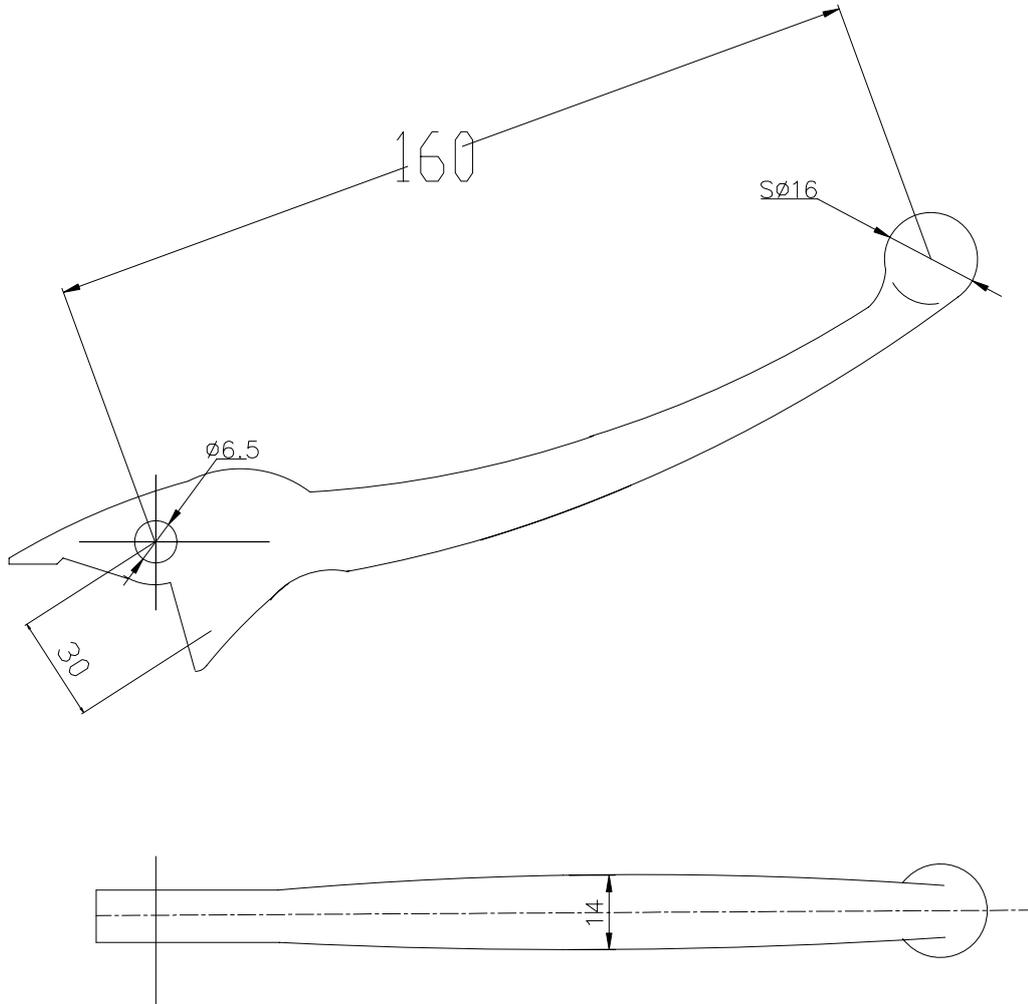
Application date: June 2, 2009



Shanghai Huari Enterprise Development Co., Ltd.

Information document:2002 /24- HRTK122-00

Application date: June 2, 2009



lever ratio:5.333

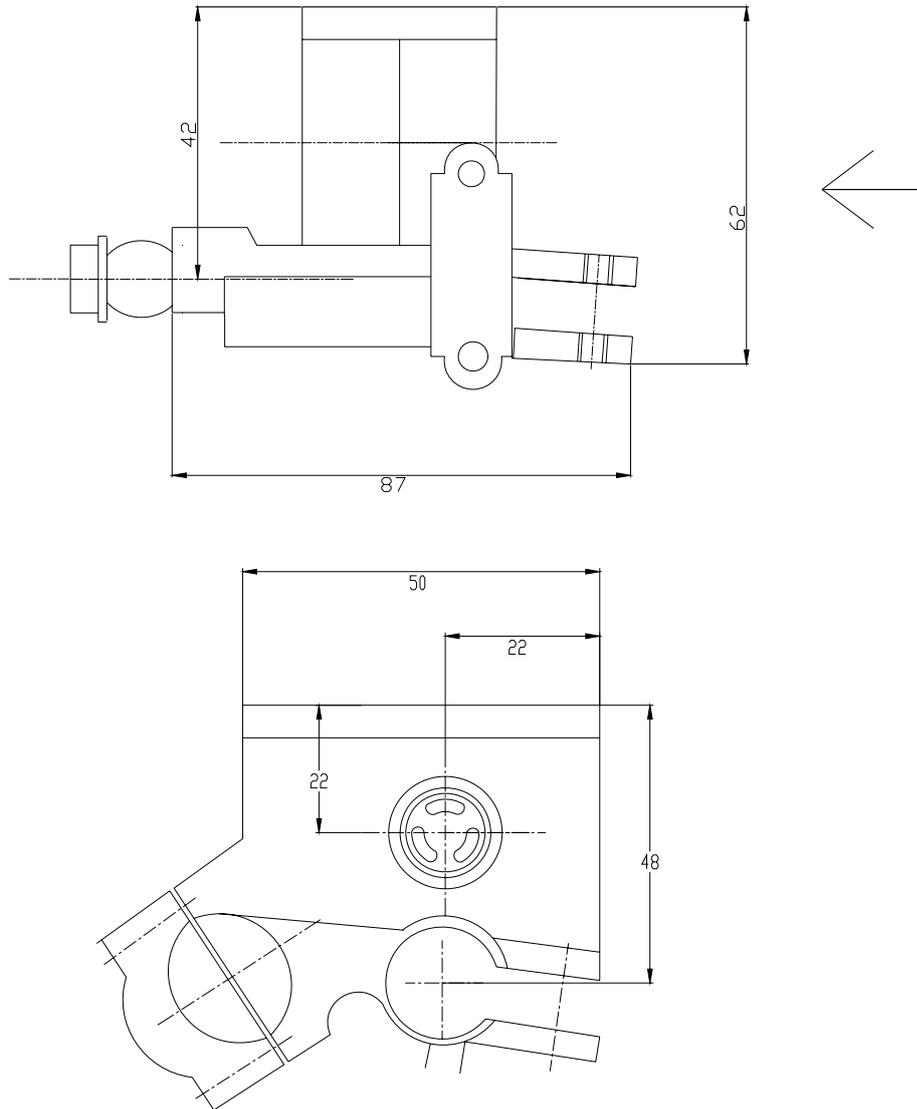
Vehicle Type	HRTK122
Rear Brake lever	
Drawing No.	HRTK122-12



Shanghai Huari Enterprise Development Co., Ltd.

Information document:2002 /24- HRTK122-00

Application date: June 2, 2009



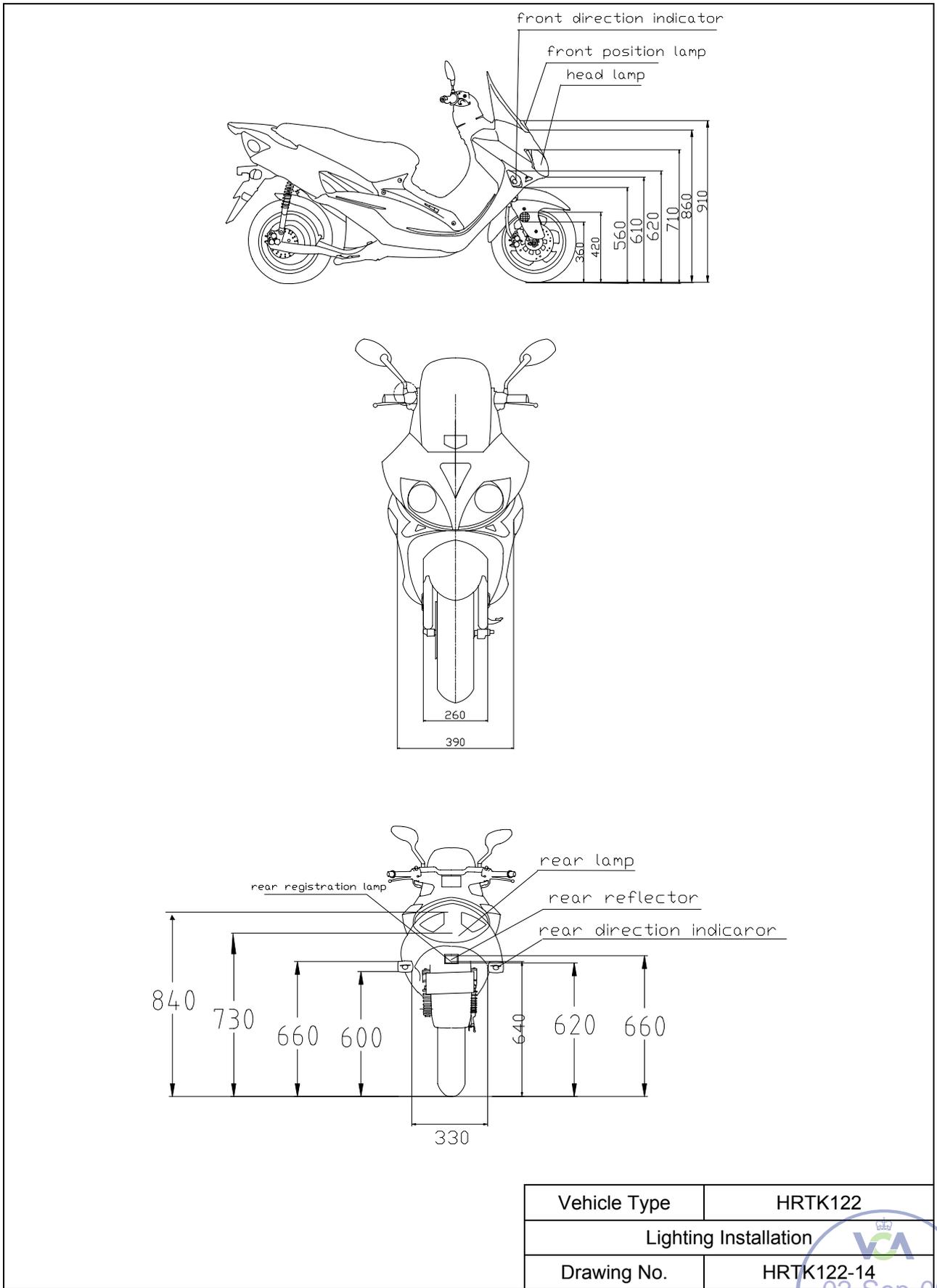
Vehicle Type	HRTK122
Hydraulic Reservoir	
Drawing No.	HRTK122-13



Shanghai Huari Enterprise Development Co., Ltd.

Information document:2002 /24- HRTK122-00

Application date: June 2, 2009



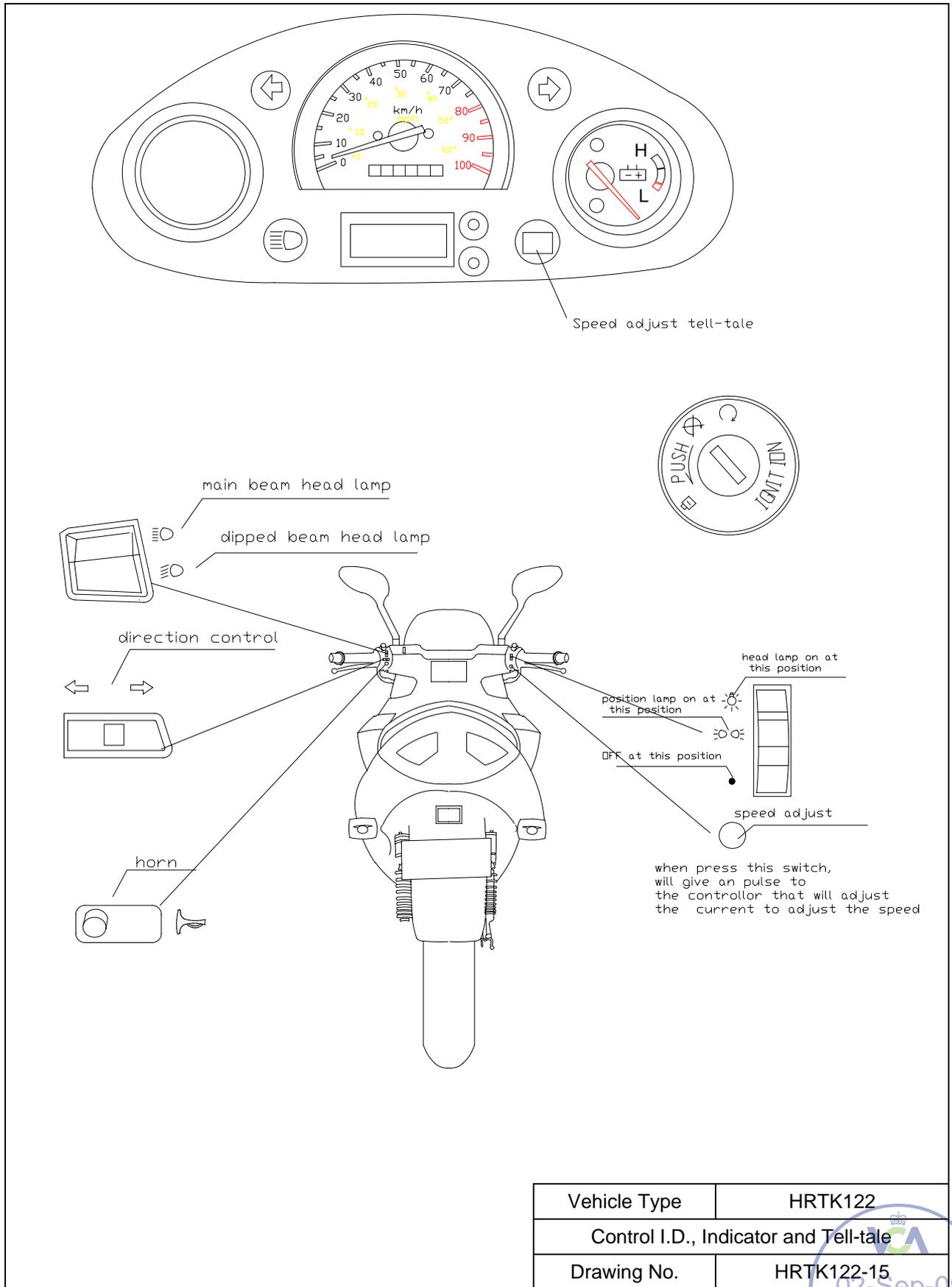
Vehicle Type	HRTK122
Lighting Installation	
Drawing No.	HRTK122-14



Shanghai Huari Enterprise Development Co., Ltd.

Information document:2002 /24- HRTK122-00

Application date: June 2, 2009



Shanghai Huari Enterprise Development Co., Ltd.

Information document:2002 /24- HRTK122-00

Application date: June 2, 2009

VIN Number:

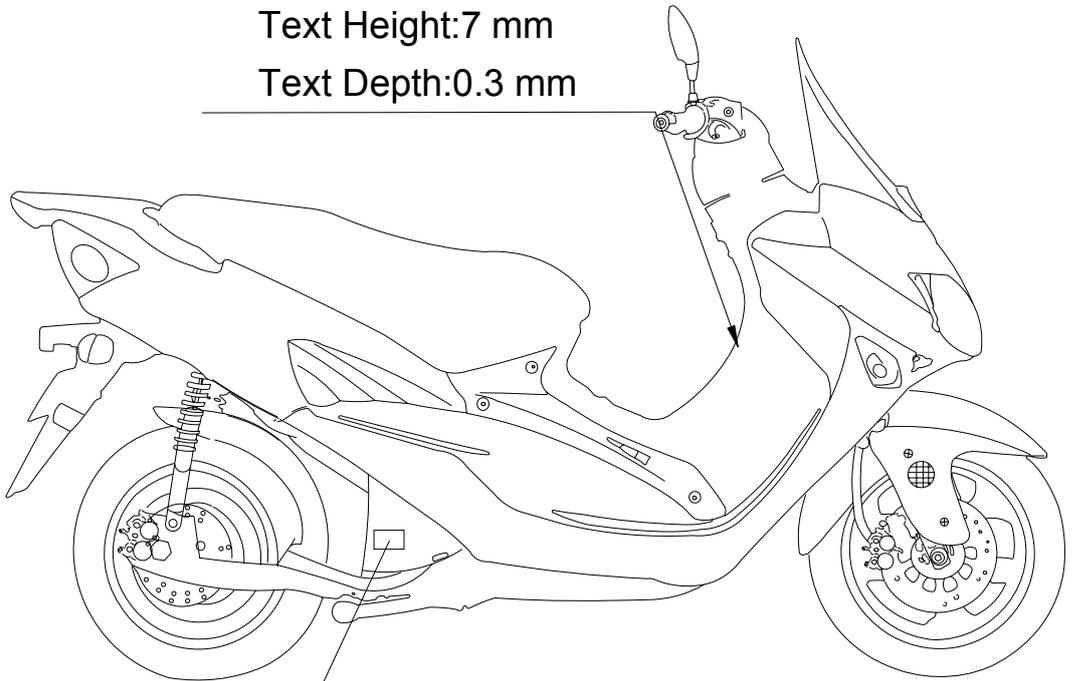
variant1: ☆ LXDT1ZW0?97000001 ☆

variant2: ☆ LXDTXZW0?97000001 ☆

Hammered on the frame

Text Height:7 mm

Text Depth:0.3 mm



Manufacture Date Plate
Rivet in the frame

Vehicle Type	HRTK122
Location of the Statutory Inscription and the Chassis Number	
Drawing No.	HRTK122-16

02-Sep-09

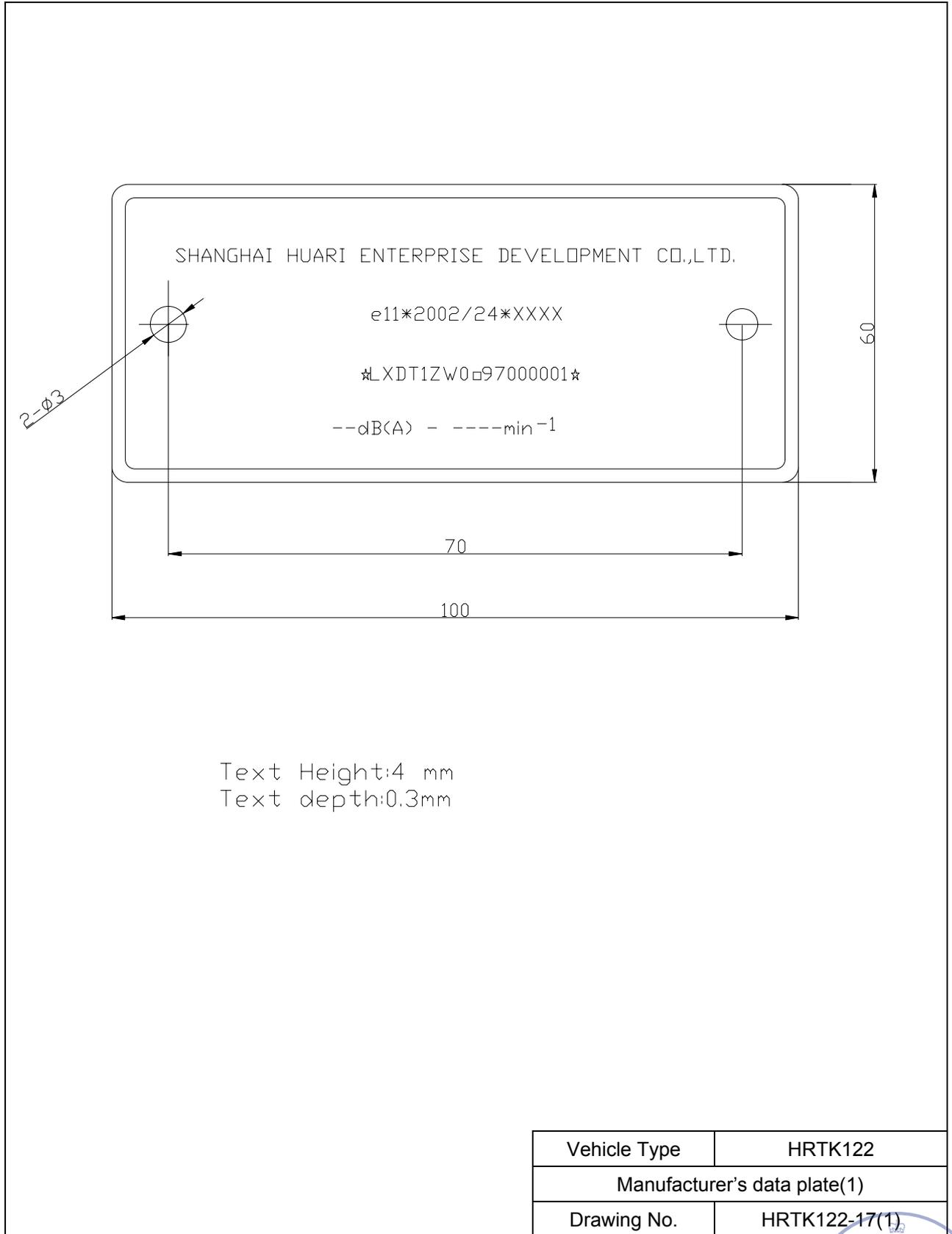
16



Shanghai Huari Enterprise Development Co., Ltd.

Information document:2002 /24- HRTK122-00

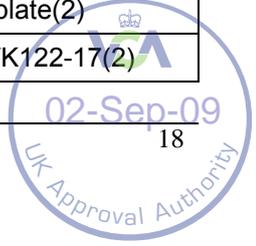
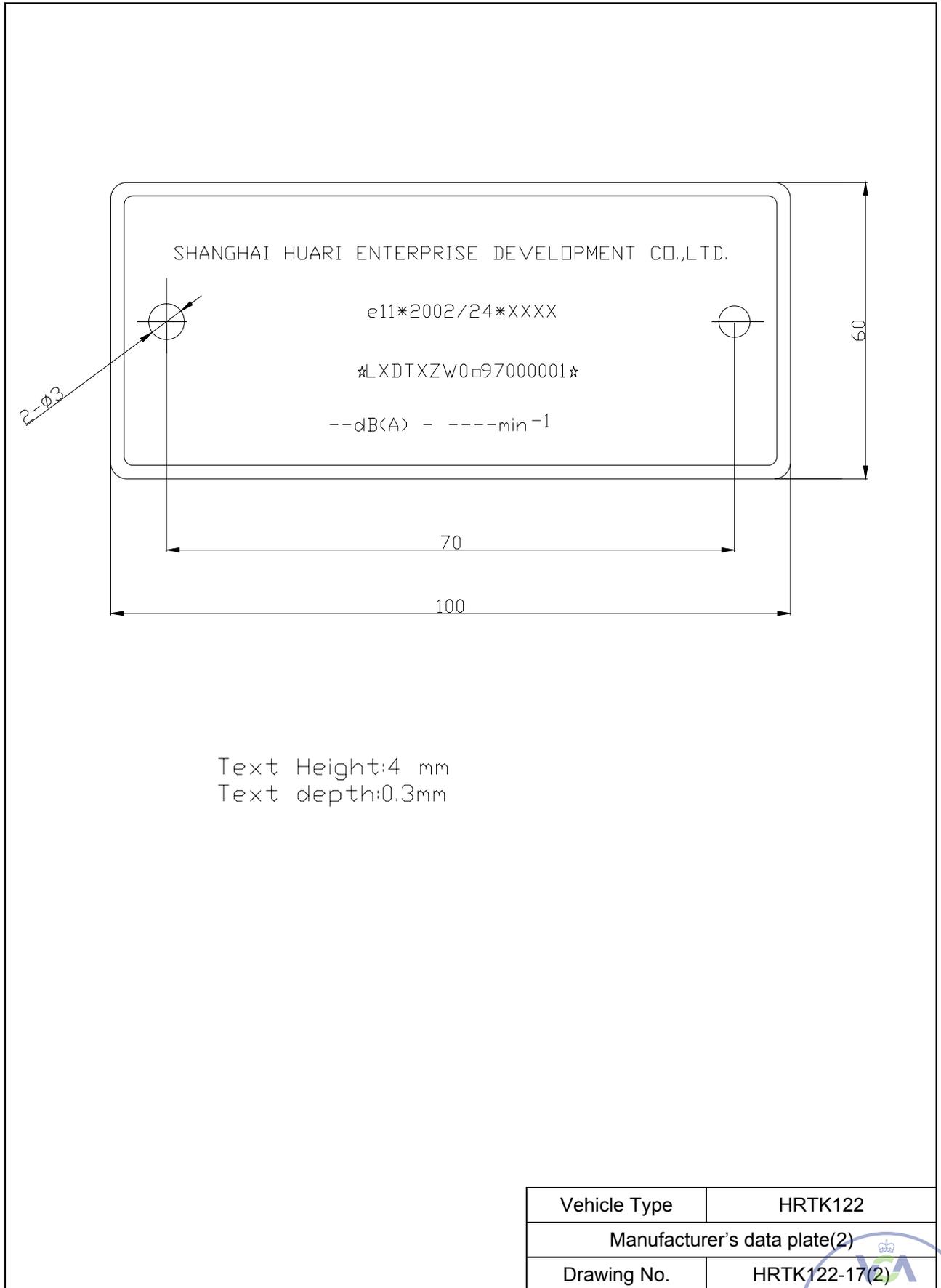
Application date: June 2, 2009



Shanghai Huari Enterprise Development Co., Ltd.

