LE GOUVERNEMENT
DU GRAND-DUCHÉ DE LUXEMBOURG
Ministère de la Mobilité
et des Travaux publics

Département de la mobilité
et des transports

SOCIÉTÉ NATIONALE DE
CERTIFICATION ET D'HOMOLOGATION
S.A.

Registre de Commerce: B 27180

L-8070 Bertrange

Référence: e13*168/2013*01687*00

Annexes: - Rapport technique
- Fiche de renseignements du constructeur

Bertrange, le 28 février 2023

FICHE DE RÉCEPTION UE PAR TYPE D'UN VÉHICULE ENTIER

EU WHOLE-VEHICLE TYPE-APPROVAL CERTIFICATE

Communication concernant:
Communication concerning:

- **la réception UE par type d'un véhicule entier**
  EU whole-vehicle type-approval
- ~~**l'extension de la réception UE par type d'un véhicule entier**~~
  ~~extension of EU whole-vehicle type-approval~~
- ~~**le refus de la réception UE par type d'un véhicule entier**~~
  ~~refusal of EU whole-vehicle type-approval~~
- ~~**le retrait de la réception UE par type d'un véhicule entier**~~
  ~~withdrawal of EU whole-vehicle type-approval~~

pour un type de véhicule complet
of a complete vehicle type

en vertu du règlement (UE) N° 168/2013,
modifié en dernier lieu par le règlement (délégué de la Commission) (UE) N° 2020/1694
complété par les règlements (UE) N° 3/2014, N° 44/2014 et N° 134/2014 modifiés en dernier lieu par le règlement (UE) N° 2018/295
with regard to Regulation (EU) N° 168/2013,-as last amended by (Commission Delegated) Regulation (EU) N°2020/1694
supplemented by regulations (EU) N° 3/2014, N° 44/2014 and N° 134/2014 as last amended by regulation (EU) N° 2018/295

Numéro de réception UE par type:
EU type-approval number: e13*168/2013*01687*00

Raison de l'extension:
Reason for extension: not applicable

SECTION I
SECTION I

0.1.	**Marque (dénomination commerciale du constructeur):** Make (trade name of manufacturer):	SHANSU, Easycool, yuki, HIMOTO, aMoto, CITYCOCO, Rooley, Rooder, Strollwheel, HECHT MOTORS, ZMOTOS, MALCOR IBÉRICA, R RETELLI
0.2.	**Type:** Type:	HM-5
0.2.1.	**Variante(s):** Variant(s):	00
0.2.2.	**Version(s):** Version(s):	00, 01
0.2.3.	**Appellation(s) commerciale(s) (le cas échéant):** Commercial name(s) (if available):	electric scooter, EGREEN, HECHT COCIS, HECHT COCIS ZERO
0.3.	**Catégorie, sous-catégorie et sous-sous-catégorie du véhicule:** Category, subcategory and sub-subcategory of vehicle:	L1e-B
0.4.	**Raison sociale et adresse du constructeur du véhicule complet:** Company name and address of manufacturer of the complete vehicle:	ZHEJIANG YIXING INDUSTRY AND TRADE LIMITED ROOM 2103, 21/F HO KING COMMERCIAL CENTRE NO. 2-16 FA YUEN STREET MONG KOK, KOWLOON HONG KONG
0.4.1	**Nom(s) et adresse(s) de(s) usines d'assemblage:** Name(s) and addresse(s) of assembly plant(s):	ZHEJIANG YIXING INDUSTRY & TRADE CO., LTD Gangtou Industrial Functional Area, Lutan Town, Wuyi County, Jinhua City, Zhejiang Province, The People's Republic of China
0.4.2.	**Nom et adresse du mandataire du constructeur (le cas échéant):** Name and address of manufacturer's authorised representative, if any:	MINIMOTOS SPORT, S.L. C/ LA MITJANA 7 - POLIGONO EL BOCH, CREVILLENT, ALICANTE, SPAIN

SECTION II
SECTION II

1.	**Service technique responsable de la réalisation des essais:** Technical service responsible for carrying out the tests:	Cetoc Technical Service srl Via della Bufalotta, 373 00139 – Roma - Italy
2.	**Date du rapport d'essais:** Date of test report:	01.12.2022
3.	**Numéro du rapport d'essais:** Number of test report:	CN-118-2-26-WHO22-04748-IR

SECTION III

SECTION III

Le soussigné certifie l'exactitude de la description, faite par le constructeur dans la fiche de renseignements jointe, du type de véhicule décrit ci-dessus, dont un ou plusieurs échantillons représentatifs, sélectionnés par l'autorité compétente en matière de réception UE par type, ont été présentés en tant que prototypes du type de véhicule, et que les résultats d'essais joints s'appliquent au type de véhicule.

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 more representative samples, selected by the EU type-approval authority, have been submitted as prototypes of the vehicle type and that the attached test results apply to the vehicle type.

1.	**Le type de véhicule complet satisfait/ ~~ne satisfait pas~~ à l'ensemble des prescriptions pertinentes énumérées dans l'annexe II du règlement (UE) N° 168/2013.** The complete vehicle type meets/~~does not meet~~ all relevant requirements as listed in Annex II to Regulation (EU) N° 168/2013.	The complete vehicle type meets all relevant requirements as listed in Annex II to Regulation (EU) N° 168/2013
1.1.	**Restrictions de validité:** Restrictions of validity:	not applicable
1.2.	**Dérogations accordées:** Waivers applied:	not applicable
1.2.1.	**Raisons des dérogations:** Reasons for the waivers:	not applicable
1.2.2.	**Autres exigences applicables:** Alternative requirements:	not applicable
2.	**La réception est accordée/~~étendue~~/~~refusée~~/ ~~retirée~~:** The approval is granted/~~extended~~/~~refused~~/~~withdrawn~~:	the approval is granted
2.1.	**La réception est accordée conformément à l'article 40 du règlement (UE) N° 168/2013 et sa validité expire, par conséquent, le jj/mm/aaaa.** The approval is granted in accordance with Article 40 of Regulation (EU) N° 168/2013 and the validity of the approval is thus limited to dd/mm/yyyy.	not applicable

Lieu:
Place: Bertrange

Date:
Date: 28 février 2023

Signature:
Signature:

Pour le Ministre de la Mobilité et des Travaux publics

Pol PHILIPPE
Attaché

Pour la SNCH

Laurent LINDEN
Directeur opérationnel

Pièces jointes:
Attachments:

- **Dossier de réception**
  Information package
- **Résultats d'essai**
  Test results
- **Nom(s) et spécimen(s) de signature de la ou des personnes autorisées à signer les certificats de conformité et indication de leurs fonctions dans la société**
  Name(s) and specimen(s) of the signature(s) of the person(s) authorised to sign certificates of conformity and a statement of their position in the company
- **Spécimen complété du certificat de conformité**
  A completed specimen of the certificate of conformity

NB:
NB: not applicable

Addendum à la fiche de réception UE par type

Addendum to the EU type-approval certificate

Liste des actes réglementaires aux prescriptions desquels le type de véhicule satisfait

List of regulatory acts with which the type of vehicle complies

refer to Appendix 3 – Page 7 to 9 of inspection report N°CN-118-2-26-WHO22-04748-IR

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Registre de Commerce: B 27180

L-8070 Bertrange

Référence: e13*168/2013*01687*00

Annexes: - Rapport technique
- Fiche de renseignements du constructeur

Bertrange, le 28 février 2023

Index du dossier de réception

Index to type-approval report

	Numéro de réception UE par type: EU type-approval number:	e13*168/2013*01687*00
	Révision: Revision:	00
	Marque de fabrique ou de commerce: Trade name or mark:	SHANSU, Easycool, yuki, HIMOTO, aMoto, CITYCOCO, Rooley, Rooder, Strollwheel, HECHT MOTORS, ZMOTOS, MALCOR IBÉRICA, R RETELLI
	Type: Type:	HS50-A
1.	**Procès-verbal d'essai:** Test report:	N° CN-118-2-26-WHO22-04748-IR
	- Cover sheet:	Page 1;
	- Test report history:	Page 2 ;
	- Vehicle specification of tested vehicle:	Appendix 2.1- Page 3 & 4; Appendix 2.2- Page 5 & 6;
	- Addendum to the EU-type approval certificate:	Appendix 3 - Page 7 to 82.
2.	**Dossier du constructeur:** Report of the manufacturer:	N° HS50-A-00
	- Manufacturer's information document:	Page 1 to 85.
3.	**Autres documents annexés:** Other documents annexed:	not applicable
4.	**Date de délivrance de la réception initiale:** Date of issue of initial type approval:	28.02.2023
5.	**Date de la dernière délivrance de pages révisées:** Date of last issue of revised pages:	not applicable
6.	**Date de la dernière délivrance d'une réception révisée:** Date of last extension:	not applicable

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Registre de Commerce: B 27180

L-8070 Bertrange

Référence: e13*168/2013*01687*00

Annexes: - Rapport Technique
- Fiche de Renseignements du constructeur

Bertrange, le 28 février 2023

Annexe VIII
Annex VIII

Fiche des résultats d'essais
Test results sheet

refer to Appendix 3 - Page 7 to 82 of test report N°CN-118-2-26-WHO22-04748-IR

CETOC TS

To: **Ministère de la Mobilité et des Travaux publics**
Département de la mobilité et des transports
4, place de l'Europe
L-1499 Luxembourg

CETOC TECHNICAL SERVICE SRL - ACCOMPANYING LETTER

Place, data	:	Roma, 02/12/2022
Reference of technical report	:	CN-118-2-26-WHO22-04748-IR
Manufacturer	:	ZHEJIANG YIXING INDUSTRY AND TRADE LIMITED
Type designation	:	HM-5
Reference to the applied directive or regulation	:	Reg. (EU) 168/2013 amended by Reg. (EU) 134/2014, Reg. (EU) 2019/129, Reg. (EU) 2020/1694. Including Delegated act (EU) 3/2014 amended (EU) 2016/1824 Including Delegated act (EU) 44/2014 amended (EU) 2018/295 Including Delegated act (EU) 134/2014 amended (EU) 2018/295 Including Delegated act (EU) 901/2014 amended (EU) 2020/239
Reference to "package price"	:	n.a.
Publication deadline for ETAES	:	n.a.

e13*168/2013*01687*00
Société Nationale de Certification et d'Homologation

Best regards

Massimo Peraboni
(Technical Manager)

CETOC TS

CETOC Technical Service srl
Via della Bufalotta, 374,
00139 Roma

Approval and Market Surveillance of Two or Three Wheel Vehicles and Quadricycles

0. Legislation:

0.1.	Requirements according to	:	Reg. (EU) 168/2013 amended by Reg. (EU) 134/2014, Reg. (EU) 2019/129, Reg. (EU) 2020/1694. Including Delegated act (EU) 3/2014 amended (EU) 2016/1824 Including Delegated act (EU) 44/2014 amended (EU) 2018/295 Including Delegated act (EU) 134/2014 amended (EU) 2018/295 Including Delegated act (EU) 901/2014 amended (EU) 2020/239

1. General

1.1.	Reason for Inspection Report	:	New approval / ~~Extension of approval / Test report only / COP~~
1.2.	Manufacturer's Representative(s)	:	Qiang Wu (吴强)
1.3.	CETOC TS Representative(s)	:	Steven LI
1.4.	Location of Test	:	See annexes
1.5.	Data of test	:	See annexes

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2. Manufacturer Details

2.1.	Make	:	SHANSU, Easycool, yuki, HIMOTO, aMoto, CITYCOCO, Rooley, Rooder, Strollwheel, HECHT MOTORS, ZMOTOS, MALCOR IBERICA, R RETELLI
2.2.	Type	:	HM-5
2.3.	Variant/Version	:	Variant 00 / Version(s) 00,01
2.4.	Commercial Name	:	electric scooter, EGREEN, HECHT COCIS, HECHT COCIS ZERO
2.5.	Category	:	L1e-B
2.6.	Name and Address of manufacturer	:	ZHEJIANG YIXING INDUSTRY AND TRADE LIMITED ROOM 2103, 21/F HO KING COMMERCIAL CENTRE NO. 2-16 FA YUEN STREET MONG KOK, KOWLOON HONG KONG

3. Conclusion:

3.1. Final conclusion of the inspection: The above mentioned type was tested in accordance with the above mentioned legislation and was found to comply in all respects. This Inspection report relates only to the items tested.

Signature:	:		
Name:	:	Steven LI	Massimo Peraboni
Position:	:	Type Approval Engineer	Technical Manager
Place and date:	:	Hangzhou, 01 December 2022	Roma, 01 December 2022

4. List of annexes:

Appendix 1	:	Test report history
Appendix 2.1	:	Vehicle specification of tested if equipped with combustion engine.
Appendix 2.2	:	Vehicle specification of tested vehicle if equipped with electric motor.
Appendix 3	:	Addendum to the EU type approval certificate

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APPENDIX 1 - TEST REPORT HISTORY

List this report and previous reports, with extension details.

Inspection Report Number	Reason for Extension	Date of Issue
CN-118-2-26-WHO22-04748-IR	Not applicable – Original approval	01 December 2022

APPENDIX 2.1 – VEHICLE SPECIFICATION OF TESTED VEHICLE IF EQUIPPED WITH COMBUSTION ENGINE

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Not applicable

Not applicable

1.1.	Variant/Version	:
1.2	Vehicle Identification Number	:
1.3.	Engine Type	:
1.3.1.	Engine family	:
1.4.	Engine Capacity (cm3)	:
1.5	No. of Cylinders	:
1.6	Engine Layout	:
1.7	Engine Cooling	:
1.8	Reference Fuels	:
1.9	Fuel Tank	:
1.10	Canister	:
1.11	Fuel Feed	:
1.12	Spark Plug	:
1.13	Intake System	:
1.14	Exhaust System	:
1.14.1	Lambda Sensor	:
1.14.2	Secondary Air	:
1.14.3	Catalyst	:
1.15	ECU	:
1.16	OBD	:
1.17	Maximum Power (kW)	:
1.18	Maximum Torque(Nm)	:
1.19	Idle Speed	:
1.20	Transmission	:
1.20.1	Primary	:
1.20.2	Secondary	:
1.20.3	Final	:
1.21	Actual mass (kg)	:
1.22	Inertial Mass (kg)	:
1.23	Vehicle Length:	:
1.24	Maximum Design Speed	:
1.25	PMR	:
1.26	aWot,ref	:
1.27	aUrban	:
1.28	Reference Length (lRef)	:

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|--- Not applicable ---|

1.29	Gear Weighting Factor (K)	:	
1.30	Partial Power Factor (Kp)	:	
1.31	Tyre		
1.31.1	Dimension	:	
1.31.2	Pressure (kPa)	:	
1.31.3	Rolling Circ. (mm)	:	

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APPENDIX 2.2 – VEHICLE SPECIFICATION OF TESTED VEHICLE IF EQUIPPED WITH ELECTRIC MOTOR

			Variant 00 / Version 00	Variant 00 / Version 01
1.1.	**Variant/Version**			
1.2.	Vehicle Identification Number	:	☆R68HM5000NA000001☆	☆R68HM5010NA000002☆
1.3.	Type of propulsion	:	Pure electric	Pure electric
1.4.	Electric motor code	:	HM5SS 00000001	HM5SS 00000002
1.5.	Electric motor layout	:	Direct drive rear axle	Direct drive rear axle
1.6.	Electric motor cooling	:	air cooling	air cooling
1.7.	ECU Electric motor control unit	:	SS12-60V-YTC	SS12-60V-YTC-25
1.8.	OBD	:	OBD functional	OBD functional
1.9.	**Propulsion battery**			
1.9.1.	Kind of electrochemical couple	:	Lithium	Lithium
1.9.2.	Battery voltage	:	60 V	60 V
1.9.3	Battery capacity	:	20 Ah	20 Ah
1.10.	Charger	:	YANHUANG DZM602001	YANHUANG DZM602001
1.11.	Maximum continuous-rated power electric motor (15/30 minutes power)	:	*1.5 kW*	*1.5 kW*
1.12.	Maximum continuous-rated torque electric motor	:	41 N.m	53 N.m
1.13.	**Transmission**			
1.13.1	Internal ratio / primary ratio / secondary ratio	:	Not applicable	Not applicable
1.13.2	Final	:	Direct drive	Direct drive
1.14.	Actual mass (kg)	:	144	144
1.14.1	Inertial Mass (kg)	:	140	140
1.15.	Maximum Design Speed:		45 km/h	25 km/h
1.16.	**tyres**		**Front/Rear Tyre**	**Front/Rear Tyre**
	Dimension	:	See table below	See table below
1.16.1.	Pressure (kPa)	:	See table below	See table below
1.16.2.	Rolling Circ. (mm)	:	See table below	See table below

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1.16 tyres

Tyre	Options	Size	Tyre pressure (kPa)	Rolling circumference (mm)
Front	1	225/40-10	225	1429
Rear	1	225/40-10	250	1429
Front	2	225/40-10	225	1429
Rear	2	225/40-10	250	1429
Front	3	215/40-12	225	**1450**
Rear	3	215/40-12	250	**1450**
Front	4	215/40-12	225	**1450**
Rear	4	215/40-12	250	**1450**
Spare	--	--	--	--

APPENDIX 3 - ADDENDUM TO THE EU TYPE- APPROVAL CERTIFICATE

A. ENVIRONMENTAL AND PROPULSION UNIT PERFORMANCE REQUIREMENTS (EPPR)

Nr.	Subject	Commission Delegated Regulation (EU) No Including last amendment	PASS	FAIL	N/A	COVER BY PREVIOUS EXTENSION
A1.	Tailpipe emissions after cold start	134/2014 Annex II (EU) 2018/295	☐	☐	☒	☐
	Tailpipe emissions at (increased) idle/ free acceleration	134/2014 Annex III (EU) 2018/295	☐	☐	☒	☐
	Durability of pollution- control devices	134/2014 Annex VI (EU) 2018/295	☐	☐	☒	☐
	CO_2 emissions, fuel consumption, electric energy consumption and electric range	134/2014 Annex VII (EU) 2018/295	☒	☐	☐	☐
A2	Emissions crankcase gases	134/2014 Annex IV (EU) 2018/295	☐	☐	☒	☐
A3	Evaporative emissions	134/2014 Annex V (EU) 2018/295	☐	☐	☒	☐
A4	OBD Environmental tests	134/2014 Annex VIII (EU) 2018/295	☐	☐	☒	☐
A5	Sound level	134/2014 Annex IX (EU) 2018/295 UNECE R41.04	☐	☐	☒	☐
A6	Procedures and technical requirements on maximum vehicle design speed, maximum torque, maximum continuous total power and maximum peak power	134/2014 Annex X (EU) 2018/295 UNECE R85.00	☒	☐	☐	☐
A7	Vehicle propulsion family definition	134/2014 Annex XI (EU) 2018/295	☐	☐	☒	☐

B. VEHICLE FUNCTIONAL SAFETY REQUIREMENTS (VFSR)

Nr.	Subject	Commission Delegated Regulation (EU) No including last amendment	PASS	FAIL	N/A	COVER BY PREVIOUS EXTENSION
B1	Audible warning devices	3/2014 Annex II 2016/1824 UNECE R28.00	☒	☐	☐	☐
B2	Braking, including anti- lock and combined brake systems	3/2014 Annex III 2016/1824 UNECE R78.04	☒	☐	☐	☐
B3	Electrical safety	3/2014 Annex IV 2016/1824 UNECE R100.02	☒	☐	☐	☐
B4	Endurance Testing of Functional Safety Critical Systems, Parts and Equipment	3/2014 Annex V 2016/1824	☒	☐	☐	☐
B5	Front and rear protective structures	3/2014 Annex VI 2016/1824	☐	☐	☒	☐
B6	Glazing, windscreen wipers and washers, and defrosting and demisting systems	3/2014 Annex VII 2016/1824	☐	☐	☒	☐
B7	Driver-operated controls including identification of controls, tell-tales and indicators	3/2014 Annex VIII 2016/1824 UNECE R60.00 UNECE R39.01	☒	☐	☐	☐
B8	Installation of lighting and light- signalling devices, including automatic switching of lighting	3/2014 Annex IX 2016/1824 UNECE R53.03 (Motorcycle)	☒	☐	☐	☐
B9	Rearward visibility	3/2014 Annex X 2016/1824 UNECE R81.00	☒	☐	☐	☐
B10	Rollover protective structure (ROPS)	3/2014 Annex XI 2016/1824	☐	☐	☒	☐
B11	Safety-belt anchorages and safety- belts	3/2014 Annex XII 2016/1824	☐	☐	☒	☐
B12	Seating positions (saddles and seats)	3/2014 Annex XIII 2016/1824	☒	☐	☐	☐
B13	Steer-ability, cornering properties and turn- ability	3/2014 Annex XIV 2016/1824	☒	☐	☐	☐
B14	Installation of tyres	3/2014 Annex XV 2016/1824 UNECE R75.00	☒	☐	☐	☐
B15	Vehicle maximum speed limitation plate and its location on the vehicle	3/2014 Annex XVI 2016/1824	☐	☐	☒	☐
B16	Vehicle occupant protection, including interior fittings and vehicle doors	3/2014 Annex XVII 2016/1824	☐	☐	☒	☐
B17	Maximum continuous total power and/or maximum vehicle speed limitation by design	3/2014 Annex XVIII 2016/1824	☒	☐	☐	☐
B18	Vehicle structure integrity	3/2014 Annex XIX 2016/1824	☒	☐	☐	☐

C. VEHICLE CONSTRUCTION AND GENERAL TYPE-APPROVAL REQUIREMENTS (VCR)

Nr.	Subject	Commission Delegated Regulation (EU) No including last amendment	PASS	FAIL	N/A	COVER BY PREVIOUS EXTENSION
C1	Powertrain tampering prevention (anti-tampering) measures	44/2014 Annex II (EU) 2018/295	☒	☐	☐	☐
C2	Arrangements for type-approval	44/2014 Annex III (EU) 2018/295	☒	☐	☐	☐
C3	Conformity of production (CoP)	44/2014 Annex IV (EU) 2018/295	☒	☐	☐	☐
C4	Coupling devices and attachments	44/2014 Annex V (EU) 2018/295	☐	☐	☒	☐
C5	Devices to prevent unauthorised use	44/2014 Annex VI (EU) 2018/295 UNECE R62.01	☒	☐	☐	☐
C6	Electromagnetic compatibility (EMC)	44/2014 Annex VII (EU) 2018/295 UNECE R10.06	☒	☐	☐	☐
C7	External projections	44/2014 Annex VIII (EU) 2018/295	☒	☐	☐	☐
C8	Fuel storage	44/2014 Annex IX (EU) 2018/295	☐	☐	☒	☐
C9	Load platforms	44/2014 Annex X (EU) 2018/295	☐	☐	☒	☐
C10	Masses and dimensions	44/2014 Annex XI (EU) 2018/295	☒	☐	☐	☐
C11	Functional on-board diagnostics (OBD)	44/2014 Annex XII (EU) 2018/295	☐	☐	☒	☐
C12	Passenger handholds and footrests	44/2014 Annex XIII (EU) 2018/295	☒	☐	☐	☐
C13	Registration plate space	44/2014 Annex XIV (EU) 2018/295	☒	☐	☐	☐
C14	Access to repair and maintenance information	44/2014 Annex XV (EU) 2018/295	☒	☐	☐	☐
C15	Stands	44/2014 Annex XVI (EU) 2018/295	☒	☐	☐	☐

D. VEHICLE CONSTRUCTION AND GENERAL TYPE-APPROVAL REQUIREMENTS (VCR)

Nr.	Subject	Commission Delegated Regulation (EU) No including last amendment	PASS	FAIL	N/A	COVER BY PREVIOUS EXTENSION
D1	Statutory plate	901/2014 Annex V (EU) 2020/239	☒	☐	☐	☐

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00139 Roma

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APPENDIX 3 A1 Société Nationale de Certification et d'Homologation

Test Type I Requirements Tailpipe Emissions after Cold Start
Test Type II Requirements Tailpipe Emissions at (increased) Idle and Free Acceleration
Test Type V Requirements Durability of Pollution-control Devices
Test Type VII Requirements Energy efficiency: CO2 emissions, fuel consumption, electric energy consumption and electric range

0.	***Main Requirements***	:	
0.1.	Requirements according to	:	Reg. (EU) 134/2014, Annex VII Including amendment (EU) 2018/295
1.	***Witness details***	:	
1.1.	Witness	:	Steven LI
1.2.	Location of Test	:	Zhejiang Labs Vehicle Testing Co., Ltd. No.5 Shengyi Road, Yiqiao Industrial Zone, Yuhang Street, Yuhang District, Hangzhou, Zhejiang Province, PEOPLE'S REPUBLIC OF CHINA
1.3.	Date of Test	:	2022/11/7
1.4.	Worst Case Rationale	:	Both versions tested
1.5.	Tested vehicle	:	Variant/Version 00/00 R68HM5000NA000001 Variant/Version 00/01 R68HM5010NA000001
1.6.	**Facility and Equipment Checks**	:	
1.6.1.	Calibration certificates checked and valid, recorded in the following table	:	Conform
1.6.2.	All instruments are equipped with identification label	:	Yes
1.6.3.	Calibration certificates are complete of calibration-chain with detailed information regarding primary used.	:	Yes
1.6.4.	Guideline Cetoc TS IST71D has been compiled	:	*Yes*

Equipment	Serial / Certificate No.	Calibration due
MCJ-400 motorcycle chassis dynamometer	MCJ-400 190911	11/05/2023
Digital power meter	CN 37XJ22032730-0021	11/05/2023

2.	**Annex II - Test results sheet**		
2.2.1.	***(A) Environmental and propulsion unit performance***		
2.2.1.1.	**Generic information on environmental performance**		
2.2.1.1.1.	Description of propulsion, propulsion family and drive-train of test vehicle(s)	:	Single electric motor direct drive rear axle
2.2.1.1.2.	Environmental step of test vehicle:	:	~~Euro 4~~ / Euro 5 / ~~Euro 5+~~
2.2.1.1.3.	Description of emission test bench(es), specifications and settings	:	Zhongcheng / MCJ-400 *(Roller diameter: 526 mm)*

2.2.1.1.4.	Chassis/engine dynamometer(s) specifications	:	Roller diameter: 442 mm Electro-mechanical inertia
2.2.1.1.5.	Inertia (reference) mass and running resistance settings for single/dual roll chassis dynamometer	:	Variant 00 / version 00 and variant 00 / version 01 Inertia= 140 kg a= 12.3 (N) b= 0.0221 (N/(km/h)^2) c=-

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2.2.1.1.6.	Comprehensive report of road test results for the determination of test bench settings, including coast down times for single/~~dual~~ roll chassis dynamometer	:	Not applicable
2.2.1.1.7.	Applicable test type I driving schedule: (ECE R40 (with/without EUDC), ECE R47, WMTC stage 1, WMTC stage 2, revised WMTC)	:	Revised WMTC
2.2.1.1.8.	Description gearshift prescriptions for environmental testing	:	Not applicable
2.2.1.2.	***Test type I: requirements: tailpipe emissions after cold start***		
	The following items specific to test type I shall be provided		
2.2.1.2.1.	Description of tested vehicle(s) (prototype(s) or series production, hardware and software levels, VIN)	:	Not applicable
2.2.1.2.2.	Any deviations by test vehicle(s) from data provided in information document, Annex I If yes, please provide list with deviations.	:	~~Yes~~/No
2.2.1.2.3.	Type-approval number if not parent vehicle:	:	Not applicable
2.2.1.2.4.	Mileage(s) of test vehicle(s)	:	
2.2.1.2.5.	Test fuel(s) used	:	Not applicable
2.2.1.2.6.	Description of test type I measurement methods for hybrid L-category vehicles referred to in Appendix 11 to Annex II to Commission Delegated Regulation (EU) No 134/2014	:	Not applicable
2.2.1.2.7.	Description of test type I measurement methods for gas-fuelled vehicles referred to in Appendix 12 to Annex II to Commission Delegated Regulation (EU) No 134/2014	:	Not applicable
2.2.1.2.8.	Description of test type I measurement methods for vehicles equipped with a periodically regenerating system referred to in Appendix 13 to Annex II to Commission Delegated Regulation (EU) No 134/2014	:	Not applicable
2.2.1.2.9.	Information on regeneration strategy	:	
	D (number of operating cycles between 2 cycles when regenerative phases occur)	:	Not applicable
	d (number of operating cycles required for regeneration)	:	Not applicable
2.2.1.2.10.	Description of weighting of type I test results as referred to in point 6.1.1.5. of Annex II to Commission Delegated Regulation (EU) No		

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	134/2014 including equation number and weighting factors	:	Not applicable
2.2.1.2.11.	Number of type I operating cycles between two cycles where regenerative phases occur under the conditions equivalent to type I test (Distance 'D' in Figure Ap13-1 in Appendix 13 to Annex II to Commission Delegated Regulation (EU) No 134/2014)	:	Not applicable
2.2.1.2.12.	Description of method employed to determine the number of cycles between two cycles where regenerative phases occur	:	Not applicable
2.2.1.2.13.	Parameters to determine the level of loading required before regeneration occurs (i.e. temperature, pressure etc.)	:	Not applicable
2.2.1.2.14.	Description of method used to load system in the test procedure described in point 3.1. of Appendix 13 to Annex II to Commission Delegated Regulation (EU) No 134/2014)	:	Not applicable
2.2.1.2.15.	Test records according to point 7 of Annex II to Commission Delegated Regulation (EU) No 134/2014	:	Not applicable
2.2.1.2.16.	Type I test results	:	

Euro 5 limit

Table 5-1
Test type I results

Test Type I Test Results (TR_{TTIx})	Test No.	CO	THC	NMHC	NOx	THC+ NOx	PM
TR TTI Measured x (i) (iv) (mg/km)	1					--	--
	2					--	--
	3					--	--
TR TTI Measured x Mean (i) (iv) (mg/km)		#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	--	--
Ki (i) (v) (vii)		1	1	1	1	--	--
TR TTIx (i) (vi) = Ki · $TR_{TTI\ Measured\ x\ Mean}$ (mg/km)		#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	--	--
(% of L x)		#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	--	--
Limit value L x (viii) (mg/km)		1000	100	68	60	--	--

2.2.1.3. Test type II requirements: tailpipe emissions at (increased idle)/free acceleration

2.2.1.3.1.	Details of test vehicle(s) if different from vehicle used for type I testing: (items 2.1.2.1.1. to 2.1.2.1.4. where different)	:	Not applicable
2.2.1.3.2.	Description of propulsion idling activation method in case of stop-start system:	:	Not applicable

2.2.1.6. Test type V requirements: durability of pollution-control devices

2.2.1.6.1.	Details of test vehicle(s), its powertrain and pollution-control devices explicitly documented and listed, emission test laboratory equipment and settings, if different from data reported under items 2.1.2.1.1. to 2.1.2.1.10	:	Not applicable
2.2.1.6.2.	Test type V carried out on	:	~~test track, on the road, on a chassis dynamometer~~
2.2.1.6.3.	The test type V data outcome and the correspondent test report shall vary in relation with the chosen durability procedure set out in Article 23(3) of Regulation (EU) No 168/2013, established as follows	:	Not applicable
2.2.1.6.3.1.	Test type V conducted according to Article 23(3a)	:	~~full mileage accumulation~~
2.2.1.6.3.1.1.	Test cycle used	:	~~US EPA AMA cycle, SRC-LeCV~~
2.2.1.6.3.1.2.	In the case of SRC-LeCV, applicable durability test cycle vehicle group, refer to Appendix 1 to Annex V to Commission Delegated Regulation (EU) No 134/2014	:	Not applicable
2.2.1.6.3.1.3.	In the case of SRC-LeCV, amount of test type V soak procedures	:	Not applicable
2.2.1.6.3.1.4.	In the case of US EPA AMA cycle, classification according to Appendix 2 to Annex V to Commission Delegated Regulation (EU) No 134/2014	:	Not applicable
2.2.1.6.3.1.5.	Mileage test vehicle(s)	:	Not applicable
2.2.1.6.3.1.6.	Catalyst time-at-temperature data histogram	:	Not applicable
	List of maintenance and adjustments over mileage accumulation	:	Not applicable
2.2.1.6.3.1.7.	The collection of test type I results (1 to n), (see 2.2.1.2.16.), the calculated slopes and offsets, and the calculated test type V results shall be entered in the table below	:	Not applicable

Table 5-5
Test type V results in case of compliance with Article 23(3a) of Regulation (EU) No 168/2013

Test Type V Test Results (TR TTVx)	Test No.	Accumulated mileage	CO		THC		NMHC		NOx		THC+NOx		PM	
		(km)	mg/km	% of Lx	mg/km	% of Lx	mg/km	% of Lx	mg/km	% of Lx	mg/km	% of Lx	mg/km	% of Lx
TR TTVx	1													
TR TTVx	2													
TR TTVx	3													
TR TTVx	N													
Limit value L x														

2.2.1.6.3.2.	Test type V conducted according to Article 23(3b)	:	Not applicable
2.2.1.6.3.2.1.	Test cycle used (SRC-LeCV)	:	Not applicable
2.2.1.6.3.2.2.	Applicable SRC-LeCV durability test cycle vehicle group: refer to Commission Delegated Regulation (EU) No 134/2014	:	Not applicable
2.2.1.6.3.2.3.	Amount of SRC-LeCV soak procedures	:	Not applicable
2.2.1.6.3.2.4.	Mileage test vehicle(s)	:	Not applicable
2.2.1.6.3.2.5.	Applied stop criteria	:	Not applicable
2.2.1.6.3.2.6.	List of 'golden components' complete with series, part and marking number	:	Not applicable
2.2.1.6.3.2.7.	List of 'new components' complete with series, part and marking number	:	Not applicable
2.2.1.6.3.2.8.	Catalyst time-at-temperature data histogram	:	Not applicable
2.2.1.6.3.2.9.	List of maintenance and adjustments over mileage accumulation	:	Not applicable
2.2.1.6.3.2.10.	The collection of test type I results (1 to n), (see 2.2.1.2.16.), the calculated slopes and offsets, and the calculated test type V results shall be entered in the table below	:	Not applicable

Table 5-6
Test type V results in case of compliance with Article 23(3b) of Regulation (EU) No 168/2013

Test Type V Test Results (TR TTVx)	Test No.	Accumulated mileage	CO		THC		NMHC		NOx		THC+NOx		PM	
		(km)	mg/km	% of Lx	mg/km	% of Lx	mg/km	% of Lx	mg/km	% of Lx	mg/km	% of Lx	mg/km	% of Lx
TR TTVx	1	100												
Slope a														
Offset b														
Final calculated TR TTVFin = a · TR TTVnx + b	N													
Limit value L x														

2.2.1.6.3.3.	Test type V conducted according to Article 23(3c) of Regulation (EU) No 168/2013	:	~~mathematical durability procedure~~
2.2.1.6.3.3.1.	The Test Type I results of a vehicle with a mileage of 100 km or more, (see 2.2.1.2.16.), and the applicable deterioration factors set out in Annex VII(B) to Regulation (EU) No 168/2013 shall be entered in the table below along with the calculated test type V results	:	Not applicable

Table 5-7
Test type V results in case of compliance with Article 23(3c) of Regulation (EU) No 168/2013

Test Type V Test Results (TR TTVx)	Test No.	Accumulated mileage	CO		THC		NMHC		NOx		THC+NOx		PM	
		(km)	mg/km	% of Lx	mg/km	% of Lx	mg/km	% of Lx	mg/km	% of Lx	mg/km	% of Lx	mg/km	% of Lx
TR TTVx	1	--	--	--	--	--	--	--	--	--	--	--		--
Deterioration Factor DF x			1.3		1.3		1.3		1.3		--		--	
Final calculated TR TTVFin= DFx · TR TTVnx			--		--		--		--		--		--	
Limit value L x			1000		100		68		60		--		--	

2.2.1.7. Test type VI has not been assigned; consequently, there are no results to be submitted

2.2.1.8. Test type VII requirements: measurement of CO_2 emissions, fuel consumption, electric energy consumption and electric range determination

2.2.1.8.1.	Details of test vehicle(s), its powertrain and pollution-control devices explicitly documented and listed, emission test laboratory equipment and settings if different from data reported under items 2.1.2.1.1. to 2.1.2.1.10	:	Not applicable
2.2.1.8.2.	Documentation added according to UNECE Regulation No 101 (OJ L 138, 26.5.2012, p. 1)	:	~~yes~~/no
2.2.1.8.3.	The vehicle manufacturer has ensured that the CO 2 emissions, fuel consumption, electric energy consumption and electric range data are provided to the buyer of the vehicle at the time of purchase of a new vehicle	:	*yes*
2.2.1.8.4.	A completed specimen of the test type VII result format used to inform the buyer of the new vehicle is added to the information document	:	*yes*
2.2.1.8.5.	Type VII test results, where applicable and for each reference fuel tested	:	Not applicable

2.2.1.8.6. CO2 emissions and fuel consumption

Table 5-8
Test Type VII result table for propulsions equipped with a combustion engine only or equipped with not-externally-chargeable (NOVC) hybrid electric propulsion

Test Type VII Test Results (TR_{TTVII})	Test No	CO2	Fuel consumption
		g/km	(l/100km) ~~or (kg/100 km)~~
$TR_{TTI\ Measured\ x}$	1		
	2		
	3		
$TR_{TTI\ Measured\ Mean}$			
Ki		1	1
$TR_{TTVIIx} = Ki \cdot TR_{TTI\ Measured\ x\ Mean}$			
CO 2 and Fuel consumption as declared by the manufacturer			

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2.2.1.8.7.	***Electric energy consumption and electric range*** Measurement of the electric range		
2.2.1.8.7.1.	If the vehicle has several driving modes which may be selected by the driver, the operator shall select that which best matches the target curve	:	~~Conform/~~not applicable
2.2.1.8.7.2.	The vehicle tyres shall be inflated to the pressure specified by the vehicle manufacturer when the tyres are at ambient temperature	:	Yes
2.2.1.8.7.3.	The viscosity of the oils for the mechanical moving parts shall conform to the vehicle manufacturer's specification	:	*Yes*
2.2.1.8.7.4.	The lighting, signalling and auxiliary devices shall be off, except those required for the testing and usual day-time operation of the vehicle	:	*Yes*
2.2.1.8.7.5.	All energy storage systems for other than traction purposes (electric, hydraulic, pneumatic, etc.) shall be charged to their maximum level as specified by the manufacturer.	:	*Yes*
2.2.1.8.7.6.	If the batteries are operated above the ambient temperature, the operator shall follow the procedure recommended by the vehicle manufacturer in order to keep the battery temperature in the normal operating range	:	*Yes*
2.2.1.8.7.7.	The vehicle shall have travelled at least 300 km in the seven days before the test with the batteries installed for the test	:	*Yes*
2.2.1.8.7.8	Climatic conditions ~~For testing performed outdoors, the ambient temperature shall be between 278,2 K and 305,2 K (5 °C and 32 °C)~~. The indoor testing shall be performed at a temperature of between 275,2 K and 303,2 K (2 °C and 30 °C).	:	*Yes*
2.2.1.8.7.9.	Initial charge of the battery Charging the battery consists of the following procedure: The 'initial charge' of the battery means the first charge of the battery, on reception of the vehicle. Where several combined tests or measurements are carried out consecutively, the first charge shall be an 'initial charge' and the subsequent charges may follow the 'normal overnight charge' procedure set out in 3.2.2.4. of Appendix 3 of reg. EU 134/2014.	:	*Yes*
2.2.1.8.7.10.	Discharge of the battery For pure electric vehicles: The procedure starts with the discharge of the battery of the vehicle while driving (~~on the test track~~, on a chassis dynamometer, etc.) at a steady speed of 70 percent ± 5 percent of the maximum design vehicle speed, which is to be determined according to the test procedure in Appendix 1 to Annex X. Discharging shall stop under any of the following conditions: (a) when the vehicle is unable to run at 65 percent of the maximum thirty minutes speed; (b) **when the standard on-board instrumentation indicates that the** **vehicle should be stopped;** (c) after 100 km. By means of derogation if the manufacturer can prove to the technical service to the satisfaction of the approval authority that the vehicle is physically not capable of achieving the thirty minutes speed the maximum fifteen minute speed may be used instead.	:	*Yes*
2.2.1.8.7.11.	Normal overnight charge For a pure electric vehicle, the battery shall be charged according to the normal overnight charge procedure, as defined in point 2.4.1.2. of Appendix 2, for a period not exceeding twelve hours.	:	*Yes*