Information document:2002 /24- HRTK122-00

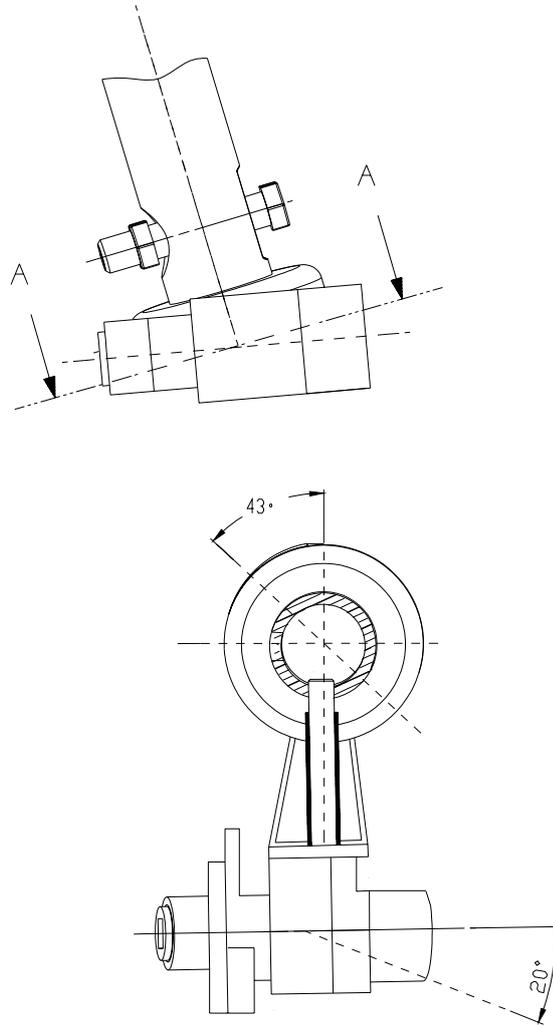
Application date: June 2, 2009



Shanghai Huari Enterprise Development Co., Ltd.

Information document:2002 /24- HRTK122-00

Application date: June 2, 2009



SECTION A - A

the bolts are welded together to prevent easy removal.

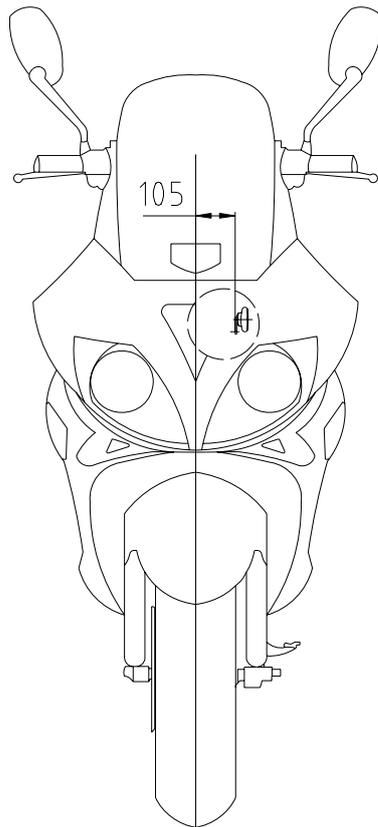
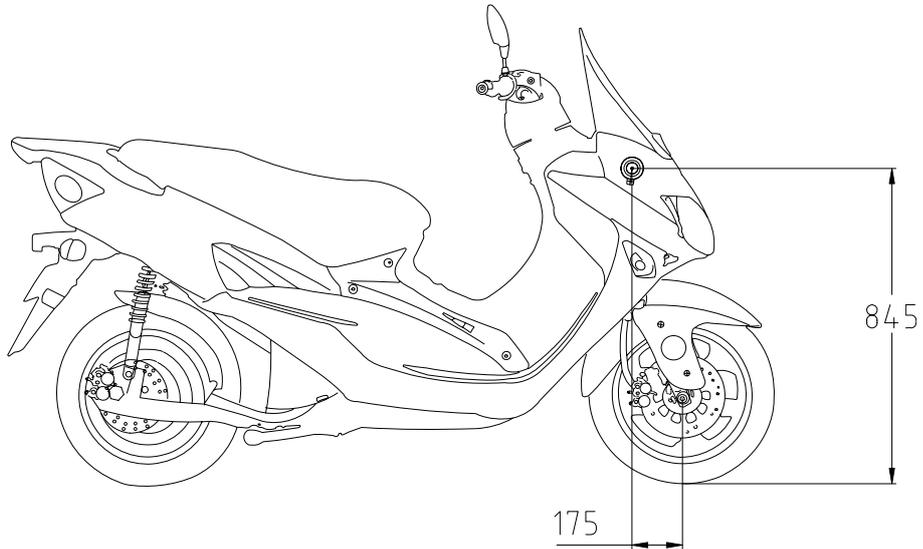
Vehicle Type	HRTK122
Anti-theft device	
Drawing No.	HRTK122-18 ^{UK}



Shanghai Huari Enterprise Development Co., Ltd.

Information document:2002 /24- HRTK122-00

Application date: June 2, 2009



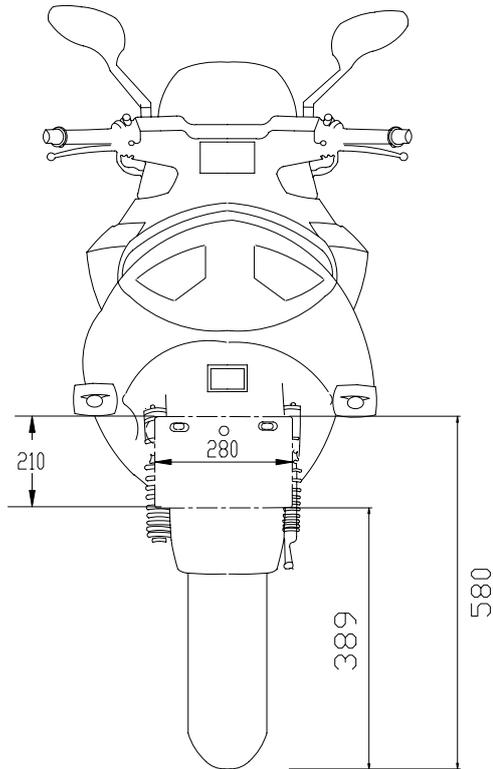
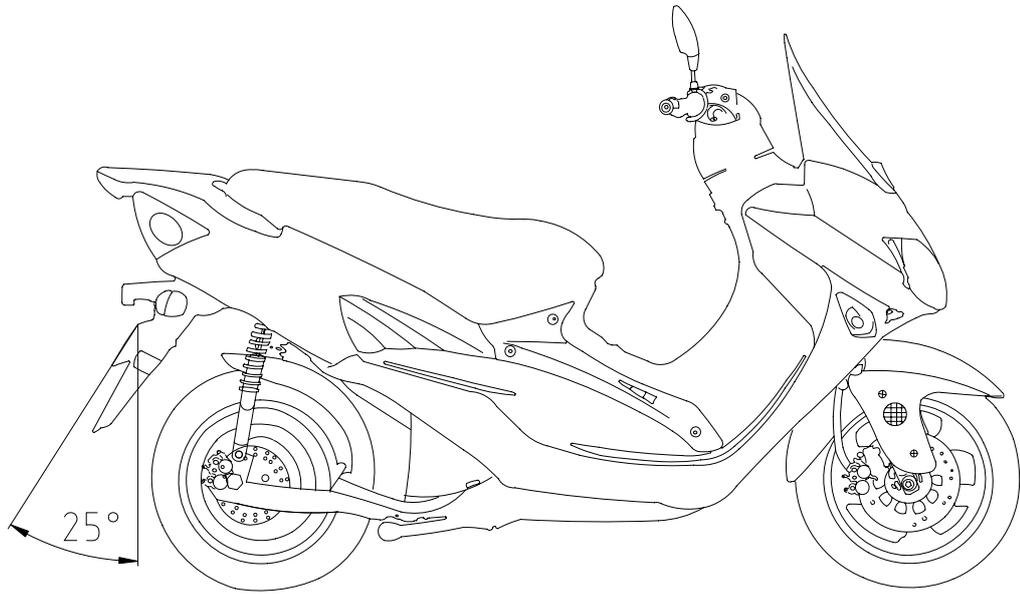
Vehicle Type	HRTK122
Horn Installation	
Drawing No.	HRTK122-19



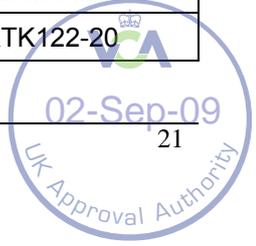
Shanghai Huari Enterprise Development Co., Ltd.

Information document:2002 /24- HRTK122-00

Application date: June 2, 2009



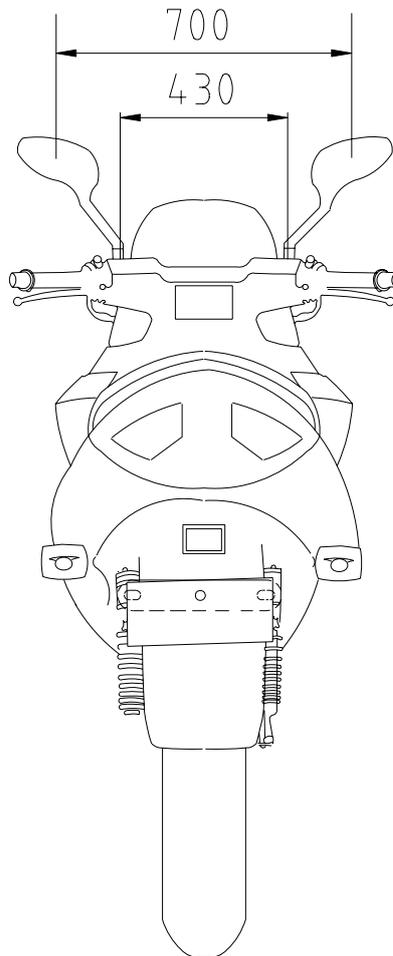
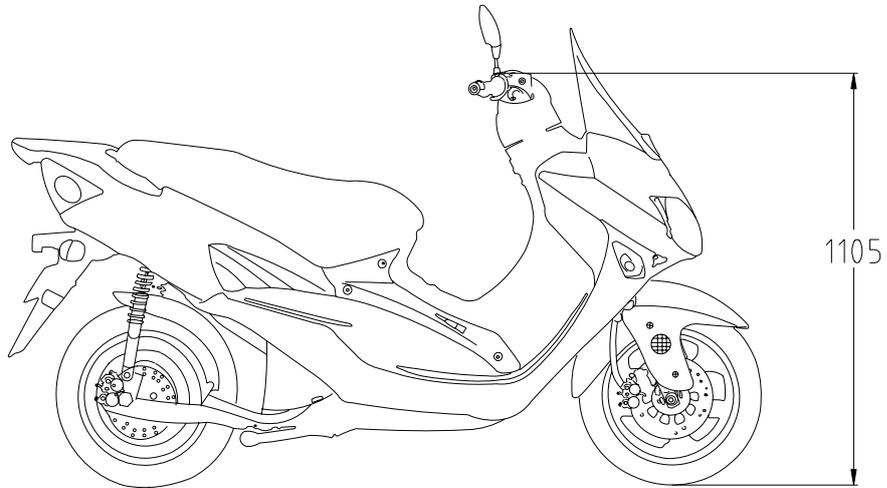
Vehicle Type	HRTK122
Space for Rear Registration Plate	
Drawing No.	HRTK122-20



Shanghai Huari Enterprise Development Co., Ltd.

Information document:2002 /24- HRTK122-00

Application date: June 2, 2009



Rear-view Mirror Approval Number:E7 81R 000507

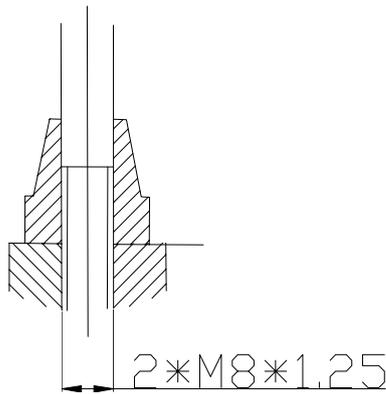
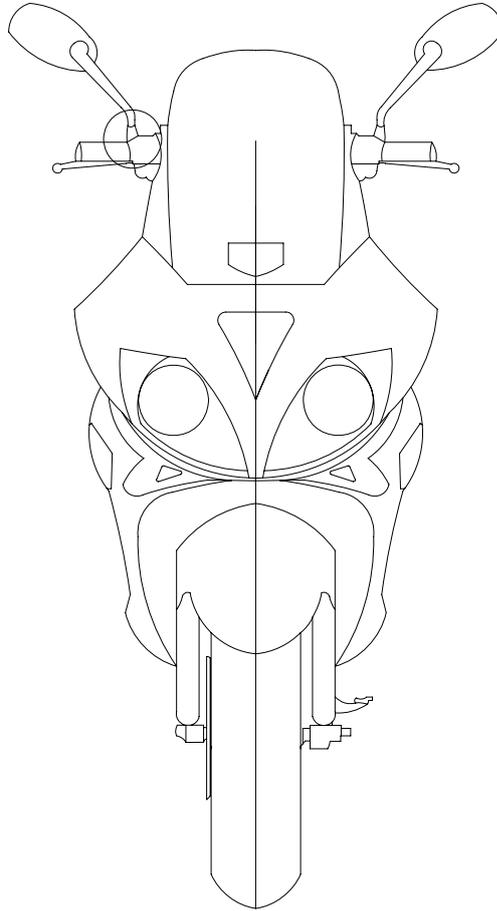
Vehicle Type	HRTK122
Mirror Position	
Drawing No.	HRTK122-21



Shanghai Huari Enterprise Development Co., Ltd.

Information document:2002 /24- HRTK122-00

Application date: June 2, 2009



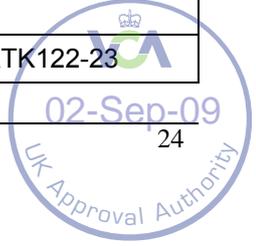
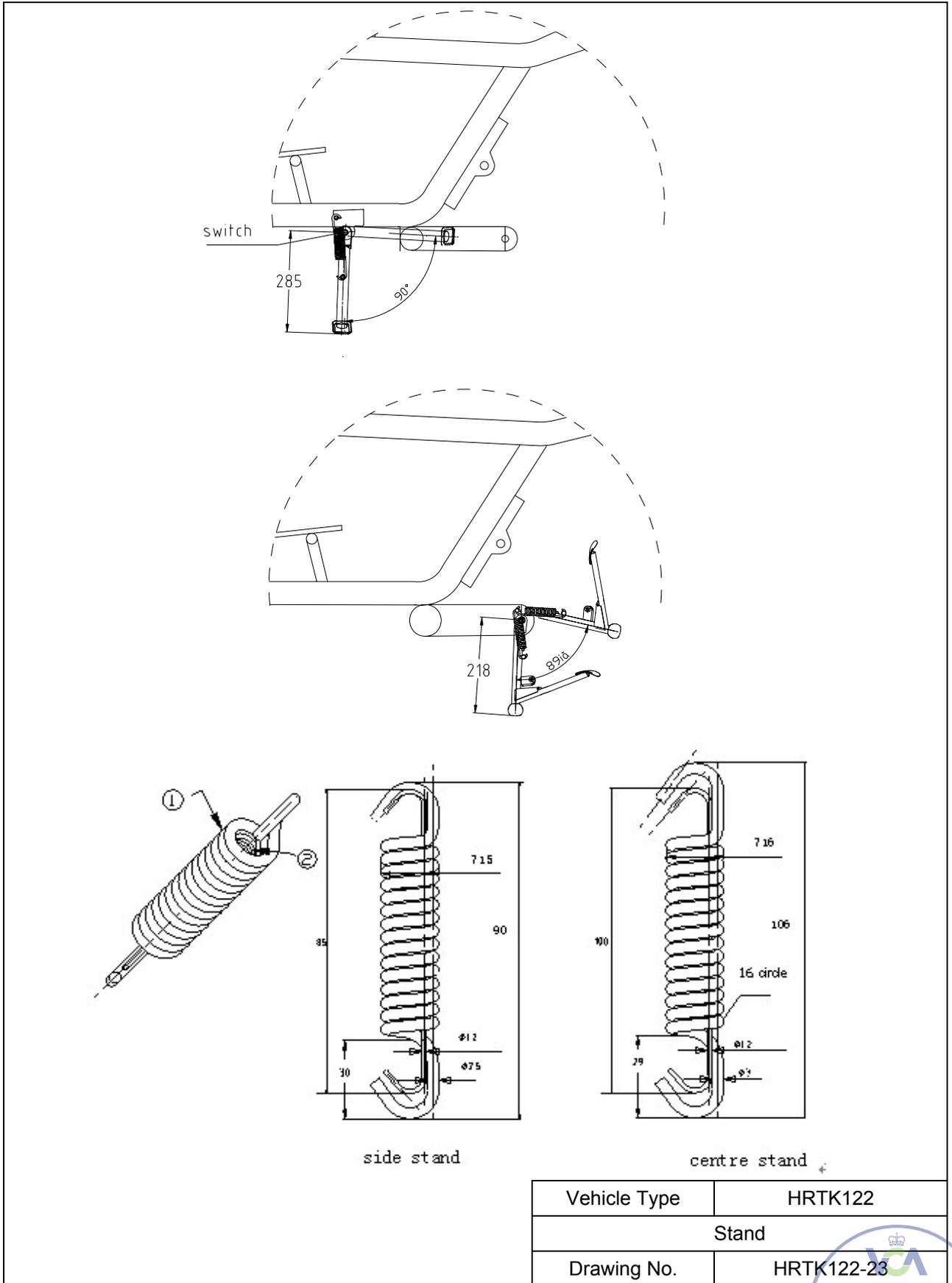
Vehicle Type	HRTK122
Mirror Installation	
Drawing No.	HRTK122-22



Shanghai Huari Enterprise Development Co., Ltd.

Information document:2002 /24- HRTK122-00

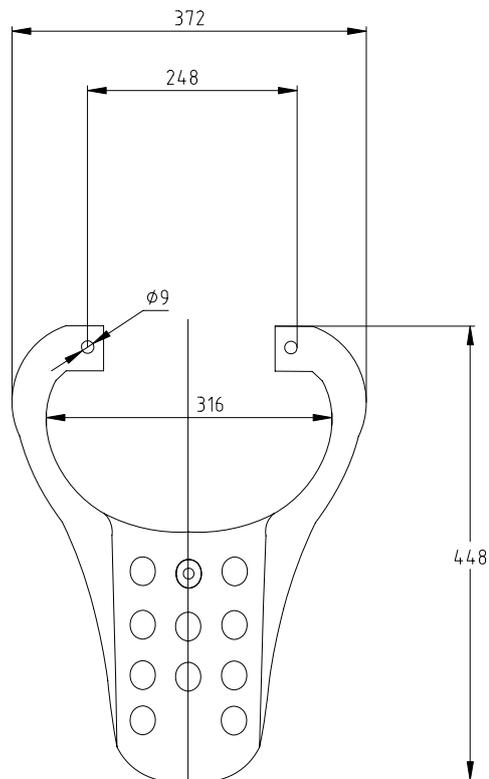
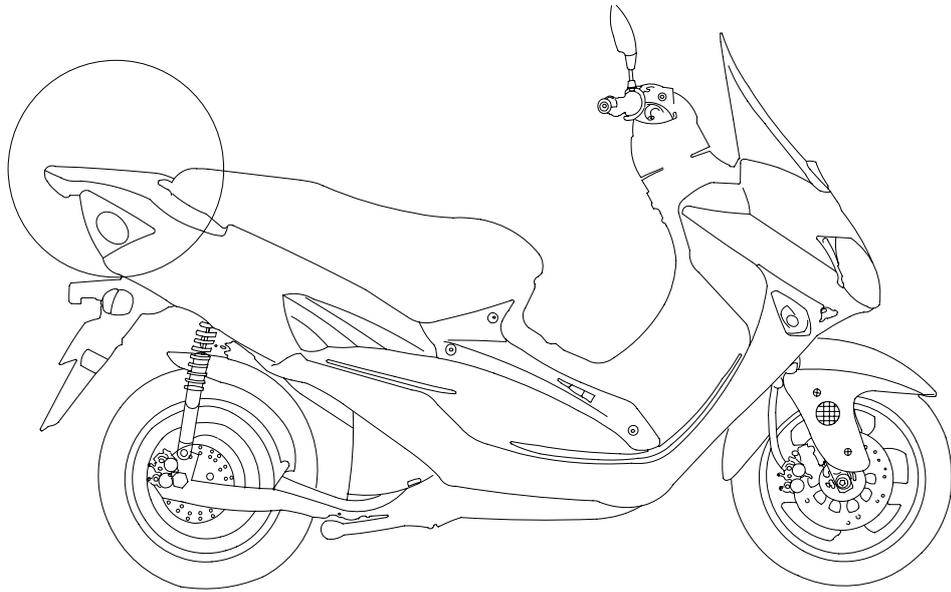
Application date: June 2, 2009



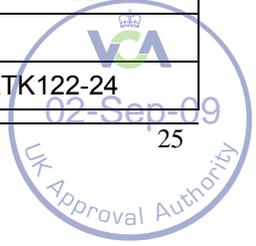
Shanghai Huari Enterprise Development Co., Ltd.

Information document:2002 /24- HRTK122-00

Application date: June 2, 2009



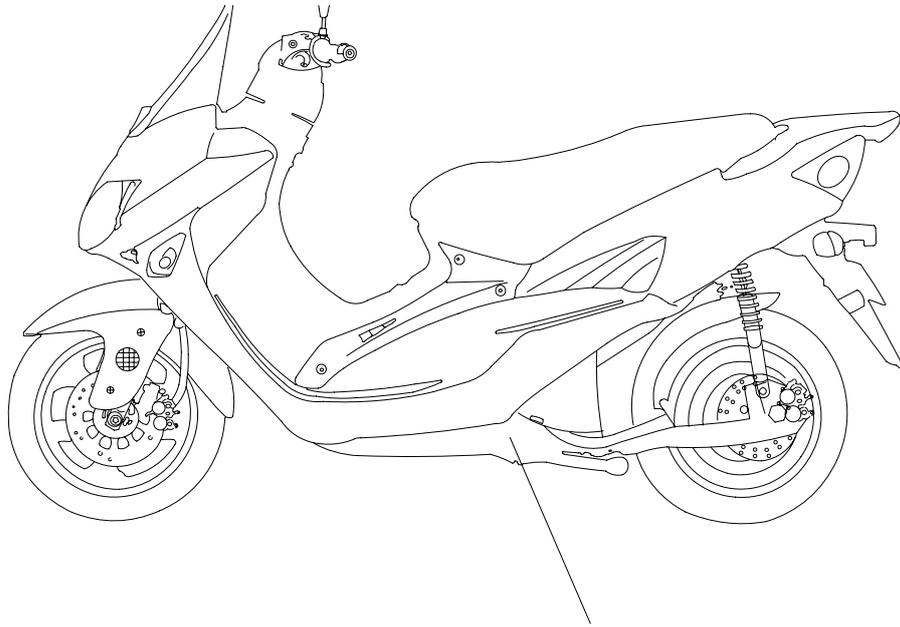
Vehicle Type	HRTK122
Hand-hold	
Drawing No.	HRTK122-24



Shanghai Huari Enterprise Development Co., Ltd.