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2.2.1.8.7.12.	Application of the cycle and measurement of the range. For pure electric vehicles: The test sequence set out in the Appendices shall be carried out on a chassis dynamometer adjusted as described in Annex II, until the test criteria are met. The test criteria shall be deemed as having been met when the vehicle is unable to meet the target curve up to 50 km/h, or when the standard **on-board instrumentation indicates that the vehicle should be stopped.** The vehicle shall then be slowed to 5 km/h without braking by releasing the accelerator pedal, and then stopped by braking. At speeds of over 50 km/h, when the vehicle does not reach the acceleration or speed required for the test cycle, the accelerator pedal shall remain fully depressed, or the accelerator handle shall be turned fully, until the reference curve has been reached again. Up to three interruptions, of no more than 15 minutes in total, are permitted between test sequences. The distance covered in km (De) is the electric range of the electric vehicle. It shall be rounded to the nearest whole number.	:	**Variant 00** Version 00 Version 01	**De** 57 km 68 km
2.2.1.8.7.13.	Final Test result	:	See table 5-9	

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2.2.1.8.8.	***Electric energy consumption and electric range***	
	Method of measuring the electric energy consumption of a vehicle powered by an electric powertrain only	
2.2.1.8.8.1. to 2.2.1.8.8.7	Refer from 2.2.1.8.7.1. to 2.2.1.8.7.7.	*Yes*
2.2.1.8.8.8.	In order to measure its electric consumption in the type I test cycle, the test vehicle shall be classified according to the achievable maximum design vehicle speed thresholds only, set-out in point 4.3. of Annex II.	Selected Test cycle: Revised WMTC
2.2.1.8.8.9.	All the tests are conducted at a temperature of between 293,2 K and 303,2 K (20 °C and 30 °C).	PER: 26.3 °C EC: 26.1 °C
2.2.1.8.8.10.	Initial charge of the battery Charging the battery consists of the following procedures:	
2.2.1.8.8.10.1.	Discharge of the battery The battery is discharged while the vehicle is driven (~~on the test track~~, on a chassis dynamometer, etc.) at a steady speed of 70 percent ± 5 percent of the maximum design vehicle speed, as determined according to the test procedure in Appendix 1 to Annex X. Discharging shall stop: (a) when the vehicle is unable to run at 65 percent of the maximum thirty minutes speed, or (b) **when the standard on-board instrumentation indicates that the vehicle should be stopped,** or (c) after 100 km. By means of derogation if the manufacturer can prove to the technical service to the satisfaction of the approval authority that the vehicle is physically not capable of achieving the thirty minutes speed the maximum fifteen minute speed may be used instead.	Fulfilled by 2.2.1.8.7.6.
2.2.1.8.8.10.2.	Application of a normal overnight charge The battery shall be charged according to the following procedure: Normal overnight charge procedure The charge shall be carried out: (a) **with the on-board charger if fitted;** (b) ~~with an external charger recommended by the manufacturer, using the charging pattern prescribed for normal charging;~~ (c) in an ambient temperature of between 293,2 K and 303,2 K (20 °C and 30 °C). This procedure excludes all types of special charges that could be automatically or manually initiated, e.g. equalisation or servicing charges.	Yes
2.2.1.8.8.10.2.1.	The end-of-charge criteria shall correspond to **a charging time of 12 hours** except where the standard instrumentation indicates clearly that the battery is not yet fully charged, in which case:	*Yes*

	the maximum time is =3* *claimed battery capacity (Wh) / mains power supply (Wh)*		
2.2.1.8.8.11.	The end of charging time t0 (plug off) shall be reported. The chassis dynamometer shall be set according to the method in point 4.5.6. of Annex II. Starting within four hours of t0, the applicable type I test shall be run twice on a chassis dynamometer, following which the distance covered in km (Dtest) is recorded. If the manufacturer can demonstrate to the approval authority that twice the type I test distance can physically not be attained by the vehicle, the test cycle shall be conducted once and subsequently followed by a partial second test run. The second test run may stop if the minimum state of charge of the propulsion battery is reached as referred to in Appendix 3.1.		End of charging time t0 (plug off): *Not found* 00 / 00 Dtest: 13.2 km 00 / 01 Dtest: *11.48* km
2.2.1.8.8.12.	Charge of the battery The test vehicle shall be connected to the mains within 30 minutes of the second run of the applicable type I test cycle. The vehicle shall be charged according to the normal overnight charge procedure in point 2.2.1.8.7.10.2. The energy measurement equipment, placed between the mains socket and the vehicle charger, measures the energy charge E delivered from the mains and its duration. Charging shall stop 24 hours after the end of the previous charging time (t0). *Note:* In the event of a mains power cut, the 24 hour period may be extended in line with the duration of the cut. The validity of the charge shall be discussed between the technical services of the approval laboratory and the vehicle manufacturer to the satisfaction of the approval authority.		Charge stop at t0 + 24h Charging time: *2* h
2.2.1.8.8.13.	Electric energy consumption calculation Energy E in Wh and charging time measurements are to be recorded in the test report. The electric energy consumption c shall be determined using the formula: c= E/Dtest (expressed in Wh/km and rounded to the nearest whole number). where Dtest is the distance covered during the test (in km).		00 / 00 E: 458 Wh 00 / 01 E: 336.9 Wh
2.2.1.8.8.14.	Final Test result	:	See table 5-9

Table 5-9

Test Type VII result table for pure electric propulsion or not-externally-chargeable (NOVC) propulsions equipped with an electric motor for propulsion

	Measured electric energy consumption**	Declared electric energy consumption	Measured electric range	Declared electric range
	(Wh/km)*	(Wh/km)	(km)*	(km)
Pure electric powertrain 00 / 00	35	35	57	57
Pure electric powertrain 00 / 01	30	30	68	68

**Rounded to Whole Number*
***Measured Electric Energy Consumption within 4 % of declared.*

APPENDIX 3– A6
Testing Procedures and Technical Requirements as Regards Propulsion Unit Performance

0.	***Main Requirements***	:	
0.1.	Requirements according to	:	Reg. (EU) 3/2014, Annex X Including amendment (EU) 2018/295 UNECE R85.00 Supplement 10
1.	***Witness details***		
1.1.	Witness	:	Steven LI
1.2.	Location of Test	:	Zhejiang Labs Vehicle Testing Co., Ltd. No.5 Shengyi Road, Yiqiao Industrial Zone, Yuhang Street, Yuhang District, Hangzhou, Zhejiang Province, PEOPLE'S REPUBLIC OF CHINA
1.3.	Date of Test	:	2022/11/7
1.4.	Worst Case Rationale	:	Variant/version 00/00,01
1.5.	Tested engine	:	SS60V1500W50C HM5SS 00000001
1.6.	**Facility and Equipment Checks**	:	
1.7.1.	Calibration certificates checked and valid, recorded in the following table	:	Conform
1.7.2.	All instruments are equipped with identification label	:	Yes
1.7.3.	Calibration certificates are complete of calibration-chain with detailed information regarding primary used.	:	Yes

Equipment	Serial / Certificate No.	Calibration due
GPS road tester	Make: RACELOGIC Type: VB3i-V4G SN: 046533 Report No. 202210000804	23 April 2023[1]
Aerovane	Make: Chenyun Type: FSXY2 SN: 22022200T0897 Cert No.: 37XJ22032730-0001	12 May 2023
Barometer (Temperature/Humidity)	Make: Lutron Type: PHB-318 SN:/ Cert No.: 37XJ22032730-0003	12 May 2023
Tyre pressure gauge	Make: PCL Type: TG-3 SN: 181219319 Cert No.: 37XJ22032730-0019	12 May 2023
Dynamometer	Make: Yinhao Type: ZF-200KB SN:1810223 Cert No.: CGEL051220220922	11 May 2023

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2. ***Test Results***

2.2.1.11. ***Propulsion unit performance test results***

[1] *Test date 24 April 2022*

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2.2.1.11.1.	Propulsion unit performance data to be provided to measure/determine the maximum vehicle design speed	:	*Yes*
2.2.1.11.1.1.	Details of hardware and software of test vehicle(s), fitted components and accessories referred to in Annex X to Commission Delegated Regulation (EU) No 134/2014, Any deviations by test vehicle(s) from data provided in information document, Annex I	:	*Label on controller:* *Controller type: SS12-60V-YTC-25*[2] *EEC-12C* *Degree: 120 °* *ZJCP12-60V-YTC-CK19*
	If yes, please provide list with deviations relevant for measuring the maximum vehicle design speed and gear in which it was reached	:	Not applicable
2.2.1.11.1.2.	Test mass in running order	:	Not applicable
	mass plus rider/driver	:	Not applicable
2.2.1.11.1.3.	Test fuel specifications	:	Not applicable
2.2.1.11.1.4.	Powertrain lubricant specifications	:	As manufacturer's recommendation
2.2.1.11.1.5.	Atmospheric pressure (kPa)	:	102.7
2.2.1.11.1.6.	Relative humidity (%)	:	70
2.2.1.11.1.7.	Ambient temperature (K)	:	296
2.2.1.11.1.8.	Wind speed and direction on test track (km/h)	:	1.8 N-S
2.2.1.11.1.9.	Test track condition (temperature, level of moisture etc.)	:	Temperature: 290 K, dry and flat. Test track configuration according to item 4.2.1 of Appendix 1 of Annex X to (EU) No 134/2014
2.2.1.11.1.10.	Maximum vehicle design speed measured and gear in which it is reached	:	45.0 km/h 25.0 km/h Wheel hub direct drive rear wheel
2.2.1.11.1.11.	Maximum vehicle design speed	:	45 km/h 25km/h
2.2.1.11.1.12	Exemption L3e-A3 and L4e-A3 vehicles; maximum vehicle design speed declared by manufacturer	:	45 km/h 25 km/h
2.2.1.11.2.	Propulsion unit performance data to be provided to measure/determine the torque and power of the propulsion on the engine dynamometer	:	Yes
2.2.1.11.2.1.	Details of propulsion(s) hardware and software tested, test equipment and settings relevant for propulsion unit performance measurements on engine dynamometer tests	:	*Yes*
2.2.1.11.2.1.1.	List of components and part numbers/markings relevant for propulsion unit performance measurement on engine dynamometer, referred to in Annex X to Commission Delegated Regulation (EU) No 134/2014	:	The accessories needed for operation of the motor in the application in question is located on the test bench as far as possible in the positions that they would occupy for that application.

[2] *Suggest checking during CoP audit!*

2.2.1.11.2.1.2.	Test fuel	:	Not applicable
2.2.1.11.2.1.3.	Powertrain lubricant specifications	:	As manufacturer recommend
2.2.1.11.2.1.4.	Atmospheric pressure (kPa)	:	See below test results
2.2.1.11.2.1.5.	Relative humidity (%)	:	See below test results
2.2.1.11.2.1.6.	Ambient temperature (K)	:	See below test results
2.2.1.11.2.1.7.	Correction factor for reference atmospheric conditions α1	:	Not applicable
2.2.1.11.2.1.8.	Correction factor for the efficiency of the transmission α2	:	Not applicable
2.2.1.11.2.1.9	Engine cooling temperature (K)	:	Not applicable
2.2.1.11.2.1.10.	Oil temperature at measuring point (K)	:	Not applicable
2.2.1.11.2.1.11.	Exhaust temperature (K)	:	Not applicable
2.2.1.11.2.1.12.	The manufacturer shall indicate the propulsion unit performance test results below		
2.2.1.11.2.1.13.	Maximum permitted ~~combustion engine~~/electric motor/propulsion rotation speed (min^{-1})	:	Version 00: 540 Version 01: 310
2.2.1.11.2.1.14.	Maximum net power combustion engine	:	
		:	Not applicable
2.2.1.11.2.1.15.	Maximum net torque combustion engine	:	
		:	Not applicable
2.2.1.11.2.1.16.	Maximum continuous-rated power electric motor	:	00/00: 1.5 kW @ 350 min^{-1} 00/01: 1.5 kW @ 270 min^{-1}
2.2.1.11.2.1.17.	Maximum continuous-rated torque electric motor	:	00/00: 41 Nm @ 350 min^{-1} 00/01: 53 Nm @ 350 min^{-1}
2.2.1.11.2.1.18.	Maximum current e-motor at maximum continuous-rated power	:	00/00: 32.0 A 00/01: 28.0 A
2.2.1.11.2.1.19.	Maximum continuous total power for propulsion(s)	:	00/00: 1.5 kW 00/01: 1.5 kW
2.2.1.11.2.1.20.	Maximum continuous total torque for propulsion(s)	:	00/00: 41 Nm 00/01: 53 Nm
2.2.1.11.2.1.21.	Maximum peak power for propulsion(s)	:	00/00: 2.1 kW @ 345 min^{-1} 00/01: 1.9 kW @ 250 min^{-1}
2.2.1.11.2.1.22.	Power/mass in running order ratio	:	0.024193548
2.2.1.11.2.1.23.	Specific fuel consumption, g/kWh at maximum net power and power	:	See below test results
2.2.1.11.2.1.24.	Propulsion unit performance sweep graphs of total power and torque vs. engine speed (1 200 rpm to propulsion speed governor rpm, step 400 rpm). Secondary variables: spark angle, A/F ratio and mass air-flow (measured or calculated)	:	Not applicable
2.2.1.11.2.1.25.	Maximum speed of vehicle and gear in which it is reached km/h) (only for subcategories: L1e, L2e, L6e, L7e-B1, L7e-C)	:	00/00: 45 km/h 00/01: 25 km/h Wheel hub direct drive rear wheel
2.2.1.11.2.1.26.	Maximum declared vehicle speed (only for subcategories without maximum vehicle speed limitation: L3e, L4e, L5e, L7e-A and L7e-B2)	:	Not applicable
	Engine family 00	:	Not applicable

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TEST RESULTS

Thirty minutes power

Variant/Version 00/00

Elapsed time (sec)	Motor speed (min^{-1})	Test Voltage (V)	Power (kW)	Torque (Nm)
0	351	60.6	1.5	41.2
120	351	60.6	1.5	41.2
240	351	60.5	1.5	41.2
360	350	60.5	1.5	41.1
480	350	60.5	1.5	41.1
600	350	60.4	1.5	41.1
720	350	60.4	1.5	41.1
840	350	60.4	1.5	41.1
960	350	60.3	1.5	41.1
1080	349	60.3	1.5	40.9
1200	349	60.3	1.5	40.9
1320	349	60.3	1.5	40.9
1440	349	60.2	1.5	40.9
1560	348	60.2	1.5	40.8
1680	348	60.2	1.5	40.8
1800	348	60.1	1.5	40.6

Variant/Version 00/01

Elapsed time (sec)	Motor speed (min^{-1})	Test Voltage (V)	Power (kW)	Torque (Nm)
0	268	59.9	1.5	53.8
120	269	59.9	1.5	53.7
240	268	59.8	1.5	53.8
360	270	59.8	1.5	53.1
480	269	59.7	1.5	53.6
600	270	59.5	1.5	53.4
720	270	59.6	1.5	53.4
840	271	59.5	1.5	53.2
960	270	59.6	1.5	53.2
1080	271	59.5	1.5	53.2
1200	271	59.6	1.5	53.1
1320	270	59.4	1.5	53.1
1440	270	59.5	1.5	53.2
1560	271	59.3	1.5	53.1
1680	268	59.9	1.5	53.3
1800	269	59.9	1.5	53.4

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APPENDIX 3 – A7
Vehicle propulsion family with regard to environmental performance demonstration tests

0.	***Main Requirements***	*:*	
0.1.	Requirements according to	:	Reg. (EU) 134/2014, Annex XI Including amendment (EU) 2018/295
1.	***Witness details***	***:***	
1.1.	Witness	:	Not applicable
1.2.	Location of Test	:	Not applicable
1.3.	Date of Test	:	Not applicable
1.4.	Worst Case Rationale	:	Not applicable

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APPENDIX 3 – B1
Audible Warning Devices

0.	***Main Requirements***		
0.1.	Requirements according to	:	Reg. (EU) 3/2014 Annex II Including amendment (EU) 2016/1824 UNECE 28.00 Supplement 6
1.	***Witness details***	:	
1.1.	Witness	:	Steven LI
1.2.	Location of Test	:	Zhejiang Labs Vehicle Testing Co., Ltd. No.5 Shengyi Road, Yiqiao Industrial Zone, Yuhang Street, Yuhang District, Hangzhou, Zhejiang Province, PEOPLE'S REPUBLIC OF CHINA
1.3.	Date of Test	:	27 November 2022.
1.4.	Worst Case Rationale	:	The tests were conducted with a test vehicle which is representative of the vehicle type to be approved. The characteristics of the selected vehicle represent the worst case.
1.5.	Tested vehicle	:	R68HM5010NA000001
2.	***Facility and Equipment Checks***		
2.1	Calibration certificates checked and valid, recorded in the following table	:	Conform
2.2.	All instruments are equipped with identification label	:	Yes
2.3.	Calibration certificates are complete of calibration-chain with detailed information regarding primary used.	:	Yes

Equipment	Serial / Certificate No.	Calibration due
Sound-level meter	Make: TES / Type: TES-1350A SN:211106648 / Cert No. 37XJ22032730-0013	12 May 2023
Acoustic calibrator	Make: / / Type: ND9 SN: N662275 / Cert No. 37XJ22032730-0011	12 May 2023
Tape measures	Make: / / Type: 7.5m SN: 665703 / Cert No. 37XJ22032730-0006	12 May 2023
Aerovane	Make: Chenyun Type: FSXY2 SN: 22022200T0897 Cert No.: 37XJ22032730-0001	12 May 2023

3.	***Details of Horns Fitted***	
3.1.	Make and Type:	LVEE DL70-Ⅱ
3.2.	Voltage Rating:	12 V
3.3.	Number Fitted:	1
3.4.	Approval Number:	E32-28R-000002
3.5.	Position:	X1050,Y-140,Z220 Locate in middle of vehicle under driver seat.

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4. *Condition of test:*

4.1.	Wind:	*Not measured*
4.2.	Test area, general condition:	Not mentioned in origin test report

5. ***Test Results***

5.1.	Height of microphone above ground (m)	0,5 to 1,5 m above ground	
5.2.	Sound level value (dB(A))	90	

APPENDIX 3 – B2
Braking, including anti- lock and combined brake systems

0.	***Main Requirements***		
0.1.	Requirements according to	:	Reg. (EU) 3/2014 Annex III Including amendment (EU) 2016/1824 UNECE 78.04 Supplement 1

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1.	***Witness details***	:	
1.1.	Witness	:	Steven LI
1.2.	Location of Test	:	Zhejiang Labs Vehicle Testing Co., Ltd. No.5 Shengyi Road, Yiqiao Industrial Zone, Yuhang Street, Yuhang District, Hangzhou, Zhejiang Province, PEOPLE'S REPUBLIC OF CHINA
1.3.	Date of Test	:	27 November 2022
1.4.	**Worst Case Rationale**	:	The tests were conducted with a test vehicle which is representative of the vehicle type to be approved. The characteristics of the selected vehicle represent the worst case.
1.5.	**Tested vehicle**	:	R68HM5010NA000001

3.	***Facility and Equipment Checks***		
3.1	Calibration certificates checked and valid	:	Conform
3.2.	All instruments are equipped with identification label	:	Yes
3.3.	Calibration certificates are complete of calibration-chain with detailed information regarding primary used.	:	Yes

Equipment	Serial / Certificate No.	Calibration due
GPS road tester	Make: RACELOGIC Type: VB3i-V4G SN: 046533 Report No. 202210000804	23 April 2023[3]
Force sensor	1610040031 / 37XJ22032730-0024	12 May 2023
Manometer	CN 37XJ22032730-0007	12 May 2023
Barometer (Temperature/Humidity)	Make: Lutron Type: PHB-318 SN:/ Cert No.: 37XJ22032730-0003	12 May 2023

[3] *Test date 24 April 2022*

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4. Summary of test results

4.1. Applicability :

	PASS	FAIL	N/A	COVERED PREVIOUS EXTENSON	See approval/Report Nr.
Dry Stops - Single Brake Control Actuated	☒	☐	☐	☐	
Dry Stop - All Service Brake Controls Actuated	☐	☐	☒	☐	
High Speed Stop	☐	☐	☒	☐	
Wet Brake Test	☒	☐	☐	☐	
Heat Fade Test	☐	☐	☒	☐	
Hot Brake Stops	☐	☐	☒	☐	
Determination of Peak Braking Coefficient (PBC)	☐	☐	☒	☐	
Stops on a High Friction Surface	☐	☐	☒	☐	
Stops on a Low Friction Surface	☐	☐	☒	☐	
Wheel lock checks on high and low friction surfaces	☐	☐	☒	☐	
Wheel lock checks high to low friction surface transition	☐	☐	☒	☐	
Wheel lock checks low to high friction surface transition	☐	☐	☒	☐	
Stops With an ABS Electrical Failure	☐	☐	☒	☐	

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5. Vehicle Details:

5.0.1. *Mass of the vehicle*

		MRO + Rider	Laden
Front Axle (kg)	:	75	79
Rear Axle (kg)	:	84	140
Total (kg)	:	159	219

Braking system :

		Front	Rear
5.0.2.	No of discs/drums and diameters (mm):	One disc Diameter=168 mm	One ventilated disc Diameter=190 mm
5.0.3.	Linings (Manufacturer and material):	Huating / HL3.0-R	Huating / HL3.0-R
5.0.4.	Hand or foot operated:	Right hand	Left hand
5.0.5.	Lever ratio:	7.04	7.04
5.0.6	Brake calliper	Not checked, no information in original test report	
5.0.7	Brake pump	Master cylinder Ø?? Wheel cylinder 2×Ø22	Master cylinder Ø?? Wheel cylinder Ø25
5.0.8	Front/rear, CBS or split system:	Front / rear	
5.0.9	Brake distribution valve:	Not fitted	
5.0.10	Power assistance:	Not fitted	
4.0.11	ABS (controlled wheels, calibration):	Not fitted	

>>Test vehicle tyre

Axle	Tyre make	Tyre dimension	Approval number	Inflation pressure (kPa)
Front	FEIBEN	225/40-10	E9 75R-001164	225
Rear	FEIBEN	225/40-10	E9 75R-001164	250

Nominal rolling circumference: 1429 mm. This tyre is smallest among tyre options, how can this tyre represent all others as worst case? CANNOT cover. This is NOT worst case!!

Test results

5.1 ***Dry Stops - Single Brake Control Actuated***

5.1.1	Performed laden, engine disconnected	:	Yes
5.1.2	Vehicles with CBS and split service brakes: also perform test lightly loaded	:	Not applicable
5.1.3	Initial brake temperature: ≥ 55ºC and ≤ 100ºC		*Yes*
5.1.4	Each service brake control is operated separately	:	Yes

Loaded conditions, engine disconnected

Brake System	Nominal Speed (km/h)	Actual Speed (km/h)	Actual Distance (m)	Corrected Distance (m)	MFDD (m/s²)	Control Force (N)
Front	40	40.3		0.03	3.74	98
Rear	40	40.4		0.04	3.59	87
Limits (L1): Front				21,76	L1 ≥ 3.4	≤ 200
Limits (L1): Rear				26,88	L1 ≥ 2.7	≤ 200

5.2 ***Dry Stop - All Service Brake Controls Actuated***

5.2.1	Performed lightly loaded, engine disconnected	:	Not applicable
5.2.2	Initial brake temperature: ≥ 55ºC and ≤ 100ºC	:	Not applicable
5.2.3	Simultaneous actuation of both service brake controls if so equipped or the single service brake system control for a service brake that operates on all wheels	:	Not applicable
5.2.4	Must achieve specified performance with no more than 6 stops	:	Not applicable

Brake System	Nominal Speed (km/h)	Actual Speed (km/h)	Actual Distance (m)	Corrected Distance (m)	Front Control Force (N)	Rear Control Force (N)
All brakes	-	--	--	--	--	--
Limits (L3):				60,00	≤ 250	≤ 400

5.3 ***High Speed Stop***

5.3.1	Performed lightly loaded, engine connected with transmission in highest gear	:	Not applicable
5.3.2	Initial brake temperature: ≥ 55ºC and ≤ 100ºC	:	Not applicable
5.3.3	Simultaneous actuation of both service brake controls if so equipped or the single service brake system control for a service brake that operates on all wheels	:	Not applicable
5.3.4	Must achieve specified performance with no more than 6 stops	:	Not applicable

Brake System	Nominal Speed (km/h)	Actual Speed (km/h)	Actual Distance (m)	Corrected Distance (m)	MFDD (m/s²)	Front Control Force (N)	Rear Control Force (N)
All brakes	-	-	-	-	-	-	-
Limits (L3):						≤ 200	≤ 350

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5.4 *Wet Brake Test*

5.4.1	Each service brake control is tested separately	:	Conform
5.4.2	Performed laden, engine disconnected	:	Conform
5.4.3	Vehicles with CBS and split service brakes: also perform test lightly loaded	:	Not applicable
4.4.4	Run baseline test to achieve 2.5 - 3.0 m/s²:	:	*Conform*

Loaded conditions, engine disconnected

Wet baseline front 1

Baseline Tests	Nominal Speed (km/h)	Actual Speed (km/h)	Average Decel 0.5 - 1.0 s (m/s²)	Highest Decel (m/s²)	Av Control Force (N)
Front	40	40.5	2.52	3.43	56
		Average:	2.52	3.43	56

Wet baseline rear 1

Baseline Tests	Nominal Speed (km/h)	Actual Speed (km/h)	Average Decel 0.5 - 1.0 s (m/s²)	Highest Decel (m/s²)	Av Control Force (N)
Rear	40	41.36	1.93	3.44	56.57
		Average:	1.93	3.44	56.57

5.4.5	Ride the vehicle with water delivery for ≥ 500 m	:	Not applicable
5.4.6	Make a stop using the average control force from the baseline test	:	Conform

Wet Tests	Nominal Speed (km/h)	Actual Speed (km/h)	Average Decel 0.5 - 1.0 s (m/s²)	Highest Decel (m/s²)	Av Control Force (N)
Front	40	40.2	2.02	3.28	55
Rear	40	39.4	2.44	2.72	60
Limits: Front			⩾1.51	⩽4.12	56
Limits: Rear			⩾1.16	⩽4.13	56.57

5.5 *Heat Fade Test* Not applicable

5.6 *ABS TEST REQUIREMENTS* Not applicable

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APPENDIX 3 – B3
Electrical Safety

0.	***Main Requirements***	:	
0.1.	Requirements according to	:	Reg. (EU) 3/2014 Annex VI Including amendment (EU) 2016/1824 UNECE R100.02 Supplement 4
1.	***Witness details***	:	
1.1.	Witness	:	Steven LI
1.2.	Location of Test	:	Zhejiang Labs Vehicle Testing Co., Ltd. No.5 Shengyi Road, Yiqiao Industrial Zone, Yuhang Street, Yuhang District, Hangzhou, Zhejiang Province, PEOPLE'S REPUBLIC OF CHINA
1.3.	Date of Test	:	2022/10/11 to 2022/11/2
1.4.	Worst Case Rationale	:	00/00 tested to cover 00/01
1.5.	***Facility and Equipment Checks***	:	
1.5.1.	Calibration certificates checked and valid, recorded in the following table	:	Conform
1.5.2.	All instruments are equipped with identification label	:	Yes
1.5.3.	Calibration certificates are complete of calibration-chain with detailed information regarding primary used.	:	Yes

		PASS	FAIL	N/A
1.3.1.3.1.	General requirements concerning the protection against electrical shock and electrical safety applying to high voltage buses under conditions where they are not connected to external high voltage power supplies.	☒	☐	☐
1.3.1.3.2.	The protection against direct contact with live parts. The protections provided (e.g. solid insulator, barrier, enclosure) shall not be able of being opened, disassembled or removed without the use of tools.	☒	☐	☐
1.3.1.3.3.	The protection against indirect contact with live parts	☒	☐	☐
1.3.1.3.4.	Isolation resistance	☒	☐	☐
1.3.1.3.5.	**Requirements concerning the REESS**			
1.3.1.3.5.1	Protection in case of excessive current	☒	☐	☐
1.3.1.3.6.	**Prevention of accumulation of gas.**	☐	☐	☒

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		PASS	FAIL	N/A
1.3.1.3.7.	Protection against electrolyte spills	☐	☐	☒
1.3.1.3.8.	Accidental or unintentional detachment	☒	☐	☐
1.3.1.3.9.	**In-use safety requirements**			
1.3.1.3.9.1	Propulsion system power-on and power-off procedure	☒	☐	☐
1.3.1.3.10.	Driving with reduced power	☒	☐	☐
1.3.1.3.11.	Driving backwards	☐	☐	☒
1.3.1.3.12.	Determination of hydrogen emissions	☐	☐	☒

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APPENDIX 3 – B4

Endurance Testing of Functional Safety Critical Systems, Parts and Equipment

0.	***Main Requirements***	:	
0.1.	Requirements according to	:	Reg. (EU) 3/2014 Annex V Including amendment (EU) 2016/1824
1.	***Detail***	:	
1.1.	Remarks	:	See manufacturer information declaration

		PASS	FAIL	N/A
Ann V	Vehicles and their systems, parts and equipment critical for functional safety are capable of withstanding use under normal conditions and when serviced in accordance with the manufacturer's recommendations, taking into account regular and scheduled maintenance and specific equipment adjustments, carried out as per the clear and unambiguous instructions provided by the vehicle manufacturer in the instruction manual provided with the vehicle.	☒	☐	☐
Ann V	Normal use of a vehicle covers five years after first registration and a total distance travelled equal to 1.5 times the distance, as specified in Annex VII to Regulation (EU) No 168/2013, in direct relation to the vehicle category in question and the emission stage (i.e. Euro level), according to which the vehicle is to be type approved; however, the required distance does not exceed 60,000 km for any vehicle category. *Note: Normal use does not include use under harsh conditions (e.g. extreme cold or heat) and road conditions inflicting damage to the vehicle due to its state of repair.*	☒	☐	☐

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APPENDIX 3 – B7
Driver-operated controls including identification of controls, tell-tales and indicators

0.	***Main Requirements***	:	
0.1.	Requirements according to	:	Reg. (EU) 3/2014 Annex VIII Including amendment (EU) 2016/1824 UNECE R60.00 Supplement 5 UNECE R39.01 Supplement 1
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1.	***Witness details***	:	
1.1.	Witness	:	Steven LI
1.2.	Location of Test	:	Zhejiang Labs Vehicle Testing Co., Ltd. No.5 Shengyi Road, Yiqiao Industrial Zone, Yuhang Street, Yuhang District, Hangzhou, Zhejiang Province, PEOPLE'S REPUBLIC OF CHINA
1.3.	Date of Test	:	2022/10/18
1.4.	Worst Case Rationale	:	Both versions of variant 00 tested
1.5.	Tested sample	:	☆R68HM5000NA000001☆ ☆R68HM5010NA000002☆
2.	***Facility and Equipment Checks***		
2.1	Calibration certificates checked and valid, recorded in the following table	:	Conform
2.2	All instruments are equipped with identification label	:	Yes
2.3	Calibration certificates are complete of calibration-chain with detailed information regarding primary used.	:	Yes

Equipment	Serial / Certificate No.	Calibration due
GPS road tester	SN: 046533 Report No. 202210000804	23 April 2023[4]
Barometer (Temperature/Humidity)	Make: Lutron Type: PHB-318 SN:/ Cert No.: 37XJ22032730-0003	12 May 2023
Tyre pressure gauge	Make: PCL Type: TG-3 SN: 181219319 Cert No.: 37XJ22032730-0019	12 May 2023
Electronic Scale	SN: 030843791 / 030843792 Cert No.: 37XJ22032730-0015 / 37XJ22032730-0016	12 May 2023

[4] *Test date 24 April 2022*

3.	***Condition of test:***		
3.1.	Ambient temperature (K)	:	Speedometer temperature within range 23 ± 5 °C: *29.6* *Note: The technical service may accept an increased temperature range of 296 ± 15 K (23 ± 15 °C) instead of the range stated in point 5.2.3 of UNECE Regulation 39 if it can be demonstrated that the speedometer equipment is not sensitive to such temperature variations.*
3.2.	Tyre Fitted on a vehicle		
	Front	:	225/40-10
	Rear	:	225/40-10
3.3.	Tyre pressure (kPa)	:	Recommended by manufacturer: front 225 kPa rear 250 kPa
R39.01 5.3.4. 2.4	*Remarks:* *> Tyres pressure are in normal running pressure as defined in 2.4*	:	Tyre pressure when tested[5]: Front: 225 kPa +20 kPa Rear: 250 kPa +20 kPa
3.5.	Test area, general condition	:	Flat and dry, asphalt straight public road
3.6.	Mass of vehicle in running order	:	Manufacturer declared value: 62 kg
R39.01 5.3.2.	*Remarks:* *> The test are carried out with the vehicle at its unladen weight.*		Front axle: 70 kg Rear axle: 74 kg Actual mass: 144 kg
4.	***Speedometer Specification***		
4.1.	Make	:	JINGXIAN
4.2.	Type	:	BD-HG
4.3.	Location	:	In middle of handle bar within driver's front view.
4.4.	Legible day and night	:	Yes
4.5.	Range of speed indicated (scale)	:	0~80 km/h, 0~50 mph
4.6.	Manufacturer's quoted maximum speed	:	00/00: 45 km/h 00/01: 25 km/h
4.7.	Analogue scale/Digital display	:	Digital display
4.8.	Steps for marked speed indication	:	1 km/h
4.9.	Overall transmission ratio	:	310 pulse / 1 wheel rotation

[5] *Not correct. Normal running pressure should be used.*

5. Test Results

Requirement: $0 \leq V_1 - V_2 \leq (V_2/10) + 4$ km/h

Test no.	Tyre options	Indicated speed V_1	True speed V_2	$V_1 - V_2$	$(V_2/10) + 4$ km/h
	2	(km/h)	(km/h)	(km/h)	(km/h)
1	225/40-10	20	17.4	2.6	5.74
2	225/40-10	36	30.9	5.1	7.09
Calculation result based on original test data	215/40-12	20	17.7	2.3	5.77
	215/40-12	36	31.4	4.6	7.14

Control fitted	Y	Y	Y	N/A	N/A	Y	N/A	N/A	N/A	N/A	N/A	N/A	Y	Y	N	Y	N/A	N	Y	N	N
Correct symbol	Y	Y	Y	N/A	N/A	Y	N/A	N/A	N/A	N/A	N/A	N/A	Y	Y	N/A	Y	N/A	N/A	Y	N/A	N/A
Visibility and clarity requirements met	Y	Y	Y	N/A	N/A	Y	N/A	N/A	N/A	N/A	N/A	N/A	Y	Y	N/A	Y	N/A	N/A	Y	N/A	N/A
Symbol on (o) or close (c) to control	O	O	O	N/A	N/A	O	N/A	N/A	N/A	N/A	N/A	N/A	C	C	N/A	C	N/A	N/A	O	N/A	N/A

Tell-tale required: Y/N/O (Optional)	Y	O	Y	N	O	N	N	N	N	N	N	N	N	N	N	Y	N	N	N	N	N
Tell-tale fitted	Y	N/A	Y	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Y	N/A	N/A	N/A	N/A	N/A
Colour requirements of tell-tale	Blue	N/A	Green separated	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Colour of tell-tale complies	Y	N/A	Y	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Tell-tale has correct symbol	Y	N/A	Y	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Symbol on or close to tell-tale	O	N/A	O	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Controls not in list above: Driving mode select (left handle bar)

Symbol/tell-tales not in list above: READY, SPORT, Cruise, Brake failure(Parking brake on), ECU, Motor malfunction, handle bar malfunction, charging status, driving mode(leaf,1,2,3,4)

APPENDIX 3 - B8

Installation of lighting and light- signalling devices, including automatic switching of lighting

0.	***Main Requirements***	:	
0.1.	Requirements according to	:	Reg. (EU) 3/2014 Annex IX Including amendment (EU) 2016/1824 UNECE 53.02 Supplement 2 (Motorcycle)
1.	***Witness details***	:	
1.1.	Witness	:	Steven LI
1.2.	Location of Test	:	Zhejiang Labs Vehicle Testing Co., Ltd. No.5 Shengyi Road, Yiqiao Industrial Zone, Yuhang Street, Yuhang District, Hangzhou, Zhejiang Province, PEOPLE'S REPUBLIC OF CHINA
1.3.	Date of Test	:	2022/10/11 to 2022/11/2
1.4.	Worst Case Rationale	:	Single specification
2.	***Facility and Equipment Checks***		
2.1	Calibration certificates checked and valid, recorded in the following table	:	Yes
2.2	All instruments are equipped with identification label	:	Conform
2.3	Calibration certificates are complete of calibration-chain with detailed information regarding primary used.	:	Conform

Equipment	Serial / Certificate No.	Calibration due
Tape	665702 / 37XJ22032730-0005	12 May 2023
Electronic Scale	SN: 030843791 / 030843792 Cert No.: 37XJ22032730-0015 / 37XJ22032730-0016	12 May 2023

Requirement	Vehicle and lamps are as specified in documentation	All lamps and reflectors securely mounted	Not likely to become obscured or misaligned	Headlamp can be easily adjusted	All pairs of lamps are symmetrically mounted	All pairs of lamps appear to be the same colour and brightness	No red light visible to the front and no white light visible to the rear
All lamps comply	Yes	Yes	Yes	*Yes*	Yes	Yes	Yes

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Specifications of Individual Lamps					
Requirement	Any specific mounting recommendations have been complied with	All lamps and reflectors (except head, front fog and reversing lamps) have reference axis ± 3° parallel to the ground and to the longitudinal plane	All side reflectors have their reference axis ± 3° perpendicular to the longitudinal median plane	All the requirements of sub-paragraphs (6.1) to (6.12) are complied with as appropriate to the motorcycle category	Dipped (passing) headlamp – possible to re-set alignment using normal screws
All lamps comply	Yes	Yes	Yes	Yes	*Yes*

3. Test results

3.1	Lighting and light-signalling devices	:	Conform
3.2	Devices fitted	:	Conform
3.3	Grouping and electrical connections	:	Conform

Component Approval Mark Details

DEVICES	MAKE/MODEL	NUMBER/ COLOUR	TELL-TALE	APPROVAL NUMBER	Maximum intensity
DRIVING BEAM HEADLAMP，PASSING BEAM HEADLAMP (option 1)	SHIJIN/SJ-XJTCHL	1 / white	YES/Blue	E4-113R-0010931	32250cd
		1 / white	---	E4-113R-0010931	----
FRONT POSITION LAMP(option 1)		1 / white	---	E4-50R-0010931	----
DRIVING BEAM HEADLAMP，PASSING BEAM HEADLAMP (option 2)	SHIJIN/SG01-NZ	1 / white	YES/Blue	E4*113R02/00*27489*00	32250cd
		1 / white	---	E4*113R02/00*27489*00	----
FRONT POSITION LAMP(option 2)		1 / white	---	E4*50R00/20*27489*00	----
DRIVING BEAM HEADLAMP，PASSING BEAM HEADLAMP (option 3)	CG/M-DD-GN	1 / white	YES/Blue	E4*113R03/01*29115*00	32250cd
		1 / white	---	E4*113R03/01*29115*00	----
FRONT POSITION LAMP(option 3)		1 / white	---	E4*50R01/00*29115*00	----
DRIVING BEAM HEADLAMP，PASSING BEAM HEADLAMP (option 4)	SHIJIN/SG03-5C	1 / white	YES/Blue	E4*113R03/01*29134*00	43000cd
		1 / white	---	E4*113R03/01*29134*00	----
FRONT POSITION LAMP(option 4)		1 / white	YES / Green	E4*7R03/00*29134*00	----
FRONT & REAR DIRECTION INDICATOR (option 1)	SHIJIN/SJ-XJTTUF	2 /amber	YES / Green	E4-50R-000695	----
FRONT & REAR DIRECTION INDICATOR (option 2)	SHIJIN/SJ-LED-Z10	2 /amber	YES / Green	E4*50R00/19*2854*00	----