Information document:2002 /24- HRTK122-00

Application date: June 2, 2009

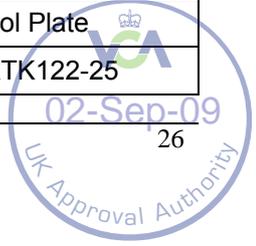


TRADE NAME <u>XIAOFEILU</u>	1. <u>n.a.</u>		
VEHICLE CATEGORY <u>B</u>	2. <u>n.a.</u>		
	3. <u>n.a.</u>		
	4. <u>n.a.</u>		
	5. <u>n.a.</u>		
	6. <u>60V500800904280006</u>		
	7. <u>n.a.</u>		
	7a. <u>n.a.</u>		
	8. <u>n.a.</u>		
	9. <u>n.a.</u>		
	10. <u>n.a.</u>		
	11. <u>HR6080</u>		
12. <u>n.a.</u>			

6:Engine Marking print like as follow:60V50080YY ZZ DD XXXX
 YY ZZ DD XXXX YY ;year
 Z: month
 DD:Date
 XXXX: electric engine serial number

11:Controller Marking print like as follow:
 HR6080

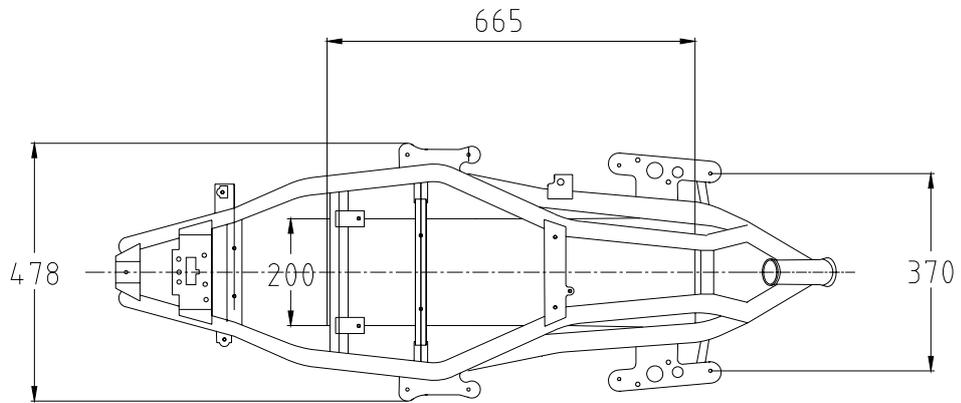
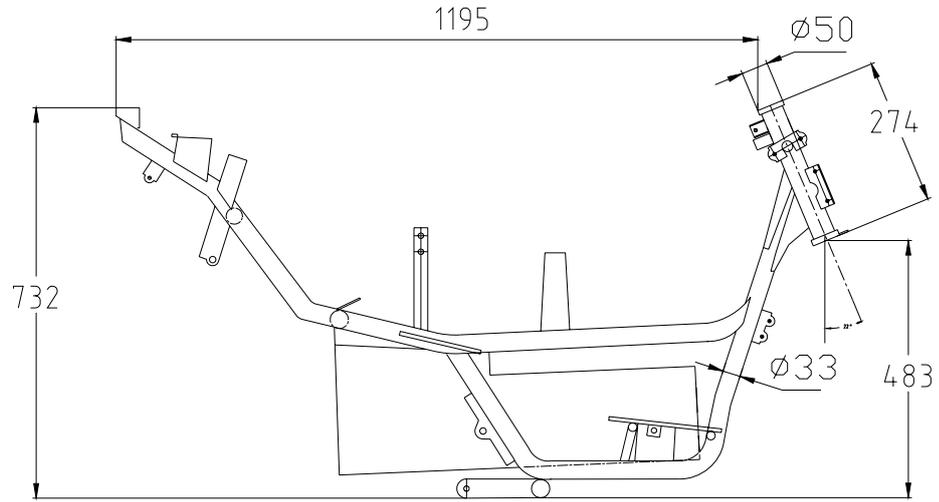
Vehicle Type	HRTK122
Anti Tampering Control Plate	
Drawing No.	HRTK122-25



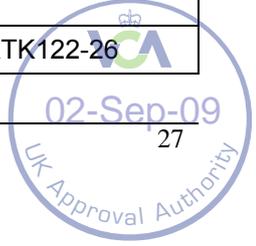
Shanghai Huari Enterprise Development Co., Ltd.

Information document:2002 /24- HRTK122-00

Application date: June 2, 2009



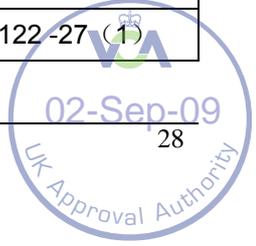
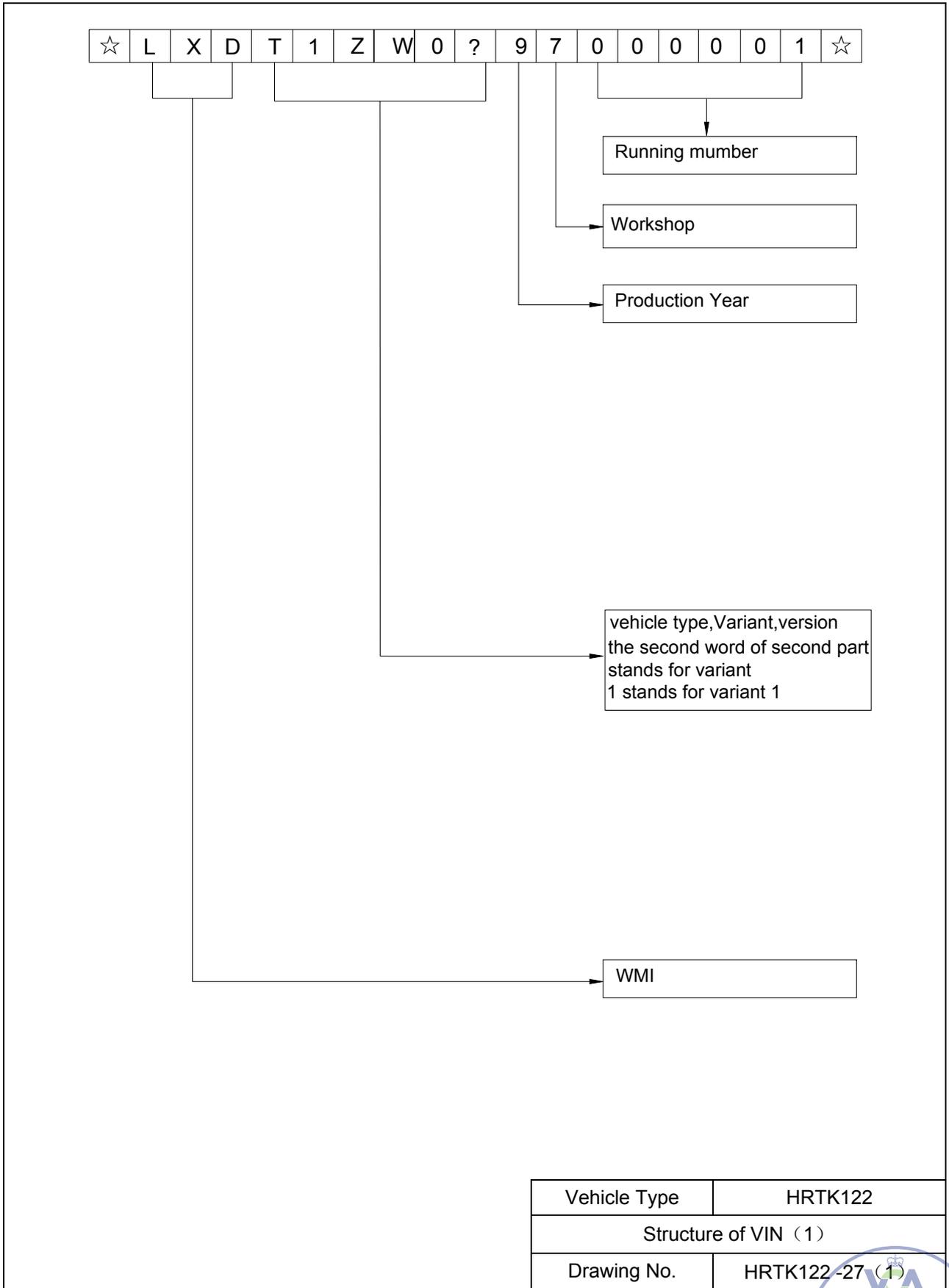
Vehicle Type	HRTK122
Frame	
Drawing No.	HRTK122-26



Shanghai Huari Enterprise Development Co., Ltd.

Information document:2002 /24- HRTK122-00

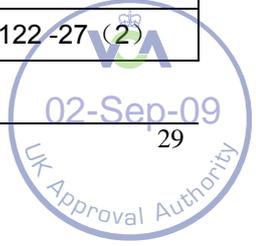
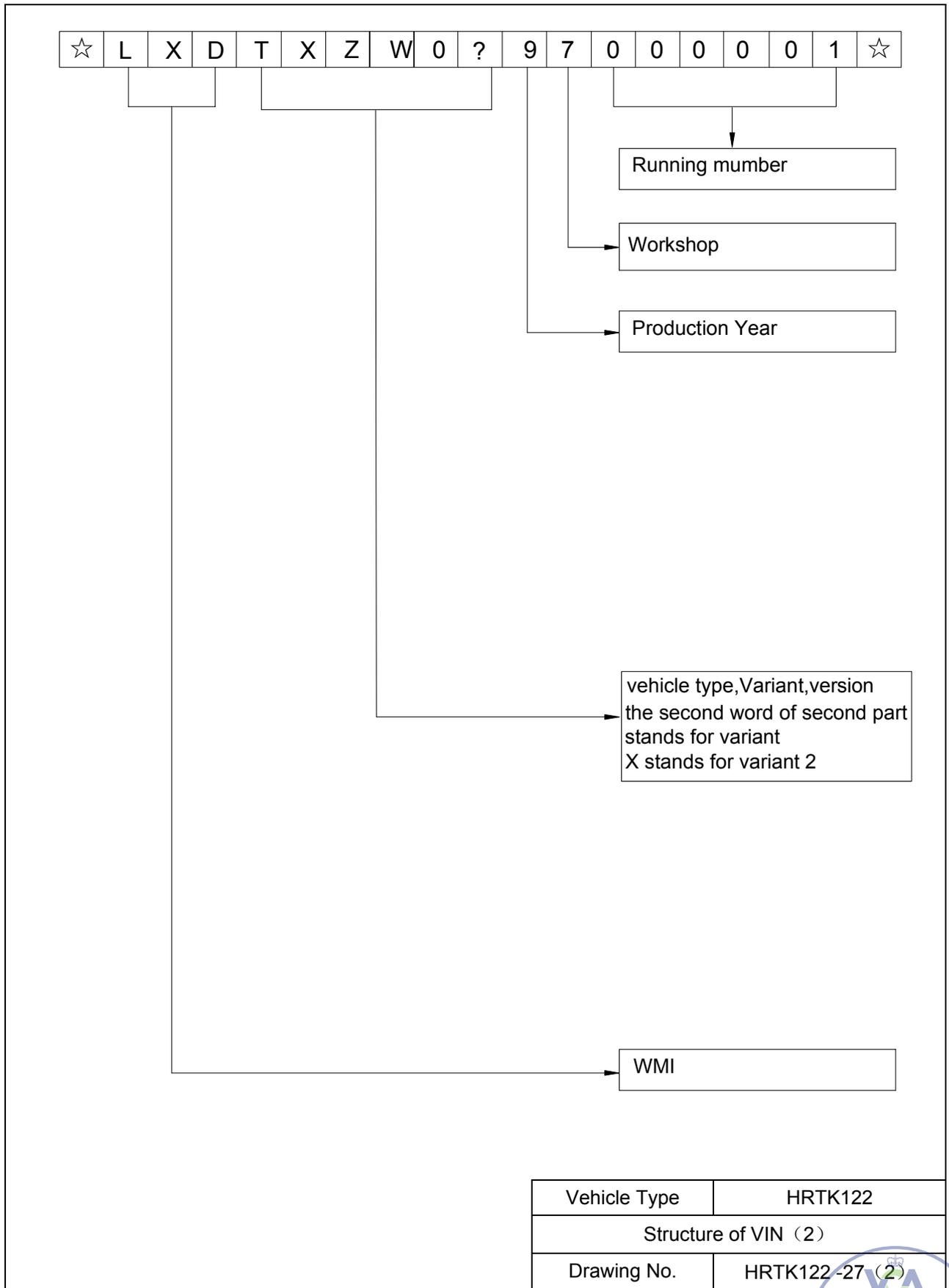
Application date: June 2, 2009



Shanghai Huari Enterprise Development Co., Ltd.

Information document:2002 /24- HRTK122-00

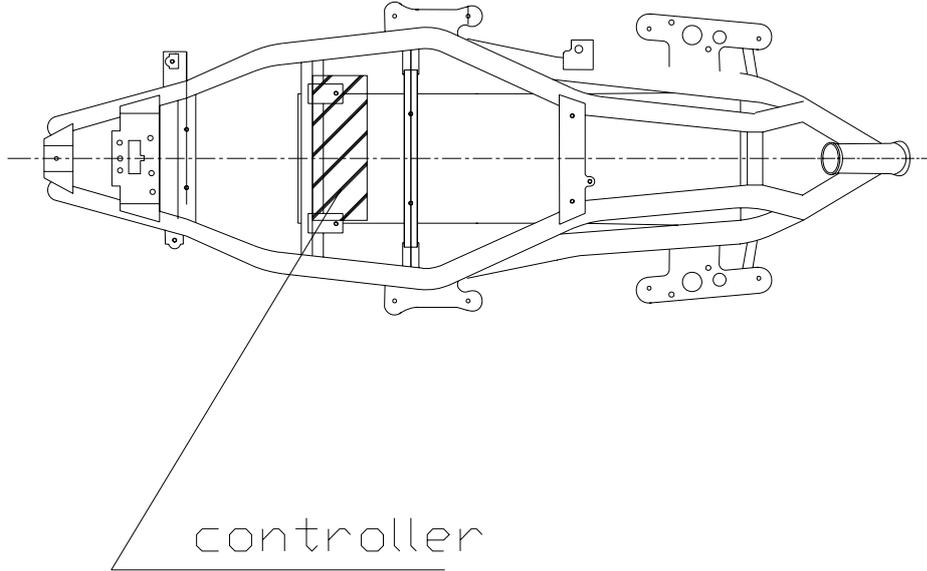
Application date: June 2, 2009



Shanghai Huari Enterprise Development Co., Ltd.

Information document:2002 /24- HRTK122-00

Application date: June 2, 2009



Marking print like as follow: HR6080

Type:HR6080

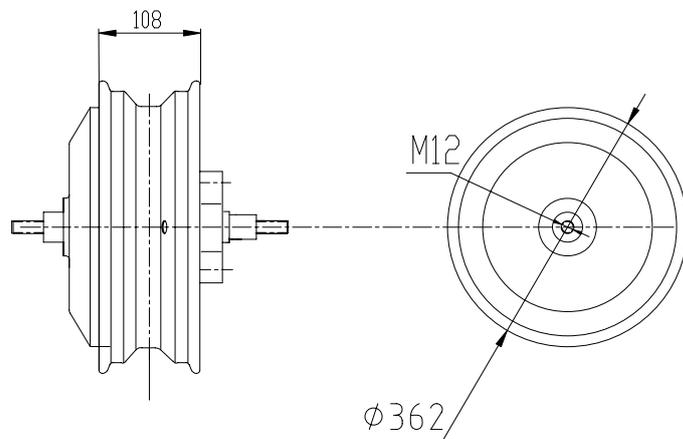
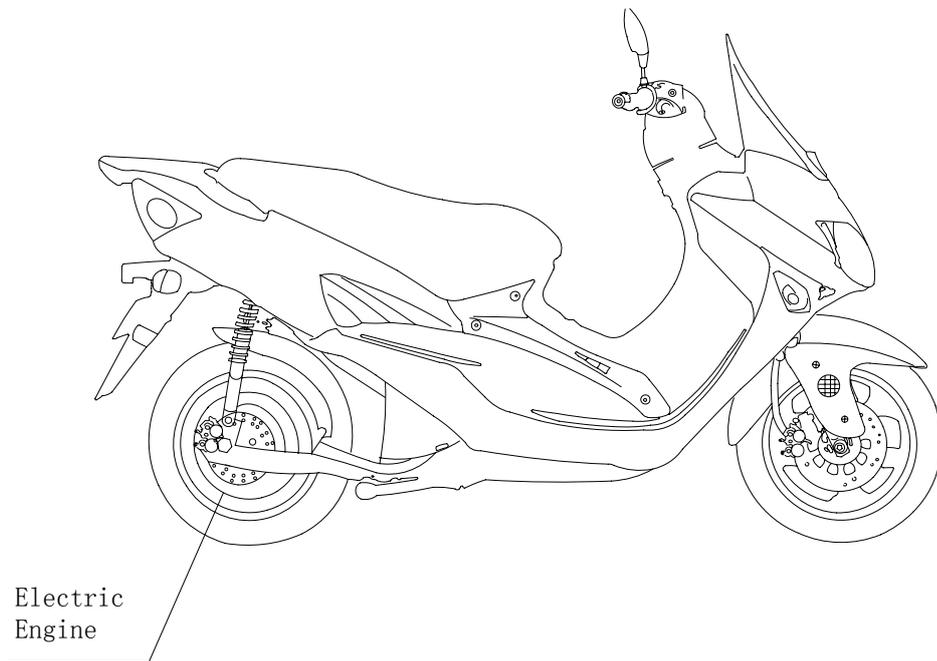
Vehicle Type	HRTK122
Controller	
Drawing No.	HRTK122 -28



Shanghai Huari Enterprise Development Co., Ltd.

Information document:2002 /24- HRTK122-00

Application date: June 2, 2009



Marking print like as follow: 60V500800904280006

YY ZZ DD XXXX (e.g. 0904280006)

YY :year

Z: month

DD:date

XXXX: electric engine serial number

Electric engine type: 60V50080

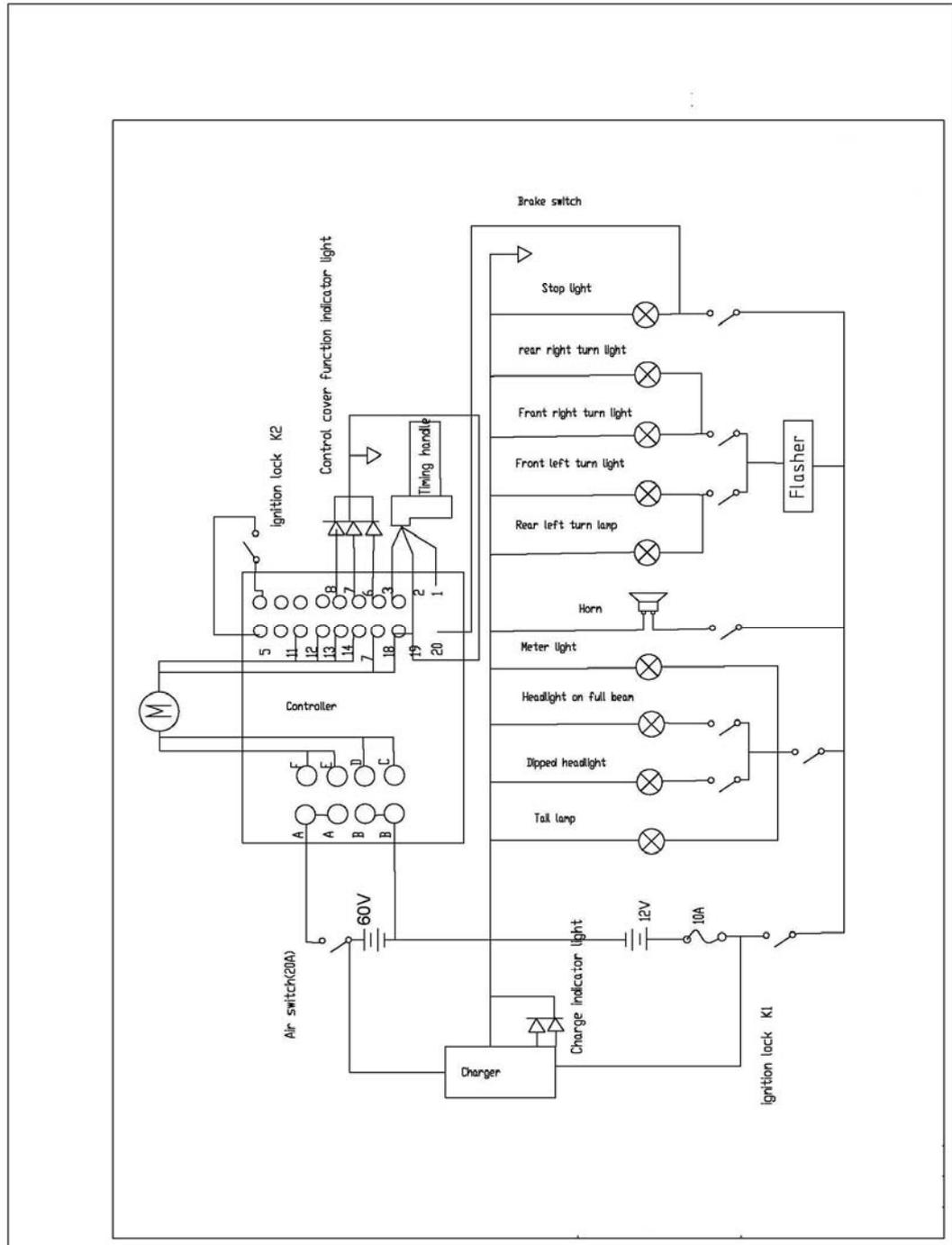
Vehicle Type	HRTK122
Electric engine	
Drawing No.	HRTK122 -29



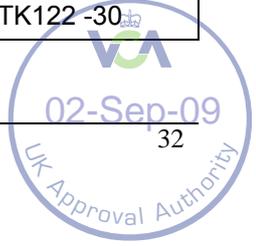
Shanghai Huari Enterprise Development Co., Ltd.

Information document:2002 /24- HRTK122-00

Application date: June 2, 2009



Vehicle Type	HRTK122
Wires Diagram	
Drawing No.	HRTK122-30





VEHICLE CERTIFICATION
AGENCY

Vehicle Certification Agency, 1 The Eastgate Office Centre
Eastgate Road, Bristol, BS5 6XX, United Kingdom
Switchboard: 0117 951 5151
System and Component Section Fax: 0117 952 4163

TEST REPORT: Whole Vehicle Type Approval 2 and 3 wheeled vehicles and Quadricycles

03-045

Report/Job Number: CSK206080

Page: 1 of 3

TEST DETAILS	
Subject	EC Whole Vehicle
EC Directive	2002/24/EC – 2005/30/EC
ECE Regulation	N/A
Location of Test	No. 2-1, Longcang Dadao, Yuhua Economic Development Zone, Nanjing, P.R.China
Date of Test	30 June 2009
VCA Representative	Hongda. Zhao
Manufacturer's Representative	Xiaoyu.Zhang
Reason for Test	New approval

MANUFACTURER DETAILS	
Manufacturer's Name	SHANGHAI HUARI ENTERPRISE DEVELOPMENT CO.,LTD
Manufacturer's Address	N0.101,Qianming Eastrd ,Fengjing Industrial Zone, Jingshan District, Shanghai Province, P.R. China
Model Type & description	HRTK122
Category	L3e(electric)

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: 
	Name: Hongda. Zhao
	Position: Test Engineer
	Date: 30 June 2009

LIST OF ANNEXES		
ANNEX	No of PAGES	SUBJECT
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M/CWVTA ITEM 20 TR20



Whole Vehicle Type Approval 2 and 3 wheeled vehicles and Quadricycles

<i>Paragraph</i>	<i>Parameter</i>	<i>Complies</i>	
VERSION/VARIANT SELECTION RATIONALE: See below The electric motorcycle have two variants about battery.			
Test report number	Subject	Applicable to this vehicle category and configuration?	Complies
N/A	Maximum torque and maximum net power of the engine	N/A	N/A
CSK206080	Anti-tampering	Y	Conf.
N/A	Fuel tank	N/A	N/A
--	Maximum design speed	As manufacturer declared	
CSK206080	Masses and dimensions	Y	Conf.
N/A	Coupling devices	N/A	N/A
N/A	Anti air pollution measures	N/A	N/A
CSK206080	Tyres	Y	Conf.
CSK206080	Braking system	Y	Conf.
CSK206080	Lighting installation	Y	Conf.
CSK206080	Audible warning	Y	Conf.
CSK206080	Rear registration plate space	Y	Conf.
CSK206079 0891*00	Electromagnetic compatibility	Y	Conf.
N/A	Sound levels	N/A	N/A
CSK206080	Rear view mirrors	Y	Conf.
CSK206080	External projections	Y	Conf.
CSK206080	Stands	Y	Conf.
CSK206080	Anti theft	Y	Conf.
N/A	Windows wipers & washer	N/A	N/A

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

<i>Paragraph</i>	<i>Parameter</i>		<i>Complies</i>
CSK206080	Passenger hand holds	Y	Conf.
N/A	Seat belt anchorages	N/A	N/A
CSK206080	Speedometer	Y	Conf.
CSK206080	Identification of controls	Y	Conf.
CSK206080	Statutory plates	Y	Conf.



TEST REPORT: Anti Tampering for 2 wheel mopeds and motorcycles

03-044 rev1

Report/Job Number: CSK206080

Page: 1 of 5

TEST DETAILS

Subject	Anti Tampering for 2 wheel mopeds and motorcycles
EEC Directive	97/24/EC ch 7 – 2006/27/EC(Annex IV)
ECE Regulation	N/A
Location of Test	No. 2-1, Longcang Dadao, Yuhua Economic Development Zone, Nanjing, P.R.China
Date of Test	22 June 2009
VCA Representative	Hongda. Zhao
Manufacturer's Representative	Xiaoyu.Zhang
Reason for Test	New approval

MANUFACTURER DETAILS

Manufacturer's Name	SHANGHAI HUARI ENTERPRISE DEVELOPMENT CO.,LTD
Manufacturer's Address	N0.101,Qianming Eastrd ,Fengjing Industrial Zone, Jingshan District, Shanghai Province, P.R. China
Model Type & description	HRTK122
Category	L3e(electric)

CONCLUSION

The above mentioned vehicle was tested in accordance with EC Directive 97/24/EC ch 7 as amended by 2006/27/EC (Annex IV)and was found to comply in all respects

Signature: 
Name: Hongda. Zhao
Position: Test Engineer
Date: 22 June 2009

LIST OF ANNEXES

ANNEX	No of PAGES	SUBJECT
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TEST REPORT: Anti Tampering for 2 wheel mopeds and motorcycles

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

TEST SPECIFICATION/WORST CASE RATIONALE: **See below**
Note: This motor is electric motorcycle, so no Cylinder head, camshaft, cylinder/piston combination, carburettor, intake pipe, exhaust., etc.

1	Risk assessment completed and stored in job folder	_____
2	Facilities and test equipments are appropriate	Conf.
3	Calibration certificates checked and valid, recorded below Note: only checking, no need any test facility	Conf.

Equipment	Serial No.	Calibration data

App 1 Manufacturers Information document according to Annex V **Conf.**

1.3 Vehicle category for anti tampering:

A = moped
 B = upto 125cc & upto 11kW **Conf.**
 C = upto 25 kW upto 0.16 kW/kg (power/mass in running order)
 D = other than A,B, or C

2.1 Interchangeability of parts does not cause increase of more than:
 5km/h maximum speed (Category A) **N/A**
 10% maximum power (Category B) **Conf.**
 Manufacturers declaration received **N/A**

Parts covered:
 2 stroke engines: Cylinder/piston combination, carburettor, intake pipe, exhaust system.
 4 stroke engines: Cylinder head, camshaft, cylinder/piston combination, carburettor, intake pipe, exhaust.

2.2 Declaration that modifications to fuel feed and ignition do increase: **N/A**

Moped maximum speed by more than 5 km/h
 Motorcycle maximum power by more than 10%
Maximum speed and power must still comply with vehicle category



TEST REPORT: Anti Tampering for 2 wheel mopeds and motorcycles

Paragraph	Parameter	Complies
2.3	Category B Motorcycles Note: This motor is electric motorcycle, so no Cylinder head, camshaft, cylinder/piston combination, carburettor, intake pipe, exhaust., etc.	
2.3.1	- Unremovable sleeve in intake fitted (60HRC <4mm thick) and - Intake attached with tamperproof fixing and - Intake marked with B OR	
2.3.2	- Intake restrictor fitted and location marked on outside (<4mm thick or 5mm if rubber) and - Intake attached with tamperproof fixing and - Intake marked with B OR	
2.3.3	- Restriction is in the cylinder head and - Cylinder head marked with B	
2.3.5	Diameter of restriction shown on drawing and the manufacturer confirms that restrictor is the critical part	

3 Additional requirements for category A and B vehicles

Note: This motor is electric motorcycle, so no Cylinder head, camshaft, cylinder/piston combination, carburettor, intake pipe, exhaust., etc.

Mandatory only if needed to prevent increase of moped speed (>5km/h) or motorcycle power (>10%)

3.1	Cylinder head gasket thickness when mounted Mopeds < 1.3mm Motorcycles < 1.6mm	
3.2	Cylinder – crankcase gasket when mounted < 0.5mm (2 strokes)	
3.3	2 strokes: Piston at TDC must not cover inlet port	
3.4	2 strokes: Rotating the piston by 180° must not increase power	
3.5	No artificial restriction in exhaust system	

**TEST REPORT: Anti Tampering for 2 wheel mopeds
and motorcycles**

<i>Paragraph</i>	<i>Parameter</i>	<i>Complies</i>
3.6	Effective length of exhaust is not determined by removable parts	
3.7	Throttle control or twist grip stops not fitted? (Forbidden).	
3.8	Electric/electronic speed restrictor fitted to a mopeds? (If yes manufacturer must show its modification or removal does not result in a speed increase of > 10%).	
	Spark cut or inhibit systems? (Forbidden if they result in HC emissions or increase in fuel consumption)	
	Ignition advance device does not cause a difference of >10% when disconnected	
3.9	Reed valves fitted with tamperproof bolts	

3.10

Markings on parts

Parts marked in a visible and durable way (labels are OK if they
are destroyed by removal).

Conf.

Marking is at least 2.5mm letters/numbers

Conf.

Intake silencer (air filter) marked:

N/A

Carburettor (or equivalent) marked:

N/A

Inlet pipe if it is a separate part
marked:

N/A

(B if category B vehicle)

Cylinder:

N/A

Electric engine cylinder head:

N/A

Electric engine type:

60V50080

Conf.

Exhaust pipe:
(if separate from silencer)

N/A

Transmission:
(output gear number of teeth)

N/A

Transmission:
(rear wheel gear number of teeth)

N/A

Electrical or electronic devices for
the engine: Controller marking :

HR6080

Conf.

Restricted section:

N/A





TEST REPORT: Anti Tampering for 2 wheel mopeds and motorcycles

<i>Paragraph</i>	<i>Parameter</i>	<i>Complies</i>
3.10.2	Anti tampering control plate	
3.10.2.1	Plate is/has:	
	At least 60 x 40mm	Conf.
	Fixed to the vehicle in a durable manor	Conf.
	Readily accessible for inspection	Conf.
	Markings are at least 2.5mm high	Conf.
	Follows example in figure 1	Conf.
	Plate shows: (Not applicable items can be omitted)	
	Manufacturers trade name or mark	Conf.
	Vehicle anti tampering category: B	Conf.
	Final gear ratio teeth/diameter (item 9 and 10)	N/A
	Code or part numbers (other items)	N/A



TEST REPORT: Masses and Dimensions of two or three wheel motor vehicles

03-016

Report/Job Number: CSK206080

Page: 1 of 5

TEST DETAILS	
Subject	Masses and Dimensions of two or three wheel motor vehicles
EC Directive	93/93/EEC-2004/86/EC
ECE Regulation	N/A
Location of Test	No. 2-1, Longcang Dadao, Yuhua Economic Development Zone, Nanjing, P.R.China
Date of Test	23 June 2009
VCA Representative	Hongda. Zhao
Manufacturer's Representative	Xiaoyu.Zhang
Reason for Test	New approval

MANUFACTURER DETAILS	
Manufacturer's Name	SHANGHAI HUARI ENTERPRISE DEVELOPMENT CO.,LTD
Manufacturer's Address	N0.101,Qianming Eastrd ,Fengjing Industrial Zone, Jingshan District, Shanghai Province, P.R. China
Model Type & description	HRTK122
Category	L3e(electric)

CONCLUSION
<p>The above mentioned vehicle was tested in accordance with EC Directive 93/93/EEC as last amended by 2004/86/EC and was found to comply in all respects</p> <p style="text-align: right;">  Signature: Name: Hongda. Zhao Position: Test Engineer Date: 23 June 2009 </p>

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TEST REPORT: Masses and Dimensions of two or three wheel motor vehicles

<i>Paragraph</i>	<i>Parameter</i>	<i>Complies</i>
------------------	------------------	-----------------

TEST SPECIFICATION/WORST CASE RATIONALE: **See below**
The motorcycle have two variants about battery.

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

Equipment		
Maker: Shanghai yousheng Type: TC S-300 Series No.: FW-01, FW-02 Next calibration time: 13 July 2010		

Manufacturer's documentation complete **Conf.**

VERIFICATION OF MASSES

Variant 1: Lithium battery

CONDITIONS OF THE VEHICLE					
MASSES (kg)	(a) UNLADEN	(b) IN RUNNING ORDER	(c) IN RUNNING ORDER PLUS RIDER	(d) MAX PAYLOAD	(e) MAX PERMISSIBLE
Declared FRONT AXLE	58		100		110
As tested	58		100		
Declared REAR AXLE	74		107		172
As tested	74		107		
Declared COMBINED	132		207	75	282
As tested	132		207		

TEST REPORT: Masses and Dimensions of two or three wheel motor vehicles

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

Variant 2: Silicon battery

CONDITIONS OF THE VEHICLE					
MASSES (kg)	(a) UNLADEN	(b) IN RUNNING ORDER	(c) IN RUNNING ORDER PLUS RIDER	(d) MAX PAYLOAD	(e) MAX PERMISSIBLE
Declared FRONT AXLE	75		114		128
As tested	75		114		
Declared REAR AXLE	97		133		194
As tested	97		133		
Declared COMBINED	172		247	75	322
As tested	172		247		

Note: the electrical motorcycle no fuel tank etc, so the unladen mass equal to running order mass.

Percentage error between the declared and tested masses for the vehicle in running order {column (b)}:

FRONT AXLE **0%** (Less than 5%) **Conf.**

REAR AXLE **0%** (Less than 5%) **Conf.**

COMBINATION **0%** **Conf.**

Percentage error between the declared and tested masses for the vehicle in running order, together with the rider {column (c)}:

FRONT AXLE **0%** (Less than 5%) **Conf.**

REAR AXLE **0%** (Less than 5%) **Conf.**

COMBINATION **0%** **Conf.**

Masses of the vehicle in running order {column (b)} correspond to those declared by the manufacturer



TEST REPORT: Masses and Dimensions of two or three wheel motor vehicles

<i>Paragraph</i>	<i>Parameter</i>	<i>Complies</i>
	Masses of the vehicle in running order, together with the rider {column (c)} correspond to those declared by the manufacturer	Conf.
	The sum of the combined masses verified in columns (c) and (d) is equal to or less than the maximum mass stated by the manufacturer	Conf.
	The sum of the technically permissible maximum masses of the axles is at least equal to the technically permissible mass of the vehicle	Conf.
3.2.4	Maximum mass of trailer, where applicable, is equal to or less than 50% of the unladen vehicle mass	N/A
2002/24 WV	Unladen weight (declared a) for quadricycles is: Not more than 350kg for light quadricycles** Not more than 400kg for quadricycles** ** Batteries can be removed from unladen mass see 2002/24 Article 1	N/A
	Three-wheel motor vehicles:	N/A
3.2.2.1	The combined mass in column (a) is equal to or less than: 270 kg (mopeds) 1000 kg (tricycles**)	
3.2.3.1	The combined mass in column (d) is equal to or less than:	
3.2.3.3.1	300 kg (mopeds)	
3.2.3.3.2	1500 kg (tricycles used for transport of goods) 300 kg (tricycles used for transport of persons)	
	Four-wheel motor vehicles:	N/A
3.2.2.2	The combined mass in column (a) is equal to or less than: 350 kg (light quadricycles) 400 kg (quadricycles other than light used for transport of persons)	

TEST REPORT: Masses and Dimensions of two or three wheel motor vehicles

<i>Paragraph</i>	<i>Parameter</i>	<i>Complies</i>
	550 kg (quadricycles** other than light used for transport of goods)	
3.2.3.2	The combined mass in column (d) is equal to or less than:	
3.2.3.4.1		
3.2.3.4.2	200 kg (light quadricycles)	
	1000 kg (quadricycles other than light used for transport of goods)	
	200 kg (quadricycles other than light used for transport of persons)	

VERIFICATION OF DIMENSIONS

DIMENSIONS (mm)	Length	Width	Height
Declared	1980	670	1190
Measured	1980	670	1190

3.1.1.1	Length equal to or less than 4.00 m	<u>Conf.</u>
3.1.1.2		
3.1.1.3	Width equal to or less than 1.00 m (two-wheel moped)	<u>N/A</u>
	2.00 m (other vehicles)	<u>Conf.</u>
	Height equal to or less than 2.50 m	<u>Conf.</u>



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

03-026

Report/Job Number: CSK206080

Page: 1 of 3

TEST DETAILS	
Subject	FITTING OF TYRES TO TWO OR THREE WHEEL MOTOR VEHICLES
EC Directive	97/24/EC CHAPTER 1-2006/27/EC
ECE Regulation	N/A
Location of Test	No. 2-1, Longcang Dadao, Yuhua Economic Development Zone, Nanjing, P.R.China
Date of Test	22 June 2009
VCA Representative	Hongda. Zhao
Manufacturer's Representative	Xiaoyu.Zhang
Reason for Test	New approval

MANUFACTURER DETAILS	
Manufacturer's Name	SHANGHAI HUARI ENTERPRISE DEVELOPMENT CO.,LTD
Manufacturer's Address	N0.101,Qianming Eastrd ,Fengjing Industrial Zone, Jingshan District, Shanghai Province, P.R. China
Model Type & description	HRTK122
Category	L3e(electric)

CONCLUSION
The above mentioned vehicle was tested in accordance with EC Directive 97/24/EC CHAPTER 1 as last amended by 2006/27/EC and was found to comply in all respects
Signature: 
Name: Hongda. Zhao
Position: Test Engineer
Date: 22 June 2009

LIST OF ANNEXES		
ANNEX	No of PAGES	SUBJECT
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**TEST REPORT: FITTING OF TYRES TO TWO OR
THREE WHEEL MOTOR VEHICLES**

<i>Paragraph</i>	<i>Parameter</i>	<i>Complies</i>
1.2.1	All of the tyres fitted to a vehicle must have the same speed categories symbol (Annex II 1.1.5)	Conf. -----
1.2.2	All of the tyres fitted to one axle must be of the same type (see Annex II, section 1.1)	Conf. -----
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	Conf. -----

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	
2.2	Mopeds, motorcycles type may be fitted	
2.3	Types for special conditions fitted? Give details:	
2.4	Types for special conditions fitted to low performance mopeds (Annex 1 92/61/EC) Give details:	



TEST REPORT: Braking of two or three wheel motor vehicles

03-032 rev1

Report/Job Number: CSK206080

Page: 1 of 10

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	No. 2-1, Longcang Dadao, Yuhua Economic Development Zone, Nanjing, P.R.China
Date of Test	23 June 2009
VCA Representative	Hongda. Zhao
Manufacturer's Representative	Xiaoyu.Zhang
Reason for Test	New approval

MANUFACTURER DETAILS	
Manufacturer's Name	SHANGHAI HUARI ENTERPRISE DEVELOPMENT CO.,LTD
Manufacturer's Address	N0.101,Qianming Eastrd ,Fengjing Industrial Zone, Jingshan District, Shanghai Province, P.R. China
Model Type & description	HRTK122
Category	L3e(electric)

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: 
	Name: Hongda. Zhao
	Position: Test Engineer
	Date: 23 June 2009

LIST OF ANNEXES		
ANNEX	No of PAGES	SUBJECT
1	1	Test and check photo
2		
3		
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TEST REPORT: Braking of two or three wheel motor vehicles

Paragraph	Parameter	Complies
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TEST SPECIFICATION/WORST CASE RATIONALE: **See below**
The vehicles HRTK122, HRTK122-1, HRBJ-183 and HRBJ-183-1 are produced by SHANGHAI HUARI ENTERPRISE DEVELOPMENT CO.,LTD. They have the same braking system, so according the speed and masses, VCA choose the HRTK122 to conduct the test, the test covered other vehicles type: HRTK122-1, HRBJ-183 and HRBJ-183-1.

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

Equipment	Serial No.	Calibration data
Speed, distance, MFDD measurement: VBOX IISX Type:VB2SX	009530	16 January 2009
Lever effort measurement: PKH1.0/HT2.0	0902020191 0902020194	6 February 2009
Wet brake equipment:	Self made	
Weigh equipment: Make: Yousheng Type: TC S-300	FW-01, FW-02	13 July 2009

TEST SPECIFICATION:

ENGINE:	<u>VEHICLE :</u> Electric motor
GEARBOX:	N/A
CATEGORY	L3e
	<u>FRONT AXLE TYRES:</u>
- SIZE/MAKE/TYRE	130/60-13/CHENG SHIN/C-6104
- PRESSURE (bar)	2.25
- ROLLING RADIUS (mm)	246
- TREAD DEPTH (mm)	New tyre
	<u>REAR AXLE TYRES:</u>
- SIZE/MAKE/TYRE	130/60-13/CHENG SHIN/C-6104
- PRESSURE (bar)	2.25
- ROLLING RADIUS (mm)	246
- TREAD DEPTH (mm)	New tyre
	<u>BRAKE SYSTEM:</u>
- FRONT AXLE (Disc/drum & dia, number/axle, piston sizes, master cyl dia, lever ratios, hand or foot)	220mm ventilated disc right hand lever control. Lever ratio:5.333. Two pistons and piston diameter 20mm.



TEST REPORT: Braking of two or three wheel motor vehicles

<i>Paragraph</i>	<i>Parameter</i>	<i>Complies</i>
- FRONT BRAKE MATERIAL	(Asbestos Free)	
- REAR AXLE (Disc/drum & dia, number/axle, piston sizes, master cyl dia, lever ratios, hand or foot)	180mm ventilated disc left hand lever control. Lever ratio:5.333. two pistons and piston diameter 20mm.	
- REAR BRAKE MATERIAL	(Asbestos Free)	
- PARK BRAKE (Hand/foot, axle, brake type, dia, lever ratios)	N/A	
FRONT/REAR INDEPENDENT OR SPLIT SYSTEM	Independent	
- ANY BRAKE DISTRIBUTION VALVE?	N/A	
- ABS?	N/A	

TEST SPECIFICATION/ WORST CASE RATIONALE:

Manufacturer's documentation complete

Conf.

GENERAL CHECKS (STATICS)

Vehicle is as specified in documentation

Conf.

2 Systems correctly mounted, made of suitable materials and fitted with locking devices where necessary

Conf.

3.1.1.2 Brake linings asbestos free
(Declared on drawings or confirmed by material manufacturer)

Conf.

5.1.1.3
2.2.1 Two independent braking devices with independent controls(L1e, L2e, L3e, L4e, L6e category)

Conf.

OR

2.2.3.2 a service braking device which operates on all the wheels and a secondary braking device (L2e, L6e, L7e)

N/A

Brief details: **Hand braking device hydraulically operated disc on front and rear.**
(i.e. foot operated service brake acting on all wheels – see spec on page 2)

2.2.2 Brake acting on sidecar wheel (L4e) if required



TEST REPORT: Braking of two or three wheel motor vehicles

<i>Paragraph</i>	<i>Parameter</i>	<i>Complies</i>
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)	
2.1.2.1	Front and rear braking possible with both hands on the steering control	Conf.
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	Conf.
2.2.5	Parts amply dimensioned and readily accessible	Conf.
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)	Conf.
2.2.7	Brakes operate freely	Conf.
2.1.2.1	Brakes graduable	Conf.
2.2.7.3	Brake components do not contact anything other than intended parts	Conf.

TEST REPORT: Braking of two or three wheel motor vehicles

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

LINE PRESSURE RELATIVE TO CONTROL EFFORT N/A, Control force measured directly
(if hydraulic pressure is measured for dynamic testing, pressure valves are fitted or brake boosted systems)

Control Effort (daN)											
Front line pressure/cable force* bar/daN											

LINE PRESSURE RELATIVE TO CONTROL EFFORT N/A, Control force measured directly
(if hydraulic pressure is measured for dynamic testing, pressure valves are fitted or brake boosted systems)

Control Effort (daN)											
Rear line pressure/cable force* bar/daN											

DYNAMIC TESTING

Mass (kg)

Load Condition	Front Axle(s)	Rear Axle(s)	GVW
Laden ⁺⁺	128	194	322
Unladen [*]	114	133	247

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

** If unladen test mass is close to laden GVW testing may only be needed in one condition. The laden requirements must be meet.

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 ²	Recd line pressure or control effort bar/daN
Front (Or Service)	U/L	60	60.3	55.95	55.39	3.6	16.3
Rear	U/L	60	59.95	59.58	55.67	4.4	17.4



TEST REPORT: Braking of two or three wheel motor vehicles

Paragraph	Parameter					Complies	
(Or Secondary)							
LIMITS FRONT	U/L	60			61.38	2.5	20.0
LIMITS REAR	U/L	60			61.38	2.5	
Connected stops (in gear)	30% Vmax	24	23.9	5.71		3.79	F:11.5 R:7.7
Both Brakes Together	55% Vmax	44	44	17.03		5.54	F:12.7 R:8.7
(Record max performance and stability, no distance or decal limits).	80% Vmax upto 160	64	64.7	22.02		4.60	F:13.4 R:7.4

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

Comment stability during connect stops: **connected stop show good stability . Conf.**

NB: VCA interpretation that the wet test need only be conducted unladen.

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 ²	Recd line pressure or control effort bar/daN
D R Y	Front	U/L	60	59.93	MFDD	2.46	13.5
					0.5 to 1.0 sec window	1.66	
R E F	Rear	U/L	60	60.6	MFDD	2.57	14.4
					0.5 to 1.0 sec window	2.85	
W E T	Front	U/L	60	59.93	MFDD	2.75	11.1
					0.5 to 1.0 sec window	1.63	
	Rear	U/L	60	59.6	MFDD	2.8	12
					0.5 to 1.0 sec window	3.13	

TEST REPORT: Braking of two or three wheel motor vehicles

<i>Paragraph</i>	<i>Parameter</i>	<i>Complies</i>
	Mean deceleration wet test at least 60% of dry reference (in 0.5 – 1.0 second window)	Front: 98% Conf. Rear: 110% Conf.
	Deceleration during wet test never more than 120% of dry reference	Front: 112% Conf. Rear: 109% Conf.

LADEN TESTS

PARKING BRAKE GRADIENT TEST				
Vehicle GVW on 18 % hill				
Gradient used %	Facing	Control Force	Limit	Complies
	UP			
	DOWN			

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 ²	Recd line pressure or control effort bar/daN
Front (Or Service)	L	60	59.3	35.44	36.28	4.5	15.4
Rear (Or Secondary)	L	60	59.8	50.59	50.93	4.45	17.0
LIMITS FRONT	L	60			37.3	4.4	20.0
LIMITS REAR	L	60			54	2.9	

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

TEST REPORT: Braking of two or three wheel motor vehicles

<i>Paragraph</i>	<i>Parameter</i>						<i>Complies</i>
reference							
	R	60			89	2.67	17.0

Conditions during dynamic testing:

Wind speed **0.9m/s** Ambient temperature **30 °C**

Brakes were not binding or rubbing at ambient temperature

Conf.

Subjective assessment of the handling and stability during braking, and the progressive action of the controls etc:

Work in good conditions



TEST REPORT: Braking of two or three wheel motor vehicles

<i>Paragraph</i>	<i>Parameter</i>	<i>Complies</i>
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Annex 1. Test and check photos



Front brake



Rear brake

TEST REPORT: Installation of lights and light signalling devices on two and three wheel motor vehicles

03-015

Report/Job Number: CSK206080

Page: 1 of 7

TEST DETAILS	
Subject	Installation of lights and light signalling devices on two and three wheel motor vehicles
EC Directive	93/92/EEC and 2000/73/EC
ECE Regulation	N/A
Location of Test	No. 2-1, Longcang Dadao, Yuhua Economic Development Zone, Nanjing, P.R.China
Date of Test	22 June 2009
VCA Representative	Hongda. Zhao
Manufacturer's Representative	Xiaoyu.Zhang
Reason for Test	New approval

MANUFACTURER DETAILS	
Manufacturer's Name	SHANGHAI HUARI ENTERPRISE DEVELOPMENT CO.,LTD
Manufacturer's Address	N0.101,Qianming Eastrd ,Fengjing Industrial Zone, Jingshan District, Shanghai Province, P.R. China
Model Type & description	HRTK122
Category	L3e(electric)

CONCLUSION
The above mentioned vehicle was tested in accordance with EC Directive 93/92/EEC as last amended by 2000/73/EC and was found to comply in all respects
Signature:  Name: Hongda. Zhao Position: Test Engineer Date: 22 June 2009

LIST OF ANNEXES		
ANNEX	No of PAGES	SUBJECT
1	2	Check sheet for lighting installation
2	1	Component approval mark table
3	1	Vehicle photos
4		

TEST REPORT: Installation of lights and light signalling devices on two and three wheel motor vehicles

<i>Paragraph</i>	<i>Parameter</i>	<i>Complies</i>
TEST SPECIFICATION/WORST CASE RATIONALE: Two variants		
1	Risk assessment completed and stored in job folder	_____
2	Facilities and test equipments are appropriate	<u>Conf.</u>
3	Calibration certificates checked and valid, recorded below	<u>Conf.</u>

Equipment	Serial No.	Calibration data

Manufacturer's documentation complete Conf.

Vehicle and lamps are as specified in documentation Conf.

All lamps and reflectors securely mounted Conf.

Not likely to become obscured or misaligned Conf.

Headlamp can be easily adjusted Conf.

All pairs of lamps are symmetrically mounted Conf.

All pairs of lamps appear to be the same colour and brightness Conf.

~~All pairs of lamps appear to be the same colour and brightness~~ _____

No red light visible to the front Conf.

No white light visible to the rear Conf.

SPECIFICATIONS OF INDIVIDUAL LAMPS

All lamps and reflectors (except head, front fog and reversing lamps) have reference axis $\pm 3^\circ$ parallel to the ground and to the longitudinal plane Conf.

Any specific mounting recommendations have been complied with Conf.

All side reflectors have their reference axis $\pm 3^\circ$ perpendicular to the longitudinal median plane Conf.