DEVICES	MAKE/MODEL	NUMBER/ COLOUR	TELL-TALE	APPROVAL NUMBER	Maximum intensity
FRONT & REAR DIRECTION INDICATOR (option 3)	/CG/D-ZX-HL	2 /amber	YES / Green	E4*50R01/00*3107*00	----
REAR POSITION LAMP	SHIJIN/SJ-W01	1 / red	*	E4-50R-0011172	----
STOP LAMP (option 1)		1 / red	NO		----
REAR REGISTRATION PLATE LAMP(OPTION 1)		1 / white	*		----
REAR POSITION LAMP	SHIJIN/SJ-XJTCTL	1 / red	*	E4-50R-0010933	----
STOP LAMP (option 2)		1 / red	NO		----
REAR REGISTRATION PLATE LAMP(OPTION 2)		1 / white	*		----
REAR POSITION LAMP	SHIJIN/SJ-LED-W01	1 / red	*	E4*50R00/19*26277*00	----
STOP LAMP (option 3)		1 / red	NO		----
REAR REGISTRATION PLATE LAMP(OPTION 3)		1 / white	*		----
REAR POSITION LAMP	CG/D-W-HL	1 / red	*	E4*50R01/00*3108*00	----
STOP LAMP(option 4)		1 / red	NO		----
REAR REGISTRATION PLATE LAMP(OPTION 4)		1 / white	*		----
REAR RETRO-REFLECTOR(OPTION 1)	SHIJIN/SJ-F02	1 / red	NO	E4-3R-023257	----
REAR RETRO-REFLECTOR(OPTION 2)	K-LITE, KYI, HILUX K-LITE/KM202	1 / red	NO	E4-3R-023712	----
SIDE RETRO-REFLECTOR(OPTION 1)	SHIJIN/SJ-F01	2 / amber	NO	E4-3R-023256	----
SIDE RETRO-REFLECTOR(OPTION 2)	K-LITE, KYI, HILUX K-LITE/KM101	2 / amber	NO	E4-3R-023298	----
SIDE RETRO-REFLECTOR(OPTION 3)	K-LITE, KYI, HILUX K-LITE/KM206	2 / amber	NO	E4*3R02/17*3713*01	----

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APPENDIX 3 - B9

Rearward visibility

0.	***Main Requirements***	:	
0.1.	Requirements according to	:	Reg. (EU) 3/2014 Annex X Including amendment (EU) 2016/1824 UNECE 81.00 Supplement 2
1.	***Witness details***	:	
1.1.	Witness	:	Steven LI
1.2.	Location of Test	:	Zhejiang Labs Vehicle Testing Co., Ltd. No.5 Shengyi Road, Yiqiao Industrial Zone, Yuhang Street, Yuhang District, Hangzhou, Zhejiang Province, PEOPLE'S REPUBLIC OF CHINA
1.3.	Date of Test	:	27 November 2022
1.4.	Worst Case Rationale	:	>>The tests were conducted with a test vehicle which is representative of the vehicle type to be approved. The characteristics of the selected vehicle represent the worst case.
1.5.	Tested vehicle	:	R68HM5010NA000001
2.	***Facility and Equipment Checks***		
2.1	Calibration certificates checked and valid, recorded in the following table	:	No such information in original test report
2.2	All instruments are equipped with identification label	:	No such information in original test report
2.3	Calibration certificates are complete of calibration-chain with detailed information regarding primary used.	:	No such information in original test report

Equipment	Serial / Certificate No.	Calibration due
Tape	665702 / 37XJ22032730-0005	12 May 2023

3.	***Test results***	:	
3.1.	Mirror fitted on a vehicle (approval number)	:	E11-81R-002066

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APPENDIX 3 – B12

Seating positions (saddles and seats)

0.	***Main Requirements***	:	
0.1.	Requirements according to	:	Reg. (EU) 3/2014 Annex XIII Including amendment (EU) 2016/1824
1.	***Witness details***	:	
1.1.	Witness	:	Steven LI
1.2.	Location of Test	:	Zhejiang Labs Vehicle Testing Co., Ltd. No.5 Shengyi Road, Yiqiao Industrial Zone, Yuhang Street, Yuhang District, Hangzhou, Zhejiang Province, PEOPLE'S REPUBLIC OF CHINA
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1.3.	Date of Test	:	2022/10/11 to 2022/11/2
1.4.	Worst Case Rationale	:	Single specification
1.5.	Tested vehicle	:	☆R68HM5000NA000001☆
2.	***Facility and Equipment Checks***		
2.1	Calibration certificates checked and valid, recorded in the following table	:	Conform
2.2	All instruments are equipped with identification label	:	Yes
2.3	Calibration certificates are complete of calibration-chain with detailed information regarding primary used.	:	Yes

Equipment	Serial / Certificate No.	Calibration due
Tape	665702 / 37XJ22032730-0005	12 May 2023

		PASS	FAIL	N/A
	General Requirements			
1.1.	Vehicles are fitted with at least one seat or saddle: - ~~One seat~~* - Saddle* **Strikethrough, as appropriate.*	☒	☐	☐
1.1.1.	All seating positions are forward-facing.	☒	☐	☐
1.2.	Vehicles without bodywork may have saddles.	☒	☐	☐
1.3.	Vehicles of categories L2e, L5e, L6e and L7e, which are fitted with bodywork, have seats.	☐	☐	☒
1.5.	All seats have seat backs.	☐	☐	☒
1.6.1.	Spaces resembling seats, and on which a 5th percentile adult female manikin can be seated, are regarded as seats and therefore meet all the relevant requirements of this annex.	☐	☐	☒
1.7.	Height of the R-point of the seating position of the driver or rider is: - ≥ 540 mm in the case of vehicles of categories L1e, L3e and L4e (*)* - ~~≥ 400 mm in the case of vehicles of categories L2e, L5e, L6e and L7e (*)*~~ **Strikethrough, as appropriate.*	☒	☐	☐

		PASS	FAIL	N/A
1.8.	All seats and saddles, which are fitted with safety belt anchorage points and/or safety belts, are capable of withstanding a deceleration of 10 g for 20 ms in forward direction without breakage. If fitted, locking, adjustment and displacement systems do not malfunction or release. Displacement systems fitted to seats are capable of being manually activated once, after being subjected to the deceleration.	☐	☐	☒
	For seats: By submitting representative parts of the vehicle to a deceleration of 10 g in forward direction for at least 20 ms; or	☐	☐	☒
	By performing the test in points 3.4.4 to 3.4.4.2 of Part 2 of Annex XII.	☐	☐	☒
	For saddles: By exerting in the forward direction, in its centre of gravity, a force equal to 10 times the weight of the complete saddle in question.	☐	☐	☒
	Child Restraint Systems			
2.1.	Child restraint systems complying with UNECE Regulation 44 (1) may be recommended by the vehicle manufacturers for use in vehicles of categories L2e, L5e, L6e and L7e, fitted with safety belts and/or ISOFIX.	☐	☐	☒
2.1.1.	In this case, all relevant requirements of UNECE Regulation 16 regarding the installation of child restraint systems are met, including those regarding information provided in the vehicle's instruction manual.	☐	☐	☒
2.2.	Child restraint systems complying with UNECE Regulation 44 may be recommended by the vehicle manufacturers for use in side-cars of vehicles of category L4e, fitted with safety belts and/or ISOFIX.	☐	☐	☒
2.2.1.	In this case, the safety belt anchorages comply with the requirements of points 1.3 to 1.6.2 of Part 1 of Annex XII, and points 1 to 3.6.1 of Part 2 of Annex XII; however, seats in side-cars may be fitted with two-point lap belts.	☐	☐	☒
2.2.2.	All relevant requirements of UNECE Regulation 16 regarding the installation of child restraint systems are met, including those regarding the information to be provided in the vehicle's instruction manual.	☐	☐	☒

APPENDIX 3 – B13

Steer-ability, cornering properties and turn- ability

0.	***Main Requirements***	:	
0.1.	Requirements according to	:	Reg. (EU) 3/2014 Annex XIV Including amendment (EU) 2016/1824
1.	***Witness details***	:	
1.1.	Witness	:	Steven LI
1.2.	Location of Test	:	Zhejiang Labs Vehicle Testing Co., Ltd. No.5 Shengyi Road, Yiqiao Industrial Zone, Yuhang Street, Yuhang District, Hangzhou, Zhejiang Province, PEOPLE'S REPUBLIC OF CHINA
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1.3.	Date of Test	:	27 November 2022
1.4.	Worst Case Rationale	:	>> The tests were conducted with a test vehicle which is representative of the vehicle type to be approved. The characteristics of the selected vehicle represent the worst case.
1.5.	Tested vehicle	:	R68HM5010NA000001
2.	***Facility and Equipment Checks***		
2.1	Calibration certificates checked and valid, recorded in the following table	:	No such information in original test report
2.2	All instruments are equipped with identification label	:	No such information in original test report
2.3	Calibration certificates are complete of calibration-chain with detailed information regarding primary used.	:	No such information in original test report

Equipment	Serial / Certificate No.	Calibration due
GPS road tester	Make: RACELOGIC Type: VB3i-V4G SN: 046533 Report No. 202210000804	23 April 2023[6]
Electronic Scale	SN: 030843791 / 030843792 Cert No.: 37XJ22032730-0015 / 37XJ22032730-0016	12 May 2023
Tyre pressure gauge	Make: PCL Type: TG-3 SN: 181219319 Cert No.: 37XJ22032730-0019	12 May 2023
Tape	665702 / 37XJ22032730-0005	12 May 2023

3.	***Condition of test:***	
3.1.	Tyre pressure (kPa):	according the manufacturer's recommendation for laden condition
3.2.	Test area, general condition:	Industrial zone internal road
3.3.	Vehicle mass (kg):	laden condition up to technically permissible maximum mass Laden mass: front 79; rear 140; total 219
4.	***Test results:***	
4.1.	Turning from straight ahead:	even, non-slip and dry asphalt
4.2.	Test of speed on turning circle:	The requirements of point 2.4 are fulfilled. The test was performed with a vehicle speed of 6 km/h

[6] *Test date 24 April 2022*

4.3.	Straight test:	The requirements of point 2.5 are fulfilled. The test was performed with a vehicle speed of 32 km/h with turning radius 20 m. The requirements of point 2.6 are fulfilled. The test was performed with a vehicle speed of 0.8Vmax km/h.
4.4.	Constant turning	Yes
4.5.	Requirements as per directive described in this test record:	Yes

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APPENDIX 3 – B14
Installation of tyres

0.	***Main Requirements***	:	
0.1.	Requirements according to	:	Reg. (EU) 3/2014 Annex XV Including amendment (EU) 2016/1824 UNECE R75.00 supplement 18
1.	***Witness details***	:	
1.1.	Witness	:	Steven LI
1.2.	Location of Test	:	Zhejiang Labs Vehicle Testing Co., Ltd. No.5 Shengyi Road, Yiqiao Industrial Zone, Yuhang Street, Yuhang District, Hangzhou, Zhejiang Province, PEOPLE'S REPUBLIC OF CHINA
1.3.	Date of Test	:	2022/10/11 to 2022/11/2
1.4.	Worst Case Rationale	:	Variant 00 version 00 tested as worst case to cover others
1.5.	Tested vehicle	:	☆R68HM5000NA000001☆
2.	***Facility and Equipment Checks***	:	
2.1	Calibration certificates checked and valid, recorded in the following table	:	Conform
2.2.	All instruments are equipped with identification label	:	Yes
2.3.	Calibration certificates are complete of calibration-chain with detailed information regarding primary used.	:	Yes

Equipment	Serial / Certificate No.	Calibration due
--	--	--

3.

			Variant 00 Version 00
3.1.	Mass of the vehicle in running order (declared):	kg	62
3.2.	Technically permissible maximum mass (declared):	kg	219
3.3.	Front technically permissible maximum mass (declared):	kg	79
3.4.	Rear technically permissible maximum mass (declared):	kg	140
3.5.	Maximum designed speed		45 km/h

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4. Test Results

Tyre	Options	Size	Tyre pressure (kPa)	Rolling circumference (mm)	LCI	Load (kg)	Speed (Rating)	Speed (km/h)	Type approval No.	Rim
Front	1	225/55-8	225	1445	31	109	N	140	E4*75R00/17*15048*00	7.00X8
Rear	1	225/55-8	250	1445	31	109	N	140	E4*75R00/17*15048*00	7.00X8
Front	2	225/40-10	225	1429	57	230	N	140	E11-75R-000770	7.00X10
Rear	2	225/40-10	250	1429	57	230	N	140	E11-75R-000770	7.00X10
Front	3	225/40-10	225	1429	58	236	M	130	E3-75R-003279	7.00X10
Rear	3	225/40-10	250	1429	58	236	M	130	E3-75R-003279	7.00X10
Front	4	215/40-12	225	1450	56	224	J	100	E4-75R-0005677	7.00X12
Rear	4	215/40-12	250	1450	56	224	J	100	E4-75R-0005677	7.00X12
Front	5	215/40-12	225	1450	56	224	J	100	E4-75R-0001406	7.50X12
Rear	5	215/40-12	250	1450	56	224	J	100	E4-75R-0001406	7.50X12
Spare	--	--	--	--	--	--	--	--	--	--

**All tyres fitted to vehicles, including any spare tyre, are type approved according to UNECE Regulation 75, as referred to in paragraph 1.1 to Regulation 3/2014/EU.*
***Where a vehicle is designed for conditions of use that are incompatible with the characteristics of tyres type approved according to UNECE Regulation 75 and is therefore necessary to fit tyres with different characteristics, the requirements of paragraph 1.1 do not apply, provided that the following conditions are met:*
- *The tyres are type approved according to Council Directive 92/23/EEC (1), Regulation (EC) No 661/2009 of the European Parliament and of the Council (2), or UNECE Regulation No 106;*
- *Approval authority and technical service are satisfied that the tyres fitted are suitable for the operating conditions of the vehicle. The nature of the exemption and reasons for acceptance are clearly stated in the test report.*

		PASS	FAIL	N/A
	General Requirements			
1.1.	All tyres fitted to vehicles, including any spare tyre, are type-approved according to UNECE Regulation 75.	☒	☐	☐
1.1.2.	Vehicles of categories L1e, L2e and L6e with a technically permissible maximum mass ≤ 150 kg may be fitted with non-type approved tyres, with a section width ≤ 67 mm.	☐	☐	☒
2.1.	All tyres normally fitted to the same axle, except those on side-cars of L4e category vehicles, are of the same type.	☒	☐	☐
2.2.	The vehicle manufacturer may restrict the category of use of original and replacement tyres that may be installed on the vehicle. In this case, the categories of use of tyres that may be fitted to the vehicle shall be clearly stated in the vehicle's instruction manual	☐	☐	☒
2.3.	The space in which each wheel revolves shall be such as to allow unrestricted movement when using the maximum permissible size of tyres and rim widths, taking into account the minimum and maximum wheel off-sets if applicable, within the minimum and maximum suspension and steering constraints as declared by the vehicle manufacturer.	☒	☐	☐
2.3.1.	All tyres that may be fitted to the vehicle in accordance with point 2.2. shall be taken into account for the determination of the permissible overall dimensions (i.e. the maximum envelope) of the relevant tyre, as applicable in the Union legislation at the time of type-approval testing of the vehicle. For this purpose, either the specifications as provided for in Annex 5 of UNECE Regulation No 75 or the	☒	☐	☐

		PASS	FAIL	N/A
	permitted percentages as provided for sizes not included in that Annex shall be taken into account (e.g. overall width of multiservice tyres (MST) + 25 %, normal and snow service tyres + 10 % in case of rim diameter code 13 and above and + 8 % in case of rim diameter codes up to 12 inclusive).			
2.3.2.	the vehicle manufacturer shall take into account both the permitted categories of use as well as the speed category that is compatible with the maximum design vehicle speed, for the determination of the permitted tolerance laid down in point 4.1. of Annex 9 to UNECE regulation No 75 (i.e. Hdyn = H × 1,10 up to Hdyn = H × 1,18). More stringent categories may be taken into account at the discretion of the vehicle manufacturer.	☒	☐	☐
2.4.	The technical service may agree to an alternative test procedure (e.g. virtual testing) to verify that the requirements of point 2.3. to 2.3.2. are met, provided that the clearance between the tyre's maximum envelope and vehicle structure exceeds 10 mm at all points.’;	☐	☐	☒
3.1.	Maximum load rating of each tyre with which the vehicle is fitted is at least equal to the following:			
	Maximum permissible mass on the axle where the axle is equipped with one tyre only;	☒	☐	☐
	Half of the maximum permissible mass on the axle where the axle is equipped with 2 tyres in single formation;	☐	☐	☒
	0.54 times the maximum permissible mass on the axle where the axle is equipped with 2 tyres in dual (twin) formation;	☐	☐	☒
	0.27 times the maximum permissible mass on the axle where the axle is equipped with 2 sets of tyres in dual (twin) formation;	☐	☐	☒
	With reference to the maximum permissible mass on each axle, as declared by the vehicle manufacturer.	☒	☐	☐

APPENDIX 3 – B17

Maximum continuous total power and/or maximum vehicle speed limitation by design

0.	***Main Requirements***	:	
0.1.	Requirements according to	:	Reg. (EU) 3/2014 Annex XVIII Including amendment (EU) 2016/1824
1.	***Witness details***	:	
1.1.	Witness	:	Steven LI
1.2.	Location of Test	:	Zhejiang Labs Vehicle Testing Co., Ltd. No.5 Shengyi Road, Yiqiao Industrial Zone, Yuhang Street, Yuhang District, Hangzhou, Zhejiang Province, PEOPLE'S REPUBLIC OF CHINA
1.3.	Date of Test	:	27 November 2022
1.4.	Worst Case Rationale	:	>>The tests were conducted with a test engine which is representative of the engine type to be approved. >>The tests were conducted with a test vehicle which is representative of the vehicle type to be approved.[7] >>The characteristics of the selected vehicle represent the worst case.
1.5.	Tested vehicle		00/00: R68HM5000NA000001 00/01: R68HM5010NA000002
2.	***Facility and Equipment Checks***	***:***	
2.1	Calibration certificates checked and valid	:	Not applicable
2.2.	All instruments are equipped with identification label	:	Not applicable
2.3.	Calibration certificates are complete of calibration-chain with detailed information regarding primary used.	:	Not applicable

		PASS	FAIL	N/A
1.1.2.01 .1.2.1.	For vehicles with <u>positive ignition engines</u> propelling the vehicle either directly or through a mechanical or hydraulic transmission, maximum vehicle speed and/or maximum power is limited by adjusting two or more of the following: - Properties, timing or presence of the spark igniting the fuel/air mixture in the cylinder(s)* - Amount of air intake of the engine* - Amount of fuel intake of the engine* - Electronically and/or mechanically controlled output rotation speed of the drive-train, such as clutch, gearbox or final drive*	☐	☐	☒
1.1.2.1. 1.	Adjustment of the spark properties, including timing and/or presence, in order to limit the maximum design vehicle speed and/or maximum power shall be allowed for (sub)categories L3e-A2 (only if maximum net power ≥ 20 kW), L3e-A3, L4e-A, L5e, L6eB and L7eC. It may also be allowed for other (sub)categories provided that the adjustment concept does not negatively affect emission of gaseous pollutants, CO2 emissions and fuel consumption while at maximum design vehicle speed and/or maximum power conditions which shall be verified by the technical service.’;	☐	☐	☒

[7] *Hardly agree with worst case rationale list in original test report. Wrong tyre chose, NOT worst case !!*

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		PASS	FAIL	N/A
1.1.2.2.	For vehicles with compression ignition engines propelling the vehicle either directly or through a mechanical or hydraulic transmission, maximum vehicle speed and/or maximum power is limited by adjusting two or more of the following: - Amount of air intake of the engine* - Amount of fuel intake of the engine* - Electronically and/or mechanically controlled output rotation speed of the drive-train, such as clutch, gearbox or final drive*	☐	☐	☒
1.1.2.3.	For vehicles that are propelled by means of one or more electric motors, including pure and hybrid electric vehicles, maximum vehicle speed and/or maximum power are limited by means of two or more of the following:	☐	☐	☒
	- Reduction of the maximum power output of one or more electric motors, based on the vehicle or rotation speed, as sensed internally to the electric motor*	☒	☐	☐
	- Reduction of the maximum power output of one or more electric motors, based on the actual vehicle speed, as sensed fully externally to the electric motor*	☐	☐	☒
	- Physical vehicle speed limitation by means of internal or external components, such as a maximum achievable revolution speed of an electric motor*	☒	☐	☐
	.			
1.1.2.4.	For vehicles that are propelled by means other than those listed above, the maximum vehicle speed and/or maximum power is limited by two or more separate means, which are, as far as possible, based on the abovementioned adjustment, reduction or physical speed limitation principles.	☐	☐	☒
1.1.2.5.	At least two of the limitation methods used, as referred to in points 1.1.2.1 to 1.1.2.4., shall operate independently of each other, be different in nature and have different design philosophies, although they may apply similar elements (e.g. both methods based on the notion of rotation speed as a criterion, but one measured inside a motor and the other in the drive-train's transmission). Failure of one method to work as intended (e.g. due to tampering) shall not impair the limitation function of other methods. In this case, the maximum power and/or vehicle speed which can be attained may be lower than under normal conditions. Without prejudice to the conformity of production tolerance set 15.10.2016 L 279/10 Official Journal of the European Union EN out in point 4.1.4. of Annex IV to Regulation (EU) No 44/2014, the maximum power and/or vehicle speed may not be higher than demonstrated at type-approval, if one out of the two redundant limitation methods is eliminated.	☒	☐	☐
1.1.2.6.	The vehicle manufacturer shall be allowed to make use of limitation methods other than those listed in points 1.1.2.1 to 1.1.2.4. if the manufacturer can prove to the technical service and to the satisfaction of the type approval authority that those alternative limitation methods meet the principles of redundancy set out in point 1.1.2.5. and provided that at least one of the parameters listed in points 1.1.2.1., 1.1.2.2. or 1.1.2.3.	☐	☐	☒
1.1.2.7.	The manufacturer shall be allowed to combine two or more of the individual limitation methods referred to in points 1.1.2.1 to 1.1.2.4. as part of a limitation strategy.	☐	☐	☒
1.1.2.8.	Individual limitation methods or combinations of the limitation methods referred to in points 1.1.2.1 to 1.1.2.4. may be applied more than once provided that their multiple uses operate independently of each other	☐	☐	☒
1.1.2.9.	A limitation strategy that in case of failure includes the activation of a special operating mode with substantially reduced maximum vehicle speed and/or maximum power not suitable for normal operation or that activates an ignition interlock preventing the engine from running for as long as the failure remains, shall be regarded as one limitation method	☐	☐	☒

		PASS	FAIL	N/A
1.1.3.	Maximum vehicle speed or power is not limited by means of a mechanical throttle stop or any other mechanical stop that limits the opening of a throttle to restrict the engine's air intake.	☒	☐	☐
1.1.4.	The provision and use of any other means enabling the vehicle operator to directly or indirectly adjust, set, select or alter the maximum propulsion unit performance determined on the basis of the information submitted in accordance with Annex I, Part B, point 2.8., items 1.8.2. to 1.8.9. of Regulation (EU) No 901/2014 resulting in exceedance is prohibited	☐	☐	☒
2.1.	The vehicle manufacturer shall demonstrate compliance with the specific requirements of points 1.1 to 1.1.2.9 by proving that two or more of the methods implemented, by integrating specific devices and/or functions in the vehicle propulsion system, ensure the required maximum continuous rated or net power and/or maximum vehicle speed limitation and that each method does so in a fully independent manner e13*168/2013*01687*00 Société Nationale de Certification et d'Homologation	☒	☐	☐

APPENDIX 3 – C1

Powertrain tampering prevention (anti-tampering) measures

0.	***Main Requirements***	:	
0.1.	Requirements according to	:	Reg. (EU) 44/2014 Annex II Including amendment (EU) 2018/295
1.	***Witness details***	:	
1.1.	Witness	:	Steven LI
1.2.	Location of Test	:	Zhejiang Labs Vehicle Testing Co., Ltd. No.5 Shengyi Road, Yiqiao Industrial Zone, Yuhang Street, Yuhang District, Hangzhou, Zhejiang Province, PEOPLE'S REPUBLIC OF CHINA
1.3.	Date of Test	:	2022/10/11 to 2022/11/2
1.4.	Worst Case Rationale	:	Variant 00 both 00,01 version checked.
1.5.	Tested vehicle	:	☆R68HM5000NA000001☆ ☆R68HM5010NA000002☆
2.	***Facility and Equipment Checks***	***:***	
2.1	Calibration certificates checked and valid, recorded in the following table	:	Not applicable
2.2.	All instruments are equipped with identification label	:	Not applicable
2.3.	Calibration certificates are complete of calibration-chain with detailed information regarding primary used.	:	Not applicable

Equipment	Serial / Certificate No.	Calibration due
--	--	--

		PASS	FAIL	N/A
2.3.1.	Interchangeability of the following parts, in an individual or combined way, does not result in an increase of the propulsion unit performance exceeding the values measured and reported at type approval, meaning that in any case the maximum design vehicle speed and/or the maximum continuous rated and/or net engine power of the relevant category remains within the conformity of production boundaries set out in paragraph 4.1.4 of Annex IV.	☒	☐	☐
2.4.	In no case may the approved maximum design vehicle speed, and/or the maximum continuous rated and/or net engine power of the relevant (sub)-category set out in Annex I to Regulation (EU) No 168/2013, be exceeded.	☒	☐	☐
2.5.	In the case of chains or cogged belts, the number of teeth is displayed on the pinions.	☐	☐	☒
2.7.	If the ignition timing is adjustable, the propulsion unit performance is measured with the ignition advance set within ± 5° of the value at which the maximum engine power is achieved.	☐	☐	☒

	Number of teeth
Chains:	
Cogged belts:	

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		PASS	FAIL	N/A
	Specific Requirements for (Sub)-category L1e, L2e and L6e Vehicles			
3.1.	Acceptable tolerance for maximum vehicle speed and/or power limitation of category L1e, L2e and L6e vehicles is ± 5 % of the maximum design vehicle speed and/or net, and/or continuous rated power classification criteria referred to in Annex I to Regulation (EU) No 168/2013.	☒	☐	☐
	Requirements for Category L1e, L2e and L6e Vehicles Equipped with a Combustion Engine			
3.2.1.1.	Each intake pipe is fixed with shear-bolts or bolts removable only using special tools. A restricted section, indicated on the outside, is located inside the pipes; at that point, the wall is less than 4 mm in thickness, or 5 mm if composed of a flexible material, such as rubber.	☐	☐	☒
3.2.1.2.	Any interference with the pipes aimed at modifying the restricted section leads to either the destruction of the pipes, or complete and permanent malfunctioning of the engine until they are restored to their approved condition.	☐	☐	☒
3.2.1.3.	A marking with indication of the vehicle (sub-) category as defined in Articles 2 and 4 of, and Annex I to, Regulation (EU) No 168/2013 shall be legible on the pipes	☐	☐	☒
3.2.2.1.	If an engine is equipped with (a) reed valve(s), it (they) are fixed with shear-bolts, which prevent re-use of its support, or bolts removable only using special tools.	☐	☐	☒
3.2.2.2.	After mounting, the maximum thickness of a cylinder-head gasket, if any, does not exceed 1.3 mm.	☐	☐	☒
3.2.2.3.	For two-stroke engines, the piston, when in position at top dead centre, does not cover the inlet port. *Note: This requirement does not apply to those parts of the transfer/scavenging port that coincide with the inlet port in the case of vehicles, the engine of which is equipped with an induction system incorporating reed valve(s).*	☐	☐	☒
3.2.2.4.	For two-stroke engines, rotation of the piston through 180° does not increase engine performance.	☐	☐	☒
3.2.2.5.	For two-stroke engines, the maximum thickness of any gasket between the base of the cylinder and the crankcase, if any, may not exceed 0,5 mm, after mounting.	☐	☐	☒
3.2.3.1.	No artificial restriction is permitted in the exhaust system. *Note: Valve guides of a four-stroke engine are not to be considered artificial restrictions.*	☐	☐	☒
3.2.3.2.	Removing the resonator tube, if installed, does not result in an increase in propulsion unit performance.	☐	☐	☒
3.2.3.3.	Part(s) of the exhaust system inside the silencer(s) that determine(s) the effective length of the exhaust pipe are affixed to the silencer(s) or expansion box(es) in such a way that it (they) cannot be removed.	☐	☐	☒

	Continuous Variable Transmission (CVT)	**PASS**	**FAIL**	**N/A**
3.3.1.	CVT Transmission covers, if available, shall be fixed by means of at a minimum 2 shear bolts or be disassembled only by using special tools	☐	☐	☒
3.3.2.	The CVT mechanism intended to limit the drive ratio by limitation of the effective distance between two discs shall be fully integrated in one or both discs in such a way that it is impossible to modify the effective distance beyond a limit that would result in an increase of the maximum vehicle speed of more than 10 % of this maximum permissible vehicle speed without destroying the disc system. If the manufacturer employs interchangeable spacer rings in the CVT to adjust the maximum vehicle speed, the complete removal of these rings shall not increase the maximum vehicle speed with more than 10 %.'	☐	☐	☒
	Specific Requirements for (Sub)-categories L3e-A1 and L4e-A1			
4.1.	Subcategory L3e-A1 and L4e-A1 vehicles shall comply with the requirements of either points 4.2. to 4.2.3., or points 4.3., 4.3.1. and 4.3.2., or points 4.4., 4.4.1. and 4.4.2., and with points 4.5., 4.6. and 4.7. In addition, they shall comply the requirements of points 3.2.2.1., 3.2.2.3., 3.2.2.4., 3.2.2.5., 3.2.3.1. and 3.2.3.3.	☐	☐	☒
4.2.	An irremovable sleeve must be located in the inlet conduit. If such a sleeve is located in the intake pipe, the latter shall be fixed to the engine block by means of shear-bolts or bolts removable only using special tools	☐	☐	☒
4.2.1.	Sleeve has a minimum hardness of 60 HRC. In the restricted section, it does not exceed 4 mm in thickness.	☐	☐	☒
4.2.2.	Any interference with the sleeve aimed at removing or modifying it leads to either the destruction of the sleeve and its support, or complete and permanent malfunctioning of the engine until it is restored to its approved condition.	☐	☐	☒
4.2.3.	Marking with indication of the vehicle category or categories is: - Legible on the surface of the sleeve* - Not far from it* **Strikethrough, as appropriate.*	☐	☐	☒
4.2.5.	Each intake pipe is fixed with shear-bolts or bolts removable only using special tools. A restricted section, indicated on the outside, is located inside the pipes; at that point, the wall is: - < 4 mm in thickness* - 5 mm, if composed of a flexible material, such as rubber* **Strikethrough, as appropriate.*	☐	☐	☒
4.2.6.	Any interference with the pipes aimed at modifying the restricted section leads to either the destruction of the pipes or complete and permanent malfunctioning of the engine until they are restored to their approved condition.	☐	☐	☒
4.2.7.	Marking with indication of the vehicle (sub)-category, as defined in Articles 2 and 4 of Annex I to Regulation (EU) No 168/2013, is legible on the pipes.	☐	☐	☒
4.2.8.	Part of the inlet conduit located in the cylinder head has a restricted section. In the whole inlet passage, there is not a more restricted section (except the valve-seat section).	☐	☐	☒
4.2.9.	Any interference with the conduit aimed at modifying the restricted section leads to either the destruction of the pipe, or complete and permanent malfunctioning of the engine until it is restored to its approved condition.	☐	☐	☒

4.2.10.	Marking with indication of the vehicle category, as referred to in Article 39 of Regulation (EU) No 168/2013, is legible on the cylinder head.	☐	☐	☒
4.2.11.	Diameter of the restricted sections referred to in paragraph 4.2 may vary according to the (sub)-category vehicle concerned.	☐	☐	☒
4.3.	Each intake pipe shall be fixed with shear-bolts or bolts removable only using special tools. A restricted section, indicated on the outside, shall be located inside the pipes; at that point the wall shall be less than 4 mm in thickness, or 5 mm if composed of a flexible material such as rubber	☐	☐	☒
4.3.1.	Any interference with the pipes aimed at modifying the restricted section shall lead to either the destruction of the pipes or complete and permanent malfunctioning of the engine until they are restored to their approved condition.	☐	☐	☒
4.3.2.	A marking with indication of the vehicle (sub-) category as defined in Articles 2 and 4 of, and Annex I to, Regulation (EU) No 168/2013 shall be legible on the pipes	☐	☐	☒
4.4.	The part of the inlet conduit located in the cylinder head shall have a restricted section. In the whole inlet passage, there shall not be a more restricted section (except the valve-seat section).	☐	☐	☒
4.4.1.	Any interference with the conduit aimed at modifying the restricted section shall lead to either the destruction of the pipe or complete and permanent malfunctioning of the engine until it is restored to its approved condition	☐	☐	☒
4.4.2.	A marking with indication of the vehicle category as defined in Articles 2 and 4 of, and Annex I to, Regulation (EU) No 168/2013 shall be legible on the cylinder head.	☐	☐	☒
4.5.	The diameter of the restricted sections referred to in point 4.2. may vary according to the (sub-) category vehicle concerned.	☐	☐	☒
4.6.	The manufacturer shall supply the diameter(s) of the restricted section(s) and demonstrate to the approval authority and technical service that this restricted section is the most critical for the passage of gases, and that there is no other section which, if modified, could increase propulsion unit performance.	☐	☐	☒
4.7.	After mounting, the maximum thickness of a cylinder-head gasket shall not exceed 1,6 mm	☐	☐	☒
	Additional Specific Requirements for Other (Sub)-categories of Vehicle within the Scope of Point 1.3			
5.1.	Any variant or version under the same type of vehicle of subcategory L3e-A2 or of subcategory L4e-A2 complying with the conversion requirements set out in point 4 of Annex III, shall not be derived from a L3e-A3 or L4e-A3 type, variant or version with a maximum net engine power and/or maximum continuous rated power more than twice the values set out in the classification of subcategories L3e-A2 or L4e-A2 in Annex I to Regulation (EU) No 168/2013 (e.g. 70 kW to 35 kW or lower, 50 kW to 35 kW or lower).';	☐	☐	☒
5.2.	The manufacturer shall declare that modifications and interchangeability of the characteristics and components listed below shall not lead to: - for vehicles of subcategory L3e-A2 and L4e-A2, exceeding the double of the net engine power or maximum continuous rated power - ~~for vehicles of category L7e, exceeding the approved propulsion unit performance;~~ *Strikethrough, as appropriate.	☐	☐	☒
5.2.1.	Spark delivery of the ignition system, if applicable;	☐	☐	☒
5.2.3.	Fuel feed and delivery system;	☐	☐	☒
5.2.4.	Air intake system including air filter(s) (modification or removal);	☐	☐	☒

5.2.5.	The drive train;	☐	☐	☒
5.2.6	The control unit(s) that control(s) the propulsion unit performance of the powertrain;	☐	☐	☒
5.2.7	Removal of any component (mechanical, electrical, structural, etc.) which limits full engine load leading to any change in the propulsion unit performance approved in accordance with Annex II (A) to Regulation (EU) No 168/2013.	☐	☐	☒
	Additional requirements for (sub) categories L1e, L2e, L3e-A1, L4e-A1 and L6e			
6.2.	The marking referred to in point 6.1. shall in principle be visible without dismantling the part in question or other parts of the vehicle. Where the bodywork or other parts of the vehicle obscure a marking, the vehicle manufacturer shall provide the competent authorities with indications for opening or dismantling the parts in question and the location of the marking	☒	☐	☐
6.3.	The characters, figures or symbols used shall be at least 2,5 mm in height and be easily legible	☒	☐	☐
6.4.	The parts, equipment and components must be marked are the following, for all (sub) categories	☒	☐	☐
6.4.1.	any electrical/electronic device for the purpose of combustion engine or **electric propulsion motor management** (ECU ignition module, injectors, intake air temperature etc.),	☒	☐	☐
6.4.2.	carburettor or equivalent device,	☐	☐	☒
6.4.3.	catalytic converter(s) (only if not integrated in the silencer),	☐	☐	☒
6.4.4.	crankcase,	☐	☐	☒
6.4.5.	cylinder	☐	☐	☒
6.4.6.	cylinder head,	☐	☐	☒
6.4.7.	exhaust pipe(s) (if separate from the silencer),	☐	☐	☒
6.4.8.	inlet pipe (if cast separately from the carburettor or cylinder or crankcase),	☐	☐	☒
6.4.9.	intake silencer (air filter),	☐	☐	☒
6.4.10.	restricted section (sleeve or other),	☐	☐	☒
6.4.11.	noise abatement device (silencer(s)),	☐	☐	☒
6.4.12.	transmission driven part (rear chain wheel (sprocket) or pulley),	☐	☐	☒
6.4.13.	transmission driving part (front chain wheel (sprocket) or pulley).	☐	☐	☒
6.5.	For categories L1e, L2e, and L6e	☐	☐	☒
6.5.1.	transmission CVT,	☐	☐	☒
6.5.2.	transmission controller	☐	☐	☒

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APPENDIX 3 – C5

Devices to prevent unauthorised use

0.	***Main Requirements***	:	
0.1.	Requirements according to	:	Reg. (EU) 44/2014 Annex VI Including amendment (EU) 2018/295 UNECE R62.01 Supplement 3
1.	***Witness details***	:	
1.1.	Witness	:	Steven LI
1.2.	Location of Test	:	Zhejiang Labs Vehicle Testing Co., Ltd. No.5 Shengyi Road, Yiqiao Industrial Zone, Yuhang Street, Yuhang District, Hangzhou, Zhejiang Province, PEOPLE'S REPUBLIC OF CHINA
1.3.	Date of Test	:	2022/10/11 to 2022/11/2
1.4.	Worst Case Rationale	:	>>The tests were conducted with a test vehicle which is representative of the vehicle type to be approved. >>The characteristics of the selected vehicle represent the worst case.
1.5.	Tested vehicle	:	R68HM5010NA000001
2.	***Facility and Equipment Checks***	***:***	
2.1	Calibration certificates checked and valid, recorded in the following table	:	Conform
2.2.	All instruments are equipped with identification label	:	Yes
2.3.	Calibration certificates are complete of calibration-chain with detailed information regarding primary used.	:	Yes

Equipment	Serial / Certificate No.	Calibration due
Torque wrench	SN: 0810253 / Cert No. 37XJ22032730-0009	12 May 2023
Torque wrench	SN: 501178933 / Cert No. 37XJ22032730-0010	12 May 2023

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	Test Results	**PASS**	**FAIL**	**N/A**
2.3.	Type number of device (1, 2, 3 or 4): - 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 deactivates the engine~~* - ~~Type 4: Positively operated on the transmission~~* **Strikethrough, as appropriate.*	☒	☐	☐
5.1.	Protective device is so designed that:			
5.1.1.	It is necessary to put it out of action in order to enable the vehicle to be steered, or to be driven or moved forward in a straight line	☒	☐	☐
5.1.2.	In the case of protective devices of Type 4, the device is so designed that it is necessary to put it out of action in order to release the transmission. If this device is activated by the control of the parking device, it acts in conjunction with the device that deactivates the engine of the vehicle	☐	☐	☒
5.1.3.	It is only possible to extract the key with the bolt in the fully engaged or fully disengaged position. Any intermediate position of the key that risks subsequent engagement of the bolt – even if the key of the protective device is inserted – is excluded.	☒	☐	☐
5.3.	Protective device referred to in paragraph 5.1 above – and the vehicle components on which it operates – is so designed that it cannot rapidly and without attracting attention be opened, rendered ineffective, or destroyed by, for example, the use of low-cost, easily concealed tools, equipment or fabrications readily available to the public at large.	☒	☐	☐
5.4.	Protective device is mounted on the vehicle as an item of original equipment (i.e. equipment installed by the vehicle manufacturer prior to first retail sale). Lock is securely assembled in the protective device. *Note: If the lock can be extracted using the key after the cover or any other retention device has been removed, this is not in contradiction with the requirement.*	☒	☐	☐
5.5.	Key locking system provides at least 1,000 different key combinations, or a number equal to the total number of vehicles manufactured annually, if less than 1,000. In vehicles of one type, the frequency of occurrence of each combination is roughly one per 1,000.	☒	☐	☐
5.6.	Key and lock are not visibly coded.	☒	☐	☐
5.7.	Lock is so designed, constructed and fitted that the turning of the lock cylinder (when in the locked position) with a torque of less than 0.245 mdaN, is not possible with anything other than the mating key.	☒	☐	☐
5.7.1.	For lock cylinders with pin tumblers, no more than two identical tumblers operating in the same direction are positioned adjacent to each other, and in a lock there are not > 60 % identical tumblers.	☒	☐	☐
5.7.2.	For lock cylinders with disc tumblers, no more than two identical tumblers operating in the same direction are positioned adjacent to each other, and in a lock there are not > 50 % identical tumblers.	☐	☐	☒

	Test Results	**PASS**	**FAIL**	**N/A**
5.8.	Protective devices are such as to exclude any risk, while the vehicle is in motion with the engine running, of accidental blockage likely to compromise safety in particular.	☒	☐	☐
5.9.	Protective device, if it is of Type 1, Type 2 or Type 3 is, in its activated position, strong enough to withstand, without damage to the steering mechanism likely to compromise safety, the application of a torque of 20 mdaN about the axis of the steering shaft in both directions under static conditions.	☒	☐	☐
5.10.	Protective device, if it is of Type 1, Type 2 or Type 3, is so designed that the steering can only be locked at an angle of ≥ 20° to the left and/or the right of the straight-ahead position.	☒	☐	☐
	Particular Specifications			
6.1.1.	Lockable only by movement of key (handlebars being in appropriate position for bolt to engage in slot). *Note: Types 1 and 2 only.*	☒	☐	☐
6.1.2.	Pre-loading of bolt only possible by separate action combined with or in addition to turning of key/Removal of key not possible after bolt has been pre-loaded other than in accordance with 5.1.3. *Note: Type 3 only.*	☐	☐	☒
6.2.	Bolt prevented from engaging when device is in position that permits starting of engine. *Note: Types 2 and 3 only.*	☐	☐	☒
6.3.	Impossible to prevent device functioning when set. *Note: Type 3 only.*	☐	☐	☒
	Device subjected to wear test for 2,500 cycles. *Note: Type 3 only.*	☐	☐	☒
6.4.	Device in good working order and complies with 5.7, 5.8, 5.9 and 6.3 after wear test. *Note: Type 3 only.*	☐	☐	☒

Vehicles of Categories L1e, L2e, L3e, L4e, L5e, L6e and L7e, which are not fitted with Handlebars: NOT APPLICABLE

APPENDIX 3 - C6
Electromagnetic compatibility (EMC)

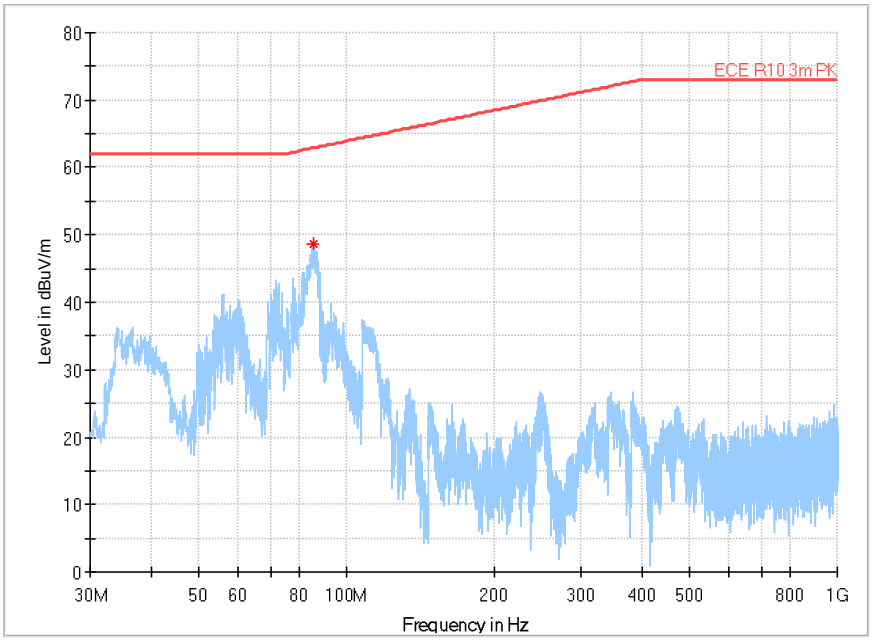
0.	***Main Requirements***	:	
0.1.	Requirements according to	:	Reg. (EU) 44/2014 Annex VII Including amendment (EU) 2018/295 UNECE R10.06
1.	***Witness details***	:	
1.1.	Witness	:	Steven LI
1.2.	Location of Test	:	Zhejiang Kezheng Electronic Information Product Testing Co.,Ltd. No.316, Jianghong South Road, Binjiang District, Hangzhou, Zhejiang Province, PEOPLE'S REPUBLIC OF CHINA
1.3.	Date of Test	:	2022/10/24
1.4.	Worst Case Rationale	:	Variant version 00/00 tested to cover 00/01 (BB NB immunity)
1.5.	Tested vehicle	:	☆R68HM5000NA000001☆ ☆R68HM5010NA000001☆
2.	***Facility and Equipment Checks***	***:***	
2.1	Calibration certificates checked and valid, recorded in the following table	:	Yes
2.2.	All instruments are equipped with identification label	:	Yes
2.3.	Calibration certificates are complete of calibration-chain with detailed information regarding primary used.	:	Yes

Equipment	Serial / Certificate No.	Calibration due
EMI Receiver	101250 / LAWXD202209100017	09 September 2023
Anechoic Chamber	LAWXD202109100098G	Calibrated on 09 September 2022
Anechoic Chamber	LAWXD202109100096	Calibrated on 09 September 2022
Hamonic flicker tester	72621 / LAWXD202209100004	Calibrated on 10 September 2022
Surge test system	1727 / LAWXD202209100025	Calibrated on 10 September 2022

3	***Test results:***		e13*168/2013*01687*00 Société Nationale de Certification et d'Homologation
3.1.	**Specifications in configurations other than REESS charging mode coupled to power grid**		
3.1.1.	Broadband electromagnetic radiation from vehicles	:	3m indoor test, see test result below
3.1.2.	Narrowband electromagnetic radiation from vehicles	:	3m indoor test, see test result below
3.1.3.	Immunity of vehicles to electromagnetic radiation	:	Field strength=30 V/m

BB_Left_Ver 1

Full Spectrum



Critical_Freqs

Frequency (MHz)	MaxPeak (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
85.872000	48.68	62.89	14.21	---	---	180.0	V	0.0	11.8

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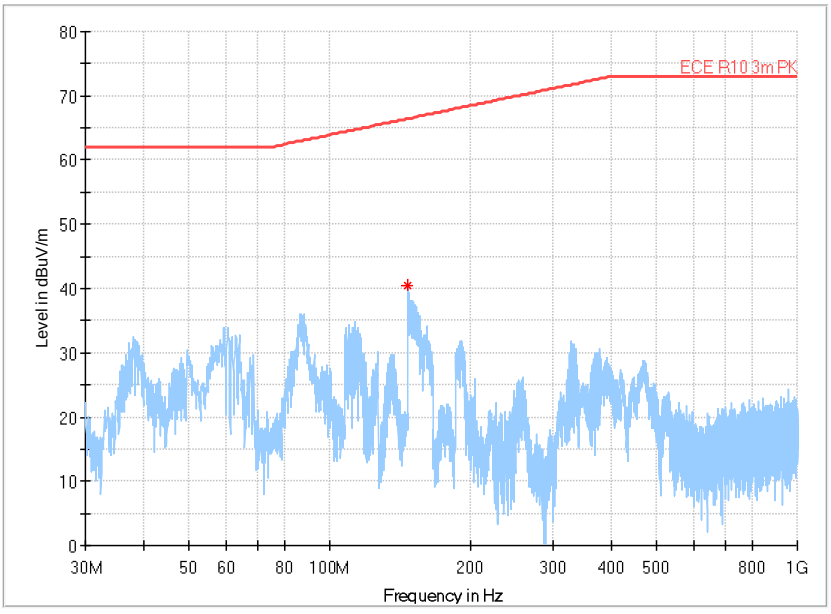
BB_Left_Hor 1

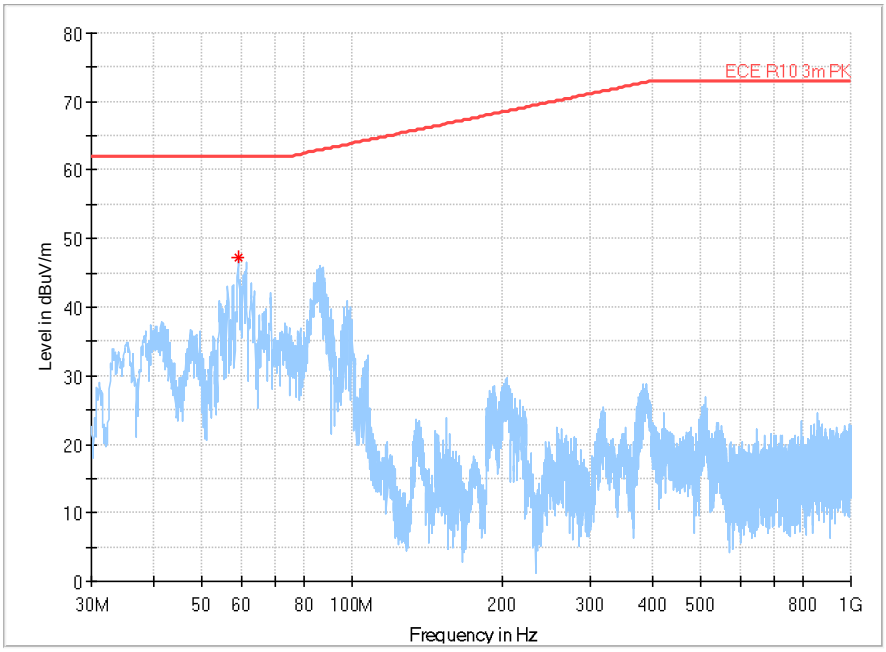
Full Spectrum



Critical_Freqs

Frequency (MHz)	MaxPeak (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
146.739500	40.36	66.41	26.05	---	---	180.0	H	0.0	10.0

BB_Right_Ver 1
Full Spectrum



Critical_Freqs

Frequency (MHz)	MaxPeak (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
59.051500	47.31	62.00	14.69	---	---	180.0	V	180.0	13.6

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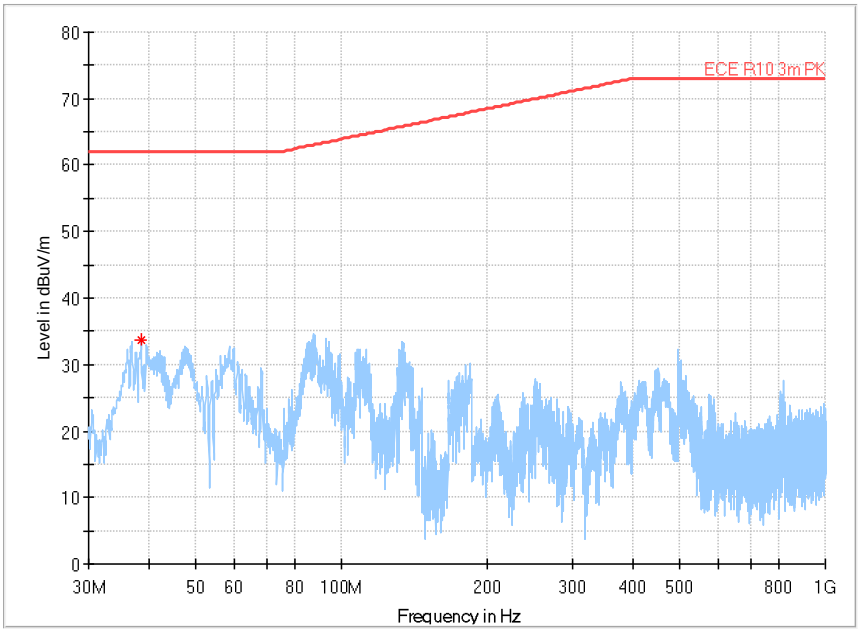
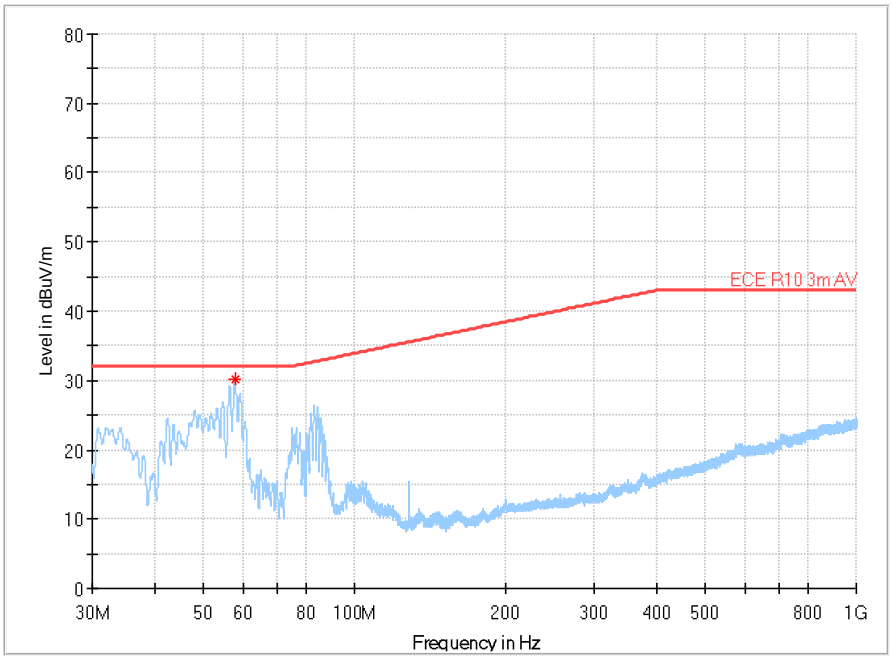
BB_Right_Hor 1
Full Spectrum



Critical_Freqs

Frequency (MHz)	MaxPeak (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
38.536000	33.63	62.00	28.37	---	---	180.0	H	180.0	13.2

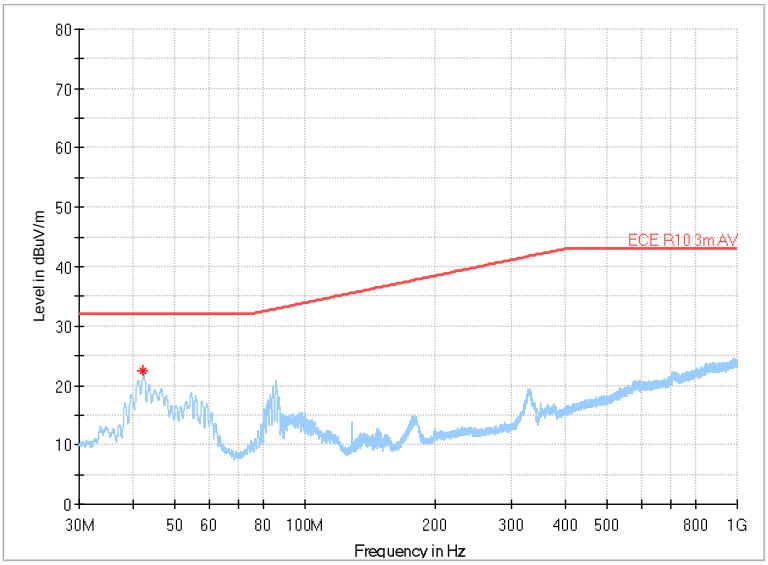
NB_Left_Ver 1
Full Spectrum



Critical_Freqs

Frequency (MHz)	Average (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
57.709667	30.11	32.00	1.89	---	---	180.0	V	0.0	13.8

NB_Left_Hor 1
Full Spectrum

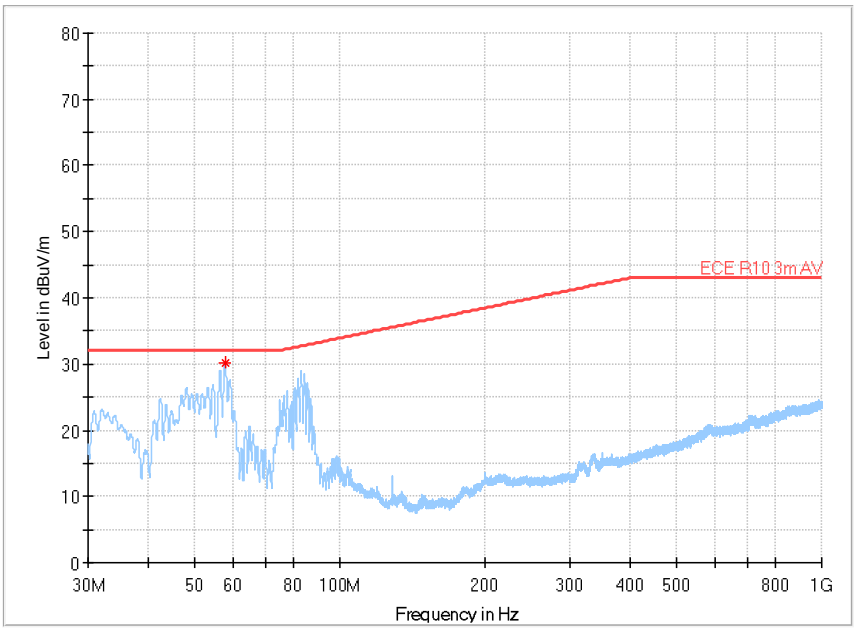


Critical_Freqs

Frequency (MHz)	Average (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
42.222000	22.52	32.00	9.48	---	---	180.0	H	0.0	13.8

NB_Right_Ver 1

Full Spectrum

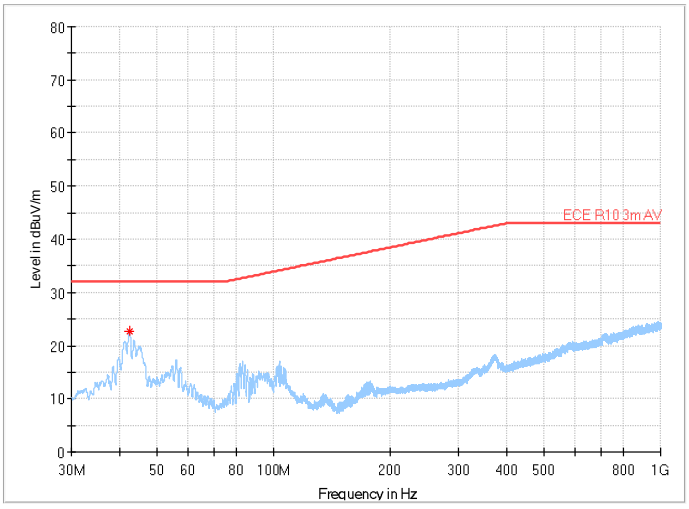


Critical_Freqs

Frequency (MHz)	Average (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
57.677333	30.14	32.00	1.86	---	---	180.0	V	180.0	13.8

NB_Right_Hor 1

Full Spectrum



Critical_Freqs

Frequency (MHz)	Average (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
42.351333	22.80	32.00	9.20	---	---	180.0	H	180.0	13.8

3.2. Additional specifications in configuration REESS charging mode coupled to power grid

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3.2.1.	Broadband electromagnetic radiation from vehicle	:	Test result as below
3.2.2.	Emission of harmonics on AC power lines from vehicle	:	Conform
3.2.3.	Emission of voltage changes, fluctuations, flickers on AC power lines from vehicle	:	Test result as below
3.2.4.	Emission of radiofrequency conducted disturbances on AC or DC power lines from vehicle	:	Test result as below
3.2.5.	Emission of radiofrequency conducted disturbances on network and telecommunication access from vehicle	:	Not applicable
3.2.6.	Immunity of vehicle to electromagnetic radiation	:	Field strength=30 V/m
3.2.7.	Immunity of vehicle to electrical fast transient/burst disturbances conducted along AC and DC power lines	:	Conform
3.2.8.	Immunity of vehicle to surge conducted along AC and DC power lines	:	Conform

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As before

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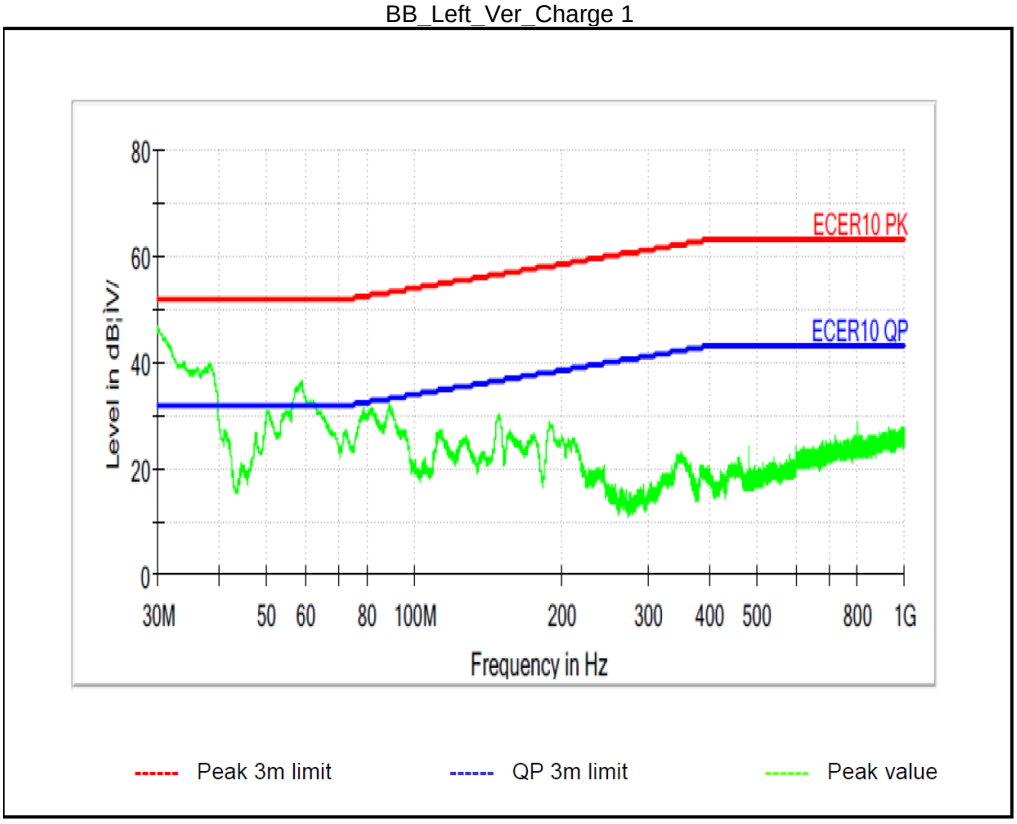
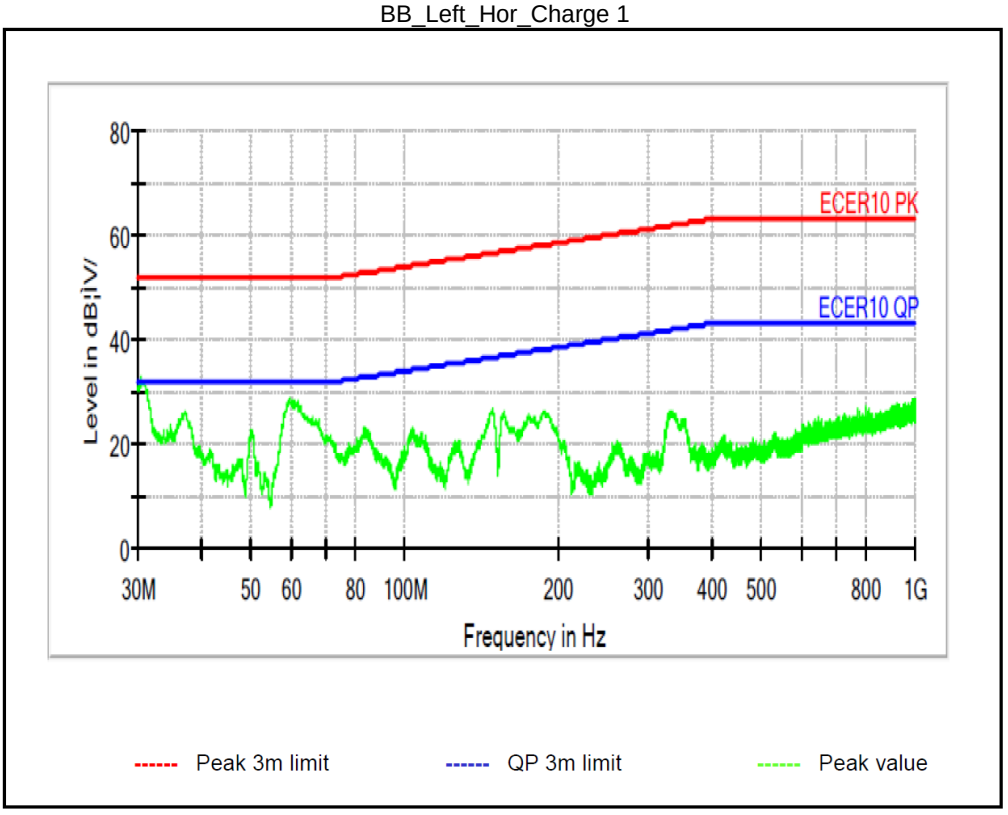
BB_Left_Ver_Charge 1

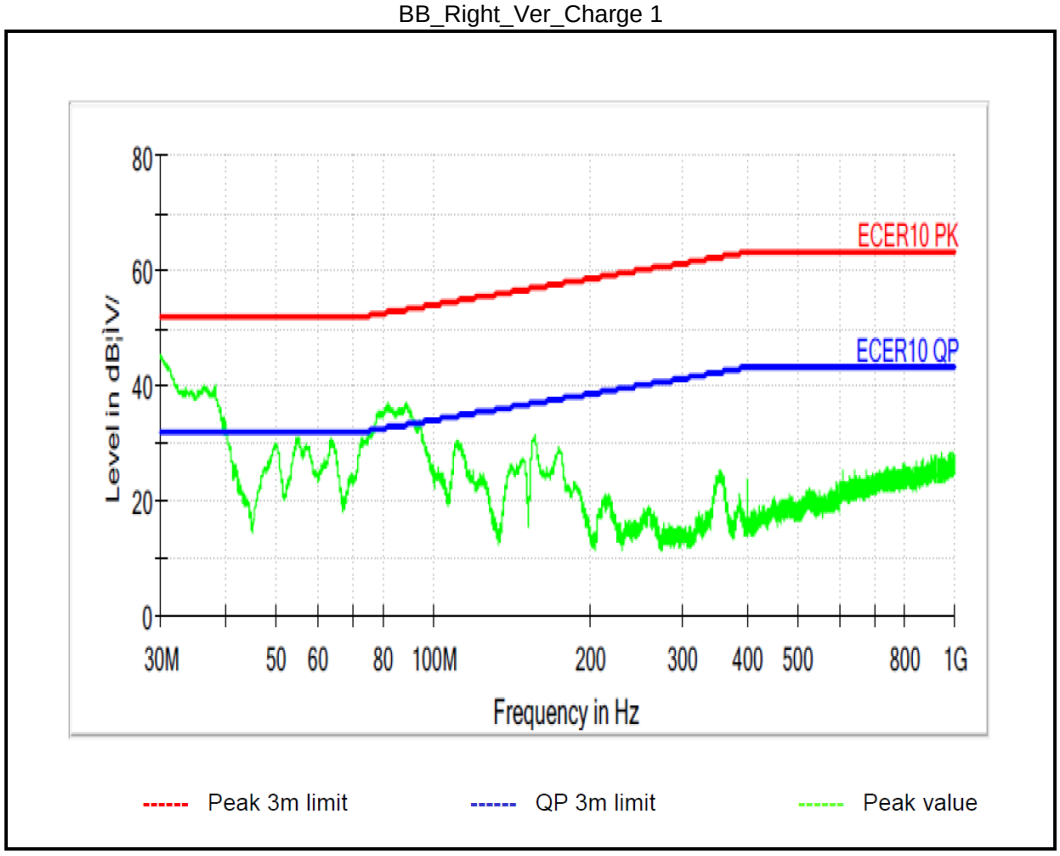


BB_Left_Hor_Charge 1



CETOC TS
CETOC Technical Service srl
Via della Bufalotta, 374,
00139 Roma

BB_Right_Ver_Charge 1



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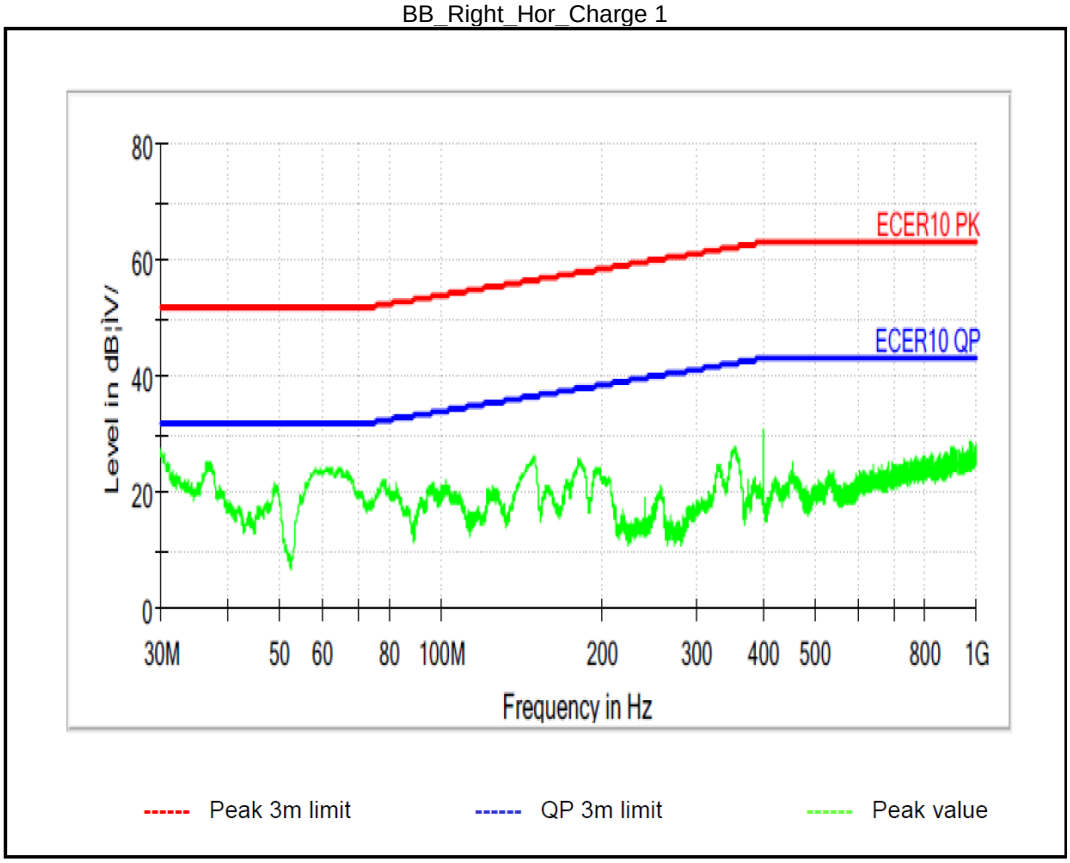
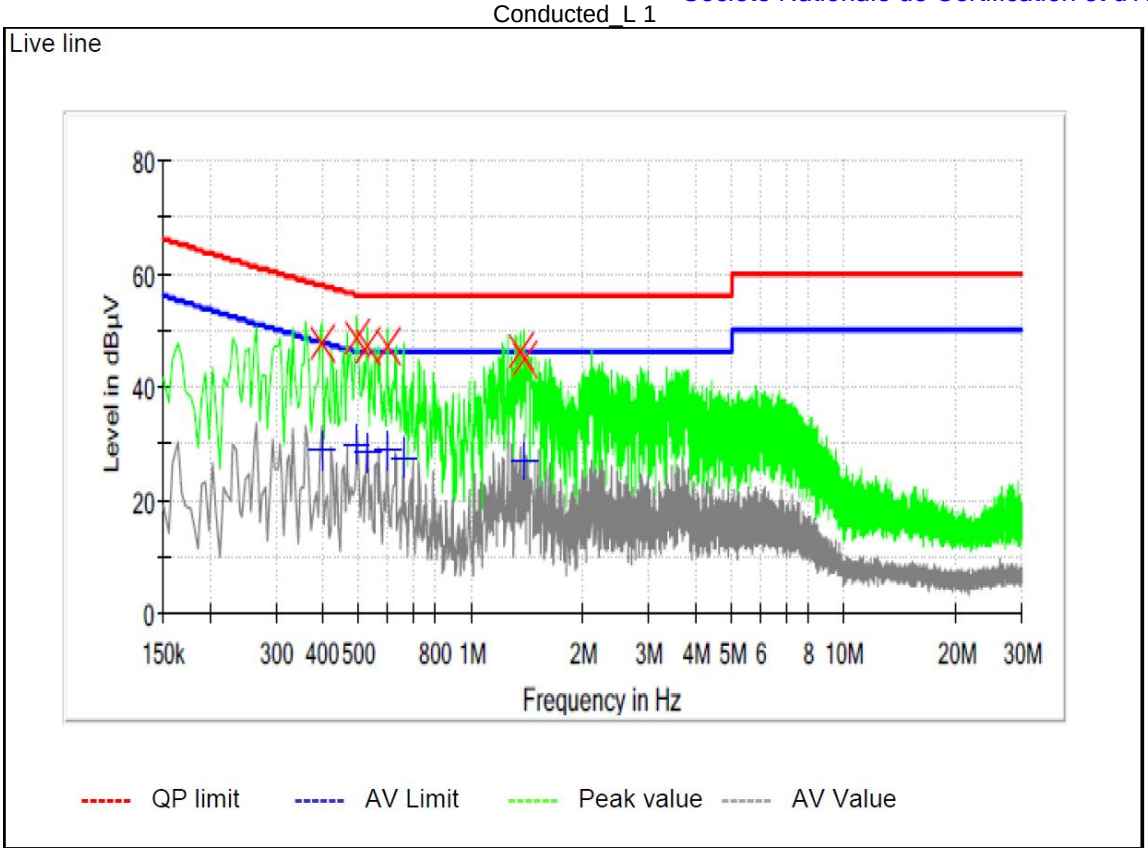
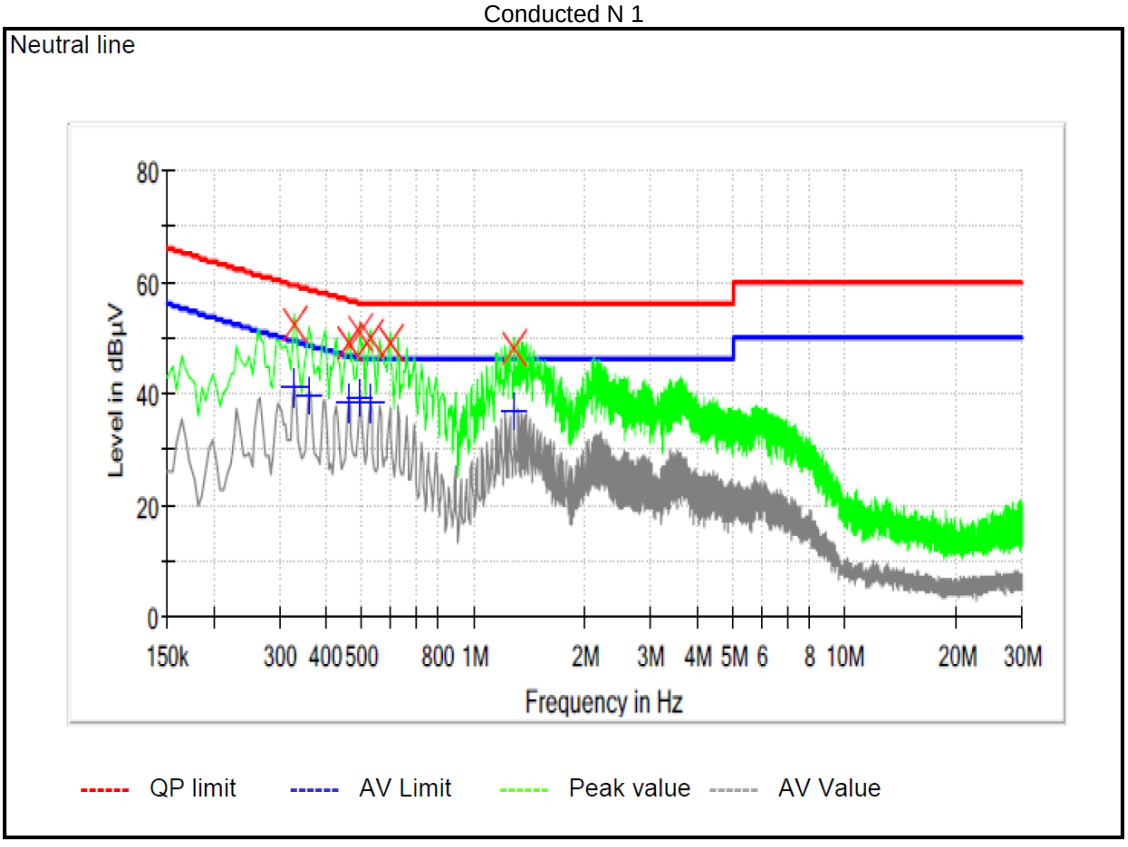


Conducted_L 1



Conducted N 1



3.2.3 Measurement of harmonics emission generated on AC power lines from vehicle

Vehicle condition: According to item 2 of Annex 11 of the ECE Regulation No. 10
Test arrangement: According to item 3 of Annex 11 of the ECE Regulation No. 10

3.2.3.1 Test results: e13*168/2013*01687*00

Standard: EN/IEC 61000-3-2 Ed.3 Quasi-Peak Société Nationale de Certification et d'Homologation
Class A <= 150% of the limit value
10 Periods - (EN/IEC 61000-4-7 Edition 2002 + A1:2008)

Test results E.U.T.:

Harmonics > 150%	order (n):	None
Harmonics with average > 100%:	order (n):	None

Test results AC source:

First data exceeding limit value:	DS (time):	None
Harmonics exceeding limit value:	order (n):	None

The requirements of item 7.3.2 of the ECE Regulation No. 10 are fulfilled.
Test passed.

3.2.4 Measurement of emission of voltage changes, voltage fluctuations and flicker on AC power lines from vehicle

Vehicle condition: According to item 2 of Annex 12 of the ECE Regulation No. 10
Test arrangement: According to item 3 of Annex 12 of the ECE Regulation No. 10

3.2.4.1 Test results:

Standard: EN/IEC 61000-3-3 Flicker Zref (IEC 60725)
230V / 50Hz according IEC 61000-4-15 Ed2

	E.U.T. value	Limit	Test result
Pst	0.128	1.00	Passed
Plt	0.056	0.65	Passed
dc [%]	0.000	3.30	Passed
dmax [%]	0.000	4.00	Passed
dt [s]	0.000	0.50	Passed

The requirements of item 7.4.2 of the ECE Regulation No. 10 are fulfilled.
Test passed.