TEST REPORT: Installation of lights and light signalling devices on two and three wheel motor vehicles

<i>Paragraph</i>	<i>Parameter</i>	<i>Complies</i>
	All the requirements of sub paragraphs (6.1) to (6.12) are complied with as appropriate to the motorcycle category as shown below:	Conf.
	Main (Driving) beam headlamp(s) .	Conf.
	Dipped (Passing) beam headlamp(s)	Conf.
	Direction indicator lamps	Conf.
	Stop lamp(s)	Conf.
	Front position (side) lamp(s)	Conf.
	Rear position (side) lamp(s)	Conf.
	Front fog lamp(s)	N/A
	Rear fog lamp(s)	N/A
	Hazard warning signal	N/A
	Rear registration plate lamp(s)	Conf.
	Side reflex reflectors, non triangular	Conf.
	Rear reflex reflector(s), non triangular	Conf.
	DIPPED (PASSING) HEADLAMP ALIGNMENT	
	Possible to re-set alignment using normal screws	Conf.
	Vehicle category	L3e

TEST REPORT: Installation of lights and light signalling devices on two and three wheel motor vehicles

<i>Paragraph</i>	<i>Parameter</i>	<i>Complies</i>
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ANNEX 1 to TST107 Check sheet

page 1

Lamp	(1) Presence	(2) No	(4.1) Width	(4.2) Height	(4.3) Length	(5) Visibility from edge of light emitting surface	(6) Alignment
6.2 Headlamp Main Beam	Y	2	Y	610- 710	Front	OK	Forwards
6.1 Headlamp Dip Beam	Y	2	Y	610- 710	Front	OK	Forwards
6.3 Direction Indicators	Front:Y	2	More than 240mm	560- 620	Front	OK	Forwards
	Rear:Y	2	More than 180mm	600- 660	Rear	OK	Rearwards
6.4 Stop Lamp(s)	Y	2	Y	730- 840	Rear	OK	Rearwards
6.5 Front Position Lamp(s)	Y	1	C/L	860- 910	Front	OK	Forwards
6.6 Rear Position lamp(s)	Y	2	Y	730- 840	Rear	OK	Rearwards
6.7 Front fog lamp(s)	N						
6.8 Rear fog lamp(s)	N						
6.9 Hazard warning	N						
6.10 Rear reg lamp(s)	Y	1	C/L	Y	Rear	OK	Rearwards
6.11 Side reflectors	Y	2	Y	360- 420	Side	OK	Sidewards
6.12	Y	1	C/L	620-	Rear	OK	Rearwards

TEST REPORT: Installation of lights and light signalling devices on two and three wheel motor vehicles

Paragraph	Parameter	Complies
Rear reflector	660	

ANNEX 1 to TST107 Check sheet

page 2

Lamp	(7) Grouped with	(8) Comb ined with	(9) Recip inc with	(10) Electric al connec tions	(11) Tell- tale	12) Other requirements*
6.1 Headlamp Main Beam	/	/	Dipped Beam	Y	Y	≤225000cd
6.2 Headlamp Dip Beam	/	/	Main Beam	Y	/	/
6.3 Direction Indicators	F: /	/	/	Y	Y	Flashing frequency: 90±30 times
	R: /	/	/	Y	Y	Flashing frequency: 90±30 times
6.4 Stop Lamp(s)	/	/	Rear Position lamp	Y	/	/
6.5 Front Position Lamp(s)	/	/	/	Y	Panel lamp	/
6.6 Rear Position lamp(s)	/	/	Stop Lamp	Y	Panel lamp	/
6.7 Front fog lamp(s)						
6.8 Rear fog lamp(s)						
6.9 Hazard warning						
6.10 Rear reg lamp(s)	/	/	/	Y	/	/
6.11	/	/	/	/	/	/

TEST REPORT: Installation of lights and light signalling devices on two and three wheel motor vehicles

<i>Paragraph</i>	<i>Parameter</i>					<i>Complies</i>
Side reflectors						
6.12 Rear reflector	/	/	/	/	/	/

ANNEX II Component approval mark details

Main beam head lamp	E11-113R-000067
Dip beam head lamp	E11-113R-000067
Front position lamp	E11-50R-001198
Front direction indicators	E11-50R-001199
Front fog lamps	N/A
Rear direction indicators	E11-50R-001200
Rear position lamp	E11-50R-001416
Rear stop lamp	E11-50R-001416
Rear fog lamp	N/A
Rear reflector	IA-E9-02.1268
Side reflectors	IA-E9-02.1270
Rear registration plate lamp	E11-50R-001202
Pedal reflectors	N/A



TEST REPORT: Installation of lights and light signalling devices on two and three wheel motor vehicles

<i>Paragraph</i>	<i>Parameter</i>	<i>Complies</i>
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ANNEX 3 Vehicle photos



TEST REPORT: **Audible warning device (installation) for two or three wheel motor vehicles**

03-029

Report/Job Number: CSK206080

Page: 1 of 3

TEST DETAILS	
Subject	Audible warning device (installation) for two or three wheel motor vehicles
EC Directive	93/30/EEC
ECE Regulation	
Location of Test	No. 2-1, Longcang Dadao, Yuhua Economic Development Zone, Nanjing, P.R.China
Date of Test	23 June 2009
VCA Representative	Hongda. Zhao
Manufacturer's Representative	Xiaoyu.Zhang
Reason for Test	New approval

MANUFACTURER DETAILS	
Manufacturer's Name	SHANGHAI HUARI ENTERPRISE DEVELOPMENT CO.,LTD
Manufacturer's Address	N0.101,Qianming Eastrd ,Fengjing Industrial Zone, Jingshan District, Shanghai Province, P.R. China
Model Type & description	HRTK122
Category	L3e(electric)

CONCLUSION
The above mentioned vehicle was tested in accordance with EC Directive 93/30/EEC and was found to comply in all respects
Signature: 
Name: Hongda. Zhao
Position: Test Engineer
Date: 23 June 2009

LIST OF ANNEXES		
ANNEX	No of PAGES	SUBJECT
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TEST REPORT: Audible warning devices for two or three wheel motor vehicles

<i>Paragraph</i>	<i>Parameter</i>	<i>Complies</i>
------------------	------------------	-----------------

TEST SPECIFICATION/WORST CASE RATIONALE: Two variants

1	Risk assessment completed and stored in job folder	_____
2	Facilities and test equipments are appropriate	<u>Conf.</u>
3	Calibration certificates checked and valid, recorded below	<u>Conf.</u>

Equipment		
Sound level meter:		
Make	AIHUA	AIHUA
Type	AWA5633	AWA6221B
Serial number	027671	6221B1805
Date of calibration certificate	11 July 2008	9 July 2008
Date last checked		

Manufacturer's documentation complete Conf.

Details of horns fitted:

Make & Type	CHANGJIE/DL-60	_____
Model number	DL-60	_____
Voltage rating	12V	_____
Number fitted	1	_____
Approval number	e9*93/30*93/30*1026*00	_____

Mounting position of horn as manufacturers documents Conf.

Brief description of weather conditions:

Wind Speed :0.8m/s , Temperature :31°C
--

Supply voltage **12.1Volts** Conf.

Microphone located 7m ahead of the test vehicle Conf.

Ambient noise level **51.5dB(A)** Conf.

Test Results Conf.

Microphone height (m)	Sound Level dB(A)
0.58	88.7
0.60	85.5
0.66	86.6

Test requirement within 0.5 to 1.5m height peak of:



TEST REPORT: Audible warning devices for two or three wheel motor vehicles

<i>Paragraph</i>	<i>Parameter</i>	<i>Complies</i>
	75 to 112 dB(A) Mopeds	
	80 to 112 dB(A) Motorcycles <7 kW	
	93 to 112 dB(A) Motorcycles >7 kW	



TEST REPORT: Space for mounting rear registration plate of two or three wheel vehicles

03-018

Report/Job Number: CSK206080

Page: 1 of 3

TEST DETAILS	
Subject	Space for mounting rear registration plate of two or three wheel vehicles
EC Directive	93/94/EEC and 1999/26/EC
ECE Regulation	N/A
Location of Test	No. 2-1, Longcang Dadao, Yuhua Economic Development Zone, Nanjing, P.R.China
Date of Test	22 June 2009
VCA Representative	Hongda. Zhao
Manufacturer's Representative	Xiaoyu.Zhang
Reason for Test	New approval

MANUFACTURER DETAILS	
Manufacturer's Name	SHANGHAI HUARI ENTERPRISE DEVELOPMENT CO.,LTD
Manufacturer's Address	N0.101,Qianming Eastrd ,Fengjing Industrial Zone, Jingshan District, Shanghai Province, P.R. China
Model Type & description	HRTK122
Category	L3e(electric)

CONCLUSION	
	The above mentioned vehicle was tested in accordance with EC Directive 1999/26/EC and was found to comply in all respects
	Signature: 
	Name: Hongda. Zhao
	Position: Test Engineer
	Date: 22 June 2009

LIST OF ANNEXES		
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TEST REPORT: Space for mounting rear registration plate of two or three wheel vehicles

<i>Paragraph</i>	<i>Parameter</i>	<i>Complies</i>
------------------	------------------	-----------------

TEST SPECIFICATION/WORST CASE RATIONALE: Two variants

1	Risk assessment completed and stored in job folder	_____
2	Facilities and test equipments are appropriate	<u>Conf.</u>
3	Calibration certificates checked and valid, recorded below	<u>Conf.</u>

Equipment	Serial No.	Calibration data

	Manufacturer's documentation complete	<u>Conf.</u>
1	Space for mounting rear registration plate	<u>Conf.</u>
	Mopeds and light quadricycles:	
	100mm wide 175mm high	<u>N/A</u>
	OR 145mm wide 125mm high	<u>N/A</u>
	Motorcycles 280mm wide 210 high	<u>Conf.</u>
2	Rear registration plate space	
	Located at the rear of the vehicle, within the width of the vehicle	<u>Conf.</u>
3	Inclination:	
	At right angles to longitudinal median plane of the vehicle	<u>Conf.</u>
	Vertical inclination between 30° facing up to 15° facing down ... 25 degrees UP /DOWN	<u>Conf.</u>
4,5	Height (Vehicle at kerb mass)	
	Maximum 1.5m 0.58 .m	<u>Conf.</u>
	Minimum 0.2m OR wheel radius if less than 0.2m	0.389 m <u>Conf.</u>
6	Geometric Visibility:	
	30° up from the top edge of the plate	





TEST REPORT: Space for mounting rear registration plate of two or three wheel vehicles

<i>Paragraph</i>	<i>Parameter</i>	<i>Complies</i>
	5° down from the bottom edge of the plate	<u>Conf.</u>
	30° either side	<u>Conf.</u>



TEST REPORT: 03-042 **RADIO INTERFERENCE (ELECTROMAGNETIC
COMPATIBILITY) - VEHICLE TEST**

Report/Job Number: CSK206079

Page 1 of 10

TEST DETAILS	
Subject	ELECTROMAGNETIC COMPATIBILITY - VEHICLE TEST
EC Directive	97/24 Chapter 8
ECE Regulation	N/A
Location of Test	No. 2-1, Longcang Dadao, Yuhua Economic Development Zone, Nanjing, P.R.China
Date of Test	22 June 2009
VCA Representative	Hongda. Zhao
Manufacturer's Representative	Xiaoyu.Zhang
Reason for Test	New approval

MANUFACTURER DETAILS	
Manufacturer's Name	SHANGHAI HUARI ENTERPRISE DEVELOPMENT CO.,LTD
Manufacturer's Address	N0.101,Qianming Eastrd ,Fengjing Industrial Zone, Jingshan District, Shanghai Province, P.R. China
Model Type & description	HRBJ-183
Category	L3e(electric)

CONCLUSION	
	The above mentioned vehicle was tested in accordance with EC Directive 97/24 chapter 8 and was found to comply in all respects
	Signature: 
	Name: Hongda.zhao
	Position: Test Engineer
	Date: 22 June 2009

LIST OF ANNEXES		
ANNEX	No of PAGES	SUBJECT
1	2	EMC TEST AND CHECK PHOTOGRAPHS
2	4	NARROWBAND TEST RESULTS
3	4	BROADBAND TEST RESULTS
4		

**TEST REPORT: RADIO INTERFERENCE
(ELECTROMAGNETIC COMPATIBILITY)**

<i>Paragraph</i>	<i>Parameter</i>	<i>Complies</i>
------------------	------------------	-----------------

TEST SPECIFICATION/WORST CASE RATIONALE: **See below**
 The vehicles HRBJ-183, HRBJ-183-1, HRTK122, and HRTK122-1 are produced by SHANGHAI HUARI ENTERPRISE DEVELOPMENT CO.,LTD . they have the same electric engine and controller, so according the current ,VCA choose the HRBJ-183 to conduct EMC test, the test covered other vehicles type: HRBJ-183-1, HRTK122,and HRTK122-1.

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

Equipment	Serial No.	Calibration data
Biconical Antenna	15272	28 Mar 2009
JB1 Antenna	A030702	19 Mar 2009
Receiver	101216	19 Mar 2009
Signal Generator	202302/820	13 Mar 2009

Documentation complete **Conf.**

Vehicle corresponds to that agreed in worst-case meeting **Conf.**

II & III EMISSIONS

Measuring equipment complies with CISPR 16-1(93) **Conf.**

Type and calibration date:

Maker: R&S

Type: ESPI 3

Series: 101216

Calibration time: 19 Mar 2009

TEST LOCATION:

O.A.T.S. Is level, clear area free from electromagnetic reflecting surfaces within a circle of minimum radius 30m **N/A**

Measuring equipment within test site but only in permitted region (See Figure 1) **N/A**

Ambient noise at least 10 dB below reference limits

Note: Broadband and narrowband tests use the enclosed chamber.



TEST REPORT: RADIO INTERFERENCE
(ELECTROMAGNETIC COMPATIBILITY)

<i>Paragraph</i>	<i>Parameter</i>	<i>Compliance</i>
	ANTENNA	
	Types and calibration dates: Maker: Sunol Sciences, Inc. Type: JB1 Series: A030702 Calibration time: 19 Mar 2009	_____
	Height and distance: 3 m and 10 m OR 1.8 m and 3 m	<u>Conf.</u> <u>N/A</u>
	Antenna's receiving elements no closer than 0.25m to the plane on which the vehicle rests	<u>Conf.</u>
	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	<u>Conf.</u>
	No absorbent material between receiving antenna and vehicle	<u>Conf.</u>
	Pre-test sweep supplied to show compliance throughout frequency range 30 to 1000 MHz	<u>Conf.</u>
	Test frequencies chosen from pre-test data Note: Pre-test sweep meet the 97/24 chapter 8 requirements.	<u>Conf.</u>
V	NARROWBAND TEST	
	Initial test carried out	<u>Conf.</u>
	Ignition switched on	<u>Conf.</u>
	Electronic systems in normal operating mode	<u>Conf.</u>
	Comments:	
	Detector used and bandwidth Average peak detector and 120KHz	<u>Conf.</u>

TEST REPORT: 03-042 **RADIO INTERFERENCE (ELECTROMAGNETIC
COMPATIBILITY) - VEHICLE TEST**

Report/Job Number: CSK206079

Page 5 of 10

IV IMMUNITY

TEST FACILITY DESIGNATION/NO:

**20MHz to 300MHz (Biconical Antenna)
300MHz to 1000MHz (Log period Antenna)**

CALIBRATION: Date:

**Biconical Antenna
Maker: COM-POWER
Type: AB-900
Series: 15272
Next calibration dates: 28 Mar 2010**

Log period Antenna

**Maker: Sunol Sciences, Inc.
Type: JB1
Series: A030702
Calibration time: 19 Mar 2009**

Signal generator

**Maker: IFR
Type: 2023B
Series: 202302/820
Calibration time: 13 Mar 2009**

Antenna type(s) and frequency range(s):

Note: Test procedure
The test frequency step: 1% multiply previous test frequency from
20MHz to 1000MHz;
Dwell time: 2 seconds for every frequency point.
Antenna polarization -Horizontal and vertical

Antenna height - **1.5m**

Antenna elements no closer than 0.25 m to plane on which vehicle rests

Conf.

and no closer than 1.0 m to any absorber

Conf.

and no closer than 1.5 m to any wall

Conf.

No absorbent material between antenna and vehicle

Conf.

REFERENCE POINT

- as Appendix 4 of 2 -



TEST REPORT: RADIO INTERFERENCE
(ELECTROMAGNETIC COMPATIBILITY)

<i>Paragraph</i>	<i>Parameter</i>	<i>Complies</i>
	- distance from antenna - 2.0m	
	- on vehicle centre line	Conf.
	- height 1.0 ± 0.05m or 2.0 ± 0.05m -	Conf.
	Extraneous equipment in place during calibration	Conf.
	Forward power used to define test field	Conf.
	OR another parameter directly related	N/A
	Calibration steps ≤ 2% of previous frequency	Conf.
	Field strength contour minimum 50% of nominal in minimum 80% of calibration steps	Conf.
TEST ARRANGEMENTS		
Vehicle		
	- unladen except test equipment	Conf.
	- on appropriately loaded dynamometer	N/A
	- OR insulated axle stands	Conf.
	- headlights on dipped beam	Conf.
	- left or right direction indicator flashing	Conf.
	- all other systems which affect driver's control on as in normal operation of vehicle	Conf.
	- no connections to test area	Conf.
	Note: The stand supports the motor in the stationary position. The test ground is covered by filmy insulated plastic.	
	- reports for other systems attached	N/A
	- only non-perturbing monitoring equipment	Conf.
	- facing antenna on centre line	Conf.
	Note: Because the electrical motor and controller are installed on the rear of motor, VCA rotate the motor 180 degree. Seeing attachment photograph in the Annex 1 in the details.	
	VCA chooses to subject the rear part of the vehicle to radiation, the	

**TEST REPORT: RADIO INTERFERENCE
(ELECTROMAGNETIC COMPATIBILITY)**

<i>Paragraph</i>	<i>Parameter</i>	<i>Complies</i>
	reference point is established as stated in annex IV 5.4. In this case the vehicle will be positioned with its front part facing in the opposite direction to the antenna and as if it had been rotated horizontally through 180 degrees about its central point. The distance between the antenna and the nearest part of the outer surface of the vehicle must remain the same (see annex IV Appendix 3). - OR other (state position)	N/A
	Antenna elements no closer than 0.5m to outer body surface of vehicle	Conf.
	TLS \geq 75% of length of vehicle	N/A
	Antenna and test equipment layout to the same specification as for calibration	Conf.
	Pre-test sweep supplied to show compliance throughout frequency range 20 to 1000 MHz	Conf.
	Test frequencies chosen from pre-test data	Conf.
	Test signal dwell time sufficient (minimum 2 seconds)	Conf.
	Vehicle speed: km/h and gear:	N/A
	Note: Electric motors 75% of maximum operating power 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)	Conf. Conf.
	Test signal is R.F. sine wave amplitude modulated by a 1 kHz sine wave at a modulation depth of 0.8 ± 0.04	Conf.

**TEST REPORT: RADIO INTERFERENCE
(ELECTROMAGNETIC COMPATIBILITY)**

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

VEHICLE IMMUNITY TEST RESULTS

Before the immunity test, EMC lab calibrate the Filed Strength 30V/m, the results as below:

Frequency Suggested (MHz)	Frequency (MHz)	Forward Power		Output level		Field Strength (V/m)
		Cal. (W)	Test (W)	Cal. (dBm)	Test (dBm)	
27	26.69			-0.4	-0.4	30.011
45	45.678			-6.9	-6.9	30.027
65	66.008			-0.7	-0.7	29.995
90	88.968			-4.8	-4.8	30.214
120	119.916			-0.6	-0.6	30.224
150	149.261			-2.8	-2.8	29.896
190	191.418			-0.9	-0.9	29.687
230	299.532			-1.8	-1.8	29.922
280	281.706			-0.5	-0.5	30.023
380	379.697			-6.4	-6.4	30.053
450	450.422			-4.1	-4.1	30.273
600	601.09			-7	-7	30.111
750	748.147			-3.8	-3.8	30.000
900	903.891			-1.6	-1.6	30.246

6.4.2.2 No malfunction at 30 V/m or below

Conf.

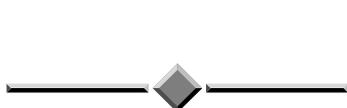
Note: The motorcycle L3e performance don't show any derogation during the immunity test from 20MHz to 1000MHz.

6.4.2.1 Malfunction between 25 and 30 V/m over less than 10% of 20 to 1000 MHz frequency band

Conf.

6.1.4 Tests not performed at chamber resonant frequencies

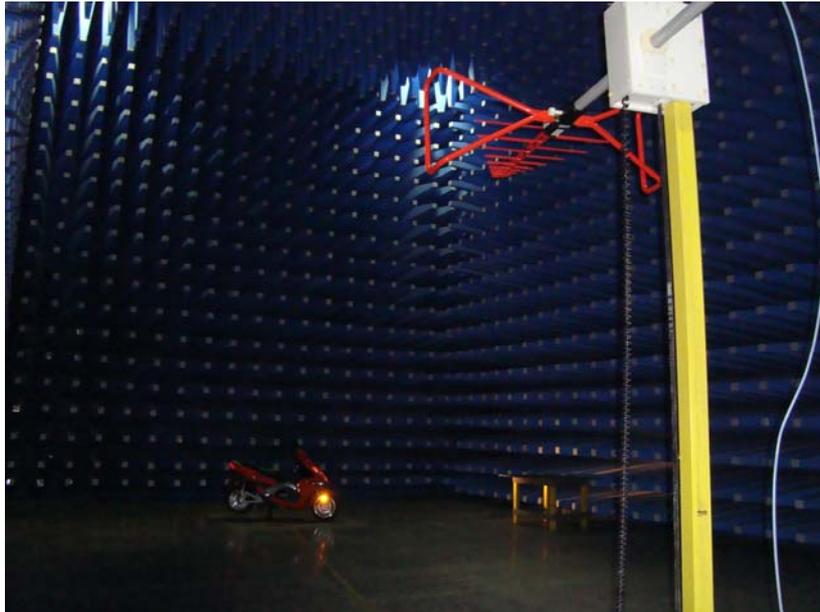
Conf.



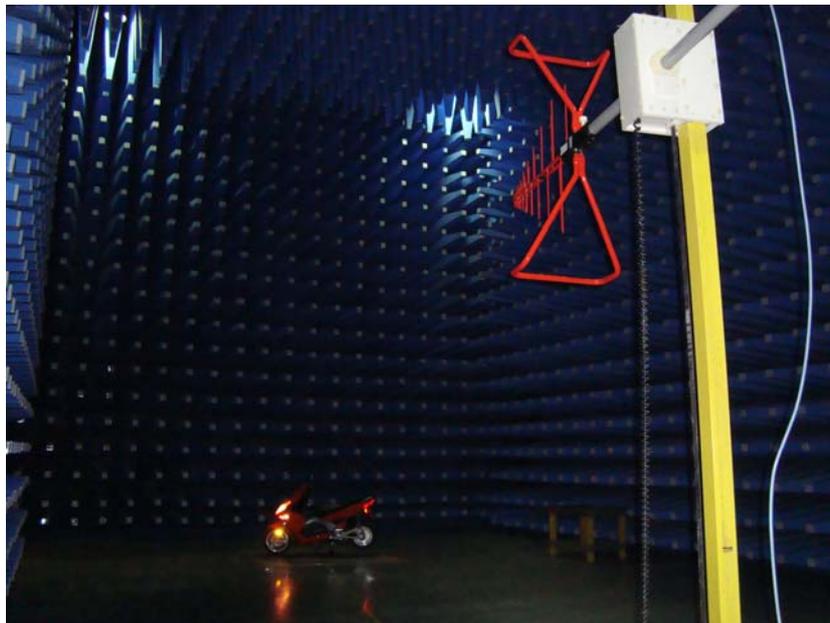
TEST REPORT: RADIO INTERFERENCE
(ELECTROMAGNETIC COMPATIBILITY)

<i>Paragraph</i>	<i>Parameter</i>	<i>Complies</i>
------------------	------------------	-----------------

ANNEX 1 EMC TEST PHOTOGRAPHS



Narrowband test status



Broadband test status

TEST REPORT: RADIO INTERFERENCE
(ELECTROMAGNETIC COMPATIBILITY)

<i>Paragraph</i>	<i>Parameter</i>	<i>Complies</i>
------------------	------------------	-----------------



Immunity test status (20MHz to 300MHz)



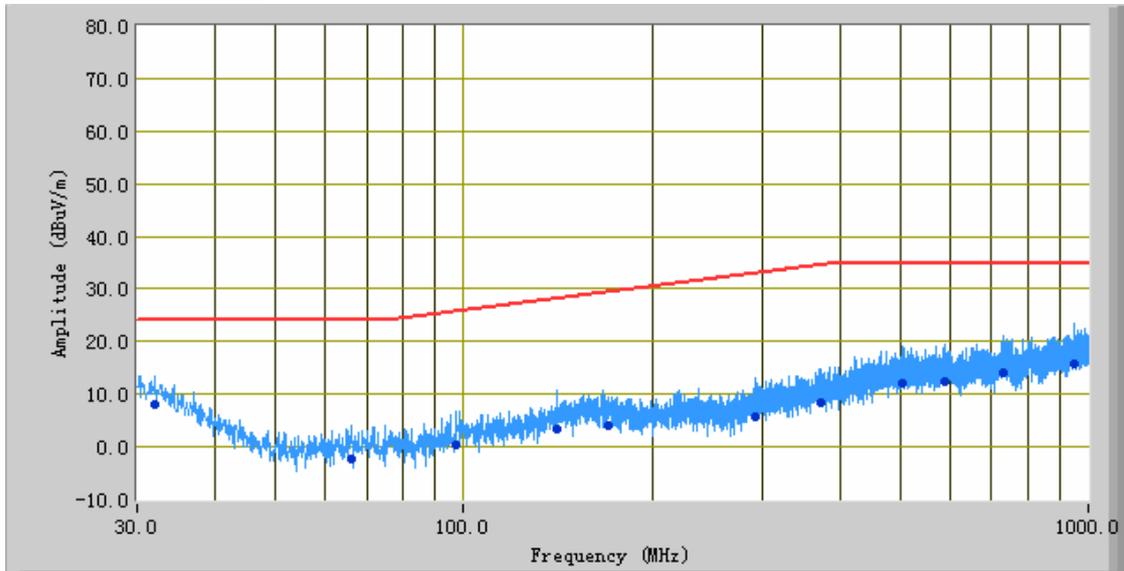
Immunity test status (300MHz to 1000MHz)