APPENDIX 3 - C7
External projections

0.	***Main Requirements***	:	
0.1.	Requirements according to	:	Reg. (EU) 44/2014 Annex VIII Including amendment (EU) 2018/295
1.	***Witness details***	:	
1.1.	Witness	:	Steven LI
1.2.	Location of Test	:	Zhejiang Labs Vehicle Testing Co., Ltd. No.5 Shengyi Road, Yiqiao Industrial Zone, Yuhang Street, Yuhang District, Hangzhou, Zhejiang Province, PEOPLE'S REPUBLIC OF CHINA
1.3.	Date of Test	:	28 November 2022
1.4.	Worst Case Rationale	:	>> The tests were conducted with a test vehicle which is representative of the vehicle type to be approved. The characteristics of the selected vehicle represent the worst case.
1.5.	Tested vehicle	:	R68HM5010NA000001
2.	***Facility and Equipment Checks***	:	
2.1	Calibration certificates checked and valid, recorded in the following table	:	Conform
2.2.	All instruments are equipped with identification label	:	Yes
2.3.	Calibration certificates are complete of calibration-chain with detailed information regarding primary used.	:	Yes

Equipment	Serial / Certificate No.	Calibration due
Test device Projection check cylinder	Type: WD-22 Cert No.: CGEL051220220921	11 May 2023
R gauge	R1-6.5	12 May 2023

3.	**Test results:**		
3.1.	Vehicle assessment	:	Vehicle is in a straight line, vertical position as level floor with a rider sits on the moped in normal position and steering free to move.
3.2.	Group 1 parts: Grazing (0° ≤ α < 45°)	:	Test passed
3.3.	Group 1 parts: Collision: (45° ≤ α < 90°)	:	Test passed
3.4.	Windscreen	:	Not applicable
3.5.	Covers that resemble windscreens or fairings installed to protect instrument cluster or head lamp	:	Conform as per requirements
3.6.	Uncovered levers	:	Conform as per requirements
3.7.	Mudguard	:	Conform as per requirements
3.8.	All others outward pointed and protruding parts of the vehicles	:	Conform as per requirements

3.9.	Other requirements as per directive described in this test record	:	Conform as per requirements

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APPENDIX 3 - C10
Masses and dimensions

0.	***Main Requirements***	:	
0.1.	Requirements according to	:	Reg. (EU) 44/2014 Annex XI Including amendment (EU) 2018/295
1.	***Witness details***	:	
1.1.	Witness	:	Steven LI
1.2.	Location of Test	:	Zhejiang Labs Vehicle Testing Co., Ltd. No.5 Shengyi Road, Yiqiao Industrial Zone, Yuhang Street, Yuhang District, Hangzhou, Zhejiang Province, PEOPLE'S REPUBLIC OF CHINA
1.3.	Date of Test	:	2022/10/11 to 2022/11/2
1.4.	Worst Case Rationale	:	Variant 00 version 00 tested to cover version 01
1.5.	Tested vehicle	:	☆R68HM5000NA000001☆
2.	***Facility and Equipment Checks***	***:***	
2.1	Calibration certificates checked and valid, recorded in the following table	:	Conform
2.2.	All instruments are equipped with identification label	:	Yes
2.3.	Calibration certificates are complete of calibration-chain with detailed information regarding primary used.	:	Yes

Equipment	Serial / Certificate No.	Calibration due
Tape	665702 / 37XJ22032730-0005	12 May 2023
Electronic Scale	SN: 030843791 / Cert No.: 37XJ22032730-0015	12 May 2023
Electronic Scale	SN: 030843792 / Cert No.: 37XJ22032730-0016	12 May 2023

Variant 00 version 00

MASSES	Measured in kg	Declared in kg	Limit	Comply (Yes / No)
In running order	62	62	5%	Comply
Actual Mass	144	144	5%	Comply
Technically permissible mass	--	219	--	Comply
Maximum payload	--	75	--	Comply

Variant 00 version 00

Dimension	Measured (mm)	Declared (mm)	Limit (mm)	% between the declared and tested (< 3 %)	Comply (Yes / No)
Length	2110	2110	4000	< 3 %	Yes
Width	920	920	2000	< 3 %	Yes
Height	1130	1130	2500	< 3 %	Yes
Wheelbase	1520	1520	--	< 3 %	Yes
Ground clearance	--	--	≥ 310 (L3e-AxE) ≥ 280 (L3e-AxT)	< 3 %	--
Length loading bed	--	--	N/A	N/A	--
Width loading bed	--	--	N/A	N/A	--

APPENDIX 3 – C12
Passenger handholds and footrests

0.	***Main Requirements***	:	
0.1.	Requirements according to	:	Reg. (EU) 44/2014 Annex XIII Including amendment (EU) 2018/295
1.	***Witness details***	:	
1.1.	Witness	:	Steven LI
1.2.	Location of Test	:	Zhejiang Labs Vehicle Testing Co., Ltd. No.5 Shengyi Road, Yiqiao Industrial Zone, Yuhang Street, Yuhang District, Hangzhou, Zhejiang Province, PEOPLE'S REPUBLIC OF CHINA
	e13*168/2013*01687*00 Société Nationale de Certification et d'Homologation		
1.3.	Date of Test	:	29 November 2022
1.4.	Worst Case Rationale	:	>>The tests were conducted with a test vehicle which is representative of the vehicle type to be approved. The characteristics of the selected vehicle represent the worst case.
1.5.	Tested vehicle	:	R68HM5010NA000001
2.	***Facility and Equipment Checks***	:	
2.1.	Calibration certificates checked and valid, recorded in the following table	:	Conform
2.2.	All instruments are equipped with identification label	:	Yes
2.3.	Calibration certificates are complete of calibration-chain with detailed information regarding primary used.	:	Yes

Equipment	Serial / Certificate No.	Calibration due
Load cell	SN:180811 / Cert No. 37XJ22032730-0012	12 May 2023

3. Passenger handholds and footrests Specification:

3.1.	Type and number of driver footrest	:	All seating positions of the vehicle is fitted with designated footrests
3.2.	Type and number of passenger handhold	:	The vehicle is fitted with one hand-grip bar(s) as passenger hand-hold system.
3.3.	Type and number of passenger footrest	:	All seating positions of the vehicle is fitted with designated footrests

		PASS	FAIL	N/A
1.2.	For vehicles designed to carry one or more passengers but not equipped with safety belts for those passengers, the seating positions in question are fitted with a passenger handhold system consisting of either a strap, or one or two hand-grip bars.	☒	☐	☐
1.2.1.	Strap is easily used by the passenger.	☐	☐	☒
	Strap withstood a vertical traction force of 2,000 N (load).	☐	☐	☒
	Pressure (maximum 2 Mpa) (Force/area)	☐	☐	☒

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		PASS	FAIL	N/A
1.2.2.	Hand-grip is close to the saddle and symmetrical to the median longitudinal plane of the vehicle.	☒	☐	☐
	Hand-grip withstood a vertical traction force of 2000 N (load). 21910.0 N reached	☒	☐	☐
	Pressure (maximum 2 Mpa).	☒	☐	☐
1.2.3.	If two hand-grips are used, they are fitted one on each side in a symmetrical manner.	☐	☐	☒
	Hand-grip withstood a vertical traction force of 1,000 N. *Pressure: Maximum 1 Mpa each*	☐	☐	☒
1.2.4.	Design features of the vehicle, which could be confused with the designated passenger handhold system, are not permitted, unless they also meet the requirements of points 1.2.1 to 1.2.3.	☒	☐	☐
1.3.	All seating positions of the vehicle are fitted either with designated footrests, or a floor or floor boards on which both of the rider's, driver's, or passenger's feet can rest.	☒	☐	☐
1.3.1.	Vehicle's floor, each designated floor board and each designated footrest are capable of withstanding, without any resulting permanent deformation that is harmful to its function, a vertical compression force of 1,700 N, applied statically to any point on the floor or floor board, or 15 mm from the end of the footrest, at a maximum pressure of 2.0 MPa.	☒	☐	☐
1.3.2.	Space provided by each designated footrest, including the space on the floor or floor board, is sufficient for a foot ≥ 300 mm long and ≥ 110 mm wide to be placed safely without hampering the vehicle operator's feet. Footrests are located so that no direct contact between the foot/leg and rotating parts (e.g. tyres) of the vehicle is possible when in use.	☒	☐	☐
1.3.3.	Design features of the vehicle, which could be confused with the designated footrests, floor boards or vehicle floor are not permitted, unless they also meet the requirements of points 1.3.1 to 1.3.2.	☒	☐	☐
1.3.4	Pedals enabling the vehicle to be propelled by the rider's muscular leg power are deemed to meet the requirements of points 1.3 to 1.3.3	☒	☐	☐

APPENDIX 3 – C13
Registration plate space

0.	***Main Requirements***	:	
0.1.	Requirements according to	:	Reg. (EU) 44/2014 Annex XIV Including amendment (EU) 2018/295
1.	***Witness details***	:	
1.1.	Witness	:	Steven LI
1.2.	Location of Test	:	Zhejiang Labs Vehicle Testing Co., Ltd. No.5 Shengyi Road, Yiqiao Industrial Zone, Yuhang Street, Yuhang District, Hangzhou, Zhejiang Province, PEOPLE'S REPUBLIC OF CHINA
1.3.	Date of Test	:	29 November 2022
1.4.	Worst Case Rationale	:	>>The tests were conducted with a test vehicle which is representative of the vehicle type to be approved. The characteristics of the selected vehicle represent the worst case.
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1.5.	Tested vehicle	:	R68HM5010NA000001
2.	***Facility and Equipment Checks***	:	
2.1.	Calibration certificates checked and valid, recorded in the following table	:	Conform
2.2.	All instruments are equipped with identification label	:	Yes
2.3.	Calibration certificates are complete of calibration-chain with detailed information regarding primary used.	:	Yes

Equipment	Serial / Certificate No.	Calibration due
Digital Goniometer	SN: 744539 / 37XJ22032730-0002	12 May 2023
Tape	665702 / 37XJ22032730-0005	12 May 2023

		PASS	FAIL	N/A
1.2.	Vehicles are equipped with a space for mounting and fixing rear registration plates.	☒	☐	☐
1.3.	Vehicles of categories L6e and L7e are, in addition, equipped with a space for mounting and fixing front registration plates.	☐	☐	☒
1.4.1.	Space for mounting comprises of a rectangular area with the following minimum dimensions:	☒	☐	☐
	For vehicles of categories L1e, L2e and L6e: - ~~Width: 100 mm; Height: 175 mm~~* - Width: 145 mm; Height: 125 mm* **Strikethrough, as appropriate.*	☒	☐	☐
	For vehicles of categories L3e, L4e, L5e and L7e: - Width: 280 mm; Height: 200 mm	☐	☐	☒
	Mounting and Fixing of a Rear Registration Plate on Vehicles of Categories L1e, L2e, L3e, L4e and L5e			

		PASS	FAIL	N/A
1.5.1.1.1.	Space for mounting a registration plate at the rear of the vehicle is such that the plate can be positioned entirely within the two parallel longitudinal vertical planes passing through the outer extremities of the vehicle, not taking into account any rearview mirrors. The space itself does not form the widest point of the vehicle.	☒	☐	☐
1.5.1.2.	Plate is perpendicular to the longitudinal median plane of the vehicle.	☒	☐	☐
1.5.1.3.1.	Plate may be inclined to the vertical at ≥ –15° and ≤ 30°.	☒	☐	☐
1.5.1.4.1.	Lower edge of the plate is ≥ 0.20 m above the ground or not less than the radius of any rear wheel above the ground if that is less than 0.20 m.	☒	☐	☐
1.5.1.4.2.	Height of the upper edge of the plate from the ground does not exceed 1.50 m.	☒	☐	☐
1.5.1.5.1.	Plate is visible in the whole space within the following four planes: - Two vertical planes touching the two lateral edges of the plate and forming an angle measured outwards to the left and to the right of the plate of 30° to the longitudinal plane, parallel to the longitudinal median plane of the vehicle, passing through the centre of the plate; - Plane touching the upper edge of the plate and forming an angle measured upwards of 15° to the horizontal; - Horizontal plane through the lower edge of the plate.	☒	☐	☐
1.5.1.5.2.	No structural element, even when fully transparent, is located in the space described above.	☒	☐	☐
1.6.	**Mounting and fixing of front and rear registration plates on vehicles of categories L6e and L7e**			
1.6.1	The space for mounting a front or rear registration plate shall comprise a flat or virtually flat rectangular surface. A "virtually flat surface" means a surface of solid material, which may also consist of patterned mesh or grille, with a radius of curvature of at least 5000mm	☐	☐	☒
1.6.2.	The surface to be covered by a front or rear registration plate may have holes or gaps; however, these shall be no more than 40mm wide without having to take into account their length	☐	☐	☒
1.6.3.	The surface to be covered by a front or rear registration plate may have a protrusion, provided that these do not project more than 5,0 mm from the nominal surface. Patches of very soft materials, such as foam or felt to stop the registration plate vibrating, shall not be taken into account.	☐	☐	☒
1.6.4.1.1	The space for mounting a registration plate at the front of the vehicle shall be such that the plate can be positioned entirely within the two parallel longitudinal vertical planes passing through the outer extremities of the vehicle, not taking into account any rear-view mirrors. The space itself shall not form the widest point of the vehicle.	☐	☐	☒
1.6.4.1.2	The space for mounting a registration plate at the rear of the vehicle shall be such that the plate can be positioned entirely within the two parallel longitudinal vertical planes passing through the outer extremities of the vehicle, not taking into account any rear-view mirrors. The space itself shall not form the widest point of the vehicle.	☐	☐	☒

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		PASS	FAIL	N/A
1.6.4.1.3	Front and rear registration plates shall be perpendicular to the longitudinal median plane of the vehicle	☐	☐	☒
1.6.4.2.1	The plate may be inclined to the vertical at not less than – 15° and not more than 30°.	☐	☐	☒
1.6.4.3.1	The lower edge of the plate shall not be less than 0,20 m above the ground or less than the radius of any front wheel above the ground if that is less than 0,20 m	☐	☐	☒
1.6.4.3.2	The height of the upper edge of the plate from the ground surface shall not exceed 1,50 m.	☐	☐	☒
1.6.4.4.1	Front and rear plates shall be visible in the whole space within the following four planes: - the two vertical planes touching the two lateral edges of the plate and forming an angle measured outwards to the left and to the right of the plate of 30° to the longitudinal median plane of the vehicle, - the plane touching the upper edge of the plate and forming an angle measured upwards of 15° to the horizontal, - the horizontal plane through the lower edge of the plate.	☐	☐	☒
1.6.4.4.2.	No structural element, even when fully transparent, shall be located within the space described above.	☐	☐	☒
1.6.4.5	The gap between the edges of a mounted and fixed registration plate and the actual surface of the plate space shall not exceed 5,0 mm along the complete outline of the plate.	☐	☐	☒
1.6.4.5.1	This gap may be exceeded if measured at a hole or gap in the surface of patterned mesh or between parallel bars in a surface of a grille.	☐	☐	☒
	Other Requirements			
1.7.1.	Presence of a registration plate may not form the basis or part of the basis for attaching, mounting, or clipping any other vehicle part, component or device onto it (e.g. lighting device supports may not be fixed onto a registration plate).	☒	☐	☐
1.7.2.	No vehicle part, component or device becomes loosened or detached as a result of removal of a registration plate.	☒	☐	☐
1.7.3.	When a registration plate is fixed, its visibility is not reduced under normal conditions of use due, in particular, to vibrations and dynamic forces, such as driving wind forces.	☒	☐	☐
1.7.4.	It is not permitted to provide a registration plate mounting location that can easily pivot up and/or down beyond the angles laid down in paragraphs 1.5.1.3.1 and 1.6.4.2.1, in relation to the vehicle structure in normal driving conditions (i.e. with doors or access panels closed).	☒	☐	☐
1.7.5.	If the vehicle has the tendency to lean, a mounted registration plate of the applicable maximum dimensions, which is not located in the longitudinal median plane of the vehicle, is not the limiting factor of the maximum lean angle.	☐	☐	☒

APPENDIX 3 – C14

Access to repair and maintenance information

0.	***Main Requirements***	:	
0.1.	Requirements according to	:	Reg. (EU) 44/2014 Annex XV Including amendment (EU) 2018/295
1.	***Witness details***	:	
1.1.	Witness	:	Steven LI
1.2.	Location of Test	:	Zhejiang Labs Vehicle Testing Co., Ltd. No.5 Shengyi Road, Yiqiao Industrial Zone, Yuhang Street, Yuhang District, Hangzhou, Zhejiang Province, PEOPLE'S REPUBLIC OF CHINA
1.3.	Date of Test	:	2022/10/11 to 2022/11/2
1.4.	Worst Case Rationale	:	For both versions.
1.5.	Tested vehicle	:	Not applicable
2.	***Facility and Equipment Checks***	*:*	
2.1.	Calibration certificates checked and valid, recorded in the following table	:	Not applicable
2.2.	All instruments are equipped with identification label	:	Not applicable
2.3.	Calibration certificates are complete of calibration-chain with detailed information regarding primary used.	:	Not applicable

Equipment	Serial / Certificate No.	Calibration due
--	--	--

3. Test results:

3.1.	The manufacturers certificate on access to vehicle OBD stage I and vehicle repair and maintenance information	:	The manufacturers certificate providing proof of compliance to the type-approval authority on access to vehicle on-board diagnostic (OBD) systems and to vehicle repair and maintenance information as referred to in Article 57(8) of Regulation (EU) No 168/2013 and set out in Annex III to Regulation (EU) No 901/2014 is provided
3.2.	Access to vehicle OBD and vehicle repair and maintenance information (website)	:	www.zjshansu.com
3.2.1	Date from which it is available:	:	6 months from the date of type approval
3.2.2	Terms and conditions of access	:	according to point 3 of Annex XV to this Regulation
3.2.3	Format of vehicle repair and maintenance information accessible through website:	:	according to Appendix 1 of Annex XV to this Regulation
3.3.	Service parts, diagnostic tools and test equipment	:	The manufacturer makes the necessary information in the context of Article 57 (6) of Regulation (EU) No 168/2013 available to interested parties on the basis of individual arrangements to which the principle of Article 59 of Regulation (EU) No 168/2013 apply and to provide contact details on its website.
3.4.	Multi-stage type approval	:	N.A.
3.5.	Small volume manufacturers	:	N.A.

APPENDIX 3 – C15

Stands

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0.	***Main Requirements***	:	
0.1.	Requirements according to	:	Reg. (EU) 44/2014 Annex XVI Including amendment (EU) 2018/295
1.	***Witness details***	:	
1.1.	Witness	:	Steven LI
1.2.	Location of Test	:	Zhejiang Labs Vehicle Testing Co., Ltd. No.5 Shengyi Road, Yiqiao Industrial Zone, Yuhang Street, Yuhang District, Hangzhou, Zhejiang Province, PEOPLE'S REPUBLIC OF CHINA
1.3.	Date of Test	:	29 November 2022
1.4.	Worst Case Rationale	:	>>The tests were conducted with a test vehicle which is representative of the vehicle type to be approved. The characteristics of the selected vehicle represent the worst case.
1.5.	Tested vehicle	:	R68HM5010NA000001
2.	***Facility and Equipment Checks***	*:*	
2.1.	Calibration certificates checked and valid, recorded in the following table	:	Conform
2.2.	All instruments are equipped with identification label	:	Yes
2.3.	Calibration certificates are complete of calibration-chain with detailed information regarding primary used.	:	Yes

Equipment	Serial / Certificate No.	Calibration due
Digital Goniometer	SN: 744539 / 37XJ22032730-0002	12 May 2023

3. Test results:

3.1	Type of Stand	Prop stand ~~/ Centre stand / Prop & Centre stand~~

Testing platform	Flat, rectangular and of sufficient dimensions to fully support the vehicle without perceptible flexing or deformation. The surface is clean, dry and of sufficient anti-skid properties.
Vehicle	Mass in running order ~~Vehicle's transmission 'neutral' position~~ Vehicle's steering system is in locked position
Tyre pressure	According the manufacturer's recommendation

Stand	Direction	MOPED Requirement (ECE)	Motorcycle Requirement (ECE)	Test Angle Achieved
Prop stand	Upstream	6 %	~~8 %~~	6 %
Prop stand	Downstream	5 %	~~6 %~~	5 %

Prop stand	Transverse left	5 %	~~6 %~~	5 %
Prop stand	Transverse right	5 %	~~6 %~~	5 %
Centre stand	Upstream	~~12 %~~	~~14 %~~	
Centre stand	Downstream	~~6 %~~	~~8 %~~	
Centre stand	Transverse left	~~6 %~~	~~8 %~~	
Centre stand	Transverse right	~~6 %~~	~~8 %~~	

>>The vehicle is fitted with a prop stand and~~/or~~[8] centre stand.
>>The requirements of point 1 of Annex XVI to Regulation (EU) No 44/2014 are fulfilled.

>>Specific requirements for prop stands
The vehicle prop stand is fitted with ignition cutting switch, the vehicle is designed in such a way that it can not be propelled when the prop stand is in the in-use position.
The tests of stability on a horizontal supporting surface is not performed.
The tests of stability on an inclined surface have been successfully completed in accordance with the requirements of point 2.3.2 of Annex XVI to Regulation (EU) No 44/2014.

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[8] *Error in original test report. This vehicle only fitted with prop stand. No centre stand!!*

APPENDIX 3 – D1
Statutory plate

0.	***Main Requirements***	:	
0.1.	Requirements according to	:	Reg. (EU) 901/2014 Annex V Including amendment (EU) 2020/239
1.	***Witness details***	:	
1.1.	Witness	:	Steven LI
1.2.	Location of Test	:	Zhejiang Labs Vehicle Testing Co., Ltd. No.5 Shengyi Road, Yiqiao Industrial Zone, Yuhang Street, Yuhang District, Hangzhou, Zhejiang Province, PEOPLE'S REPUBLIC OF CHINA
1.3.	Date of Test	:	2022/10/11 to 2022/11/2
1.4.	Worst Case Rationale	:	Variant/version: 00/00,01 checked
1.5.	Tested vehicle	:	☆R68HM5000NA000001☆ ☆R68HM5010NA000002☆
2.	***Facility and Equipment Checks***	*:*	
2.1.	Calibration certificates checked and valid, recorded in the following table	:	Conform
2.2.	All instruments are equipped with identification label	:	Yes
2.3.	Calibration certificates are complete of calibration-chain with detailed information regarding primary used.	:	Yes

Equipment	Serial / Certificate No.	Calibration due
Tape	665702 / 37XJ22032730-0005	12 May 2023

3.	**Test results:**		
3.1	Positioning of statutory plate	:	C, x1260, y0, z435
3.2	Height of characters [mm]	:	3 mm
3.3	Material of statutory plate	:	Aluminium
3.4	Requirements as per directive described in this test record	:	*Yes*

Remarks

None

Note: CETOC TS apply measurement uncertainty to calibrated items but not test results.

Type: HM-5	ZHEJIANG YIXING INDUSTRY AND TRADE LIMITED	Date : 31.10.2022 Ext. : 00

EUROPEAN TYPE-APPROVAL OF TWO OR THREE-WHEEL VEHICLES AND QUADRICYCLES

(Information Folder No. HM-5-00)

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6	STATEMENTS ON STRUCTURE INTEGRITY
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8	DECLARATION ON POWERTRAIN TAMPERING PREVENTION MEASURES (ANTI-TAMPERING) (IF APPLICABLE)

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Société Nationale de Certification et d'Homologation

Type: HM-5	ZHEJIANG YIXING INDUSTRY AND TRADE LIMITED	Date : 31.10.2022 Ext. : 00

EUROPEAN TYPE-APPROVAL OF TWO OR THREE-WHEEL VEHICLES AND QUADRICYCLES

(Information Folder No. HM-5-00)

Document revisions history

Ext. No. / Corr. No.	Extension reason	Date
00	Not Applicable	31.10.2022

Information
on the type-approval procedure chosen in accordance with Article 25(1) of Regulation (EU) No 168/2013
-Information folder sheet-

The undersigned: Hu Xia /general manager

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Company name and address of manufacturer: Société Nationale de Certification et d'Homologation

ZHEJIANG YIXING INDUSTRY AND TRADE LIMITED
ROOM 2103, 21/F HO KING COMMERCIAL CENTRE NO. 2-16 FA YUEN STREET MONG KOK, KOWLOON HONG KONG

Name and address of the manufacturer's representative (if any):

MINIMOTOS SPORT, S.L.
C/ LA MITJANA 7 - POLIGONO EL BOCH, CREVILLENT, ALICANTE, SPAIN

Hereby applies for type-approval procedure:

~~(a) step-by-step type-approval~~

(b) single-step type-approval

~~(c) mixed type-approval~~

Where procedures (a) or (c) are chosen, compliance with requirements as under (b) is declared for all systems, components and separate technical units.

Multi-stage type-approval chosen in accordance with Article 25(5) of Regulation (EU) No 168/2013: ~~yes~~/no

Information on the vehicle(s) to be filled in, if application is for EU whole-vehicle type- approval:

0.1. Make (trade name of the manufacturer): SHANSU, Easycool, yuki, HIMOTO, aMoto, CITYCOCO, Rooley, Rooder, Strollwheel, HECHT MOTORS, ZMOTOS, MALCOR IBÉRICA, R RETELLI

0.2. Type: HM-5

0.2.1. Variant(s): 00, 01

0.2.2. Version(s): 00, 01

0.2.3. Commercial name(s) (if available): electric scooter, EGREEN, HECHT COCIS, HECHT COCIS ZERO

0.3. Category, subcategory and sub-subcategory of vehicle: L1e-B

Information on the vehicle(s) to be filled in, if application is for type-approval of a system/ component/ separate technical unit: N.A.

0.7. Make (trade name of the manufacturer): N.A

0.8. Type: N.A

0.8.1. Commercial name(s) (if available): N.A

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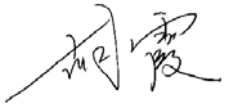
1.6. Virtual and/or self-testing

1.6.1. Overview list with virtual and/or self-tested systems, components or separate technical units pursuant to point 6 of Annex III to Commission Delegated Regulation (EU) No 44/2014 below: N.A.

1.6.2. Detailed report on validation of virtual and/or self-testing added: ~~yes~~/no

Place: Hong Kong Date: 31.10.2022

Signature:  Name and position in the company : Hu Xia /general manager

Type-approval numbers and Test Reports overview

Item No.	subject	Type-approval number or test report number	Date of issue of the type-approval or of its extension or of the test report	Member State or contracting party issuing the type-approval or technical service issuing the test report	Reference to the regulatory act and its latest amendment	Variant(s)/ version(s)
A1	Environmental test procedures related to exhaust emissions, evaporative emissions, greenhouse gas emissions, fuel consumption and reference fuels	CN-118-2-26-WHO22-04748-IR	01.12.2022	CETOC TS	(EU) No 134/2014 Annex II to VIII * (EU) 2018/295	00/00, 00/01, 01/00, 01/01
A2	Maximum design vehicle speed, maximum torque, maximum continuous total engine power of propulsion	CN-118-2-26-WHO22-04748-IR	01.12.2022	CETOC TS	(EU) No 134/2014 Annex X* (EU) 2018/295	00/00, 00/01, 01/00, 01/01
A3	Test procedures related to sound	N.A.	N.A.	N.A.	N.A.	N.A.
B1	Audible warning devices Installation	CN-118-2-26-WHO22-04748-IR	01.12.2022	CETOC TS	(EU) No 3/2014 Annex II* (EU) 2016/1824	00/00, 00/01, 01/00, 01/01
	Audible warning devices	E32-28R-00 0002	15.04.2015	Latvia	UNECE R28 Series 00 Supplement 3	00/00, 00/01, 01/00, 01/01
B2	Braking, including anti-lock and combined brake systems	CN-118-2-26-WHO22-04748-IR	01.12.2022	CETOC TS	(EU) No 3/2014 Annex III* (EU) 2016/1824	00/00, 00/01, 01/00, 01/01
B3	Electrical safety	CN-118-2-26-WHO22-04748-IR	01.12.2022	CETOC TS	(EU) No 3/2014 Annex IV* (EU) 2016/1824	00/00, 00/01, 01/00, 01/01
B4	Manufacturer declaration requirements regarding endurance testing of functional safety-critical systems, parts and equipment	CN-118-2-26-WHO22-04748-IR	01.12.2022	CETOC TS	(EU) No 3/2014 Annex V* (EU) 2016/1824	00/00, 00/01, 01/00, 01/01
B5	Front and rear protective structures	N.A.	N.A.	N.A.	N.A.	N.A.
B6	Glazing, windscreen wipers and washers, and defrosting and demisting systems	N.A.	N.A.	N.A.	N.A.	N.A.

B7	Driver-operated controls including identification of controls, tell-tales and indicators	CN-118-2-26-WHO22-04748-IR	01.12.2022	CETOC TS	(EU) No 3/2014 Annex VIII* (EU) 2016/1824	00/00, 00/01, 01/00, 01/01
B8	Installation of lighting and light- signalling devices, including automatic switching of lighting	CN-118-2-26-WHO22-04748-IR	01.12.2022	CETOC TS	(EU) No 3/2014 Annex IX* (EU) 2016/1824	00/00, 00/01, 01/00, 01/01
	Driving beam Headlamp Passing beam Headlamp (option 1)	E4-113R-0010931	17.12.2004	The Netherlands	UNECE R113 Series 00 Supplement 03	00/00, 00/01, 01/00, 01/01
	Driving beam Headlamp Passing beam Headlamp(option 2)	E4*113R02/00*27489*00	19.06.2019	The Netherlands	UNECE R113 Series 02 Supplement 00	00/00, 00/01, 01/00, 01/01
	Driving beam Headlamp Passing beam Headlamp(option 3)	E4*113R03/01*29115*00	20.10.2020	The Netherlands	UNECE R113 Series 03 Supplement 01	00/00, 00/01, 01/00, 01/01
	Driving beam Headlamp Passing beam Headlamp (option 4)	E4*113R03/01*29134*00	02.11.2020	The Netherlands	UNECE R113 Series 03 Supplement 01	00/00, 00/01, 01/00, 01/01
	Driving beam Headlamp Passing beam Headlamp (option 5)	E49*149R00/03*1012*00	04.11.2022	Cyprus	UNECE R149 Series 00 Supplement 03	00/00, 00/01, 01/00, 01/01
	Front position lamp (option 1)	E4-50R-0010931	17.12.2004	The Netherlands	UNECE R50 Series 00 Supplement 08	00/00, 00/01, 01/00, 01/01
	Front position lamp (option 2)	E4*50R00/20*27489*00	19.06.2019	The Netherlands	UNECE R50 Series 00 Supplement 20	00/00, 00/01, 01/00, 01/01
	Front position lamp (option 3)	E4*50R01/00*29115*00	20.10.2020	The Netherlands	UNECE R50 Series 01 Supplement 00	00/00, 00/01, 01/00, 01/01
	Front position lamp (option 4)	E4*7R03/00*29134*00	02.11.2020	The Netherlands	UNECE R7 Series 03 Supplement 00	00/00, 00/01, 01/00, 01/01
	Front position lamp (option 5)	E49*148R00/03*1012*00	04.11.2022	Cyprus	UNECE R148 Series 00 Supplement 03	00/00, 00/01, 01/00, 01/01
	Front & rear direction indicator (option 1)	E4-50R-000695	17.12.2004	The Netherlands	UNECE R50 Series 00 Supplement 07	00/00, 00/01, 01/00, 01/01
	Front & rear direction indicator (option 2)	E4*50R00/19*2854*00	10.02.2018	The Netherlands	UNECE R50 Series 00 Supplement 19	00/00, 00/01, 01/00, 01/01

	Front & rear direction indicator (option 3)	E4*50R01/00* 3107*00	02.09.2020	The Netherlands	UNECE R50 Series 01 Supplement 00	00/00, 00/01, 01/00, 01/01
	Rear position lamp Stop lamp (option 1)	E4-50R-0011172	02.04.2007	The Netherlands	UNECE R50 Series 01 Supplement 10	00/00, 00/01, 01/00, 01/01
	Rear position lamp Stop lamp (option 2)	E4-50R-0010933	15.08.2005	The Netherlands	UNECE R50 Series 00 Supplement 07	00/00, 00/01, 01/00, 01/01
	Rear position lamp Stop lamp (option 3)	E4*50R00/19* 26277*00	10.02.2018	The Netherlands	UNECE R50 Series 00 Supplement 19	00/00, 00/01, 01/00, 01/01
	Rear position lamp Stop lamp (option 4)	E4*50R01/00* 3108*00	02.09.2020	The Netherlands	UNECE R50 Series 01 Supplement 00	00/00, 00/01, 01/00, 01/01
	Rear registration plate lamp (option 1)	E4-50R-0011172	02.04.2007	The Netherlands	UNECE R50 Series 01 Supplement 10	00/00, 00/01, 01/00, 01/01
	Rear registration plate lamp (option 2)	E4-50R-0010933	15.08.2005	The Netherlands	UNECE R50 Series 00 Supplement 07	00/00, 00/01, 01/00, 01/01
	Rear registration plate lamp (option 3)	E4*50R00/19* 26277*00	10.02.2018	The Netherlands	UNECE R50 Series 00 Supplement 19	00/00, 00/01, 01/00, 01/01
	Rear registration plate lamp (option 4)	E4*50R01/00* 3108*00	02.09.2020	The Netherlands	UNECE R50 Series 01 Supplement 00	00/00, 00/01, 01/00, 01/01
	Rear retro-reflector(option 1)	E4-3R-023257	24.08.2005	The Netherlands	UNECE R3 Series 02 Supplement 9	00/00, 00/01, 01/00, 01/01
	Rear retro-reflector(option 2)	E4-3R-023712	01.12.2014	The Netherlands	UNECE R3 Series 02 Supplement 15	00/00, 00/01, 01/00, 01/01
	Side retro-reflector(option 1)	E4-3R-023256	24.08.2005	The Netherlands	UNECE R3 Series 02 Supplement 9	00/00, 00/01, 01/00, 01/01
	Side retro-reflector(option 2)	E4-3R-023298	18.02.2015	The Netherlands	UNECE R3 Series 02 Supplement 15	00/00, 00/01, 01/00, 01/01
	Side retro-reflector(option 3)	E4*3R02/17*3713*01	10.12.2019	The Netherlands	UNECE R3 Series 02 Supplement 17	00/00, 00/01, 01/00, 01/01

B9	Rearward visibility	CN-118-2-26-WHO22-04748-IR	01.12.2022	CETOC TS	(EU) No 3/2014 Annex X* (EU) 2016/1824	00/00, 00/01, 01/00, 01/01
	Rear-view mirrors	E11-81R-002066	23.09.2013	The United Kingdom	UNECE R81 Series 00 Supplement 02	00/00, 00/01, 01/00, 01/01
B10	Rollover protective structure (ROPS)	N.A.	N.A.	N.A.	N.A.	N.A.
B11	Safety-belt anchorages and safety- belts	N.A.	N.A.	N.A.	N.A.	N.A.
B12	Seating positions (saddles and seats)	CN-118-2-26-WHO22-04748-IR	01.12.2022	CETOC TS	(EU) No 3/2014 Annex XIII* (EU) 2016/1824	00/00, 00/01, 01/00, 01/01
B13	Steer-ability, cornering properties and turn-ability	CN-118-2-26-WHO22-04748-IR	01.12.2022	CETOC TS	(EU) No 3/2014 Annex XIV* (EU) 2016/1824	00/00, 00/01, 01/00, 01/01
B14	Installation of tyres	CN-118-2-26-WHO22-04748-IR	01.12.2022	CETOC TS	(EU) No 3/2014 Annex XV* (EU) 2016/1824	00/00, 00/01, 01/00, 01/01
	Tyres-Front & Rear (Option 1)	E9*75R00/17* 1164*00	29.06.2018	Spain	UNECE R75 Series 00 Supplement 17	00/00, 00/01, 01/00, 01/01
	Tyres-Front & Rear (Option 2)	E4*75R00/17* 13585*00	24.05.2019	The Netherlands	UNECE R75 Series 00 Supplement 17	00/00, 00/01, 01/00, 01/01
	Tyres-Front & Rear (Option 3)	E9*75R00/17*1 218*00	18.12.2019	Spain	UNECE R75 Series 00 Supplement 17	00/00, 00/01, 01/00, 01/01
	Tyres-Front & Rear (Option 4)	E9-75R-00.1126	06.07.2017	Spain	UNECE R75 Series 00 Supplement 16	00/00, 00/01, 01/00, 01/01
	Tyres-Front & Rear (Option 5)	E9-75R 00.1128	14.08.2017	Spain	UNECE R75 Series 00 Supplement 16	00/00, 00/01, 01/00, 01/01
B15	Vehicle maximum speed limitation plate and its location on the vehicle	N.A.	N.A.	N.A.	N.A.	N.A.
B16	Vehicle occupant protection, including interior fittings and vehicle doors	N.A.	N.A.	N.A.	N.A.	N.A.
B17	Maximum continuous total power and/or maximum vehicle speed limitation by design	CN-118-2-26-WHO22-04748-IR	01.12.2022	CETOC TS	(EU) No 3/2014 Annex XVIII* (EU) 2016/1824	00/00, 00/01, 01/00, 01/01

B18	Vehicle structure integrity	CN-118-2-26-WHO22-04748-IR	01.12.2022	CETOC TS	(EU) No 3/2014 Annex XIX* (EU) 2016/1824	00/00, 00/01, 01/00, 01/01
C1	Anti-tampering measures	CN-118-2-26-WHO22-04748-IR	01.12.2022	CETOC TS	(EU) No 44/2014 Annex II* (EU) 2018/295	00/00, 00/01, 01/00, 01/01
C2	Arrangements for type-approval procedures	CN-118-2-26-WHO22-04748-IR	01.12.2022	CETOC TS	(EU) No 44/2014 Annex III* (EU) 2018/295	00/00, 00/01, 01/00, 01/01
C3	Conformity of production requirement	CN-118-2-26-WHO22-04748-IR	01.12.2022	CETOC TS	(EU) No 44/2014 Annex IV* (EU) 2018/295	00/00, 00/01, 01/00, 01/01
C4	Coupling devices and attachments	N.A.	N.A.	N.A.	N.A.	N.A.
C5	Devices to prevent unauthorised use	CN-118-2-26-WHO22-04748-IR	01.12.2022	CETOC TS	(EU) No 44/2014 Annex VI* (EU) 2018/295	00/00, 00/01, 01/00, 01/01
C6	Electromagnetic compatibility (EMC)	CN-118-2-26-WHO22-04748-IR	01.12.2022	CETOC TS	(EU) No 44/2014 Annex VII* (EU) 2018/295	00/00, 00/01, 01/00, 01/01
C7	External projections	CN-118-2-26-WHO22-04748-IR	01.12.2022	CETOC TS	(EU) No 44/2014 Annex VIII* (EU) 2018/295	00/00, 00/01, 01/00, 01/01
C8	Fuel storage	N.A.	N.A.	N.A.	N.A.	N.A.
C9	Load platforms	N.A.	N.A.	N.A.	N.A.	N.A.
C10	Masses and dimensions	CN-118-2-26-WHO22-04748-IR	01.12.2022	CETOC TS	(EU) No 44/2014 Annex XI* (EU) 2018/295	00/00, 00/01, 01/00, 01/01
C11	On-board diagnostics	N.A.	N.A.	N.A.	N.A.	N.A.
C12	Passenger handholds and footrests	CN-118-2-26-WHO22-04748-IR	01.12.2022	CETOC TS	(EU) No 44/2014 Annex XIII* (EU) 2018/295	00/00, 00/01, 01/00, 01/01
C13	Registration plate space	CN-118-2-26-WHO22-04748-IR	01.12.2022	CETOC TS	(EU) No 44/2014 Annex XIV* (EU) 2018/295	00/00, 00/01, 01/00, 01/01
C14	Repair and maintenance information	CN-118-2-26-WHO22-04748-IR	01.12.2022	CETOC TS	(EU) No 44/2014 Annex XV* (EU) 2018/295	00/00, 00/01, 01/00, 01/01
C15	Stands	CN-118-2-26-WHO22-04748-IR	01.12.2022	CETOC TS	(EU) No 44/2014 Annex XVI* (EU) 2018/295	00/00, 00/01, 01/00, 01/01

Remark: In respect of the applicable subjects for the vehicle set out in Annex II to Regulation (EU) No 168/2013.

Place: Hong Kong Date: 31.10.2022

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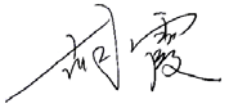
Signature: 

Name and position in the company: Hu Xia /general manager

Variants and Versions matrix

Item No.	Variant	Version	Description
See Appendix 4	00	00	Engine type: SS60V1500W50C Motor controller type: SS12-60V-YTC, 45km/h
	00	01	Engine type: SS60V1500W50C Motor controller type: SS12-60V-YTC-25, 25km/h
	01	00	Engine type: SS60V2000W Motor controller type: SS12-60V-YTC, 45km/h
	01	01	Engine type: SS60V2000W Motor controller type: SS12-60V-YTC-25, 25km/h

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INFORMATION DOCUMENT AND DRAWINGS

0. GENERAL INFORMATION

A. GENERAL INFORMATION CONCERNING VEHICLES

0.1. Make (trade name of manufacturer): SHANSU, Easycool, yuki, HIMOTO, aMoto, CITYCOCO, Rooley, Rooder, Strollwheel, HECHT MOTORS, ZMOTOS, MALCOR IBÉRICA, R RETELLI

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0.2. Type: HM-5

0.2.1. Variants: 00, 01

0.2.2. Versions: 00, 01

0.2.3. Commercial name(s) (if available): electric scooter, EGREEN, HECHT COCIS, HECHT COCIS ZERO

0.3 Category, subcategory and sub-subcategory of vehicle: L1e-B

0.4 Company name and address of manufacturer:

ZHEJIANG YIXING INDUSTRY AND TRADE LIMITED
ROOM 2103, 21/F HO KING COMMERCIAL CENTRE NO. 2-16 FA YUEN STREET
MONG KOK, KOWLOON HONG KONG

0.4.1. Name(s) and address(es) of assembly plants:

ZHEJIANG YIXING INDUSTRY & TRADE CO., LTD
Gangtou Industrial Functional Area, Lutan Town, Wuyi County, Jinhua City, Zhejiang Province, The People's Republic of China

0.4.2. Name and address of manufacturer's authorised representative, if any:

MINIMOTOS SPORT, S.L.
C/ LA MITJANA 7 - POLIGONO EL BOCH, CREVILLENT, ALICANTE, SPAIN

0.5. Manufacturer's statutory plate(s)

0.5.1. Location of the manufacturer's statutory plate:

C, x1260, y0, z435, See the drawing of HM-5-01

0.5.2. Method of attachment:

Riveted

0.5.3. Photographs and/or drawings of the statutory plate (completed example with dimensions):

See the drawing of HM-5-01

0.6. Location of the vehicle identification number:

R, x380, y20, z460, See the drawing of HM-5-02

0.6.1. Photographs and/or drawings of the locations of the vehicle identification number (completed example with dimensions):

See the drawing of HM-5-02

0.6.1.1. The serial number of the type begins with:

Variant/Version 00/00: ☆R68HM500?????????☆
Variant/Version 00/01: ☆R68HM501?????????☆
Variant/Version 01/00: ☆R68HM500?????????☆
Variant/Version 01/01: ☆R68HM501?????????☆

B. GENERAL INFORMATION CONCERNING SYSTEMS, COMPONENTS OR SEPARATE TECHNICAL UNITS
N.A.

C. GENERAL INFORMATION REGARDING CONFORMITY OF PRODUCTION AND ACCESS TO REPAIR AND MAINTENANCE INFORMATION

0.12. Conformity of production

0.12.1. Description of overall quality-assurance management systems: ISO 9001:2015

0.13. Access to repair and maintenance information

0.13.1. Address of principal website for access to vehicle repair and maintenance information:

http://www.zjshansu.com/

0.13.2. In the case of multi-stage type-approval, address of principal website for access to vehicle repair and maintenance information from manufacturer(s) at previous stage(s): N.A.

1. GENERAL CONSTRUACTION CHARACTERISTICS

1.1. Photographs and/or drawings of a representative vehicle:

See the drawing of HM-5-03

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1.2. Scale drawing of the whole vehicle:

See the drawing of HM-5-04

1.3. Number of axles and wheels: 2 axles /2 wheels

1.3.1. Axles with twinned wheels: N.A.

1.3.2. Powered axles: R (rear)

1.4. Chassis (if any) (overall drawing): See the drawing of HM-5-05

1.5. (L2e, L5e-B, L6e-B, L7e-A2, L7e-B2, L7e-C) Material used for the bodywork: N.A.

1.6. Position and arrangement of the propulsion(s): Rear wheel hub motor

1.7. (L4e, L5e-B, L6e-B, L7e-A2, L7e-B2, L7e-C) Hand of drive: left/right/centre: N.A.

1.7.1. Vehicle is equipped to be driven in right/left-hand traffic and in countries that use metric/metric and imperial units:

Right and left-hand traffic; metric imperial units.

1.8. Propulsion unit performance

1.8.1. (L3e, L4e, L5e, L7e-A, L7e-B2) Declared maximum vehicle speed: N.A.

1.8.2. (L1e, L2e, L6e, L7e-B1, L7e-C) Maximum design vehicle speed:

Version 00: 45km/h
Version 01: 25km/h

1.8.3. Maximum net power combustion engine: N.A.

1.8.4. Maximum net torque combustion engine: N.A.

1.8.5. Maximum continuous-rated power electric motor (~~15~~/30 minutes power):

Variant/Version 00/00: 1.5 kW at 350 min^{-1}
Variant/Version 00/01: 1.5 kW at 270 min^{-1}
Variant/Version 01/00: 2.0 kW at 500 min^{-1}
Variant/Version 01/01: 2.0 kW at 300 min^{-1}

1.8.6. Maximum continuous-rated torque electric motor:

Variant/Version 00/00: 41.0 Nm at 350 min^{-1}
Variant/Version 00/01: 53.0 Nm at 270 min^{-1}

Variant/Version 01/00: 38.0 Nm at 500 min^{-1}
Variant/Version 01/01: 64.0 Nm at 300 min^{-1}

1.8.7. Maximum continuous total power for propulsion(s): N.A.

1.8.8. Maximum continuous total torque for propulsion(s): N.A.

1.8.9. Maximum peak power for propulsion(s):

Variant/Version 00/00: 2.1 kW at 345 min^{-1}
Variant/Version 00/01: 1.9 kW at 250 min^{-1}
Variant/Version 01/00: 2.1 kW at 530 min^{-1}
Variant/Version 01/01: 2.1 kW at 315 min^{-1}

2.1. Range of vehicle mass (overall)

2.1.1. Mass in running order:

62 kg

2.1.1.1. Distribution of mass in running order between the axles:

Front axle: 26 kg
Rear axle: 36 kg

2.1.2. Actual mass:

144 kg

2.1.2.1. Distribution of actual mass between the axles:

Front axle: 70 kg
Rear axle: 74 kg

2.1.3. Technically permissible maximum laden mass: 219 kg

2.1.3.1. Technically permissible maximum mass on front axle: 79 kg

2.1.3.2. Technically permissible maximum mass on rear axle: 140 kg

2.1.3.3. (L4e) Technically permissible maximum mass on sidecar axle: N.A.

2.1.4. Maximum hill-starting ability at the maximum technically permissible mass declared by the manufacturer:

15° slope

2.1.5. Maximum pay mass declared by manufacturer: 75 kg

2.1.6. Safe load carrying capacity of load platform declared by manufacturer: N.A.

2.1.7. Technically permissible maximum towable mass in case of: Braked: N.A., Unbraked: N.A.

2.1.7.1. Technically permissible maximum laden mass of the combination: N.A.

2.1.7.2 Technically permissible maximum mass at the coupling point: N.A.

2.1.8. Mass of the optional equipment: N.A.

2.1.9. Mass of the superstructure: N.A.

2.1.10. Mass of the propulsion battery: 7kg

2.1.11. (L2e, L4e, L5e, L6e, L7e) Mass of the doors: N.A.

2.1.12. (L2e-U, L5e-B, L6e-BU, L7e-CU) Mass of the machines or equipment installed on the load platform area: N.A.

2.1.13. Mass of the gaseous fuel system as well as storage tanks for gaseous fuel: N.A.

2.1.14. Mass of the storage tanks to store compressed air: N.A.

2.2. Range of vehicle dimensions (overall)

2.2.1. Length: See the drawing of HM-5-04

2.2.2. Width: See the drawing of HM-5-04

2.2.3. Height: See the drawing of HM-5-04

2.2.4. Wheelbase: See the drawing of HM-5-04

2.2.4.1. (L4e)Wheelbase sidecar: N.A.

2.2.5. Track width

2.2.5.1. (L1e — L7e if equipped with twinned wheels L2e, L4e, L5e, L6e, L7e)
Track width front: N.A.

2.2.5.2. (L1e — L7e if equipped with twinned wheels L2e, L4e, L5e, L6e, L7e)
Track width rear: N.A.

2.2.5.3. (L4e) Track width sidecar: N.A.

2.2.6. (L7e-B) Front overhang: N.A.

2.2.7. (L7e-B) Rear overhang: N.A.

2.2.8. Load platform dimensions

2.2.8.1. (L2e-U, L5e-B, L6e-BU, L7e-B2, L7e-CU) Length of the load platform: N.A.

2.2.8.2. (L2e-U, L5e-B, L6e-BU, L7e-B2, L7e-CU) Width of load platform: N.A.

2.2.8.3. (L2e-U, L5e-B, L6e-BU, L7e-B2, L7e-CU) Height of load platform: N.A.

2.2.9. Centre of gravity

2.2.9.1. (L2e-U, L5e-B, L6e-BU, L7e-B2, L7e-CU) Location of the centre of gravity forward of the rear axle Lcg: N.A.

2.2.9.2. (L2e-U, L5e-B, L6e-BU, L7e-B2, L7e-CU) Location of the centre of gravity above the ground plane Hcg: N.A.

2.2.9.3. (L2e-U, L5e-B, L6e-BU, L7e-B2, L7e-CU) Location centre of gravity of loaded platform forward of the rear axle LcgLP: N.A.

2.2.10. Miscellaneous dimensions

2.2.10.1. (L7e-B2) Approach angle: N.A.

2.2.10.2. (L7e-B2) Departure angle: N.A.

2.2.10.3. (L7e-B2) Ramp angle: N.A.

2.2.10.4. (L7e-B2) Ground clearance under the front axle: N.A.

2.2.10.5. (L7e-B2) Ground clearance under the rear axle: N.A.

2.2.10.6. (L3e-AxE (x=1, 2 or 3), L3e-AxT (x=1, 2 or 3), L7e-B) Ground clearance between the axles: N.A.

2.2.10.7. (L7e-B) Wheelbase to ground clearance ratio: N.A.

2.2.10.8. (L7e-B2) Static stability coefficient — Kst: N.A.

2.2.10.9. (L3e-AxE, L3e-AxT) Seat height: N.A.

2.2.10.10. (L3e-AxE, L3e-AxT) Ground clearance: N.A.

3. GENERAL POWERTRAIN CHARACTERISTICS

3.1. Manufacturer of the propulsion unit

3.1.1. Combustion engine: N.A.

3.1.2. Electric motor

3.1.2.1. Manufacturer:

Yongkang Shansu Technology Co., Ltd.

3.1.2.2. Electric motor code (as marked on the engine or other means of identification):

Variant 00: HM5SS xxxxxxxxx
Variant 01: SS60V2000W XXXXXXXX

3.1.3. Hybrid application: N.A.

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3.2. Combustion engine: N.A.

3.3. Pure electric and hybrid electric propulsion and control

3.3.1. Electric vehicle configuration: pure electric/~~hybrid electric/manpower — electric~~

3.3.2. Brief description and schematic drawing of pure and hybrid electric propulsions and its control systems:

See the drawing of HM-5-06

3.3.3. Electric propulsion motor

3.3.3.1. Number of electric motors for propulsion: 1

3.3.3.2. Type (winding, excitation): winding

3.3.3.3. Operating voltage: 60 V

3.3.3.4. ~~15~~/30 minutes power:

Variant/Version 00/00: 1.5 kW at 350 min^{-1}
Variant/Version 00/01: 1.5 kW at 270 min^{-1}
Variant/Version 01/00: 2.0 kW at 500 min^{-1}
Variant/Version 01/01: 2.0 kW at 300 min^{-1}

3.3.4. Propulsion batteries

3.3.4.1. Primary propulsion battery

3.3.4.1.1. Number of cells: 128

3.3.4.1.2. Mass: 7kg

3.3.4.1.3. Capacity: 2kwh

3.3.4.1.4. Voltage: 60V

3.3.4.1.5. Position in the vehicle:

See the drawing of HM-5- 07

3.3.4.2. Secondary propulsion battery: N.A.

3.3.5. Hybrid electric vehicle: N.A.

3.3.6. Energy storage device

3.3.6.1. Description: (battery, ~~capacitor, flywheel/generator~~)

3.3.6.2. Identification number: HY18650MP16S6

*3.3.6.3. Kind of electrochemical couple: Lithium battery

3.3.6.4. Energy (for battery: voltage and capacity Ah in 2h, for capacitor: J,..., for flywheel/generator: J,…,):

60V, 20Ah,

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3.3.6.5. Charger: ~~on-board~~/external/~~without~~

3.3.7. Electric motor (describe each type of electric motor separately)

3.3.7.1. Primary use: propulsion motor/~~generator~~

3.3.7.2. When used as propulsion motor: single-motor

3.3.7.3. Working principle:

Permanent magnet brushless DC motor

3.3.7.4. Direct current/alternating current/number of phases: Direct current / three phases

3.3.7.5. Separate excitation/series/compound: series

3.3.7.6. Synchronous/asynchronous: Synchronous

3.3.8. Electric motor control unit

3.3.8.1. Identification number:

See the drawing of HM-5-08

3.3.9. Power controller

3.3.9.1. Identification number: N.A

3.4. Other engines, electric motors or combinations
(specific information concerning the parts of these motors)

3.4.1. Cooling system (temperatures permitted by the manufacturer): N.A.

3.4.1.1. Liquid cooling: N.A.

3.4.1.1.1. Maximum temperature at outlet: N.A.

3.4.1.2. Air cooling: N.A.

3.4.1.2.1. Reference point: N.A.

3.4.1.2.2. Maximum temperature at reference point: N.A.

3.4.2. Lubrication system: N.A.

3.4.2.1. Description of lubrication system: N.A.

3.4.2.2. Location of oil reservoir (if any): N.A.

3.4.2.3. Feed system (pump/injection into induction system/mixed with the fuel, etc.): N.A.

3.4.2.4. Lubricant mixed with the fuel: N.A.

3.4.2.4.1. Percentage: N.A.

3.4.2.5. Oil cooler: ~~yes/no~~ N.A.

3.5. Drive-train control

3.5.1. Brief description and schematic drawing of the vehicle drive-train and its control system (gear shift control, clutch control or any other element of drive-train):

See the drawing of HM-5-09

3.5.2. Clutch

3.5.2.1. Brief description and schematic drawing of the clutch and its control system:

N.A.

3.5.3. Transmission

3.5.3.1. Brief description and schematic drawing of gear shift system(s) and its control:

N.A.

3.5.3.2. Drawing of the transmission: N.A.

3.5.3.3. Type (~~mechanical, hydraulic, electric, manual/manual automated/automatic/CVT~~ /other (indicate).): Wheel-hub motor

3.5.3.4 . A brief description of the electrical/electronic components (if any): N.A.

3.5.3.5. Location relative to the engine: N.A.

3.5.3.6. Method of control: ~~by hand/foot~~

3.5.4. Gear ratios: N.A.

3.5.4.1. (L3e-AxE, L3e-AxT) Final drive ratio: N.A.

3.5.4.2. (L3e-AxE, L3e-AxT) Overall gear ratio in highest gear: N.A.

3.6. Safe-cornering device: N.A.

3.7. Suspension and control

3.7.1. Brief description and schematic drawing of suspension and its control system:

See the drawing of HM-5-10

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3.7.2. Drawing of the suspension arrangements:

See the drawing of HM-5-10

3.7.3. Level adjustment: ~~yes/~~ no~~/ optional~~
3.7.4. Brief description of the electrical/electronic components: N.A.

3.7.5. Stabilisers: ~~yes/~~ no~~/ optional~~

3.7.6. Shock absorbers: yes~~/ no/ optional~~

3.8. Passenger-compartment heating system and air-conditioning: N.A.

3.9. Cycles designed to pedal: N.A.

4. GENERAL INFORMATION ON ENVIRONMENTAL AND PROPULSION PERFORMANCE

4.0. General information on environmental and propulsion performance

4.0.1. Environmental step: Euro (~~3/4/5/5+~~)

4.0.2 Fuel consumption (provide details for each reference fuel tested): N.A.

4.0.3 CO_2 emissions: N.A.

4.0.4 Energy consumption:

Variant/Version 00/00: 35 Wh/km
Variant/Version 00/01: 30 Wh/km
Variant/Version 01/00: 36 Wh/km
Variant/Version 01/01: 29 Wh/km

4.0.5 Electric range:

Variant/Version 00/00: 57 km
Variant/Version 00/01: 68 km
Variant/Version 01/00: 50 km
Variant/Version 01/01: 56 km

4.1. Tailpipe emission-control system: N.A.

4.2. Crankcase emission control system: N.A.

4.3. Evaporative emission control system: N.A.

4.4. Additional information on environmental and propulsion unit performance: N.A.

5. VEHICLE PROPULSION FAMILY: N.A.

5.1. To define the vehicle propulsion family, the manufacturer shall submit the information required for classification criteria set out in point 3 of Annex XI to Commission Delegated Regulation (EU) No 134/2014, if not already provided in the information document: N.A.

6. INFORMATION ON FUNCTIONAL SAFETY

6.1. Audible warning devices

6.1.1. Summary description of device(s) used and their purpose:

Make	Type	Approval Number	Description
LVEE	DL70-Ⅱ	E32-28R-00 0002	Electro-magnetic with resonator disc, single-tone

6.1.2. Drawing(s) showing the location of the audible warning device(s) in relation to the structure of the vehicle:

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See the drawing of HM-5-12

6.1.3. Details of the method of attachment, including the part of the vehicle structure to which the audible warning device(s) is (are) attached:

See the drawing of HM-5-12

6.1.4. Electrical/pneumatic circuit diagram: See the drawing of HM-5-13

6.1.4.1. Voltage: ~~AC/~~DC

6.1.4.2. Rated voltage pressure: 12V

6.1.5. Drawing of the mounting device: See the drawing of HM-5-12

6.2. Braking, including anti-lock and combined braking systems

6.2.1. Characteristics of the brakes, including details and drawings of the drums, discs, hoses, make and type of shoe/pad assemblies and/or linings, effective braking areas, radius of drums, shoes or discs, mass of drums, adjustment devices, relevant parts of the axle(s) and suspension, levers, pedals:

See the drawing of HM-5-14.1, HM-5-14.2, HM-5-14.3, HM-5-14.4

6.2.2. Operating diagram, description and/or drawing of the braking system, including details and drawings of the transmission and controls as well as a brief description of the electrical and/or electronic components used in the braking system:

See the drawing of HM-5-14.1, HM-5-14.2, HM-5-14.3, HM-5-14.4

6.2.2.1. Front, rear ~~and sidecar~~ brakes, disc and/or drum:

Front: disc
Rear: disc

6.2.2.2. Parking braking system: N.A.

6.2.2.3. Any additional braking system: N.A.

6.2.3. Vehicle is equipped to tow a trailer with no brake/overrun brake/electric/ pneumatic/hydraulic service brakes: N.A.

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6.2.4. Anti-lock/Combined braking system

6.2.4.1. Anti-lock braking system: ~~yes/~~ no~~/ optional~~

6.2.4.2. Combined braking system: ~~yes/~~ no~~/ optional~~

6.2.4.3. Anti-lock and combined braking system: ~~yes/~~ no~~/ optional~~

6.2.4.4. Schematic drawing(s): N.A

6.2.5. Hydraulic reservoir(s) (volume and location):

See the drawing of HM-5-14.2, HM-5-14.3

6.2.6. Particular characteristics of the braking system(s)

6.2.6.1. Brake shoes and/or pads:

See the drawing of HM-5-14.4

6.2.6.2. Linings and/or pads (indicate make, type, grade of material or identification mark):

See the drawing of HM-5-14.4

6.2.6.3. Brake levers and/or pedals:

See the drawing of HM-5-14.2, HM-5-14.3

6.2.6.4. Other devices (where applicable): drawing and description: N.A.

6.3. Electrical safety

6.3.1. Brief description of the power circuit components installation and drawings/photographs showing the location of the power circuit components installation:

See the drawing of HM-5-15

6.3.2. Schematic diagram of all electrical functions included in power circuit:

See the drawing of HM-5-15

6.3.3. Working voltage(s):

Power working voltage: 60V
Other electrical components voltage: 12V DC

6.3.4. Description of protection against electric-shocks:

Using terminal box that made by high and low pressure polyethylene material, and nylon plug to protect against electric-shocks

6.3.5. Fuse and/or circuit breaker: yes/~~no~~/~~optional~~, circuit breaker

6.3.5.1. Diagram showing the functional range: 50 A

6.3.6. Configuration of power wiring harness: See the drawing of HM-5-13, HM-5-15

6.4. Front and rear protective structures: N.A.

6.5. Glazing, windscreen wipers and washers, and defrosting and demisting systems: N.A.

6.6. Windscreen wiper(s): N.A.

6.7. Windscreen washer: N.A.

6.8. Defrosting and demisting: N.A.

6.9. Driver-operated controls including identification of controls, tell- tales and indicators

6.9.1. Arrangement and identification of controls, tell-tales and indicators:

See the drawing of HM-5-16

6.9.2. Photographs and/or drawings of the arrangement of symbols and controls, tell-tales and indicators:

See the drawing of HM-5-16

6.9.3. Controls, tell-tales and indicators for which, when fitted, identification is mandatory, including the identification symbols to be used for that purpose: See table 6.9.4.

6.9.4. Summary table: the vehicle is equipped with the following driver-operated controls, including indicators and tell-tales: See table 6.9.4.

6.9.5. Controls, tell-tales and indicators for which, when fitted, identification is optional, and symbols which shall be used if they are to be identified: See table 6.9.5.

6.10. Speedometer and odometer

6.10.1. Speedometer

6.10.1.1. Photographs and/or drawings of the complete system:

See the drawing of HM-5-17

6.10.1.2. Vehicle speed range displayed: 0~80 km/h

6.10.1.3. Tolerance of the measuring mechanism of the speedometer:

$0 \leqslant (V1-V2) \leqslant 0.1*V2+4$ km/h
V1: display speed, V2: actual speed

6.10.1.4. Technical constant of the speedometer:

1 pluse/min = 0.262×10^{-3} km/h

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6.10.1.5. Method of operation and description of the drive mechanism:

Directly connect to the controller, to drive speedometer through the signal from controller.

6.10.1.6. Overall transmission ratio of the drive mechanism: 310 pluse / 1 wheel rotation

6.10.2. Odometer

6.10.2.1. Tolerance of the measuring mechanism of the odometer: 0~+5 km

6.10.2.2. Method of operation and description of the drive mechanism:

Directly connect to the controller, to drive odometer through the signal from controller.

6.11. Installation of lighting, light-signaling devices, including automatic switching of lighting

6.11.1. List of all devices (mentioning the number, make(s), type, component type- approval mark(s), the maximum intensity of the main-beam headlamps, colour, the corresponding tell-tale): See table 6.11.1.

6.11.2. Diagram showing the location of the lighting and light-signaling devices:

See the drawing of HM-5-18

6.11.3. Hazard warning lamps: N.A.

6.11.4. Brief description of the electrical and/or electronic components used in the lighting system and in the light-signaling system: N.A.

6.11.5. For every lamp and reflector, supply the following information (in writing and/or by diagram):

6.11.5.1. Drawing showing the extent of the illuminating surface:

See lightings component type-approval

6.11.5.2. Method used to define the apparent surface in accordance with point 2.10 of UNECE Regulation No 48 (OJ L 323, 6.12.2011, p. 46): The light-emitting surface

6.11.5.3. Axis of reference and centre of reference: See lighting component type-approval

6.11.5.4. Method of operation of concealable lamps: N.A.

6.11.6. Description/drawing and type of headlamp leveling device (e.g. automatic, stepwise manually adjustable, continuously manually adjustable): N.A.

6.11.6.1. Control device: N.A.

6.11.6.2. Reference marks: N.A.

6.11.6.3. Marks assigned for loading conditions: N.A.

6.12. Rearward visibility

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6.12.1. Rear-view mirrors (stating for each mirror)

6.12.1.1. Drawing(s) for the identification of the mirror showing the position of the mirror relative to the vehicle structure:

See the drawing of HM-5-19

6.12.1.2. Details of the method of attachment including that part of the vehicle structure to which it is attached: See the drawing of HM-5-19

6.12.1.3. A brief description of the electronic components of the adjustment system: N.A.

6.12.2. Devices for indirect vision other than mirrors: N.A.

6.12.2.1. Description of the device: N.A.

6.12.2.2. In the case of a camera-monitor device, the detection distance (mm), contrast, luminance range, glare correction, display performance (black and white/colour), image repetition frequency, luminance reach of the monitor: N.A.

6.12.2.3. Sufficiently detailed drawings to identify the complete device, including installation instructions; the position for the EU type-approval mark has to be indicated on the drawings: N.A.

6.13. Rollover protective structure (ROPS): N.A.

6.14. Safety belts and/or other restraints: N.A.

6.15. Safety belt anchorages: N.A.

6.16. Seating positions (saddles and seats)

6.16.1. Number of positions: 2

6.16.1.1. (L2e, L5e, L6e, L7e) Location and arrangement: N.A.

6.16.2. Seating position configuration: ~~seat/~~saddle

6.16.3. Description and drawings of:

6.16.3.1. The seats and their anchorages: N.A.

6.16.3.2. The adjustment system: N.A.

6.16.3.3. The displacement and locking systems: N.A.

6.16.3.4. The seat-belt anchorages incorporated in the seat structure: N.A.

6.16.3.5. The parts of the vehicle used as anchorages: N.A.

6.16.4. (L2e, L4e, L5e-B, L6e-B, L7e) Coordinates or drawing of the R-point(s) of all seating positions: N.A.

6.16.4.1. (L2e, L4e, L5e-B, L6e-B, L7e) Driver's seat: N.A.

6.16.4.2. (L2e, L4e, L5e-B, L6e-B, L7e) All other seating positions: N.A.

6.16.5. Design torso angle: N.A.

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6.16.5.1. Driver's seat: N.A.

6.16.5.2. All other seating positions: N.A.

6.16.6. Range of seat adjustment: N.A.

6.16.6.1. Driver's seat: N.A.

6.16.6.2. All other seating positions: N.A.

6.17. Steer-ability, cornering properties and turn-ability

6.17.1. Schematic diagram of steered axle(s) showing steering geometry:

See the drawing of HM-5-20

6.17.2. Transmission and control of steering

6.17.2.1. Configuration of steering transmission (specify for front and rear):

See the drawing of HM-5-20

6.17.2.2. Linkage to wheels (including other than mechanical means; specify for front and rear): See the drawing of HM-5-20

6.17.2.2.1. A brief description of the electrical/electronic components: N.A.

6.17.2.3. Diagram of the steering transmission: N.A.

6.17.2.4. (L2e, L5e, L6e, L7e) Schematic diagram(s) of the steering control(s): N.A.

6.17.2.5. (L2e, L5e, L6e, L7e) Range and method of adjustment of the steering control(s): N.A.

6.17.2.6. (L2e, L5e, L6e, L7e) Method of assistance: N.A.

6.17.3. Maximum steering angle of the wheels

6.17.3.1. To the right: 42°; ~~number of turns of the steering wheel (or equivalent data):~~

6.17.3.2. To the left: 42°; ~~number of turns of the steering wheel (or equivalent data):~~

6.18. Tyres/wheels combination:

6.18.1. Tyres:

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6.18.1.1. Size designation

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6.18.1.1.1. Axle 1: See table 6.18.

6.18.1.1.2. Axle 2: See table 6.18.

6.18.1.1.3. (L4e) Sidecar wheel: N.A.

6.18.1.2. Minimum load-capacity index:

Front: 20
Rear: 40 or 31 (the speed category symbol must be equal or more than J)

6.18.1.3. Minimum-speed category symbol compatible with the theoretical maximum design vehicle speed: B

6.18.1.4. Tyre pressure(s) as recommended by the vehicle manufacturer: See table 6.18.

6.18.2. Wheels:

6.18.2.1. Rim size(s): See table 6.18.

6.18.2.2. Categories of use compatible with the vehicle: See table 6.18.

6.18.2.3. Nominal rolling circumference: See table 6.18.

6.19. Vehicle maximum speed limitation plate and its location on the vehicle: N.A.

6.20. Vehicle occupant protection, including interior fittings and vehicle doors: N.A.

6.21. Maximum continuous total power and/or maximum vehicle speed limitation by design.

6.21.1. Propulsion and/or drive-train output governors:

6.21.1.1. Number (minimum two, exemption L3e-A3 and L4e-A3): Two

6.21.1.2. How is the redundancy of governors ensured:

(1) reduction of the maximum power output of one electric motors based on the vehicle or rotation speed as sensed internally to the electric motor
(2) physical vehicle speed limitation by means of external components such as a maximum achievable revolution speed of an electric motor

6.21.1.3. Nominal cut-off point no 1:

6.21.1.3.1. Engine/motor/drive-train rotation speed at which cut-off starts under load:

Variant/Version 00/00: 540 min^{-1}
Variant/Version 00/01: 310 min^{-1}
Variant/Version 00/00: 540 min^{-1}
Variant/Version 00/01: 310 min^{-1}

6.21.1.3.2. Maximum rotation speed at the minimum engine load:

Variant/Version 00/00: 540 min^{-1}
Variant/Version 00/01: 310 min^{-1}
Variant/Version 00/00: 540 min^{-1}
Variant/Version 00/01: 310 min^{-1}

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6.21.1.4. Nominal cut-off point no 2:

6.21.1.4.1. Engine/motor/drive-train rotation speed at which cut-off starts under load:

Variant/Version 00/00: 540 min^{-1}
Variant/Version 00/01: 310 min^{-1}
Variant/Version 00/00: 540 min^{-1}
Variant/Version 00/01: 310 min^{-1}

6.21.1.4.2. Maximum rotation speed at the minimum engine load:

Variant/Version 00/00: 540 min^{-1}
Variant/Version 00/01: 310 min^{-1}
Variant/Version 00/00: 540 min^{-1}
Variant/Version 00/01: 310 min^{-1}

6.21.1.5. The stated purpose of governor(s): maximum design vehicle speed limitation/~~maximum power limitation/engine over-speed protection~~

7. INFORMATION ON VEHICLE CONSTRUCTION

7.1. Coupling devices and attachments: N.A.

7.1.1. L-category vehicle equipped with coupling device: ~~yes/no/optional~~ N.A.

7.1.2. Guidelines and information for consumers in all EU languages regarding the impact on the driveability of using a trailer with an L-category vehicle included in the owner's manual: ~~yes/no~~ N.A.

7.1.3. For coupling-device approved as separate technical unit: installation and operating instructions added to documentation: ~~yes/no~~ N.A.

7.1.4. Photographs and/or drawings showing the position and the construction of the coupling-devices: ~~yes/no~~ N.A.

7.1.5. Instructions for attaching the coupling-type to the vehicle and photographs or drawings of the fixing points on the vehicle as stated by the manufacturer; additional information, if the use of the coupling-type is restricted to certain variants or versions of the vehicle type: N.A.

7.1.6. Attachment points for a secondary coupling and/or breakaway cable (drawings and pictures may be used as appropriate): ~~yes/no~~ N.A.

7.2. Devices to prevent unauthorised use

7.2.1. Protective device

7.2.1.1. Summary description of protective device(s) used:

Type 1,solely and positively on the steering alone.
See the drawing of HM-5-22

7.2.2. Vehicle immobiliser:

7.2.2.1. Technical description of the vehicle immobiliser and of the measures taken against inadvertent activation: N.A

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7.2.3. Alarm system: N.A Société Nationale de Certification et d'Homologation

7.2.3.1. Description of the alarm system and of the vehicle parts involved in installation: N.A

7.2.3.2. List of the main components comprising the alarm system: N.A

7.3. Electromagnetic compatibility (EMC)

7.3.1. Requirements under UNECE Regulation No 10 (OJ L 254, 20.9.2012, p. 1) are met with relevant documentation included in the information document: N.A.

7.3.2. Table or drawing of radio-interference control equipment:

See the drawing of HM-5-15

7.3.3. Particulars of the nominal value of the direct-current resistance, and, in the case of resistive ignition cables, of their nominal resistance per metre:

1. 1.50 mm^2 (max. resistance: 13.3 Ohm/km)
2. 1.00 mm^2 (max. resistance: 19.5 Ohm/km)
3. 0.75 mm^2 (max. resistance: 26.0 Ohm/km)
4. 0.50 mm^2 (max. resistance: 39.0 Ohm/km)
5. 0.30 mm^2 (max. resistance: 69.2 Ohm/km)

7.4. External projections

7.4.1. (L1e-L7e vehicles with bodywork)
General arrangement (drawing or photographs accompanied if necessary by dimensional details and/or text) indicating the position of the attached sections and views, of any parts of the exterior surface which can be regarded as critical for external projections, for example, and where relevant: bumpers, floor line, door and window pillars, air-intake grilles, radiator grille, windscreen wipers, rain gutter channels, handles, slide rails, flaps, door hinges and locks, hooks, eyes, winches, decorative trim, badges, emblems and recesses and any other parts of the exterior surface which can be regarded as critical (e.g. lighting equipment): N.A.

7.5. Fuel storage

7.5.1. Fuel tank(s)

7.5.2. Compressed natural gas (CNG) container(s): N.A.

7.5.3. Liquefied petroleum gas (LPG) container(s): N.A.

7.6. On-board diagnostics (OBD) functional requirements: N.A.

7.7. Passenger handholds and footrests

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7.7.1. Handholds

7.7.1.1. Configuration: ~~strap and/or~~ handle

7.7.1.3. Photographs and/or drawings showing the location and the construction:

See the drawing of HM-5-23

7.7.2. Footrests

7.7.2.1. Photographs and/or drawings showing the location and the construction:

See the drawing of HM-5-24

7.8. Registration plate space

7.8.1. Location of rear registration plate (indicate variants where necessary; drawings may be used as appropriate): See the drawing of HM-5-25

7.8.1.1. Height above road surface, upper edge: See the drawing of HM-5-25

7.8.1.2. Height above road surface, lower edge: See the drawing of HM-5-25

7.8.1.3. Distance of the centre line from the longitudinal median plane of the vehicle: 0

7.8.1.4. Dimensions (length x width): See the drawing of HM-5-25

7.8.1.5. Inclination of the plane to the vertical: See the drawing of HM-5-25

7.8.1.6. Angle of visibility in the horizontal plane:

To the left and to the right of the plate of 30°and more.