Report Information

Test Engineer :	
Date :	2009-6-22
Customer/Company :	
EUT Description :	
Neutral / Line :	97-24-8 NB
Temperature (Celsius) :	oC
Humidity (%) :	%

Graph-97-24-8 NB

Peak Detector 
 Quasi Peak Limit 



Test Data

Frequency (MHz)	Average	Azimuth	Polarity	Height	Factors	Limit (dBuV/m)	Margin (dB)
32.09	8.12	0.00	H	300.00	-28.01	24.00	-15.88
728.90	14.24	0.00	H	300.00	-22.91	35.00	-20.76
948.53	15.62	0.00	H	300.00	-20.24	35.00	-19.38
587.63	12.56	0.00	H	300.00	-25.38	35.00	-22.44
141.01	3.33	0.00	H	300.00	-33.07	28.15	-24.81
503.60	11.98	0.00	H	300.00	-26.14	35.00	-23.02
170.25	4.19	0.00	H	300.00	-32.53	29.39	-25.20
66.11	-2.40	0.00	H	300.00	-38.80	24.00	-26.40
97.13	0.24	0.00	H	300.00	-36.43	25.70	-25.47
371.99	8.38	0.00	H	300.00	-29.50	34.52	-26.14
293.08	5.67	0.00	H	300.00	-31.38	32.96	-27.29

No.2-1,Longcang Dadao, Yuhua Economic Development Zone, Nanjing, P.R.China

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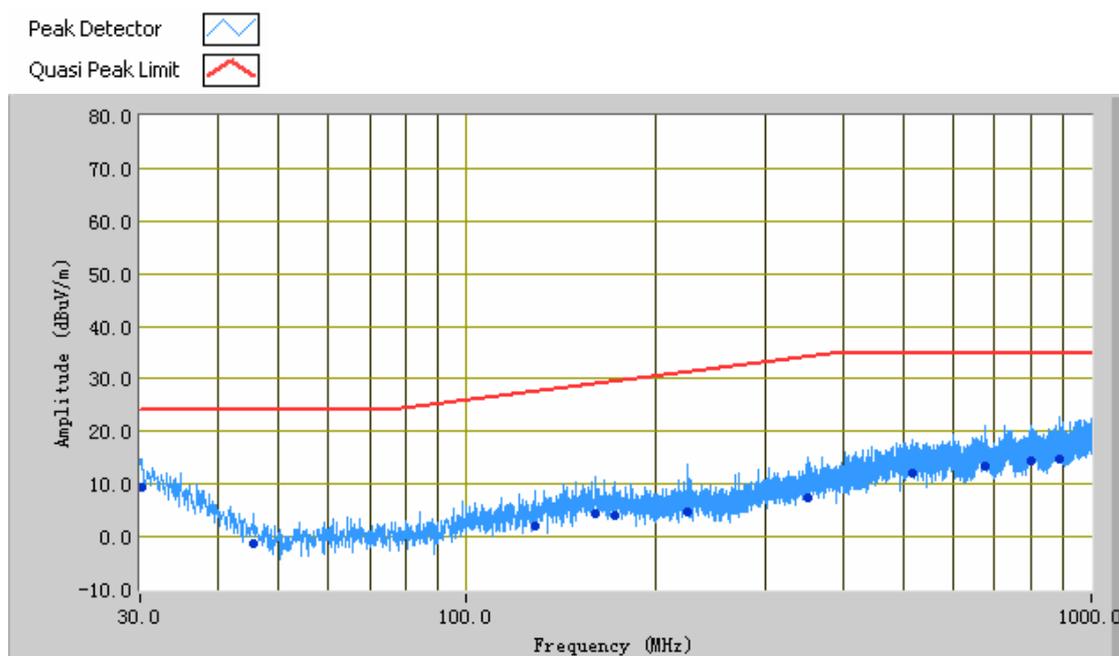
Email: info@siemic.com.cn URL: www.siemic.com.cn



Report Information

Test Engineer :	
Date :	2009-6-22
Customer/Company :	
EUT Description :	
Neutral / Line :	97-24-8 NB
Temperature (Celsius) :	oC
Humidity (%) :	%

Graph-97-24-8 NB



Test Data

Frequency (MHz)	Average	Azimuth	Polarity	Height	Factors	Limit (dBuV/m)	Margin (dB)
30.18	9.50	0.00	H	300.00	-26.78	24.00	-14.50
891.57	14.85	0.00	H	300.00	-20.99	35.00	-20.15
802.14	14.50	0.00	H	300.00	-22.23	35.00	-20.50
674.56	13.31	0.00	H	300.00	-23.70	35.00	-21.69
518.10	12.11	0.00	H	300.00	-26.01	35.00	-22.89
160.55	4.46	0.00	H	300.00	-32.52	29.00	-24.53
128.27	1.90	0.00	H	300.00	-33.86	27.53	-25.63
350.75	7.44	0.00	H	300.00	-29.87	34.14	-26.69
45.59	-1.40	0.00	H	300.00	-37.30	24.00	-25.40
173.08	3.95	0.00	H	300.00	-32.54	29.49	-25.54
226.36	4.67	0.00	H	300.00	-32.82	31.26	-26.59

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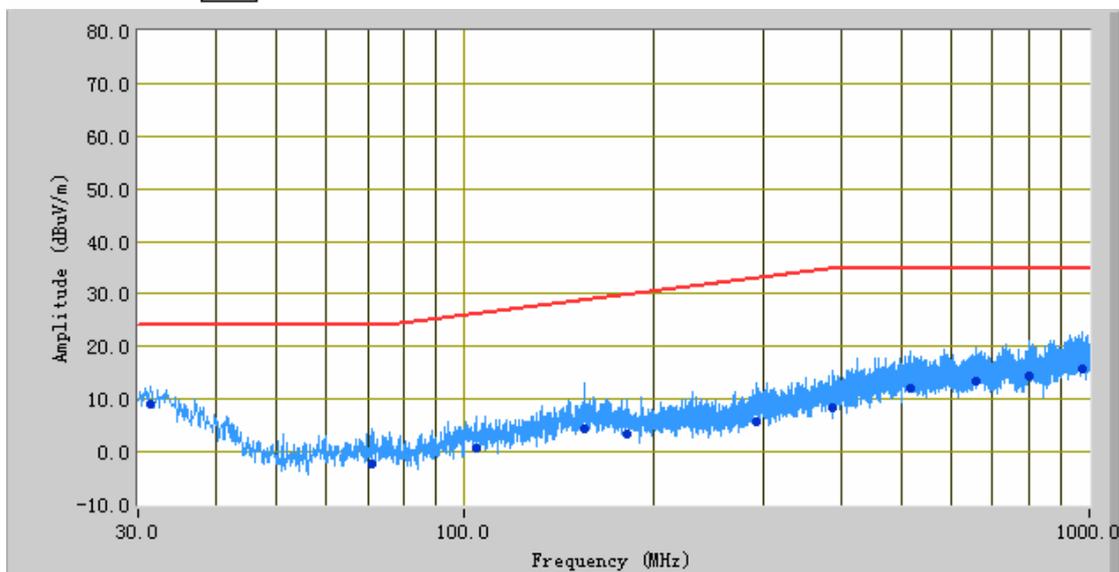


Report Information

Test Engineer :	
Date :	2009-6-22
Customer/Company :	
EUT Description :	
Neutral / Line :	97-24-8 NB
Temperature (Celsius) :	oC
Humidity (%) :	%

Graph-97-24-8 NB

Peak Detector 
Quasi Peak Limit 



Test Data

Frequency (MHz)	Average	Azimuth	Polarity	Height	Factors	Limit (dBuV/m)	Margin (dB)
975.32	15.76	0.00	V	300.00	-19.90	35.00	-19.24
31.39	9.11	0.00	V	300.00	-27.52	24.00	-14.89
155.39	4.48	0.00	V	300.00	-32.52	28.79	-24.30
659.37	13.58	0.00	V	300.00	-24.02	35.00	-21.42
802.93	14.46	0.00	V	300.00	-22.22	35.00	-20.54
517.58	12.09	0.00	V	300.00	-26.01	35.00	-22.91
104.53	0.73	0.00	V	300.00	-35.34	26.18	-25.45
386.94	8.49	0.00	V	300.00	-29.25	34.78	-26.29
70.74	-2.18	0.00	V	300.00	-38.65	24.00	-26.18
292.75	5.79	0.00	V	300.00	-31.40	32.95	-27.16
182.21	3.49	0.00	V	300.00	-32.55	29.83	-26.34

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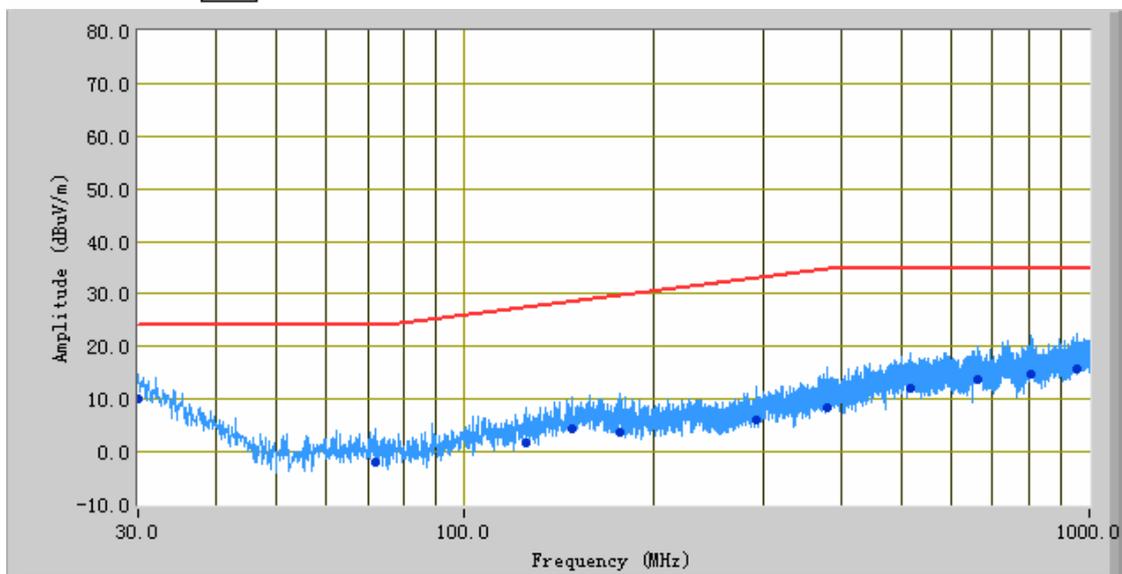


Report Information

Test Engineer :	
Date :	2009-6-22
Customer/Company :	
EUT Description :	
Neutral / Line :	97-24-8 NB
Temperature (Celsius) :	oC
Humidity (%) :	%

Graph-97-24-8 NB

Peak Detector 
Quasi Peak Limit 



Test Data

Frequency (MHz)	Average	Azimuth	Polarity	Height	Factors	Limit (dBuV/m)	Margin (dB)
29.98	10.20	0.00	V	300.00	-26.62	24.00	-13.80
661.03	13.60	0.00	V	300.00	-23.99	35.00	-21.40
957.27	15.91	0.00	V	300.00	-20.13	35.00	-19.09
808.55	14.73	0.00	V	300.00	-22.14	35.00	-20.27
517.34	12.00	0.00	V	300.00	-26.01	35.00	-23.00
72.14	-1.97	0.00	V	300.00	-38.70	24.00	-25.97
381.23	8.44	0.00	V	300.00	-29.34	34.68	-26.24
148.91	4.23	0.00	V	300.00	-32.58	28.50	-24.27
125.01	1.72	0.00	V	300.00	-34.06	27.36	-25.64
176.80	3.77	0.00	V	300.00	-32.54	29.63	-25.86
293.84	5.90	0.00	V	300.00	-31.36	32.97	-27.07

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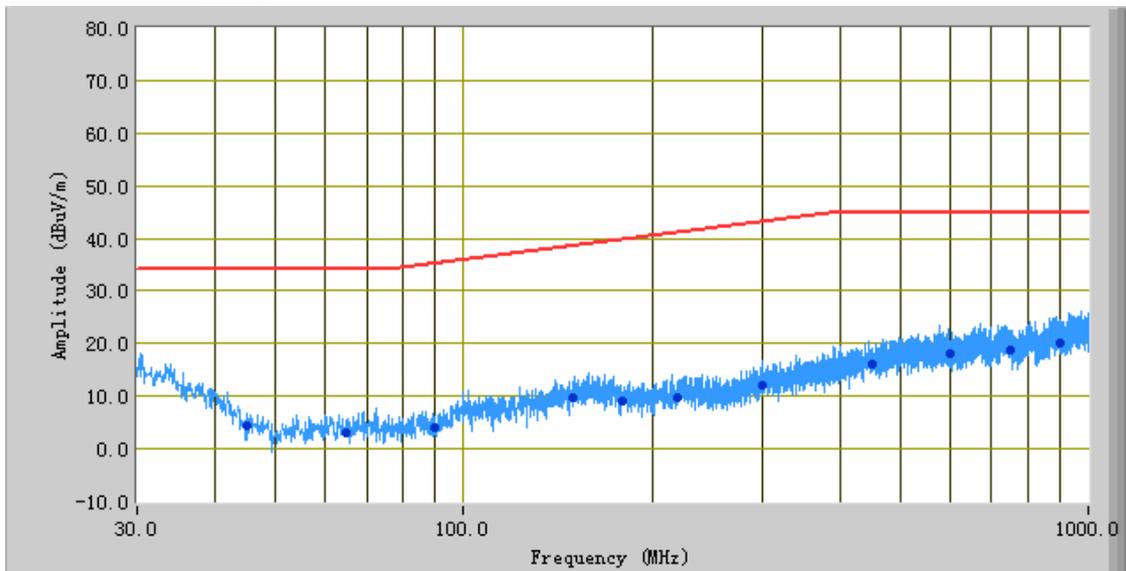


Report Information

Test Engineer :	
Date :	2009-6-22
Customer/Company :	
EUT Description :	
Neutral / Line :	97-24-8 WB
Temperature (Celsius) :	oC
Humidity (%) :	%

Graph-97-24-8 WB

Peak Detector 
 Quasi Peak Limit 



Test Data

Frequency (MHz)	Quasi Peak (dBuV/m)	Azimuth	Polarity	Height	Factors	Limit (dBuV/m)	Margin (dB)
899.96	19.95	0.00	H	300.00	-20.87	45.00	-25.05
750.02	18.81	0.00	H	300.00	-22.71	45.00	-26.19
450.06	16.03	0.00	H	300.00	-27.59	45.00	-28.97
600.01	18.08	0.00	H	300.00	-25.27	45.00	-26.92
220.01	9.79	0.00	H	300.00	-32.76	41.07	-31.29
300.09	11.95	0.00	H	300.00	-31.12	43.11	-31.16
150.02	9.67	0.00	H	300.00	-32.51	38.56	-28.89
180.05	9.23	0.00	H	300.00	-32.55	39.76	-30.53
45.03	4.33	0.00	H	300.00	-37.01	34.00	-29.67
65.00	3.20	0.00	H	300.00	-38.85	34.00	-30.80
90.02	3.94	0.00	H	300.00	-38.49	35.20	-31.26

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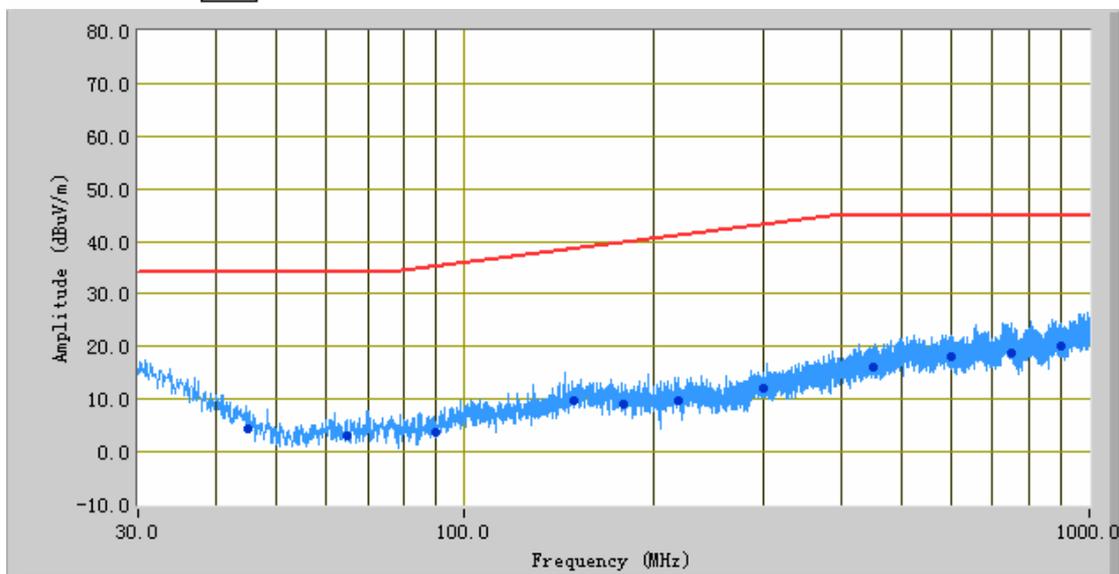


Report Information

Test Engineer :	
Date :	2009-6-22
Customer/Company :	
EUT Description :	
Neutral / Line :	97-24-8 WB
Temperature (Celsius) :	oC
Humidity (%) :	%

Graph-97-24-8 WB

Peak Detector 
Quasi Peak Limit 



Test Data

Frequency (MHz)	Quasi Peak (dBuV/m)	Azimuth	Polarity	Height	Factors	Limit (dBuV/m)	Margin (dB)
749.97	18.77	0.00	H	300.00	-22.71	45.00	-26.23
599.88	18.09	0.00	H	300.00	-25.27	45.00	-26.91
900.06	19.96	0.00	H	300.00	-20.87	45.00	-25.04
45.04	4.39	0.00	H	300.00	-37.01	34.00	-29.61
449.88	16.02	0.00	H	300.00	-27.59	45.00	-28.98
150.09	9.64	0.00	H	300.00	-32.51	38.56	-28.92
220.09	9.79	0.00	H	300.00	-32.76	41.07	-31.29
179.98	9.20	0.00	H	300.00	-32.55	39.76	-30.56
300.11	11.94	0.00	H	300.00	-31.12	43.11	-31.17
65.03	3.15	0.00	H	300.00	-38.85	34.00	-30.85
89.89	3.87	0.00	H	300.00	-38.49	35.20	-31.33

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Email: info@siemic.com.cn URL: www.siemic.com.cn

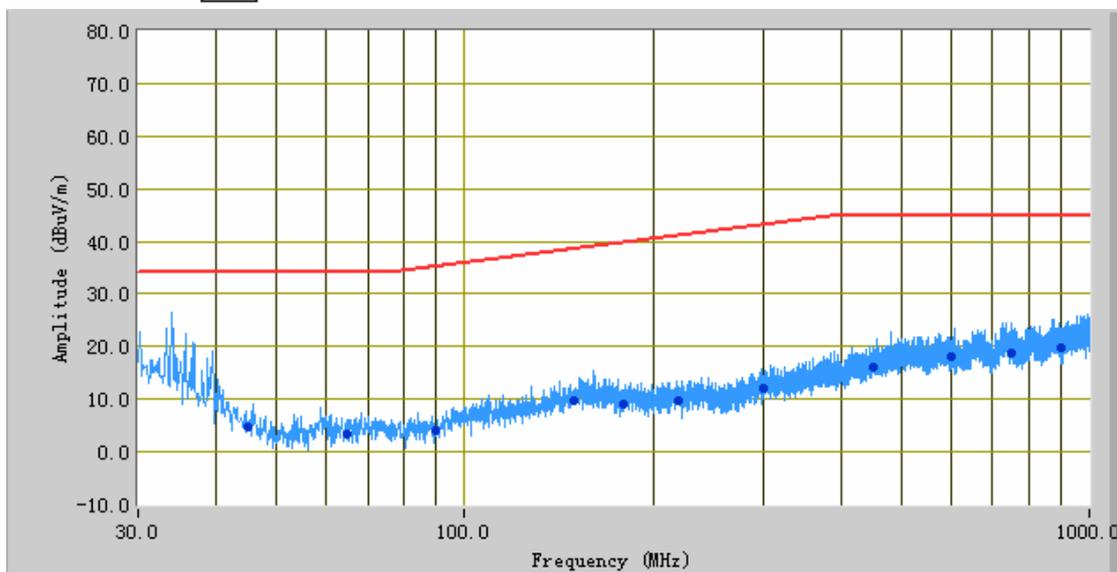


Report Information

Test Engineer :	
Date :	2009-6-22
Customer/Company :	
EUT Description :	
Neutral / Line :	97-24-8 WB
Temperature (Celsius) :	oC
Humidity (%) :	%

Graph-97-24-8 WB

Peak Detector 
Quasi Peak Limit 



Test Data

Frequency (MHz)	Quasi Peak (dBuV/m)	Azimuth	Polarity	Height	Factors	Limit (dBuV/m)	Margin (dB)
900.01	19.93	0.00	V	300.00	-20.87	45.00	-25.07
749.92	18.80	0.00	V	300.00	-22.71	45.00	-26.20
150.03	9.66	0.00	V	300.00	-32.51	38.56	-28.89
599.87	18.10	0.00	V	300.00	-25.27	45.00	-26.90
449.92	16.00	0.00	V	300.00	-27.59	45.00	-29.00
64.95	3.55	0.00	V	300.00	-38.85	34.00	-30.45
44.91	4.62	0.00	V	300.00	-37.01	34.00	-29.38
299.93	11.96	0.00	V	300.00	-31.12	43.11	-31.15
180.12	9.21	0.00	V	300.00	-32.55	39.76	-30.54
220.06	9.64	0.00	V	300.00	-32.76	41.07	-31.44
89.95	3.92	0.00	V	300.00	-38.49	35.20	-31.28

No.2-1,Longcang Dadao, Yuhua Economic Development Zone, Nanjing, P.R.China

南京市雨花经济开发区, 龙藏大道 2-1 号

Tel: +86(25)8673 0128 ,+86(25)8673 0129, Fax: +86(25)8673 0127

Email: info@siemic.com.cn URL: www.siemic.com.cn

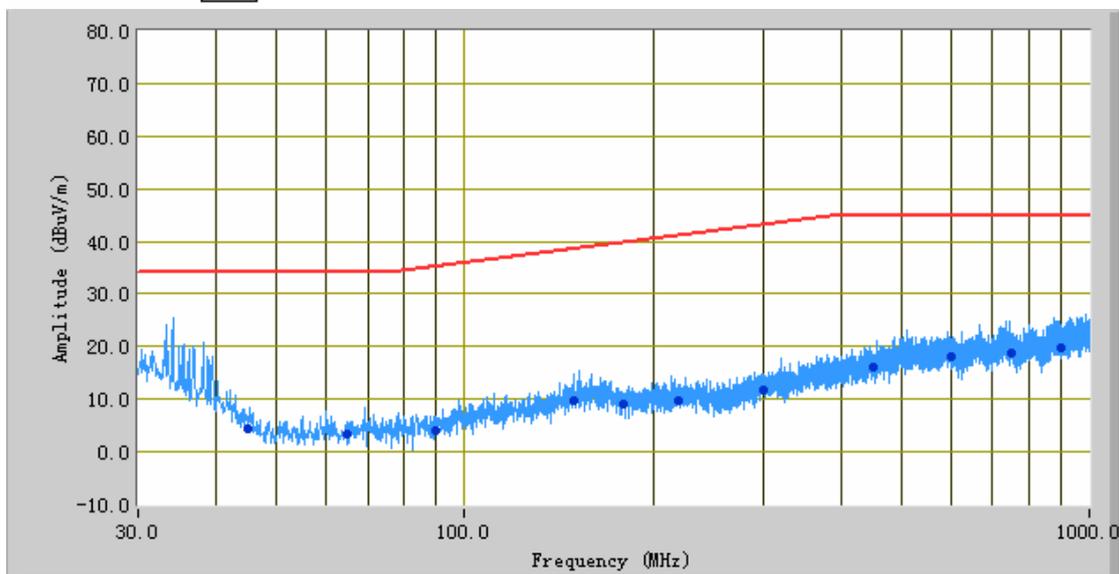


Report Information

Test Engineer :	
Date :	2009-6-22
Customer/Company :	
EUT Description :	
Neutral / Line :	97-24-8 WB
Temperature (Celsius) :	oC
Humidity (%) :	%