7.9. Stands

7.9.1. (L1e, L3e) Configuration: ~~central and~~ side

7.9.2. (L1e, L3e) Construction material used: metal

7.9.3. (L1e, L3e) Photographs and drawings showing the location of the stand(s) in relation to the structure of the vehicle:

See the drawing of HM-5-26

7.9.4. (L1e, L3e) Description of the method to prevent contact of the stand with the ground when the vehicle is being propelled :

See the drawing of HM-5-26

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Table 6.9.4.
Controls, tell-tales and indicators for which, when fitted, identification is mandatory, and symbols to be used for that purpose

Symbol No.	Device	Control /indicator available (*)	Identified by symbol(*)	Where (**)	Tell-tale available (*)	Identified by symbol(*)	Where (**)
1	Maser light	-	-	-	-	-	-
2	Dipped-beam head lamps	x	x	d	-	-	-
3	Main-beam head lamps	x	x	d	x	x	d
4	Position (side) lamps	-	-	-	-	-	-
5	Front fog lamps	-	-	-	-	-	-
6	Rear fog lamps	-	-	-	-	-	-
7	Headlamp leveling device	-	-	-	-	-	-
8	Parking lamps	-	-	-	-	-	-
9	Direction indicators	x	x	c	x	x	d
10	Hazard warning	-	-	-	-	-	-
11	Windscreen wiper	-	-	-	-	-	-
12	Windscreen washer	-	-	-	-	-	-
13	Windscreen wiper and washer	-	-	-	-	-	-
14	Headlamp cleaning device	-	-	-	-	-	-
15	Windscreen demisting and defrosting	-	-	-	-	-	-
16	Rear window demisting and defrosting	-	-	-	-	-	-
17	Ventilating fan	-	-	-	-	-	-
18	Diesel pre-heat	-	-	-	-	-	-
19	Choke	-	-	-	-	-	-
20	Brake failure	-	-	-	-	-	-
21	Fuel level		-	-	-	-	-
22	Battery charging condition	x	x	d	-	-	-
23	Engine coolant temperature	-	-	-	-	-	-
24	Malfunction indicator light (MI)	-	-	-	-	-	-

(*) x = yes
- = no or not separately available
o = optional
(**) d = directly on control, indicator or tell-tale
c = in close vicinity

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Table 6.9.5.
Controls, tell-tales and indicators for which, when fitted, identification is optional, and symbols which shall be used if they are to be identified

Symbol No.	Device	Control /indicator available (*)	Identified by symbol(*)	Where (**)	Tell-tale available (*)	Identified by symbol(*)	Where (**)
1	Parking brake	-	-	-	-	-	-
2	Rear window wiper	-	-	-	-	-	-
3	Rear window washer	-	-	-	-	-	-
4	Rear window wiper and washer	-	-	-	-	-	-
5	Intermittent windscreen wiper	-	-	-	-	-	-
6	Audible warning device (horn)	x	x	d	-	-	-
7	Front hood (bonnet)	-	-	-	-	-	-
8	Rear hood (boot)	-	-	-	-	-	-
9	Seat belt	-	-	-	-	-	-
10	Engine oil pressure	-	-	-	-	-	-
11	Unleaded petrol	-	-	-	-	-	-
12	Neutral indicator	-	-	-	-	-	-
13	Optical warning device	-	-	-	-	-	-
14	Ignition switch	-	-	-	-	-	-
15	External cord connect	-	-	-	-	-	-
16	Electric motor enabled	-	-	-	x	x	d
17	Cruise control	-	-	-	-	-	-
18	Battery failure	-	-	-	-	-	-
19	Reversing switch	-	-	-	-	-	-
20	Parking button	-	-	-	-	-	-
21	Gear selection	-	-	-	-	-	-

(*) x = yes
- = no or not separately available
o = optional
(**) d = directly on control, indicator or tell-tale
c = in close vicinity

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Table 6.11.1. Société Nationale de Certification et d'Homologation

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

DEVICES	MAKE/MODEL	NUMBER/ COLOUR	TELL-TALE	APPROVAL NUMBER	MAXIMUM INTENSITY
DRIVING BEAM HEADLAMP, PASSING BEAM HEADLAMP (option 1)	SHIJIN/SJ-XJTCHL	1 / white	YES/ Blue	E4-113R-0010931	32250cd
		1 / white	---	E4-113R-0010931	----
FRONT POSITION LAMP(option 1)		1 / white	---	E4-50R-0010931	----
DRIVING BEAM HEADLAMP, PASSING BEAM HEADLAMP (option 2)	SHIJIN/SG01-NZ	1 / white	YES/ Blue	E4*113R02/00* 27489*00	32250cd
		1 / white	---	E4*113R02/00* 27489*00	----
FRONT POSITION LAMP(option 2)		1 / white	---	E4*50R00/20* 27489*00	----
DRIVING BEAM HEADLAMP, PASSING BEAM HEADLAMP (option 3)	/ CG/M-DD-GN	1 / white	YES/ Blue	E4*113R03/01* 29115*00	32250cd
		1 / white	---	E4*113R03/01* 29115*00	----
FRONT POSITION LAMP(option 3)		1 / white	---	E4*50R01/00* 29115*00	----
DRIVING BEAM HEADLAMP, PASSING BEAM HEADLAMP (option 4)	SHIJIN/SG03-5C	1 / white	YES/ Blue	E4*113R03/01* 29134*00	43000cd
		1 / white	---	E4*113R03/01* 29134*00	----
FRONT POSITION LAMP(option 4)		1 / white	YES / Green	E4*7R03/00* 29134*00	----
DRIVING BEAM HEADLAMP, PASSING BEAM HEADLAMP (option 5)	ZJ/ ZJDD01	1 / white	YES/ Blue	E49*149R00/03*1 012*00	25520
		1 / white	---	E49*149R00/03*1 012*00	----
FRONT POSITION LAMP(option 5)		1 / white	YES / Green	E49*148R00/03*1 012*00	----
FRONT & REAR DIRECTION INDICATOR (option 1)	SHIJIN/SJ-XJTTUF	2 /amber	YES / Green	E4-50R-000695	----

FRONT & REAR DIRECTION INDICATOR (option 2)	SHIJIN/SJ-LED-Z10	2 /amber	YES / Green	E4*50R00/19* 2854*00	----
FRONT & REAR DIRECTION INDICATOR (option 3)	/CG/D-ZX-HL	2 /amber	YES / Green	E4*50R01/00* 3107*00	----
REAR POSITION LAMP	SHIJIN/SJ-W01	1 / red	*	E4-50R-0011172	----
STOP LAMP (option 1)		1 / red	NO		----
REAR REGISTRATION PLATE LAMP(OPTION 1)		1 / white	*		----
REAR POSITION LAMP	SHIJIN/SJ-XJTCTL	1 / red	*	E4-50R-0010933	----
STOP LAMP (option 2)		1 / red	NO		----
REAR REGISTRATION PLATE LAMP(OPTION 2)		1 / white	*		----
REAR POSITION LAMP	SHIJIN/SJ-LED-W01	1 / red	*	E4*50R00/19* 26277*00	----
STOP LAMP (option 3)		1 / red	NO		----
REAR REGISTRATION PLATE LAMP(OPTION 3)		1 / white	*		----
REAR POSITION LAMP	/CG/D-W-HL	1 / red	*	E4*50R01/00* 3108*00	----
STOP LAMP(option 4)		1 / red	NO		----
REAR REGISTRATION PLATE LAMP(OPTION 4)		1 / white	*		----
REAR RETRO-REFLECTOR(OPTION 1)	SHIJIN/SJ-F02	1 / red	NO	E4-3R-023257	----
REAR RETRO-REFLECTOR(OPTION 2)	K-LITE, KYI, HILUX K-LITE/KM202	1 / red	NO	E4-3R-023712	----
SIDE RETRO-REFLECTOR(OPTION 1)	SHIJIN/SJ-F01	2 / amber	NO	E4-3R-023256	----
SIDE RETRO-REFLECTOR(OPTION 2)	K-LITE, KYI, HILUX K-LITE/KM101	2 / amber	NO	E4-3R-023298	----
SIDE RETRO-REFLECTOR(OPTION 3)	K-LITE, KYI, HILUX K-LITE/KM206	2 / amber	NO	E4*3R02/17*3713*01	----

**Instrument panel illumination*

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Table 6.18.
Tyres/wheels combination

Axle	Type approval number	Dimension	Max. loading	Speed Category	Rims	Nominal rolling circumference	Tyre pressure
Front & rear (option 1)	E9*75R00/17* 1164*00	225/40-10	57	N	7.00X10	1429 mm	Front: 225kpa Rear: 250 kPa
Front & rear (option 2)	E4*75R00/17* 13585*00	225/40-10	58	M	7.00X10	1429 mm	Front: 225kpa Rear: 250 kPa
Front & rear (option 3)	E9*75R00/17*1218*00	215/40-12	56	J	7.00X12	1450mm	Front: 225kpa Rear: 250 kPa
Front & rear (option 4)	E9-75R-00.1126	215/40-12	56	J	7.50X12	1450mm	Front: 225kpa Rear: 250 kPa
Front & rear (option 5)	E9-75R-00.1128	225/55-8	57	J	7.00X8	1430mm	Front: 225kpa Rear: 250 kPa

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INDEX OF DRAWINGS

Drawing No	Drawing description
HM-5-01	Manufacturer's Statutory Plate
HM-5-02	Vehicle Identification Number
HM-5-03	Photos of A Representative Vehicle
HM-5-04	Dimension Measured on Vehicle
HM-5-05	Chassis
HM-5-06	Electric Motor
HM-5-07	Location of The Propulsion Batteries
HM-5-08	Controller
HM-5-09	Drive train
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HM-5-11	Rear suspension
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HM-5-13	Electrical Circuit Diagram
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HM-5-20	Transmission and Control of Steering
HM-5-21	The seats and R point
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HM-5-23-1	Handholds
HM-5-24	Footrest
HM-5-25	Rear Registration Plate
HM-5-26	Side Stand

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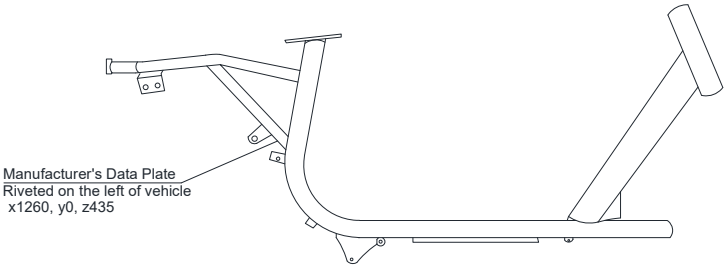

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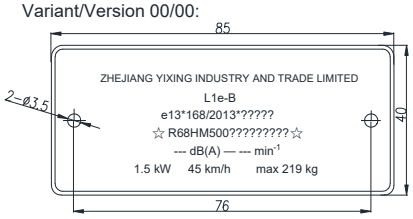

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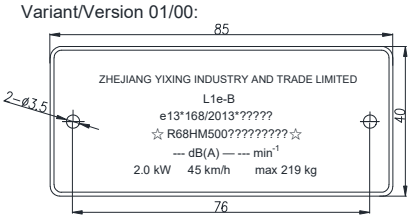

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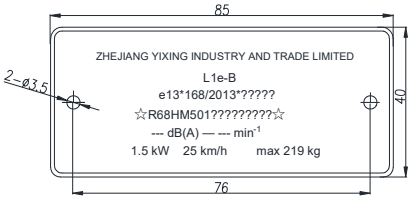

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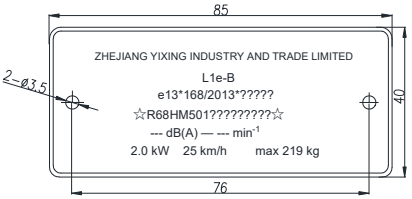
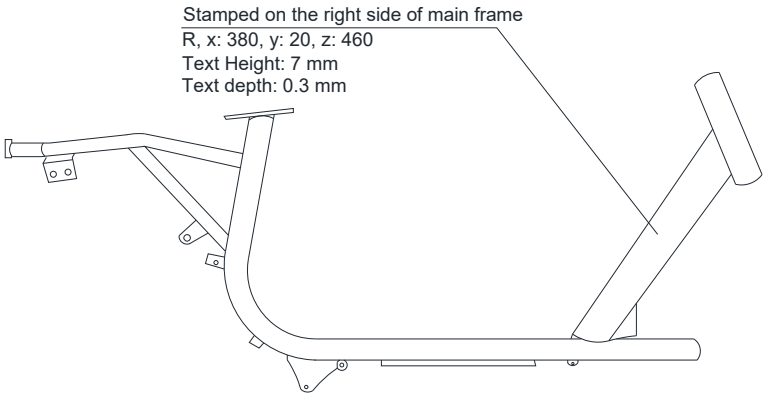
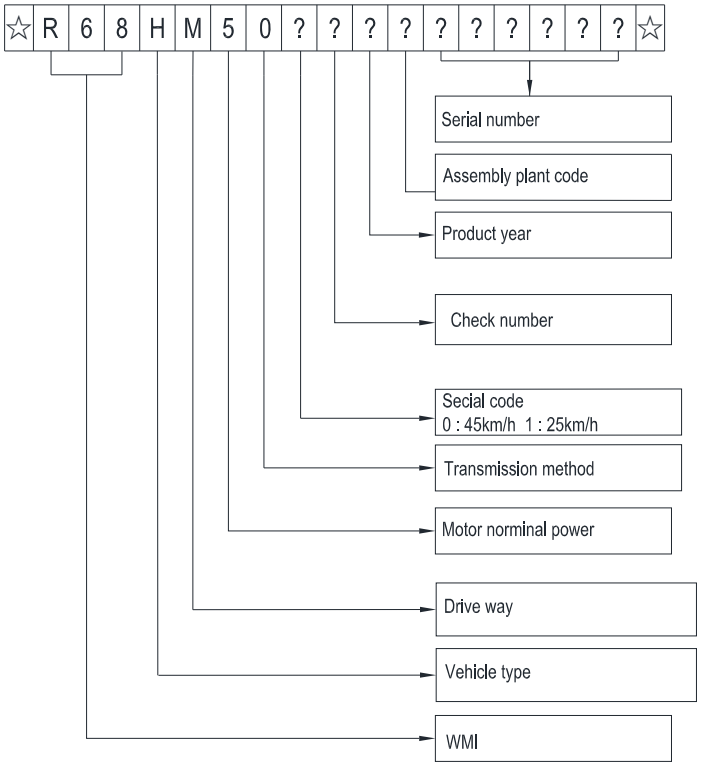


Text Height: 3 mm
Text depth: 0.3 mm
materials: aluminium

x-Horizontal distance (mm) from the front axle centre
y-Horizontal distance (mm) from the longitudinal center line of the vehicle
z-distance from the ground

Title	Manufacturer’s Statutory Plate
Drawing NO.	HM-5-01





Version 00: ☆R68HM500?????????☆

Version 01: ☆R68HM501?????????☆

Title	Vehicle Identification Number
Drawing NO.	HM-5-02

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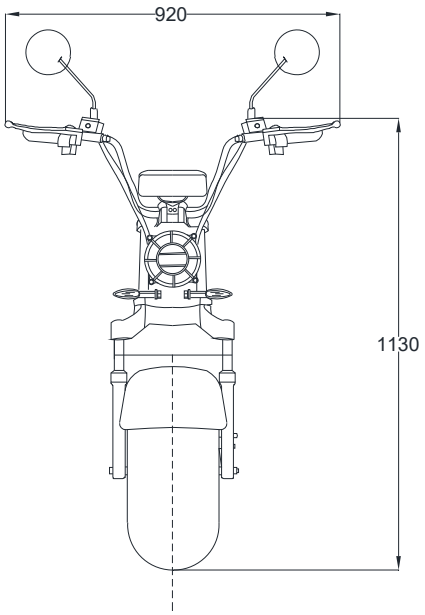
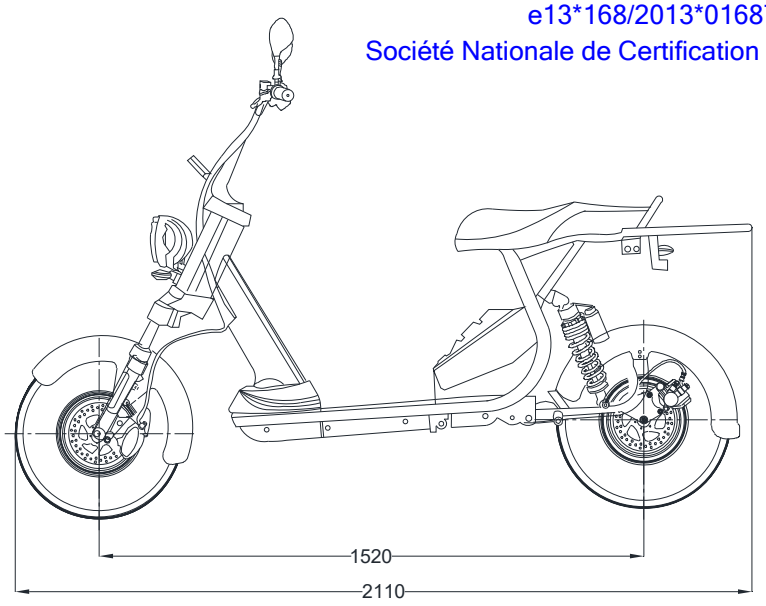
Title	Photos of A Representative Vehicle
Drawing NO.	HM-5-03

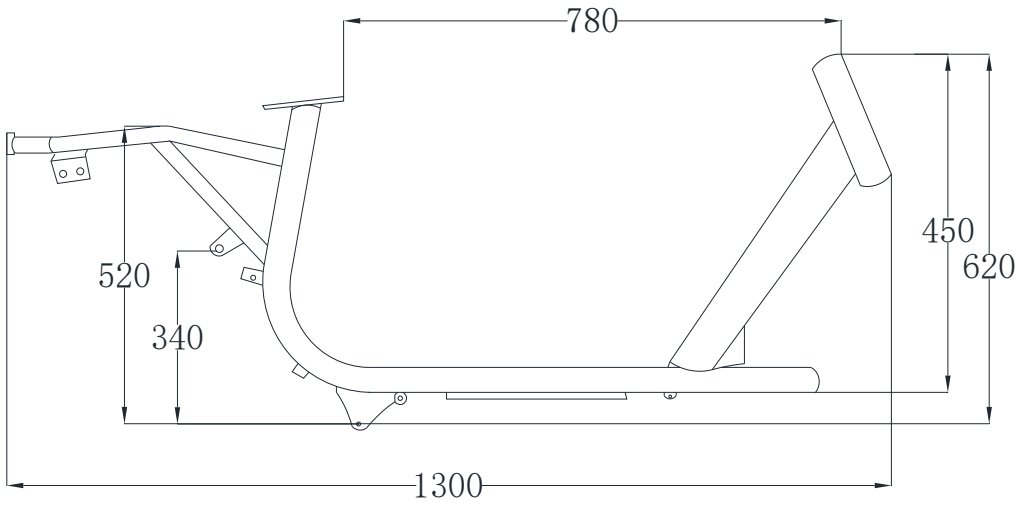


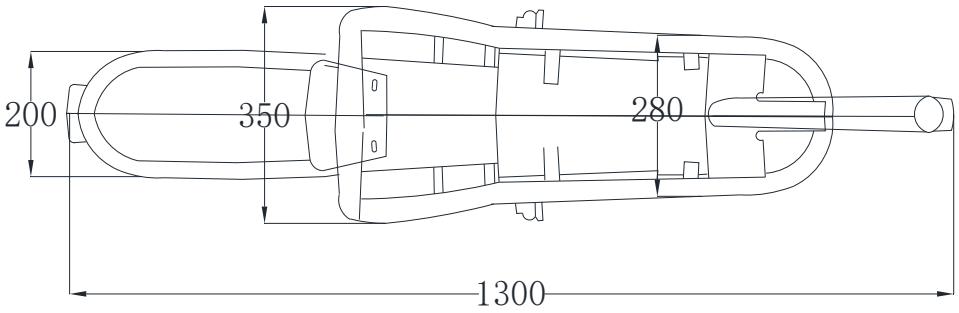
e13*168/2013*01687*00
Société Nationale de Certification et d'Homologation



Title	Dimension Measured on Vehicle
Drawing NO.	HM-5-04

e13*168/2013*01687*00
Société Nationale de Certification et d'Homologation

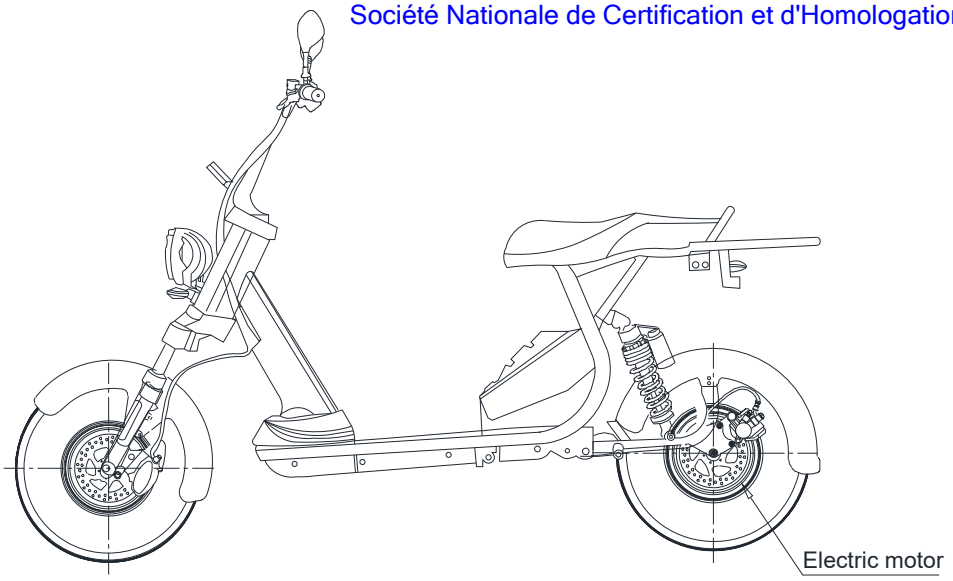




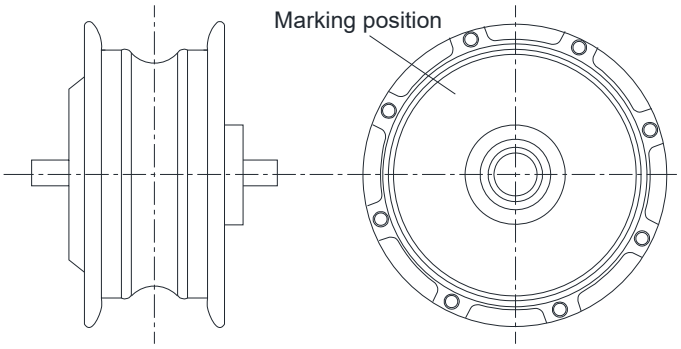
material: steel

Title	Chassis
Drawing NO.	HM-5-05

e13*168/2013*01687*00
Société Nationale de Certification et d'Homologation



Detail:



Marking: Variant 00: HM5SS xxxxxxxxx
Variant 01: SS60V2000W XXXXXXXX
Type: Variant 00: HM5SS
Variant 01: SS60V2000W
Manufacturer: Yongkang Shansu Technology Co., Ltd.

Title	Electric Motor
Drawing NO.	HM-5-06

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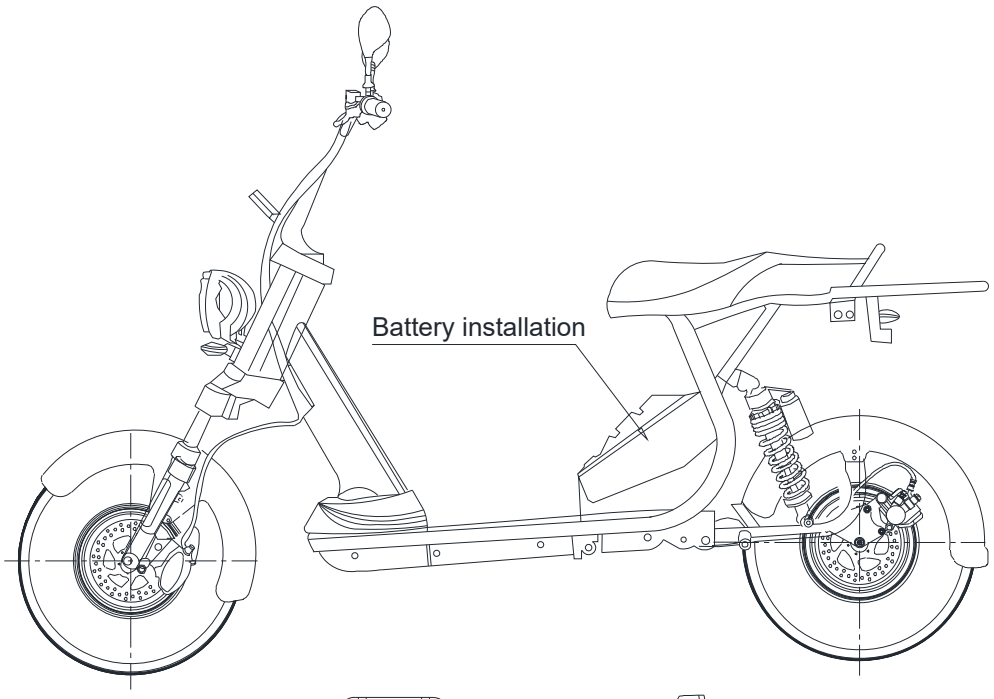
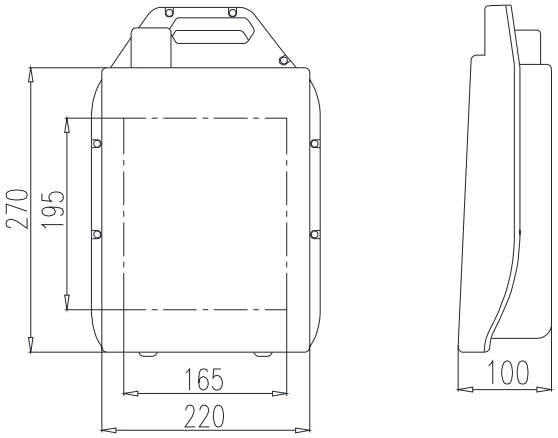


Detail:



Lithium battery
Type:HY18650MP16S6
Make:HY

Title	Location of The Propulsion Batteries
Drawing NO.	HM-5-07

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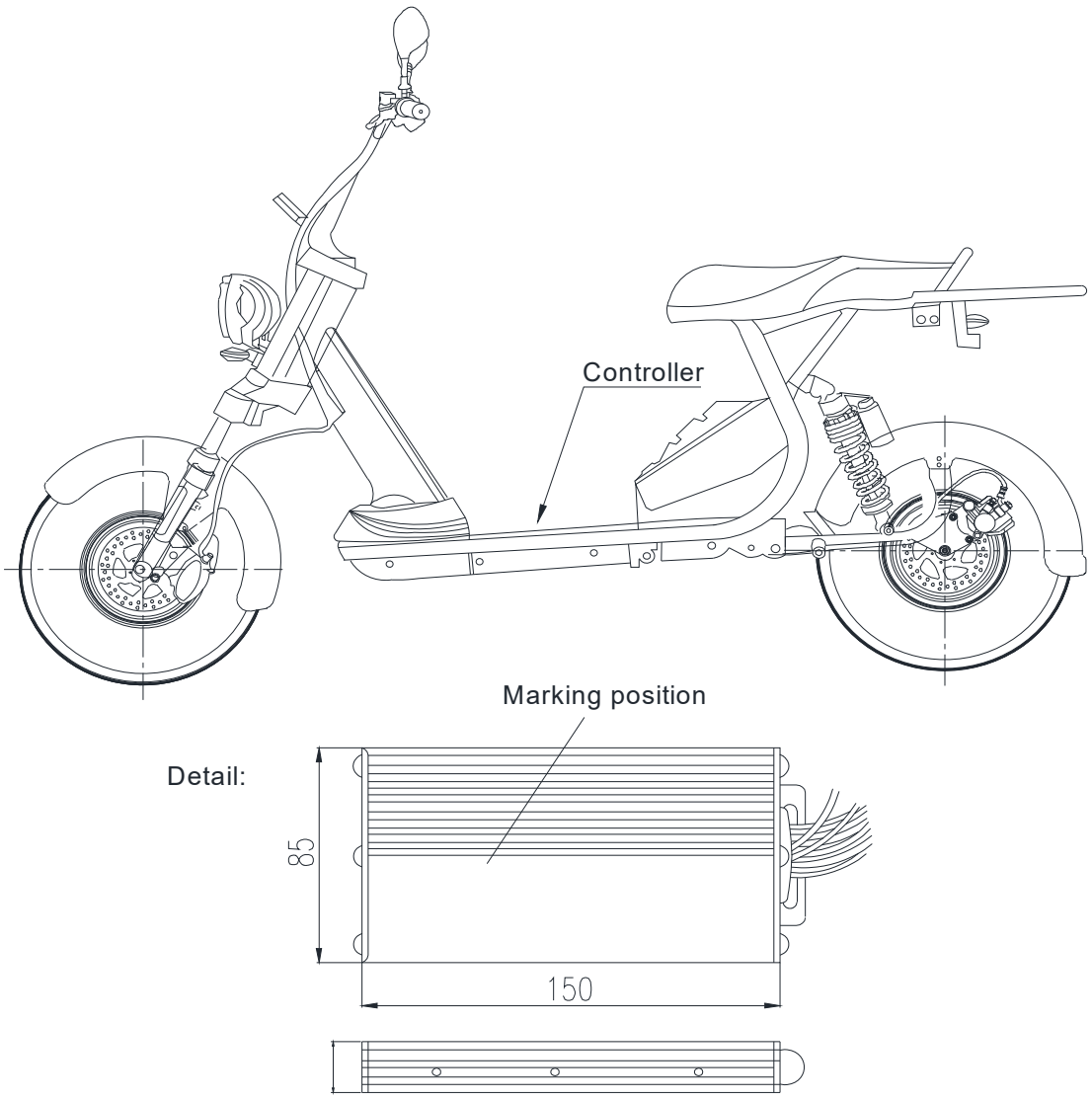
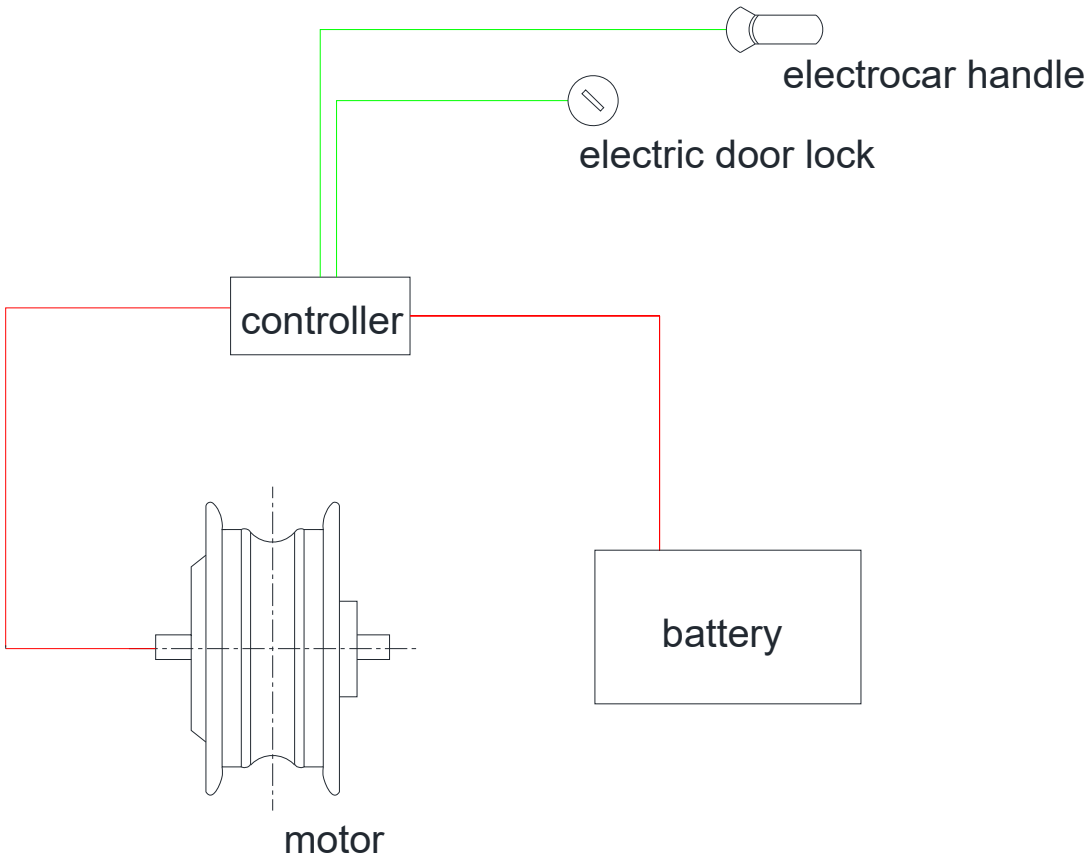


Type: version 00: SS12-60V-YTC
version 01: SS12-60V-YTC-25
Manufacturer: Yongkang Yanhuang Industry and Trade Co., Ltd.

Title	Front suspension
Drawing NO.	HM-5-08



The wheel motor drives the wheels to rotate.

Title	Drive train
Drawing NO.	HM-5-09

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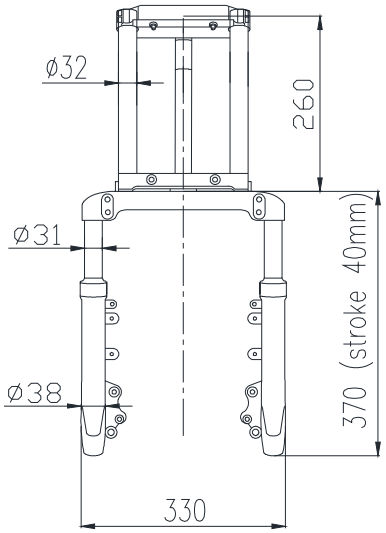
Detail:



Title	Front suspension
Drawing NO.	HM-5-10.1

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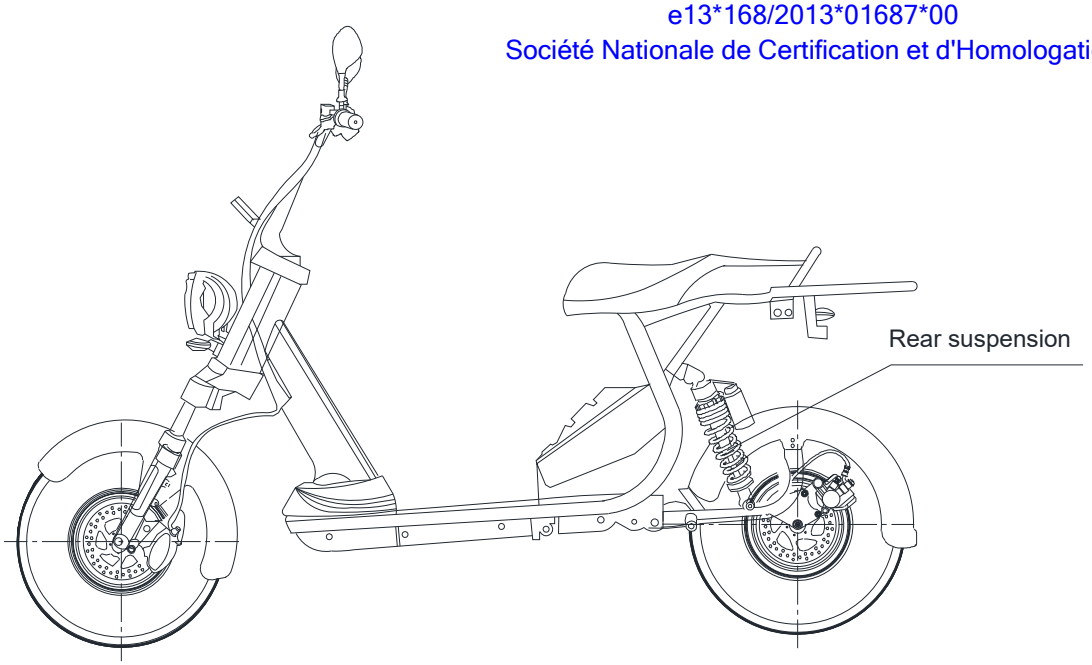
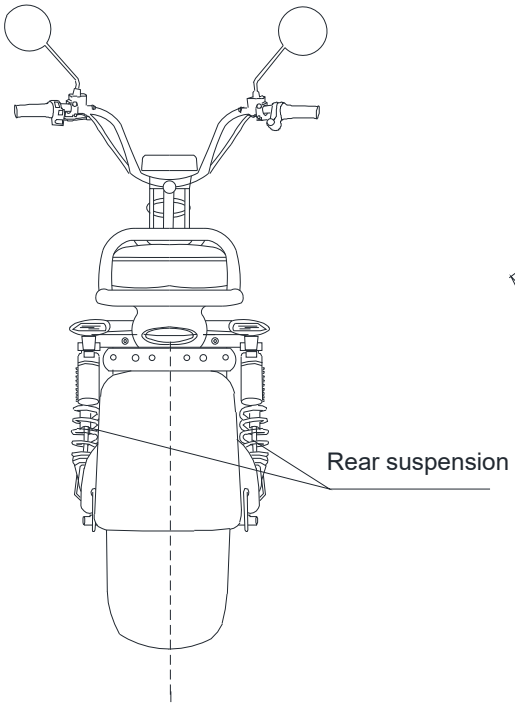
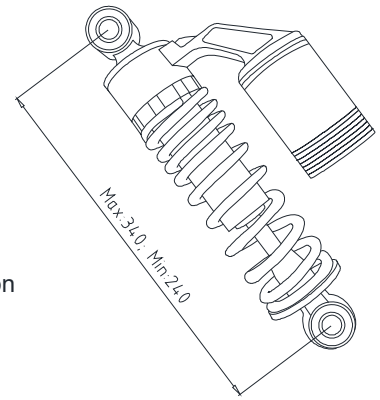
Société Nationale de Certification et d'Homologation





Detail:



Title	Rear suspension
Drawing NO.	HM-5-11

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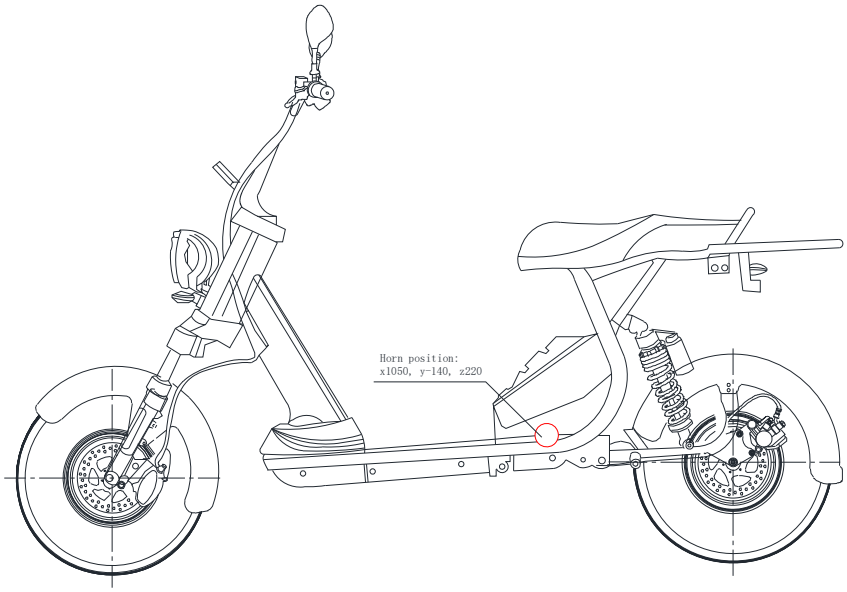
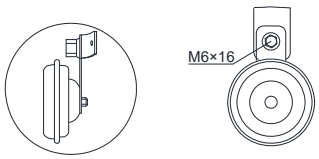
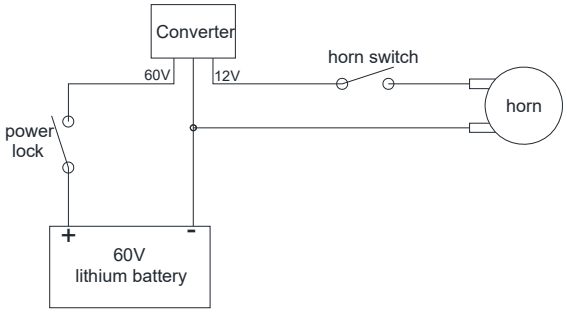
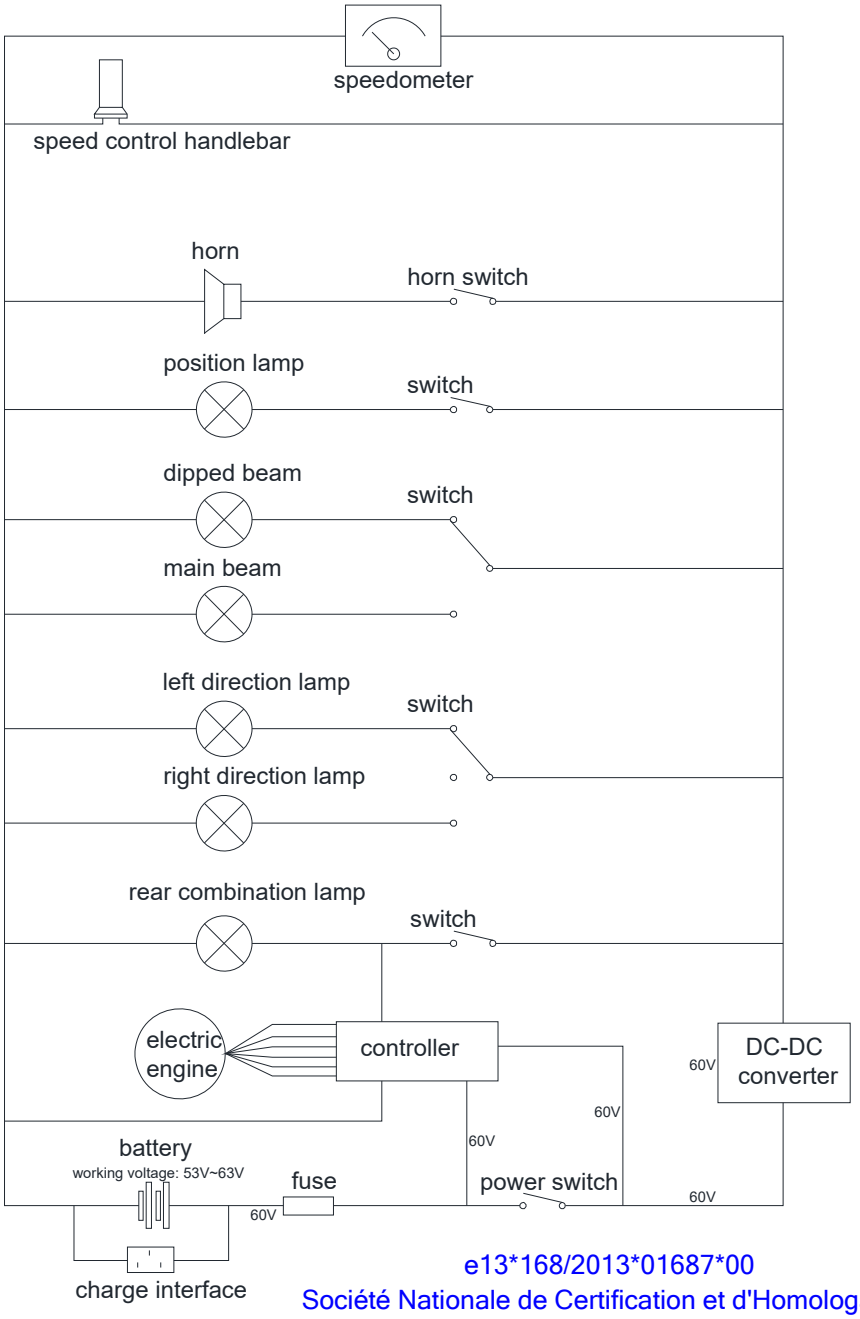


Detail area





Title	Location of The Audible Warning Device
Drawing NO.	HM-5-12.1



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Title	Electrical Circuit Diagram
Drawing NO.	HM-5-13