Graph-97-24-8 WB

Peak Detector 
Quasi Peak Limit 



Test Data

Frequency (MHz)	Quasi Peak (dBuV/m)	Azimuth	Polarity	Height	Factors	Limit (dBuV/m)	Margin (dB)
900.00	19.94	0.00	V	300.00	-20.87	45.00	-25.06
750.10	18.79	0.00	V	300.00	-22.71	45.00	-26.21
149.97	9.61	0.00	V	300.00	-32.51	38.56	-28.94
600.03	18.05	0.00	V	300.00	-25.27	45.00	-26.95
89.92	3.97	0.00	V	300.00	-38.49	35.20	-31.23
45.07	4.54	0.00	V	300.00	-37.01	34.00	-29.46
179.94	9.22	0.00	V	300.00	-32.55	39.76	-30.54
450.04	16.02	0.00	V	300.00	-27.59	45.00	-28.98
65.11	3.39	0.00	V	300.00	-38.85	34.00	-30.61
300.08	11.91	0.00	V	300.00	-31.12	43.11	-31.20
220.04	9.69	0.00	V	300.00	-32.76	41.07	-31.38

No.2-1,Longcang Dadao, Yuhua Economic Development Zone, Nanjing, P.R.China

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TEST REPORT: FITTING OF REAR VIEW MIRRORS TO TWO OR THREE WHEEL MOTOR VEHICLES (UNBODIED)

03-028rev1

Report/Job Number: CSK206080

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	No. 2-1, Longcang Dadao, Yuhua Economic Development Zone, Nanjing, P.R.China
Date of Test	22 June 2009
VCA Representative	Hongda. Zhao
Manufacturer's Representative	Xiaoyu.Zhang
Reason for Test	New approval

MANUFACTURER DETAILS	
Manufacturer's Name	SHANGHAI HUARI ENTERPRISE DEVELOPMENT CO.,LTD
Manufacturer's Address	N0.101,Qianming Eastrd ,Fengjing Industrial Zone, Jingshan District, Shanghai Province, P.R. China
Model Type & description	HRTK122
Category	L3e(electric)

CONCLUSION
The above mentioned vehicle was tested in accordance with EC Directive 97/24/EC CHAPTER 4 (ANNEX III) as amended by 2006/27/EC and was found to comply in all respects
Signature: 
Name: Hongda. Zhao
Position: Test Engineer
Date: 22 June 2009

LIST OF ANNEXES		
ANNEX	No of PAGES	SUBJECT
1	1	Rear view mirrors installation photo
2		
3		
4		

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

Paragraph	Parameter	Complies
1	Risk assessment completed and stored in job folder	_____
2	Facilities and test equipments are appropriate	<u>Conf.</u>
3	Calibration certificates checked and valid, recorded below	<u>Conf.</u>

Equipment	Serial No.	Calibration data

TEST SPECIFICATION/WORST CASE RATIONALE: **Two variants**

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

Motorcycle
Manufacturer's documentation complete **Conf.**

Mirrors Fitted to the vehicle:

	Approval No:	Nominal R mm	Measured R mm
Exterior Left	E7 81R-000507	1200	/
Exterior Right	E7 81R-000507	1200	/

- | | | |
|-----|--|------------------------------|
| 1.1 | All mirrors remain stable under normal operating conditions | Conf. |
| 1.2 | Centre of reflecting surface ≥ 280 mm from median longitudinal plane of the vehicle:

Exterior Left: 350mm
Exterior Right: 350mm | Conf.
Conf. |
| 1.3 | Normal driving position gives clear view of the road to side(s) and to the rear of the vehicle: | Conf. |
| 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°

Actual angle: 40° | |
| 1.7 | Exterior mirrors do not project beyond bodywork more than necessary for field of vision | Conf. |
| 1.8 | If lower edge of exterior mirror is below 2m (vehicle fully laden) mirror projects less than 0.20m beyond overall vehicle width:

Actual projection left <u>0.1</u> m | Conf. |

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

<i>Paragraph</i>	<i>Parameter</i>	<i>Complies</i>
	Actual projection right <u>0.1</u> m	
2.3	If single exterior mirror is fitted it is on the appropriate side	N/A
3	Adjustment:	
3.1	Mirrors are adjustable from the driving position	Conf.



ANNEX 1 Rear view mirrors installation photo



**TEST REPORT: EXTERNAL PROJECTIONS, UNBODIED MOTOR
VEHICLES**

03-011rev1

Report/Job Number: CSK206080

Page: 1 of 6

TEST DETAILS	
Subject	EXTERNAL PROJECTIONS, UNBODIED MOTOR VEHICLES
EC Directive	97/24/EC CHAPTER 3-2006/27/EC
ECE Regulation	N/A
Location of Test	No. 2-1, Longcang Dadao, Yuhua Economic Development Zone, Nanjing, P.R.China
Date of Test	23 June 2009
VCA Representative	Hongda. Zhao
Manufacturer's Representative	Xiaoyu.Zhang
Reason for Test	New approval

MANUFACTURER DETAILS	
Manufacturer's Name	SHANGHAI HUARI ENTERPRISE DEVELOPMENT CO.,LTD
Manufacturer's Address	N0.101,Qianming Eastrd ,Fengjing Industrial Zone, Jingshan District, Shanghai Province, P.R. China
Model Type & description	HRTK122
Category	L3e(electric)

CONCLUSION
The above mentioned vehicle was tested in accordance with EC Directive 97/24/EC CHAPTER 3 as amended by 2006/27/EC and was found to comply in all respects
Signature: 
Name: Hongda. Zhao
Position: Test Engineer
Date: 23 June 2009

LIST OF ANNEXES		
ANNEX	No of PAGES	SUBJECT
1	2	Check photos
2		
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TEST REPORT: DIRECTIVE 97/24/EC CHAPTER 3 ANNEX I
EXTERIOR PROJECTIONS UNBODIED MOTOR VEHICLES

TST 139

Report/Job Number: CSK206080 , Page: 2/6

DIRECTIVE
PARAGRAPH

Y/N/N/A
OR
READING

TEST SPECIFICATION/WORST CASE RATIONALE: Two variants

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

Equipment	Serial No.	Calibration data

Note: If 2, 3 or 4 wheel vehicles are considered as bodied they must meet the requirements of Annex II **N/A**

TEST SPECIFICATION/ WORST CASE RATIONALE:

- | | | |
|-------|--|-----------------------|
| | Manufacturers documentation is complete | ----- |
| 3.1 | The external surface of the vehicle does not exhibit directed outwards any pointed or sharp parts or any projections of such shape, dimensions, direction or hardness as to be likely to increase the risk or seriousness of bodily injury to a person hit by the external surface or by brushing against it in the event of a collision | Conf. |
| 4.1 | Vehicle in straight line, vertical position as level floor with 50 percentile rider | Conf. |
| | Steering free to move | -----
Conf. |
| 5 | Criteria | |
| 5.2.1 | GROUP 1 PARTS - GRAZING | |

TEST REPORT: DIRECTIVE 97/24/EC CHAPTER 3 ANNEX I
EXTERIOR PROJECTIONS UNBODIED MOTOR VEHICLES

TST 139

Report/Job Number: CSK206080 , Page: 3/6

DIRECTIVE
PARAGRAPH

Y/N/N/A
OR
READING

Left Side:

Part	Plates Corners R>3mm edges R>0.5mm	Stems Ø>10mm edge R>2mm	Soft Rubber or Plastic <60 share
Body panel	Y		
Foot support	Y		
Front and rear direction indicator lamps	Y		
Stand	Y		

5.2.1 GROUP 1 PARTS - GRAZING

Right Side:

Part	Plates Corners R>3mm edges R>0.5mm	Stems Ø>10mm edge R>2mm	Soft Rubber or Plastic <60 share
Body panel	Y		
Front and rear direction indicator lamps	Y		
Foot support	Y		

5.2.2 GROUP 2 PARTS: COLLISION

Left Side:N/A

Part	Plates Edges and Corners R>2mm	Stems Length <½Ø if Ø <20mm if Ø >20mm edges R>2mm	Soft Rubber or Plastic <60 share

TEST REPORT: DIRECTIVE 97/24/EC CHAPTER 3 ANNEX I
EXTERIOR PROJECTIONS UNBODIED MOTOR VEHICLES

TST 139

Report/Job Number: CSK206080 , Page: 5/6

<i>DIRECTIVE PARAGRAPH</i>	Y/N/N/A OR READING
--------------------------------	--------------------------

Protective Cap

Conf.

Note: The key is non-contactable during testing.

.....

Test Location: No. 2-1, Longcang Dadao, Yuhua Economic
Development Zone, Nanjing, P.R.China

Test Date: 23 June 2009

* Delete where inapplicable



ANNEX 1 Check photos



Left side

TEST REPORT: DIRECTIVE 97/24/EC CHAPTER 3 ANNEX I
EXTERIOR PROJECTIONS UNBODIED MOTOR VEHICLES

TST 139

Report/Job Number: CSK206080 , Page: 6/6

*DIRECTIVE
PARAGRAPH*

Y/N/N/A
OR
READING



Right side

TEST REPORT: Stands for two wheel motor vehicles

03-006

Report/Job Number: CSK206080

Page: 1 of 7

TEST DETAILS

Subject	Stands for two wheel motor vehicles
EC Directive	93/31/EEC and 2000/72/EC
ECE Regulation	N/A
Location of Test	No. 2-1, Longcang Dadao, Yuhua Economic Development Zone, Nanjing, P.R.China
Date of Test	23 June 2009
VCA Representative	Hongda. Zhao
Manufacturer's Representative	Xiaoyu.Zhang
Reason for Test	New approval

MANUFACTURER DETAILS

Manufacturer's Name	SHANGHAI HUARI ENTERPRISE DEVELOPMENT CO.,LTD
Manufacturer's Address	N0.101,Qianming Eastrd ,Fengjing Industrial Zone, Jingshan District, Shanghai Province, P.R. China
Model Type & description	HRTK122
Category	L3e(electric)

CONCLUSION

The above mentioned vehicle was tested in accordance with EC Directive 93/31/EEC and was found to comply in all respects

Signature: 
Name: Hongda. Zhao
Position: Test Engineer
Date: 23 June 2009

LIST OF ANNEXES

ANNEX	No of PAGES	SUBJECT
1	1	Check photo
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TEST REPORT: Stands for two wheel motor vehicles

<i>Paragraph</i>	<i>Parameter</i>	<i>Complies</i>
------------------	------------------	-----------------

TEST SPECIFICATION/WORST CASE RATIONALE: **Variant 2 tested, it covered other variants.**

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

Equipment	Serial No.	Calibration data

Manufacturer's documentation complete **Conf.**

Vehicle corresponds to agreed specification **Conf.**

5.2.1 VEHICLE SPECIFICATION

Mass of vehicle in running order⁽¹⁾ **172kg** **Conf.**

Distribution of that mass between the axles⁽¹⁾

Front: **77kg** Rear: **95kg** **Conf.**

5.2.2 Tyre size and pressure⁽¹⁾

Front:
Size: **130/60-13** Type: **C-6104** Pressure: **225kPa** **Conf.**

Rear:
Size: **130/60-13** Type: **C-6104** Pressure: **225kPa** **Conf.**

5.2.3 Transmission in neutral, or park for automatics **Conf.**

5.2.4 Parking brake applied, if fitted **N/A**

5.2.5 Number of steering lock positions **1 left** **Conf.**

NOTE: If the steering is able to be locked when it is turned to



TEST REPORT: Stands for two wheel motor vehicles

<i>Paragraph</i>	<i>Parameter</i>	<i>Complies</i>
	<i>either the left or the right the tests must be carried out in both positions</i>	
	GENERAL	
2.1	If the vehicle has two wheels is it fitted with a stand(s) that is/are* capable of keeping the vehicle steady when stationary without external assistance	Conf.
	If the vehicle has twin wheels it need not be fitted with a stand but must comply, with parking platform test requirements, (paragraph 6.2) with the handbrake applied	N/A
2.2	Type of stand(s)* fitted: Prop / Centre / Both*	Conf.
	Drawing or Part number(s)* HRTK122-23	
2.3	All stands retract rearwards to attain the retracted or travelling position	Conf.
	GENERAL SPECIFICATIONS	
3.1	<i>Prop Stands:</i>	
3.1.1.1	Prop stand provides lateral stability on a horizontal supporting surface	Conf.
3.1.1.3	Prop stand must be able to retract automatically:	
3.1.1.3.1	When the vehicle is returned to the vertical from the parked position	N/A
	<u>OR.</u>	
3.1.1.3.2	When the vehicle moves forward, as a result of a deliberate action by the driver. NB: following the first contact of the prop stand with the ground was removed at corrigendum – no longer allowed, interlock or self-retracting stand required.	N/A
3.1.2	The requirements set out in section 3.1.1.3 above do not apply if the vehicle is designed in such away that it cannot be propelled by its engine when the prop stand is extended	Conf.



TEST REPORT: Stands for two wheel motor vehicles

<i>Paragraph</i>	<i>Parameter</i>	<i>Complies</i>
	Functional check performed to verify performance Remark: The engine can't be started when the prop stand is extended.	Conf.
3.1.1.4	Prop stand must be designed and constructed in such a way that it does not close automatically if the angle of lean is altered unexpectedly:	
3.1.1.4.1	Once in the extended or parking position	Conf.
3.1.1.4.2	When the vehicle is leaned in order to bring the outer extremity of the prop stand into contact with the ground	Conf.
3.1.1.4.3	With the vehicle being left unattended in its parking position	Conf.
3.2	Centre Stands:	
3.2.1 3.2.1.1.1	Centre Stand supports vehicle with front/rear/noneither*wheel in contact with the supporting surface and confers stability on a horizontal supporting surface	Conf.
3.2.1.2 3.2.1.2.1	Centre Stand must be able to fold backwards automatically into the retracted position when the vehicle moves forward in such a way as to raise the centre stand from the supporting surface	N/A
3.2.2	The requirements set out in 3.2.1.2 do not apply if the vehicle is designed in such a way that it cannot be propelled by its engine when the centre stand is extended	Conf.
	Functional check performed to verify performance Remark: The engine can be started when the centre stand is extended, but the rear wheel not contact with supporting surface, so vehicle cannot be propelled by its engine.	Conf.
	OTHER REQUIREMENTS	N/A
4.1	Vehicle fitted with a tell-tale	
	To which stand is it fitted: Prop / Centre / Both*	
	Is it clearly visible to the rider from the riding position	
	When the ignition is switched on does it light up and remain lit until the stand is retracted	

TEST REPORT: Stands for two wheel motor vehicles

<i>Paragraph</i>	<i>Parameter</i>	<i>Complies</i>
4.2	Each stand has two independent devices for retention in the retracted or travelling position:	Conf.
	Prop: dual spring	Conf.
	Centre: dual spring	Conf.
	Description of these devices: 2 independent springs, details to see HRTK122-23	
	If any stand is retained by a single device does it meet the durability requirements laid down in paragraph 4.2 of the Directive	N/A
TEST EQUIPMENT AND TEST PAD		
5.3.1	Is the test pad used for tests to check the stability on a horizontal supporting surface as specified in paragraph 6.1:	Conf.
	Flat and horizontal with a hard surface that is dry and free from grains of sand	Conf.
5.4.2	Does the parking platform used for tests to check the stability on an inclined surface , as specified in paragraph 6.2:	Conf.
5.4.3		
5.4.4	(i) have a rigid, flat rectangular surface which is able to support the vehicle without perceptible flexing	Conf.
	(ii) possess sufficient anti-skid properties to prevent the vehicle from sliding	Conf.
	(iii) allow the correct transverse tilt and longitudinal tilt angles to be assumed during the tests described in paragraph 6.2.2 of the Directive	Conf.
TEST PROCEDURES		
6.1	Stability on a horizontal supporting surface requirements for Prop stands	Conf.
6.1.1	Prop stand does not retract automatically when the vehicle is moved 3° towards the vertical from its parked position	Conf.
6.1.2		
6.1.3		
6.2	Stability on an inclined surface , requirements for Prop and	

TEST REPORT: Stands for two wheel motor vehicles

Paragraph	Parameter	Complies
	Centre Stands and twin-wheel vehicles	
6.3.1	Place vehicle on platform in parking position with the chosen stand	Conf.
6.2.3	Before performing the test on a centre stand verify the normal support condition when parked, i.e. centre stand and front wheel. If the vehicle will normally rest on the centre stand and either the front or rear wheels then the following tests must be performed with the vehicle resting on the centre stand and rear wheel.	Conf.
6.2.2	Move platform to its minimum transverse tilt (tt) and then to its minimum longitudinal tilt (lt) in accordance with the following table:	Conf.

Tilt	Prop Stand		Centre Stand	
	Moped	Motorcycle	Moped	Motorcycle
Left tt	5% (2.9°)	6% (3.5°)	6% (3.5°)	8% (4.6°)
Right tt	5% (2.9°)	6% (3.5°)	6% (3.5°)	8% (4.6°)
Downstream lt	5% (2.9°)	6% (3.5°)	6% (3.5°)	8% (4.6°)
Upstream lt	6% (3.5°)	8% (4.6°)	12% (6.9°)	14% (8.0°)

equivalent angles shown in brackets.

RESULTS

TILT	PROP STAND	CENTRE STAND	TWIN WHEEL
LEFT tt	4°	5.5°	N/A
RIGHT tt	4°	5.5°	N/A
UP STREAM lt	5.5°	9°	N/A
DOWN STREAM lt	4°	5.5°	N/A

6.2.4	Does vehicle remain stable under all conditions	Conf.
3.1.1.1		
3.1.1.2		
3.2.1.1.2		
3.2.1.1.3		
2.1		

TEST REPORT: Stands for two wheel motor vehicles

<i>Paragraph</i>	<i>Parameter</i>	<i>Complies</i>
------------------	------------------	-----------------

(1) More than one vehicle may be required for the separate tests if stand(s) are to be used on a range of models



ANNEX 1 Check photo



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

Report/Job Number: CSK206080

Page: 1 of 4

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	No. 2-1, Longcang Dadao, Yuhua Economic Development Zone, Nanjing, P.R.China
Date of Test	22 June 2009
VCA Representative	Hongda. Zhao
Manufacturer's Representative	Xiaoyu.Zhang
Reason for Test	New approval

MANUFACTURER DETAILS	
Manufacturer's Name	SHANGHAI HUARI ENTERPRISE DEVELOPMENT CO.,LTD
Manufacturer's Address	N0.101,Qianming Eastrd ,Fengjing Industrial Zone, Jingshan District, Shanghai Province, P.R. China
Model Type & description	HRTK122
Category	L3e(electric)

CONCLUSION
The above mentioned vehicle was tested in accordance with EC Directive 93/33/EEC - 1999/23/EC and was found to comply in all respects
Signature: 
Name: Hongda. Zhao
Position: Test Engineer
Date: 22 June 2009

LIST OF ANNEXES		
ANNEX	No of PAGES	SUBJECT
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TEST REPORT: Protective devices intended to prevent unauthorised use of two or three wheel motor vehicles

<i>Paragraph</i>	<i>Parameter</i>	<i>Complies</i>
	TEST SPECIFICATION/ WORST CASE RATIONALE: Two variants	
	Manufacturer's documentation complete	Conf.
	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	Conf.
3	GENERAL SPECIFICATIONS	
3.2.1	Vehicle cannot be steered or driven/moved forward in a straight line with device engaged	Conf.
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	Conf.
	No intermediate position of key will risk bolt engagement (with or without key inserted)	Conf.
3.3	Only one key used	Conf.
3.4	Special tools required for dismantling	Conf.



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

<i>Paragraph</i>	<i>Parameter</i>	<i>Complies</i>
	Cannot be easily rendered ineffective or destroyed	Conf.
3.5	Original equipment	
	Lock securely assembled in protective device	Conf.
3.6	Manufacturer certifies 1000 different combinations	Conf.
3.7	Key and lock not visibly coded	Conf.
3.8	Nearest key in combination does not turn lock cylinder with a torque of less than 0.245 mdaN .	Conf.
3.8.1	Design of tumblers meets requirements	Conf.
3.8.2		
3.9	Risk of accidental locking excluded	Conf.
3.10	Device withstood torque application of 20 mdaN in both directions (excluding Type 4)	Conf.
	No damage sustained to steering mechanism likely to compromise safety (excluding Type 4)	Conf.
3.11	Steering can only be locked at a minimum angle of 20° to the left and/or right of straight ahead position (excluding Type 4):	Conf.
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)	Conf.
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)	Conf.
4.3	Impossible to prevent device functioning when set (Type 3 only)	N/A



VEHICLE CERTIFICATION
AGENCY

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

<i>Paragraph</i>	<i>Parameter</i>	<i>Complies</i>
4.4	Device subjected to wear test for 2500 cycles (Type 3 only)	<u>N/A</u>
	Device in good working order and complies with 5.7,5.8, 5.9 and 6.3 after wear test (Type 3 only)	<u>N/A</u>

INSTRUMENTATION

Torque wrench	U.S.A 5060657608 Calibrated valid to 10 July 2010
	Type: NB-5(1~5N.m) 0610375 Calibrated valid to 10 July 2010



TEST REPORT: Passenger hand holds on two wheel motor vehicles

03-007

Report/Job Number: CSK206080

Page: 1 of 3

TEST DETAILS	
Subject	Passenger hand holds on two wheel motor vehicles
EC Directive	93/32/EEC and 1999/24/EC
ECE Regulation	N/A
Location of Test	No. 2-1, Longcang Dadao, Yuhua Economic Development Zone, Nanjing, P.R.China
Date of Test	22 June 2009
VCA Representative	Hongda. Zhao
Manufacturer's Representative	Xiaoyu.Zhang
Reason for Test	New approval

MANUFACTURER DETAILS	
Manufacturer's Name	SHANGHAI HUARI ENTERPRISE DEVELOPMENT CO.,LTD
Manufacturer's Address	N0.101,Qianming Eastrd ,Fengjing Industrial Zone, Jingshan District, Shanghai Province, P.R. China
Model Type & description	HRTK122
Category	L3e(electric)

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: Hongda. Zhao
Position: Test Engineer
Date: 22 June 2009

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ANNEX	No of PAGES	SUBJECT
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TEST REPORT: Passenger hand holds on two wheel motor vehicles

<i>Paragraph</i>	<i>Parameter</i>	<i>Complies</i>
------------------	------------------	-----------------

TEST SPECIFICATION/WORST CASE RATIONALE: Two variants

1	Risk assessment completed and stored in job folder	_____
2	Facilities and test equipments are appropriate	<u>Conf.</u>
3	Calibration certificates checked and valid, recorded below	<u>Conf.</u>

Equipment	Serial No.	Calibration data

Manufacturer's documentation complete Conf.

Method of load application: **Lift it with crane**

Vehicle loaded with no more than 75 kg for rider and 75 kg for passenger in normal seating positions N/A

Rear wheel of vehicle anchored to floor to prevent lifting, if required Conf.

Test for Strap N/A

Strap positioned for ease of use

Grip position symmetrical to the median longitudinal plane of the vehicle

Load applied vertically to the centre of the surface of the Strap

Magnitude of load applied (>2000N) N

Area over which load applied mm²

Pressure (force/area) N/mm²

Maximum pressure less than 2 MPa or 2N/mm²

Test for dual Hand Grips

Grips positioned one each side of vehicle in symmetrical manner Conf.

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





TEST REPORT: Passenger hand holds on two wheel motor vehicles

<i>Paragraph</i>	<i>Parameter</i>	<i>Complies</i>
Magnitude of load applied (>1000N per grip)	Nearside	1025N
	Offside	1025N
Area over which load applied	Nearside	1800mm²
	Offside	1800mm²
Pressure (force/area)	Nearside	0.57N/mm²
	Offside	0.57N/mm²
Maximum pressure less than 1 MPa or 1N/mm ² per grip		Conf.
Strap/hand grips and its attachments capable of withstanding required load without snapping		Conf.



TEST REPORT: SPEEDOMETER

03-001

Report/Job Number: CSK206080

Page: 1 of 6

TEST DETAILS	
Subject	SPEEDOMETER
EC Directive	2000/7/EC
ECE Regulation	R39.00
Location of Test	No. 2-1, Longcang Dadao, Yuhua Economic Development Zone, Nanjing, P.R.China
Date of Test	23 June 2009
VCA Representative	Hongda. Zhao
Manufacturer's Representative	Xiaoyu.Zhang
Reason for Test	New approval

MANUFACTURER DETAILS	
Manufacturer's Name	SHANGHAI HUARI ENTERPRISE DEVELOPMENT CO.,LTD
Manufacturer's Address	N0.101,Qianming Eastrd ,Fengjing Industrial Zone, Jingshan District, Shanghai Province, P.R. China
Model Type & description	HRTK122
Category	L3e(electric)

CONCLUSION
<p>The above mentioned vehicle was tested in accordance with ECE Regulation 39.00 and EC Directive 2000/7 and was found to comply in all respects</p> <p style="text-align: right;">Signature: </p> <p style="text-align: right;">Name: Hongda. Zhao Position: Test Engineer Date: 23 June 2009</p>

LIST OF ANNEXES		
ANNEX	No of PAGES	SUBJECT
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TEST REPORT: SPEEDOMETER

<i>Paragraph</i>	<i>Parameter</i>	<i>Complie s</i>
------------------	------------------	----------------------

TEST SPECIFICATION/WORST CASE RATIONALE: Two variants

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

Equipment	Serial No.	Calibration data
VBOX IISX Type:VB2SX	009530	16 January 2009

TEST SPECIFICATION:

VEHICLE : **Motorcycle**
 ENGINE: **Electric motor**
 GEARBOX: **N/A**
 AXLE RATIO: **N/A**

FRONT AXLE TYRES:

- SIZE/MAKE/TYPE **130/60-13/CHENG SHIN/C-6104**
 - QUOTED PRESSURE **225kPa**
 - TEST PRESSURE **245kPa**
 - ROLLING RADIUS **246mm**
 - TREAD DEPTH **As new**

REAR AXLE TYRES:

- SIZE/MAKE/TYPE **130/60-13/CHENG SHIN/C-6104**
 - PRESSURE **225kPa**
 - TEST PRESSURE **245kPa**
 - ROLLING RADIUS **246mm**
 - TREAD DEPTH **As new**

Manufacturer's documentation in order **Conf.**

DETAILS OF SPEEDOMETER:

3.2.1 Make: **GUIDU**
 Type: **HRTK122**



TEST REPORT: SPEEDOMETER

<i>Paragraph</i>	<i>Parameter</i>	<i>Complies</i>
	Description: Front wheel makes worm wheel turn to drive worm,soft-axes to meter worm	
	Overall speedometer drive ratio: 22:12	
4.1 & 4.2 (5.1)	Location: in middle of steering handle	
4.1&4.2 (5.1)	Legible day and night:	Conf.
4.1 (5.1)	Range of speed indicated: km/h Scale: Dual mph-km/h Scale: 100km/h, 60mph	N/A Conf
	Manufacturer's quoted max speed for model range: km/h: 80 mph: 50	Conf. Conf.
	Indicated speed range enough to cover quoted maximum speed:	Conf.
	Analogue Scale/Digital Display: Analogue Scale	
4.2.1.1,4.2. 2	Indicated max speed <u>does not</u> exceed 200 km/h:	Conf.
	Steps for Marked Speed Indication: 10 km/h,10mph [Requirement: Marked Speed at intervals not exceeding 20 (km/h and mph)]	Conf.
4.2.1.2,4.2. 2	Indicated max speed exceeds 200 km/h:	N/A
	Steps for Marked Speed Indication: [Requirement: Marked Speed at intervals not exceeding 30 (km/h only)]	
4.2.1 & 2 (5.1.1 & 2)	Steps for Marked Graduations (Analogue Scales only): 5 km/h,10mph [Requirement: marking to be in steps of 1, 2, 5 or 10 (km/h and mph)]	Conf.
TEST CONDITIONS		
3.2.2	Tyre size and pressures - SEE VEHICLE SPECIFICATION TABLE	
4.3.4 (5.2.4)	Tyre pressure for test were at Manufacturer's quoted presure plus 0.2 bar:	Conf.
4.3.6.1 (5.2.6.1)	Track condition: Flat and Dry	

TEST REPORT: SPEEDOMETER

<i>Paragraph</i>	<i>Parameter</i>	<i>Complies</i>
4.3.4 (5.2.6)	<p>Speedometer temperature with range $23 \pm 5^{\circ}\text{C}$: ambient temp = 31°C</p> <p>Manufacturer's quoted mass in running order (fuel and rider) - ref 70/156/EEC Annex 1 para 2.6 (minimum value for model range): Front axle: 114kg Rear Axle: 133kg</p> <p>Test vehicle masses: Front axle: 114kg Rear Axle: 133kg</p>	
4.3.2	Load on axle(s) driving speedometer correspond to quoted axle mass(es)	Conf.

TEST REPORT: SPEEDOMETER

Paragraph	Parameter	Compliance
-----------	-----------	------------

RESULTS

Requirement:

$$0 \leq V_1 - V_2 \leq (V_2/10) + 4 \text{ km/h}$$

4.4 (5.3)	Test No	Indicated Speed V ₁ (km/h)	True Speed (km/h)			V ₁ - V ₂	(V ₂ /10) + 4 km/h
			East	West	Average V ₂		
TEST RESULTS FOR TYRE SIZE: Tyre Rolling Radius: mm or Tyre Revs/km:*							
		40	38	38.9	38.5	1.5	7.85
		65	61.4	61.4	61.4	3.6	10.14

Conf.

TEST/CALCULATED* RESULTS FOR TYRE SIZE:

Tyre Rolling Radius: mm or Tyre Revs/km:*

TEST/CALCULATED* RESULTS FOR TYRE SIZE:

Tyre Rolling Radius: mm or Tyre Revs/km:*

TEST/CALCULATED* RESULTS FOR TYRE SIZE:

Tyre Rolling Radius: mm or Tyre Revs/km:*

Note: Above results valid for all tyre sizes with rolling radii between ... mm and .. mm

TEST REPORT: SPEEDOMETER

<i>Paragraph</i>	<i>Parameter</i>	<i>Complies</i>
* Delete as appropriate		
1) Test speed 120 km/h or 80% of maximum speed if maximum is less than 150 km/h		
Notes: For given actual road speed measured during the test the revised indicated speed for an alternative tyre size =		
	Indicated Speed For Test x	Test Tyre Rolling Rad mm Alternative Tyre Rolling Rad mm
OR	Indicated Speed For Test x	Alternative Tyre Revs/km Test Tyre Revs/km
This assumes that the same speedo drive ratios and (where relevant) transmission ratios are the same for all tyre sizes covered by the calculations		

NB: Maybe tested on rolling road if roll diameter > 400mm for mopeds, > 2000mm for other vehicles.



ANNEX 1 Check photo



TEST REPORT: IDENTIFICATION OF CONTROLS, TELL-TALES AND INDICATORS FOR TWO OR THREE WHEEL MOTOR VEHICLES

Report/Job Number: CSK206080 , Page 1 of 11

TEST DETAILS	
Subject	IDENTIFICATION OF CONTROLS, TELL-TALES AND INDICATORS FOR TWO OR THREE WHEEL MOTOR VEHICLES
EC Directive	93/29/EEC and 2000/74/EC
ECE Regulation	Not Applicable
Location of Test	No. 2-1, Longcang Dadao, Yuhua Economic Development Zone, Nanjing, P.R.China
Date of Test	22 June 2009
VCA Representative	Hongda. Zhao
Manufacturer's Representative	Xiaoyu.Zhang
Reason for Test	New approval

MANUFACTURER DETAILS	
Manufacturer's Name	SHANGHAI HUARI ENTERPRISE DEVELOPMENT CO.,LTD
Manufacturer's Address	N0.101,Qianming Eastrd ,Fengjing Industrial Zone, Jingshan District, Shanghai Province, P.R. China
Model Type & description	HRTK122
Category	L3e(electric)

CONCLUSION
The above mentioned vehicle was tested in accordance with EC Directive 93/29/EEC as last amended by 2000/74/EC and was found to comply in all respects
Signature: 
Name: Hongda. Zhao
Position: Test Engineer
Date: 22 June 2009

LIST OF ANNEXES		
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**TEST REPORT: IDENTIFICATION OF CONTROLS,
TELL-TALES AND INDICATORS FOR TWO OR THREE**

Paragraph	Parameter	Complies
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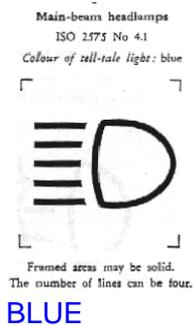
TEST SPECIFICATION/WORST CASE RATIONALE: Two variants

1	Risk assessment completed and stored in job folder	_____
2	Facilities and test equipments are appropriate	Conf.
3	Calibration certificates checked and valid, recorded below Note: only checking, no need any test facility	Conf.
	Manufacturer's documentation complete	Conf.

ANNEX I ITEMS:

(Where fitted controls tell-tales and indicators must be identified by symbols as defined in Annex I)

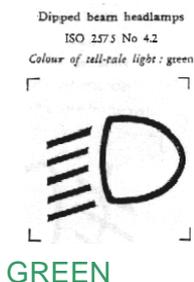
FIGURE 1



MAIN BEAM HEADLAMPS

Control Fitted	YES/NO	YES
Control has correct symbol		Y
Symbol meets visibility and clarity requirements		Y
Symbol on or close to control	ON/CLOSE	CLOSE
Remarks:		
Tell-tale Fitted [Requirement: Mandatory]	YES/NO	YES
Colour of Tell-tale [Requirement: Blue]		Y
Tell-tale has correct symbol		Y
Symbol meets visibility and clarity requirements		Y
Symbol on or close to Tell-tale	ON/CLOSE	ON
Remarks:		

FIGURE 2



DIPPED BEAM HEADLAMPS

Control Fitted	YES/NO	YES
Control has correct symbol		Y
Symbol meets visibility and clarity requirements		Y
Symbol on or close to control	ON/CLOSE	CLOSE
Remarks:		
Tell-tale Fitted [Requirement: Optional]	YES/NO	NO
Colour of Tell-tale [Requirement: Green]		N/A



**TEST REPORT: IDENTIFICATION OF CONTROLS,
TELL-TALES AND INDICATORS FOR TWO OR THREE**

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

Tell-tale has correct symbol		N/A
Symbol meets visibility and clarity requirements		N/A
Symbol on or close to Tell-tale	ON/CLOSE	N/A

FIGURE 3



GREEN

DIRECTION INDICATORS		
Control Fitted	YES/NO	YES
Control has correct symbol		Y
Symbol meets visibility and clarity requirements		Y
Symbol on or close to control	ON/CLOSE	CLOSE
Remarks:		
Tell-tale Fitted	YES/NO	YES
[Requirement: Mandatory unless Audible warning fitted]		
Colour of Tell-tale		Y
[Requirement: Green]		
Tell-tale has correct symbol		Y
Symbol meets visibility and clarity requirements		Y
Symbol on or close to Tell-tale	ON/CLOSE	ON
Remarks:	separately	
Tell-tale arrows operate together/separately* for left and right indicators		
* Delete as appropriate		

FIGURE 4



RED

HAZARD WARNING		
Control Fitted	YES/NO	N/A
Control has correct symbol		
Symbol meets visibility and clarity requirements		
Symbol on or close to control	ON/CLOSE	
Remarks:		
Tell-tale Fitted	YES/NO	
[Requirement: Mandatory]		
Colour of Tell-tale		
[Requirement: Red - See Remarks]		
Tell-tale has correct symbol - See Remarks		
Symbol meets visibility and clarity requirements		
Symbol on or close to Tell-tale	ON/CLOSE	
Remarks:		
Tell-tale/symbol as Fig 4 used alone* OR		
Fig 4 used together with <u>both</u> arrows in Fig 3 OR		
<u>Both</u> arrows in Fig 3 used without Fig 4		

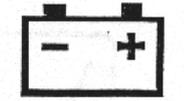
**TEST REPORT: IDENTIFICATION OF CONTROLS,
TELL-TALES AND INDICATORS FOR TWO OR THREE**

Paragraph	Parameter	Complies
	* Delete as appropriate	
FIGURE 5	CHOKE	N/A
 <p>AMBER</p>	Control Fitted	YES/NO
	Control has correct symbol	
	Symbol meets visibility and clarity requirements	
	Symbol on or close to control	ON/CLOSE
	Remarks:	
	Tell-tale Fitted [Requirement: Optional]	YES/NO
	Colour of Tell-tale [Requirement: Amber]	
	Tell-tale has correct symbol	
	Symbol meets visibility and clarity requirements	
	Symbol on or close to Tell-tale	ON/CLOSE
Remarks:		
FIGURE 6	HORN	
	Control Fitted	YES/NO
	Control has correct symbol	
	Symbol meets visibility and clarity requirements	
	Symbol on or close to control	ON/CLOSE
	Remarks:	
		YES
		Y
		Y
		CLOSE
FIGURE 7	FUEL LEVEL	N/A
 <p>Outline only may also be used AMBER</p>	Indicator (Gauge) Fitted	YES/NO
	Gauge has correct symbol	
	Symbol meets visibility and clarity requirements	
	Symbol on or close to gauge	ON/CLOSE
	Remarks:	
	Tell-tale Fitted [Requirement: Optional]	YES/NO
	Colour of Tell-tale [Requirement: Amber]	
	Tell-tale has correct symbol	
	Symbol meets visibility and clarity requirements	
	Symbol on or close to Tell-tale	ON/CLOSE
Remarks:		

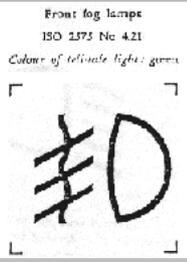
**TEST REPORT: IDENTIFICATION OF CONTROLS,
TELL-TALES AND INDICATORS FOR TWO OR THREE**

Paragraph	Parameter	Complies
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Paragraph	Parameter	Complies
FIGURE 8	ENGINE COOLANT TEMPERATURE	N/A
 <p>RED</p>	Indicator (Gauge) Fitted	YES/NO
	Gauge has correct symbol	
	Symbol meets visibility and clarity requirements	
	Symbol on or close to gauge	ON/CLOSE
	Remarks:	
	Tell-tale Fitted [Requirement: Optional]	YES/NO
	Colour of Tell-tale [Requirement: Red]	
	Tell-tale has correct symbol	
	Symbol meets visibility and clarity requirements	
	Symbol on or close to Tell-tale	ON/CLOSE
	Remarks:	

Paragraph	Parameter	Complies
FIGURE 9	BATTERY CHARGING CONDITION	
 <p>RED</p>	Indicator (Gauge) Fitted	YES/NO
	Gauge has correct symbol	
	Symbol meets visibility and clarity requirements	
	Symbol on or close to gauge	ON/CLOSE
	Remarks:	
	Tell-tale Fitted [Requirement: Optional]	YES/NO
	Colour of Tell-tale [Requirement: Red]	
	Tell-tale has correct symbol	
	Symbol meets visibility and clarity requirements	
	Symbol on or close to Tell-tale	ON/CLOSE
	Remarks:	

**TEST REPORT: IDENTIFICATION OF CONTROLS,
TELL-TALES AND INDICATORS FOR TWO OR THREE**

Paragraph	Parameter	Complies
FIGURE 10	ENGINE OIL PRESSURE	N/A
 <p>RED</p>	Indicator (Gauge) Fitted	YES/NO
	Gauge has correct symbol	
	Symbol meets visibility and clarity requirements	
	Symbol on or close to gauge	ON/CLOSE
	Remarks:	
	Tell-tale Fitted [Requirement: Optional]	YES/NO
	Colour of Tell-tale [Requirement: Red]	
	Tell-tale has correct symbol	
	Symbol meets visibility and clarity requirements	
	Symbol on or close to Tell-tale	ON/CLOSE
Remarks:		
FIGURE 11	FRONT FOG LAMPS	N/A
 <p>GREEN</p>	Control Fitted	YES/NO
	Control has correct symbol	
	Symbol meets visibility and clarity requirements	
	Symbol on or close to control	ON/CLOSE
	Remarks:	
	Tell-tale Fitted [Requirement: Optional]	YES/NO
	Colour of Tell-tale [Requirement: Green]	
	Tell-tale has correct symbol	
	Symbol meets visibility and clarity requirements	
	Symbol on or close to Tell-tale	ON/CLOSE
Remarks:		

**TEST REPORT: IDENTIFICATION OF CONTROLS,
TELL-TALES AND INDICATORS FOR TWO OR THREE**

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

FIGURE 12	REAR FOG LAMPS		N/A
 <p>Rear Fog Lamp ISO 2575 No 4.2.2 Colour of tell-tale light: yellow</p> <p>AMBER</p>	Control Fitted	YES/NO	
	Control has correct symbol		
	Symbol meets visibility and clarity requirements		
	Symbol on or close to control	ON/CLOSE	
	Remarks:		
	Tell-tale Fitted [Requirement: Mandatory]	YES/NO	
	Colour of Tell-tale [Requirement: Amber]		
	Tell-tale has correct symbol		
	Symbol meets visibility and clarity requirements		
	Symbol on or close to Tell-tale	ON/CLOSE	
	Remarks:		

FIGURE 13	Engine Ignition Cut Off In Out Of Use Position		
	Control Fitted	YES/NO	YES
	Control has correct symbol		Y
	Symbol meets visibility and clarity requirements		Y
	Symbol on or close to control	ON/CLOSE	ON
	Remarks:		

FIGURE 14	Engine Ignition Cut Off In Operating Position		
	Control Fitted	YES/NO	YES
	Control has correct symbol		Y
	Symbol meets visibility and clarity requirements		Y
	Symbol on or close to control	ON/CLOSE	ON
	Remarks:		

**TEST REPORT: IDENTIFICATION OF CONTROLS,
TELL-TALES AND INDICATORS FOR TWO OR THREE**

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

FIGURE 15

Figure 1
Master light
ISO 2575 No 4.23
Colour of tell-tale light: green



GENERAL LIGHTING

Control Fitted	YES/NO	YES
Control has correct symbol		Y
Symbol meets visibility and clarity requirements		Y
Symbol on or close to control	ON/CLOSE	CLOSE
Remarks:		
Tell-tale Fitted [Requirement: Mandatory]**	YES	YES
Colour of Tell-tale	GREEN	via panel lamp
Tell-tale has correct symbol		N/A
Symbol meets visibility and clarity requirements		N/A
Symbol on or close to Tell-tale	ON/CLOSE	N/A
Remarks:** See position lamps (Fig 4) for details of tell-tale		

FIGURE 16

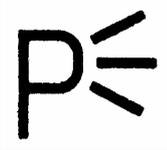
Position (side) lamps
ISO 2575 No 4.33
Colour of tell-tale light: green



POSITION (SIDE) LAMPS

Control Fitted	YES/NO	YES
Control has correct symbol [Can be identified by Fig15]		Y
Symbol meets visibility and clarity requirements		Y
Symbol on or close to control	ON/CLOSE	CLOSE
Remarks:		
Tell-tale Fitted [Requirement: Mandatory] (can be via panel lamp provided panel lamp cannot be turned off - brightness adjustment acceptable)	YES/NO	YES
Colour of Tell-tale [Requirement: Green - N/A if via panel lamp]		via panel lamp
Tell-tale has correct symbol (N/A if via panel lamp)		via panel lamp
Symbol meets visibility and clarity requirements		via panel lamp
Symbol on or close to Tell-tale	ON/CLOSE	via panel lamp
Remarks:		

**TEST REPORT: IDENTIFICATION OF CONTROLS,
TELL-TALES AND INDICATORS FOR TWO OR THREE**

Paragraph	Parameter	Complies
FIGURE 17	PARKING LAMPS	N/A
93/29 ONLY	Control Fitted	YES/NO
Not Applicable For 2000/74	Control has correct symbol	
	Symbol meets visibility and clarity requirements	
	Symbol on or close to control	ON/CLOSE
	Remarks:	
	Tell-tale Fitted [Requirement: Optional]	YES/NO
	Colour of Tell-tale [Requirement: Green]	
	Tell-tale has correct symbol	
	Symbol meets visibility and clarity requirements	
	Symbol on or close to Tell-tale	ON/CLOSE
GREEN	Remarks:	
FIGURE 18	GEARBOX NEUTRAL INDICATOR	N/A
93/29	Tell-tale Fitted [Requirement: Optional]	YES/NO
FIGURE 17 2000/74	Colour of Tell-tale [Requirement: Green]	
	Tell-tale has correct symbol	
	Symbol meets visibility and clarity requirements	
	Symbol on or close to Tell-tale	ON/CLOSE
	Remarks:	
GREEN		
FIGURE 19	ELECTRIC STARTER	N/A
93/29	Control Fitted	YES/NO
FIGURE 18 2000/74	Control has correct symbol	
	Symbol meets visibility and clarity requirements	
	Symbol on or close to control	ON/CLOSE
	Remarks:	

**TEST REPORT: IDENTIFICATION OF CONTROLS,
TELL-TALES AND INDICATORS FOR TWO OR THREE**

<i>Paragraph</i>	<i>Parameter</i>	<i>Complies</i>
	Vehicle specification include Controls, Tell-tales and/or Indicators not listed in Annex 2 and Annex 3 Give details: Speed change button, detail to see HRTK122-15	YES/NO YES
	Symbols used will not cause confusion with those listed in Annex 2 and Annex 3	YES/NO YES



**TEST REPORT: IDENTIFICATION OF CONTROLS,
TELL-TALES AND INDICATORS FOR TWO OR THREE**

<i>Paragraph</i>	<i>Parameter</i>	<i>Complies</i>
------------------	------------------	-----------------

ANNEX 1 Check photos



Speedometer view



Left hand level view



Right hand level view

TEST REPORT: **Statutory markings for two or three wheel motor vehicles**

03-012rev1

Report/Job Number: CSK206080

Page: 1 of 4

TEST DETAILS	
Subject	Statutory markings for two or three wheel motor vehicles
EC Directive	93/34/EC -2006/27/EC
ECE Regulation	N/A
Location of Test	No. 2-1, Longcang Dadao, Yuhua Economic Development Zone, Nanjing, P.R.China
Date of Test	22 June 2009
VCA Representative	Hongda. Zhao
Manufacturer's Representative	Xiaoyu.Zhang
Reason for Test	New approval

MANUFACTURER DETAILS	
Manufacturer's Name	SHANGHAI HUARI ENTERPRISE DEVELOPMENT CO.,LTD
Manufacturer's Address	N0.101,Qianming Eastrd ,Fengjing Industrial Zone, Jingshan District, Shanghai Province, P.R. China
Model Type & description	HRTK122
Category	L3e(electric)

CONCLUSION	
	The above mentioned vehicle was tested in accordance with EC Directive 93/34/EC as amended by 2006/27/EC and was found to comply in all respects
	Signature: 
	Name: Hongda. Zhao
	Position: Test Engineer
	Date: 22 June 2009

LIST OF ANNEXES		
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TEST REPORT: Statutory markings for two or three wheel motor vehicles

<i>Paragraph</i>	<i>Parameter</i>	<i>Complies</i>
------------------	------------------	-----------------

TEST SPECIFICATION/WORST CASE RATIONALE: Variant 2 tested, it covered other variants.

1	Risk assessment completed and stored in job folder	_____
2	Facilities and test equipments are appropriate	<u>Conf.</u>
3	Calibration certificates checked and valid, recorded below Note: only checking, no need any test facility	<u>Conf.</u>

Equipment	Serial No.	Calibration data

Manufacturer's documentation complete Conf.

GENERAL

2.1 The plate conforms to the model shown in the Appendix 1. It is firmly fixed in an accessible position to a part not subject to replacement, and is easily legible. Conf.

4.2.2.2 The characters are at least 3 mm high. Conf.

2.1 The plate makes provision for the following information:

2.1.1 Name of Manufacturer: SHANGHAI HUARI ENTERPRISE DEVELOPMENT CO.,LTD Conf.

2.1.2 Type Approval Number Conf.

2.1.3 Vehicle identification number Conf.

2.1.4 Static Sound Level: — dB(A) at — rev/min N/A

2.1 The information above is in the correct order and indelible Conf.

2.3 Additional information (where applicable) is only marked outside the clearly marked rectangle below or to the side of the prescribed inscriptions N/A

The prescribed rectangle only encloses the information Conf.



**TEST REPORT: Statutory markings for two or three
wheel motor vehicles**

<i>Paragraph</i>	<i>Parameter</i>	<i>Complies</i>
	prescribed in 2.1.1 to 2.1.4.	_____
	2. VEHICLE IDENTIFICATION NUMBER	
	2(a) On the Plate: SEEING INFO. DOC. IN THE DETAILS	Conf.
3.1.1	The number consists of three sections:	_____
3.1.1.1	the first has three characters which identify the manufacturer .	Conf.
3.1.1.2	the second has six characters which indicate the general characteristics of the vehicle. (For mopeds type/variant/version other vehicles type and variant).	Conf.
	each characteristic represented by no more than two characters	Conf.
	unused spaces filled by alphabetical or numerical characters .	Conf.
3.1.1.3	the third has eight characters (of which the last four are numerical) which identifies the particular vehicle.	Conf.
	unused spaces filled by zeros	Conf.
3.1.2	There are no spaces between the characters	Conf.
3.1.2	The number is marked on one line only	Conf.
3.1.2	If marked on two lines:	N/A
	The valid technical reason why it is not marked on one line only is .	
	No section is divided between the two lines	
	The beginning and end of each line is indicated by a symbol which is neither an Arabic numeral nor a capital Latin letter.	
	(in the case of the data plate only), the number is marked on one line only but has no special symbol at each end	
	2(b) On the Chassis / Frame	
3.1	The number is hammered or punched on the right hand side of the chassis or frame and is easily accessible.	Conf.

TEST REPORT: Statutory markings for two or three wheel motor vehicles

<i>Paragraph</i>	<i>Parameter</i>	<i>Complies</i>
3	The marking has been designed to last 30 years.	Conf.
4.2.2.1	The characters are at least 4 mm high.	Conf.
3.1.1	The number consists of three sections as described in 2(a) above.	Conf.
3.1.2	There are no spaces between the characters	Conf.
3.1.2	The number is marked on one line only .	Conf.
3.1.2	If marked on two lines:	N/A
	The valid technical reason why it is not marked on one line only is	
	No section is divided between the two lines.	
	The beginning and end of each line is indicated by a symbol which is neither an Arabic numeral nor a capital Latin letter	
	3. CHARACTERS	
4.1	The characters used are Latin letters and Arabic numerals.	Conf.
	The manufacturer's name and VIN are marked in capital letters.	Conf.
4.2.1	The characters in the VIN do not include I, O, Q, dashes, asterisks and other specific signs	Conf.