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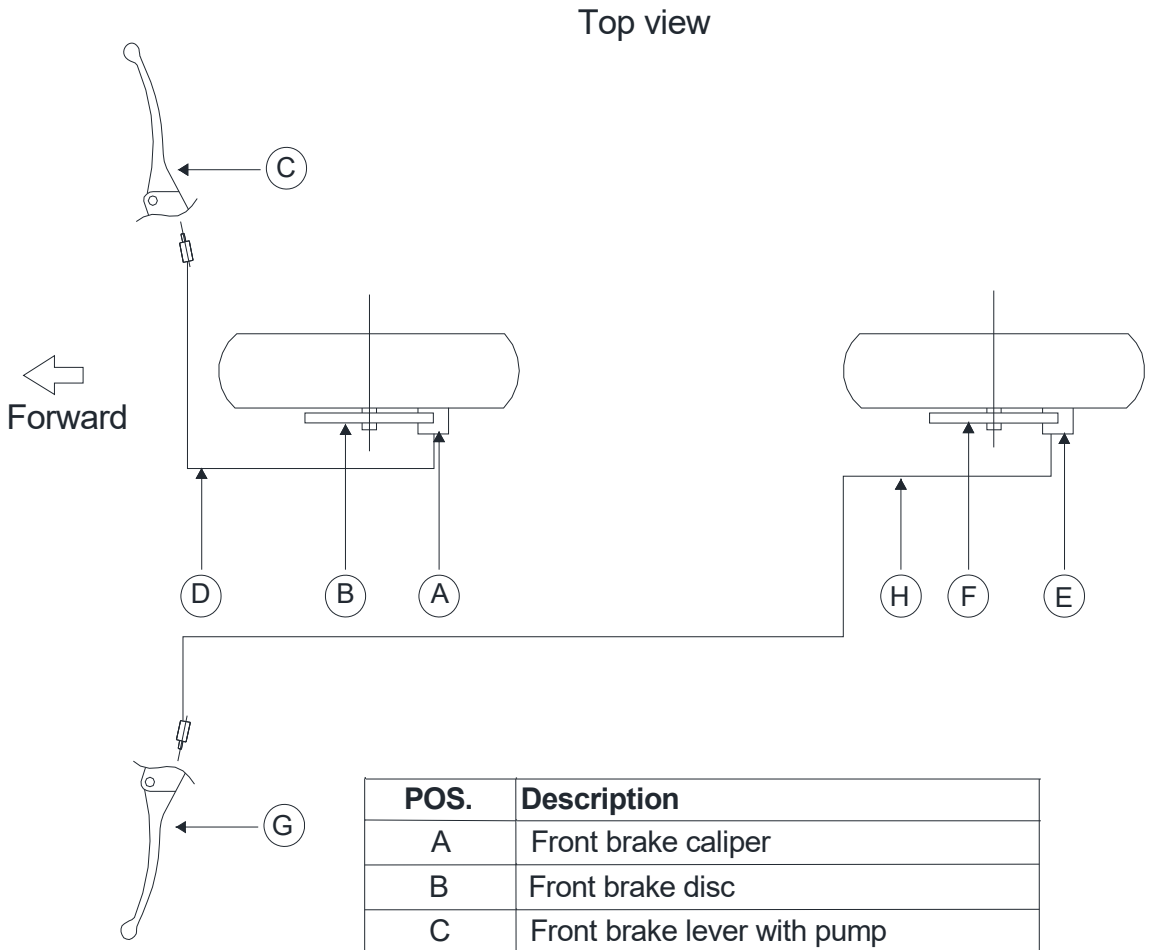

POS.	Description
A	Front brake caliper
B	Front brake disc
C	Front brake lever with pump
D	Front brake oil pipe
E	Rear brake caliper
F	Rear brake disc
G	Rear brake lever with pump
H	Rear brake oil pipe

Title	Brake System
Drawing NO.	HM-5-14.1

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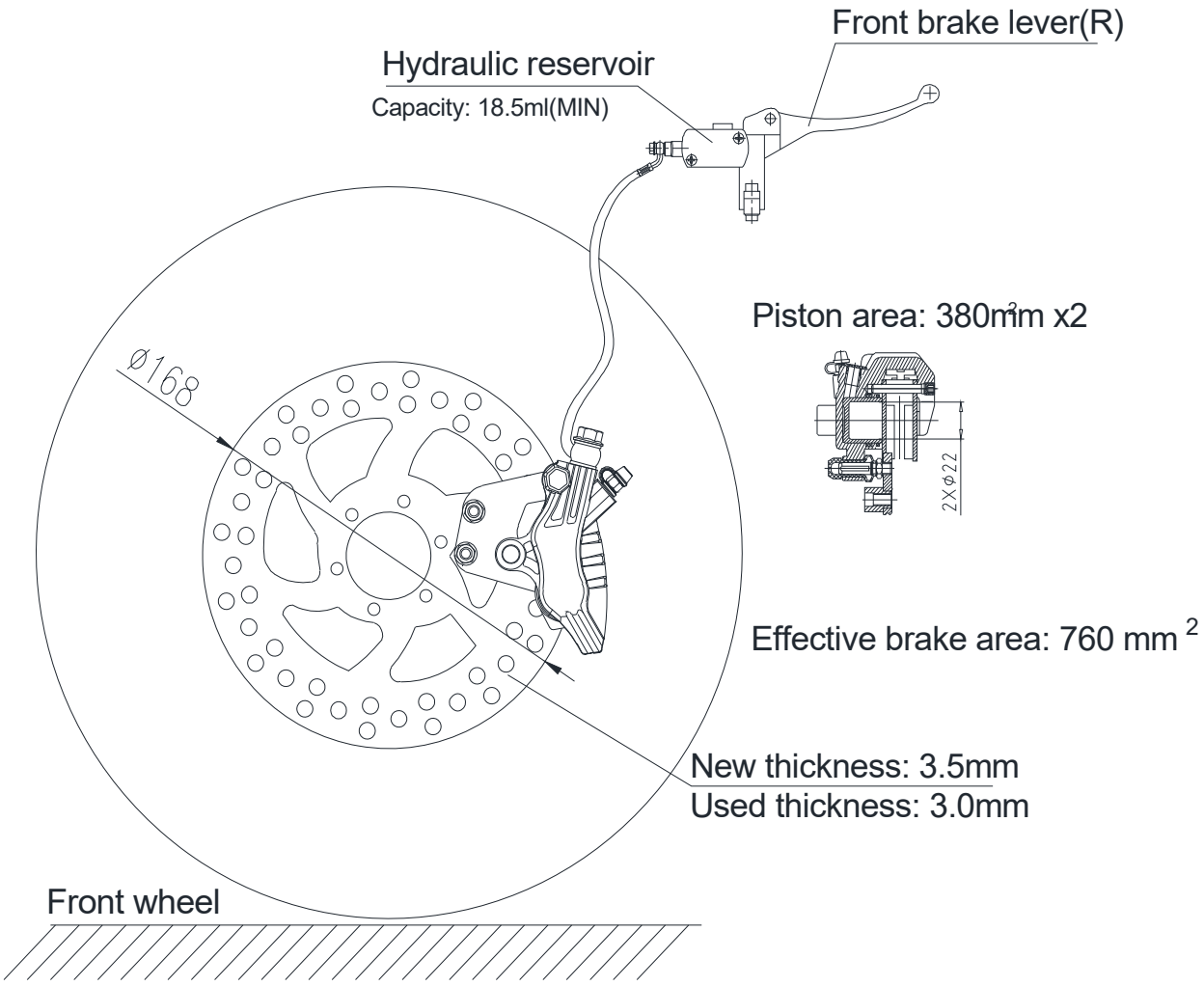

Brake system
Manufacturer: Ruian Huating Locomotive parts Co., Ltd.
Type: HL3.0-F

Title	Front brake system
Drawing NO.	HM-5-14.2

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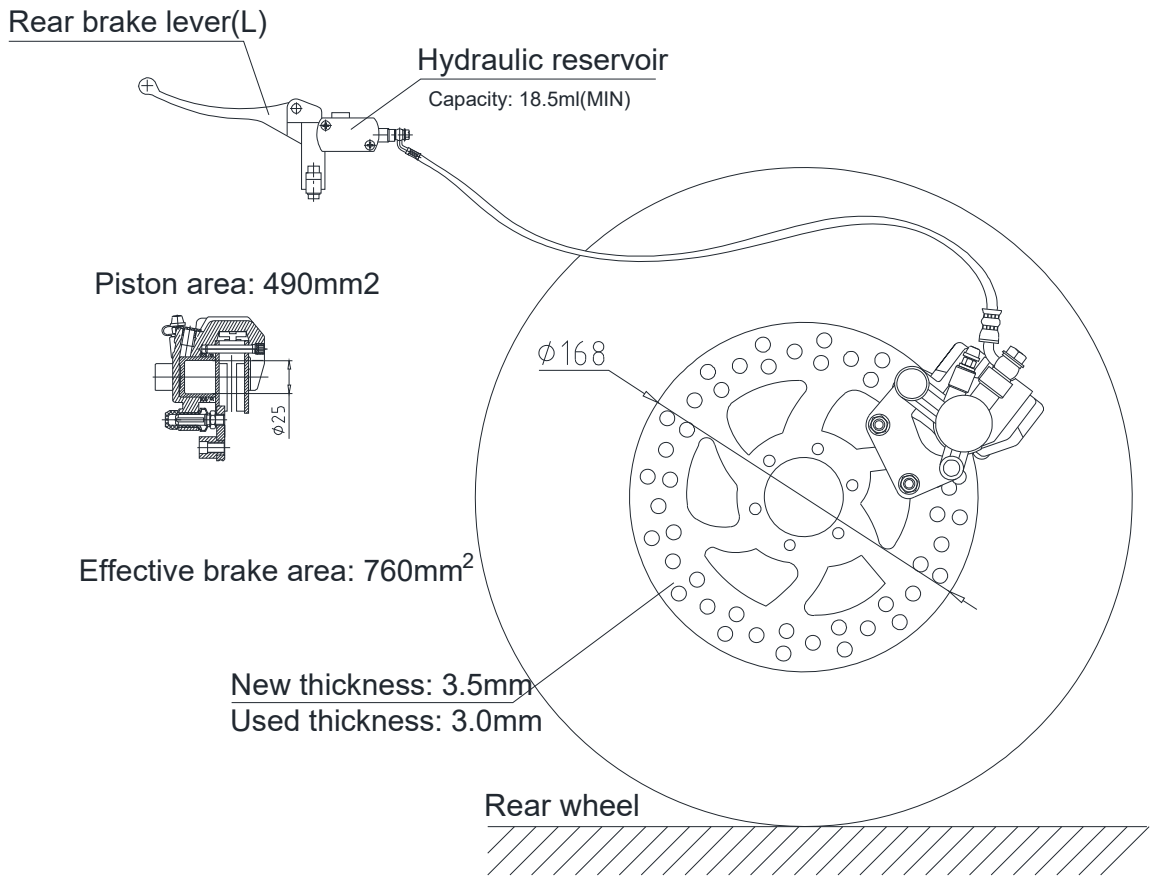
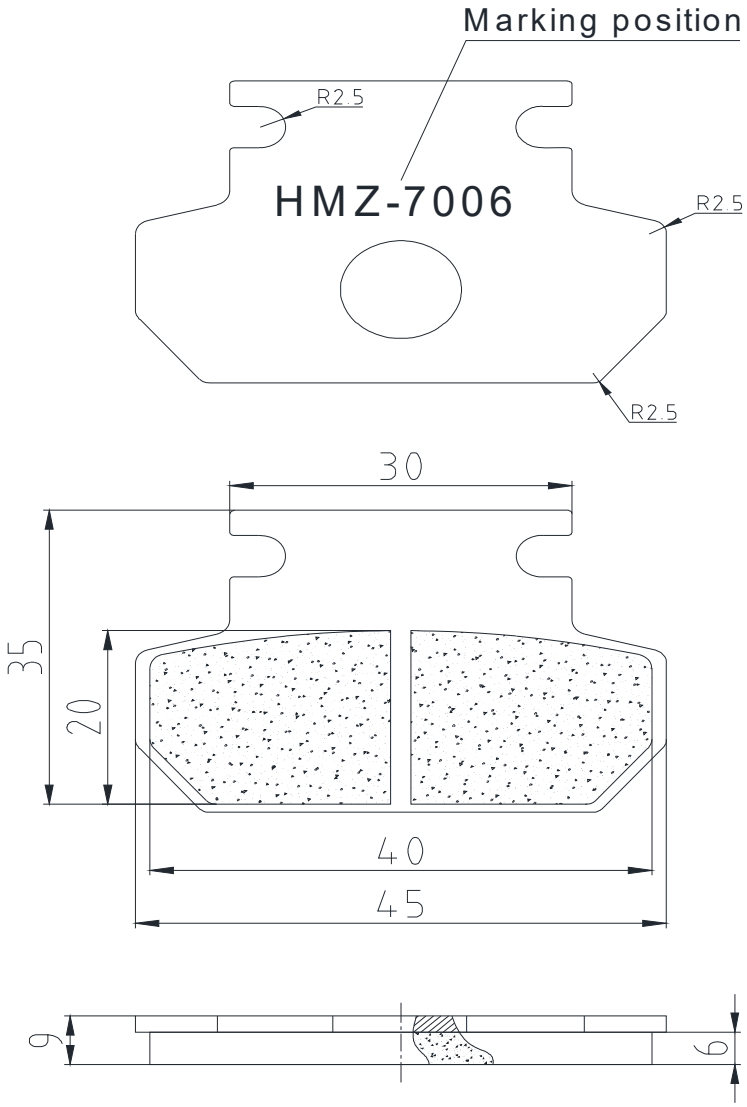


Brake system
Manufacturer: Ruian Huating Locomotive parts Co., Ltd.
Type: HL3.0-R

Title	Rear brake system
Drawing NO.	HM-5-14.3



Front and rear brake pad:
Make: Huating
Type: HL3.0-R
Marking: HMZ-7006

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Title	Brake pad
Drawing NO.	HM-5-14.4

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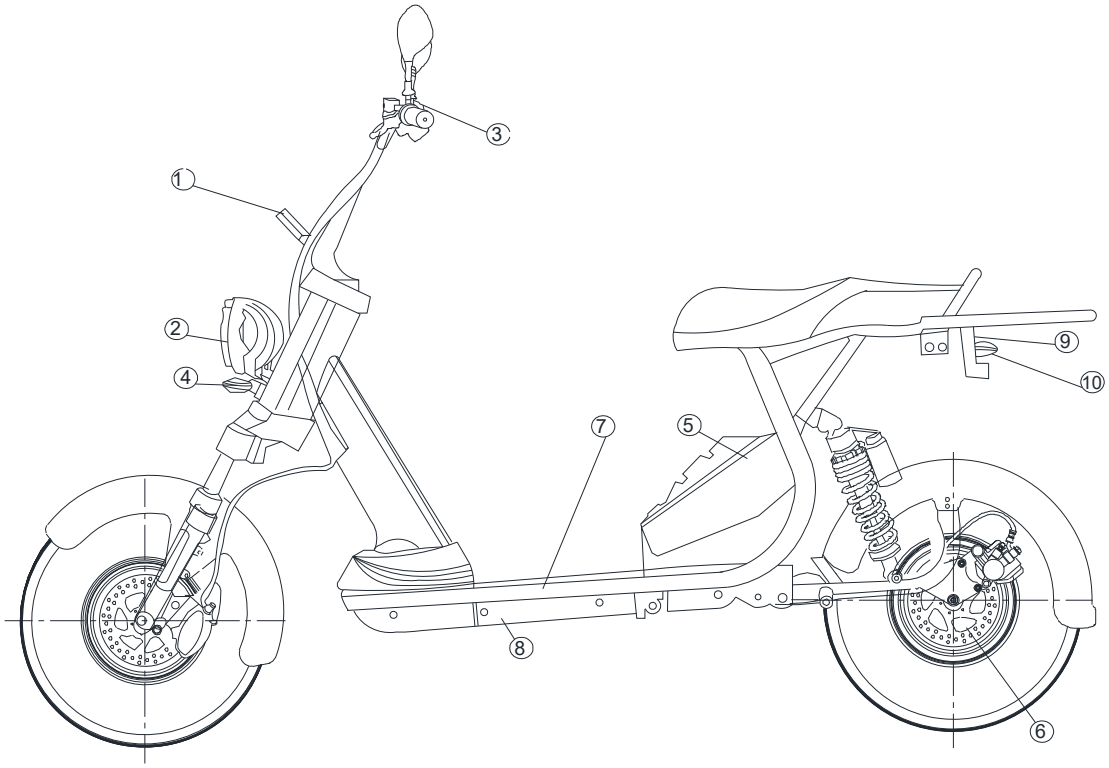
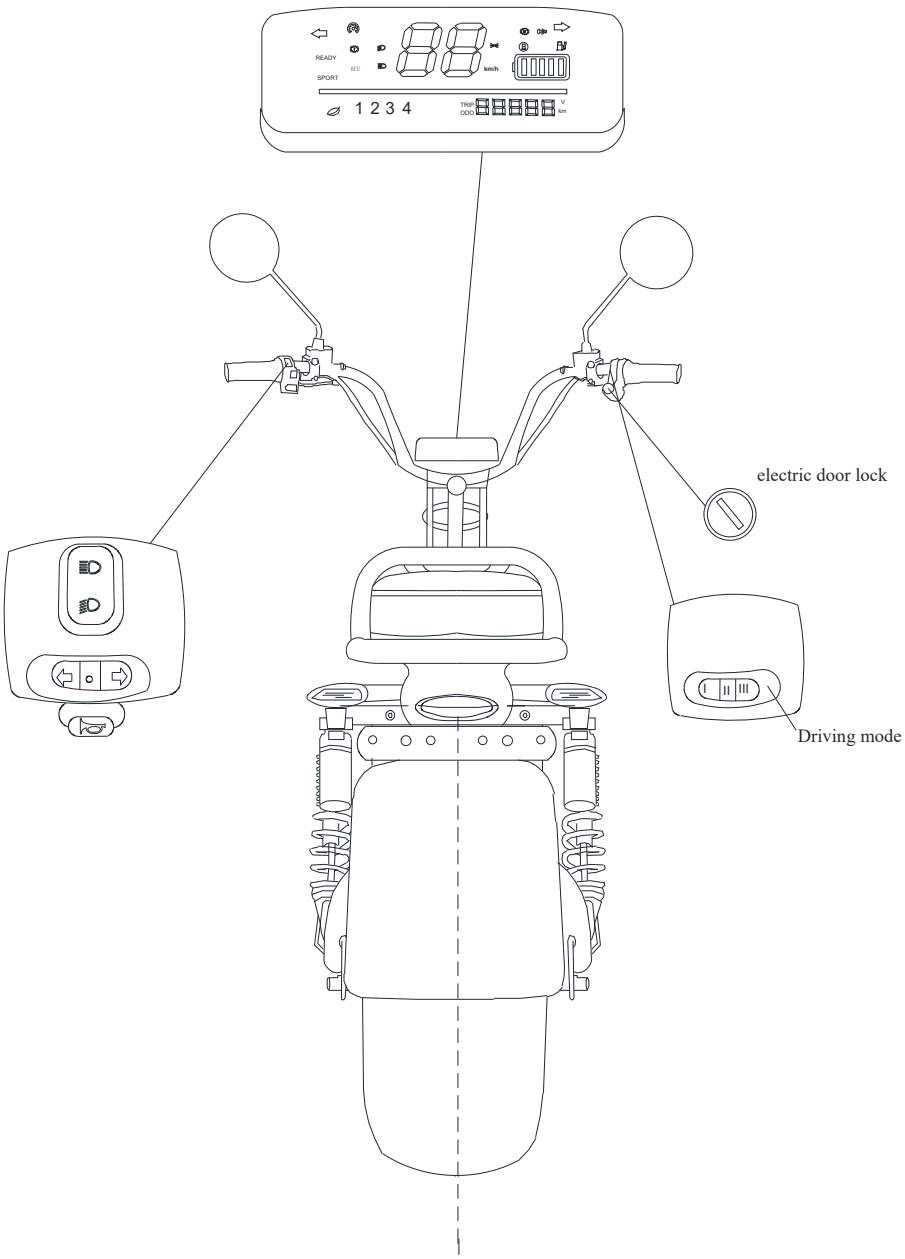


No.	Part Name	No.	Part Name
1	Speedometer	6	Electric motor
2	Headlamp/ Front position lamp	7	Controller
3	Horn	8	Converter
4	Front direction indicator	9	Stop lamp/Rear position lamp Rear registration plate lamp
5	Battery	10	Rear direction indicator

Title	Power Circuit Components Installation
Drawing NO.	HM-5-15



Title	Controls, Tell-Tales And Indicators
Drawing NO.	HM-5-16

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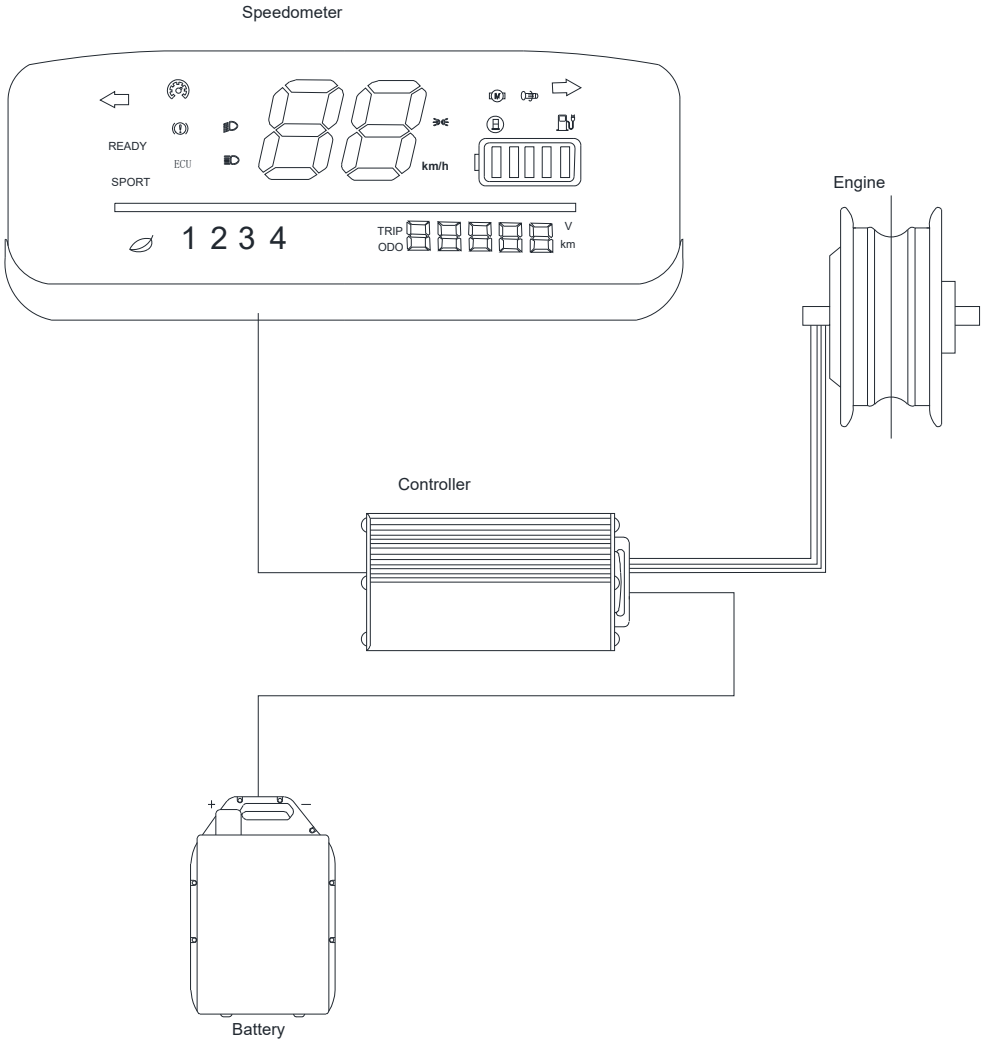
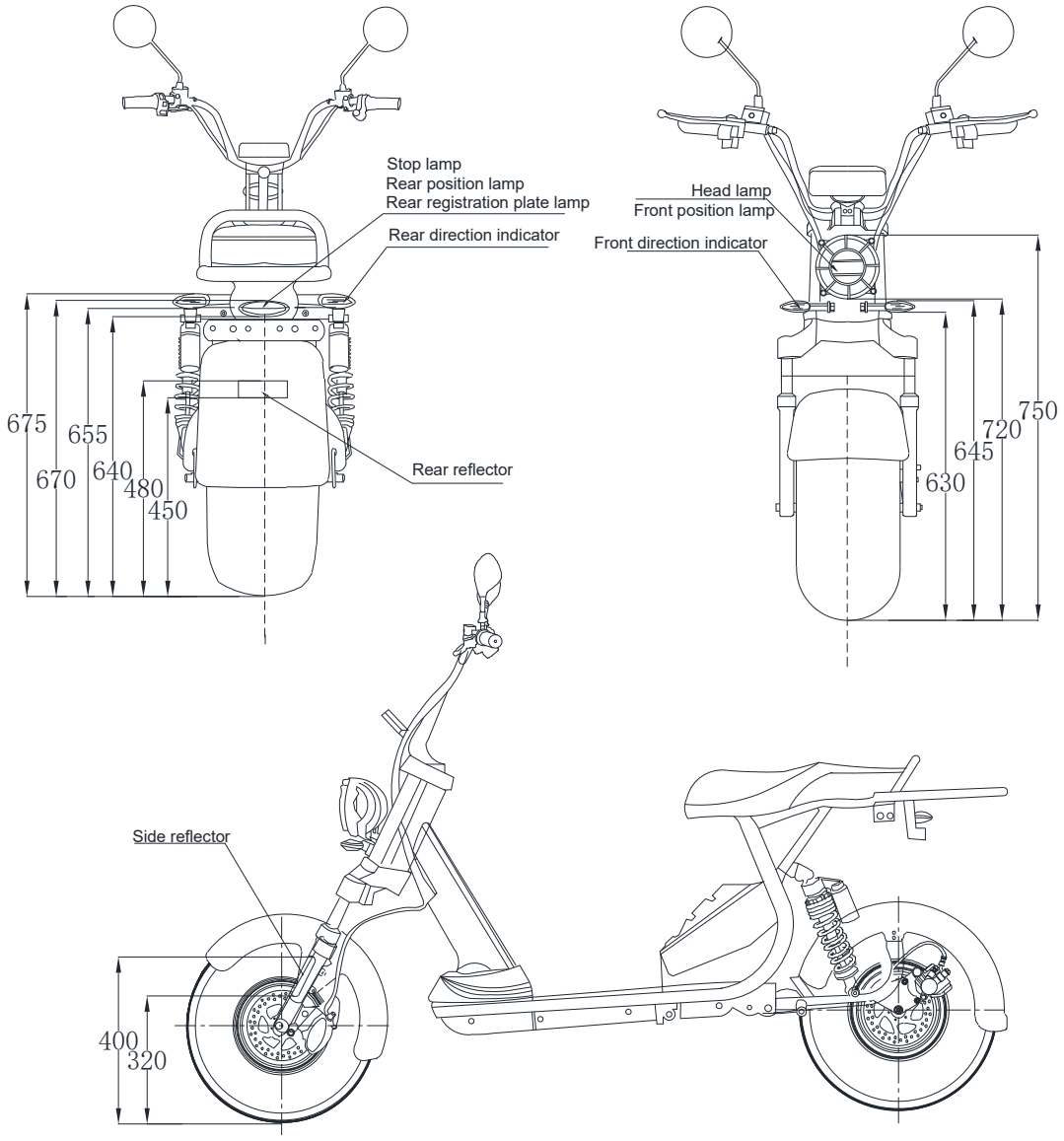
Société Nationale de Certification et d'Homologation



Manufacturer: Luqiao Jingxian Electronics Co.,Ltd.
Type: HL3.0

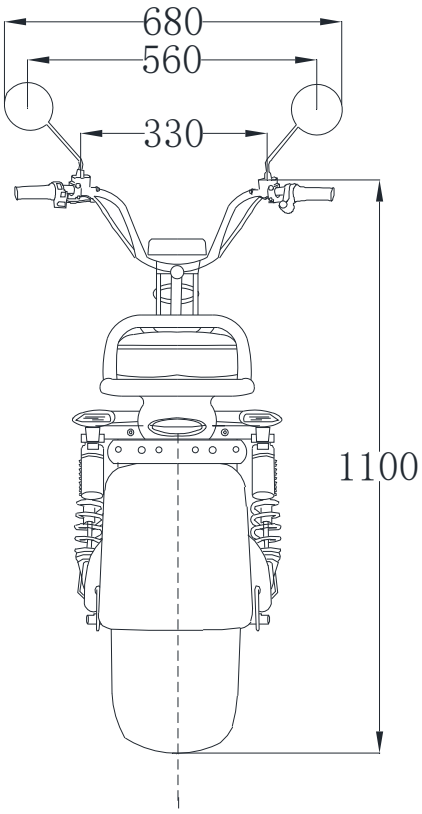
Title	Speedometer and odometer
Drawing NO.	HM-5-17

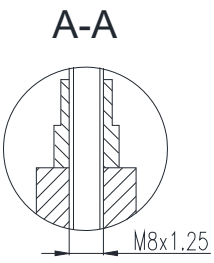
e13*168/2013*01687*00
Société Nationale de Certification et d'Homologation

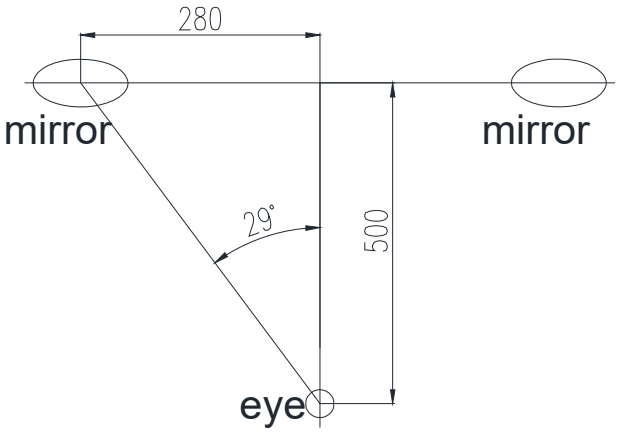


Title	Location of Lights
Drawing NO.	HM-5-18

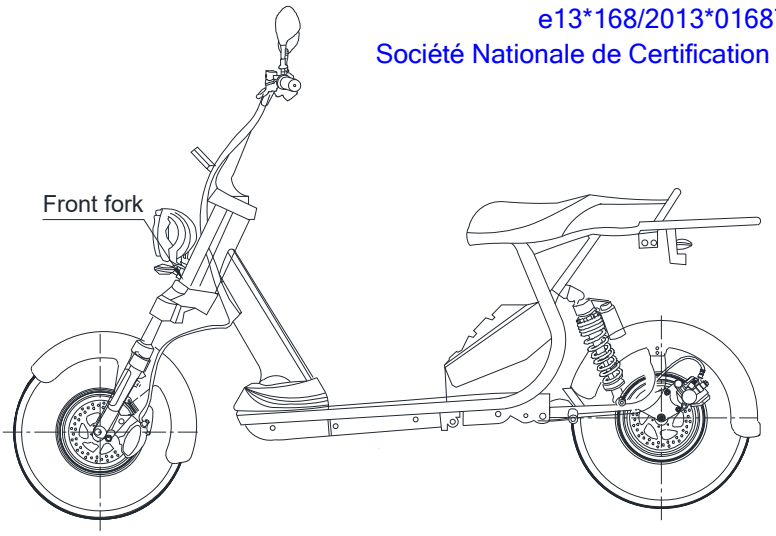
e13*168/2013*01687*00
Société Nationale de Certification et d'Homologation

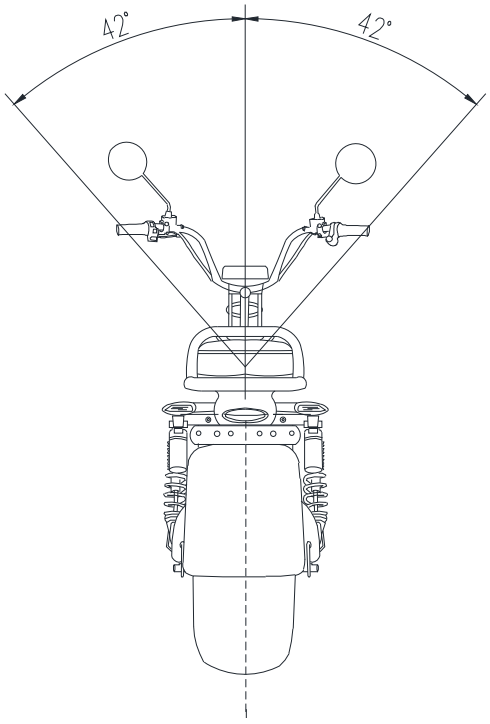






Title	Location of Rear View Mirror
Drawing NO.	HM-5-19





Title	Transmission and Control of Steering
Drawing NO.	HM-5-20

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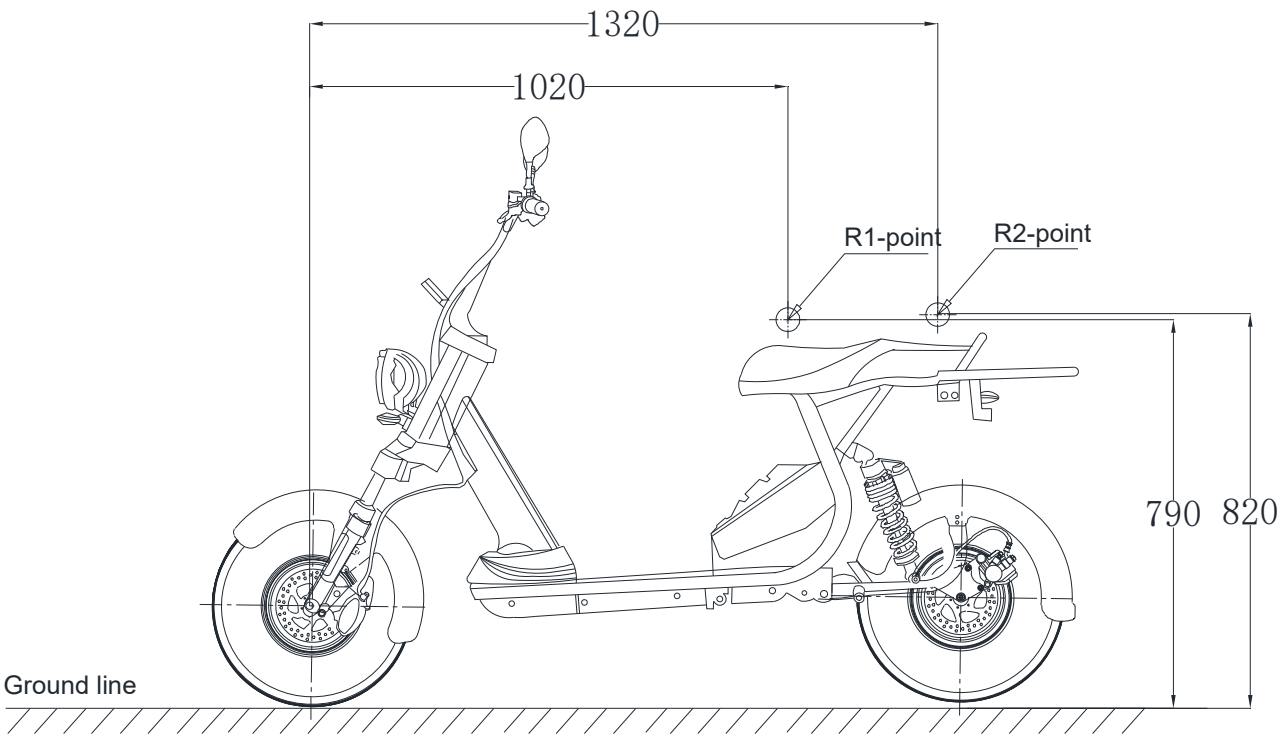
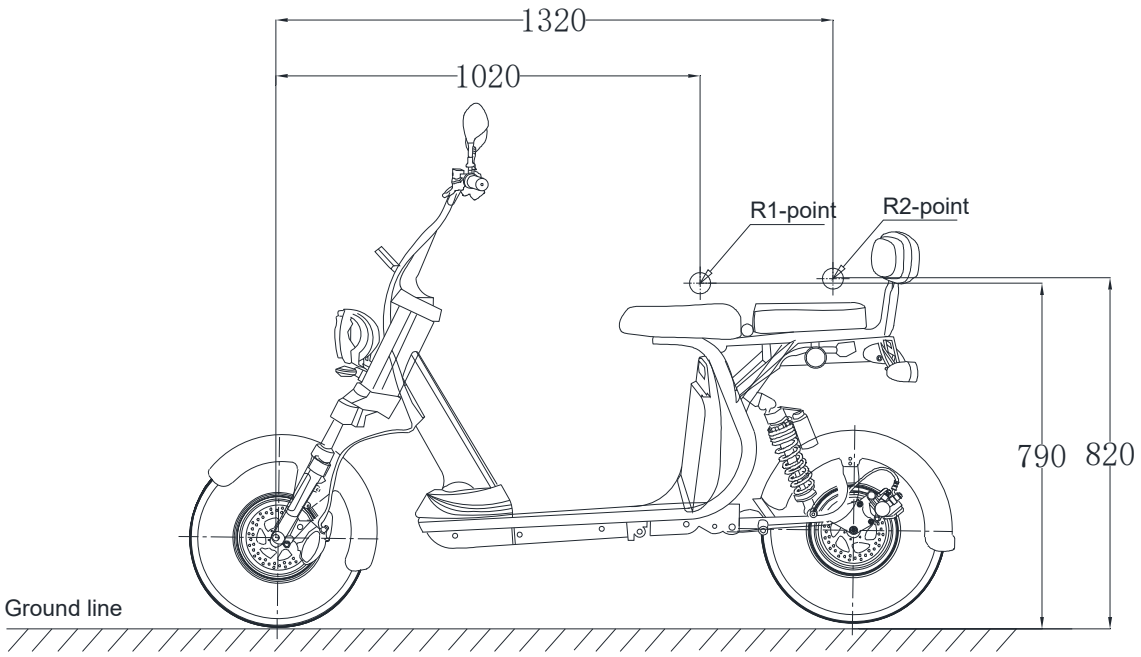


Title	The seats and R point
Drawing NO.	HM-5-21

e13*168/2013*01687*00
Société Nationale de Certification et d'Homologation



Title	The seats and R point
Drawing NO.	HM-5-21-1

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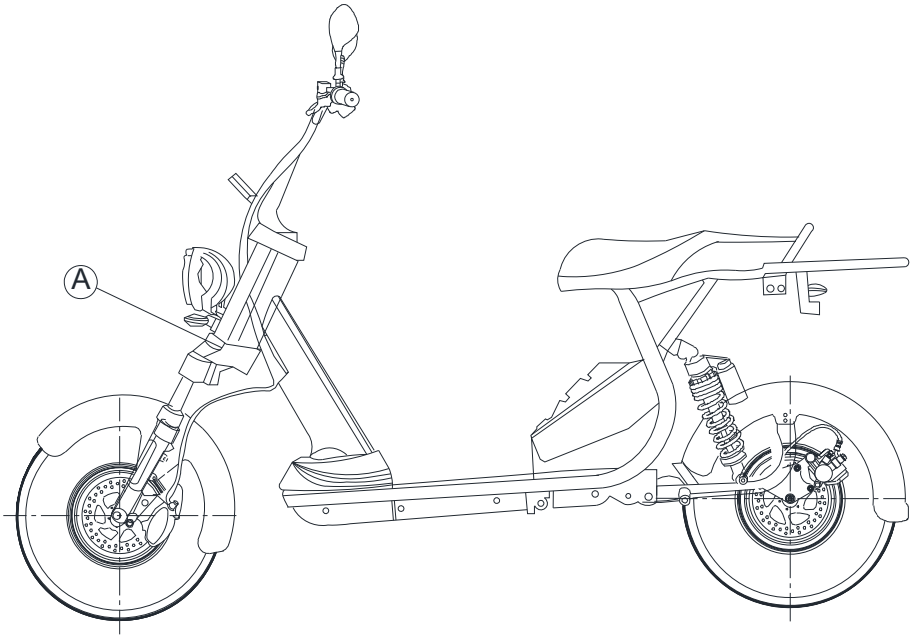
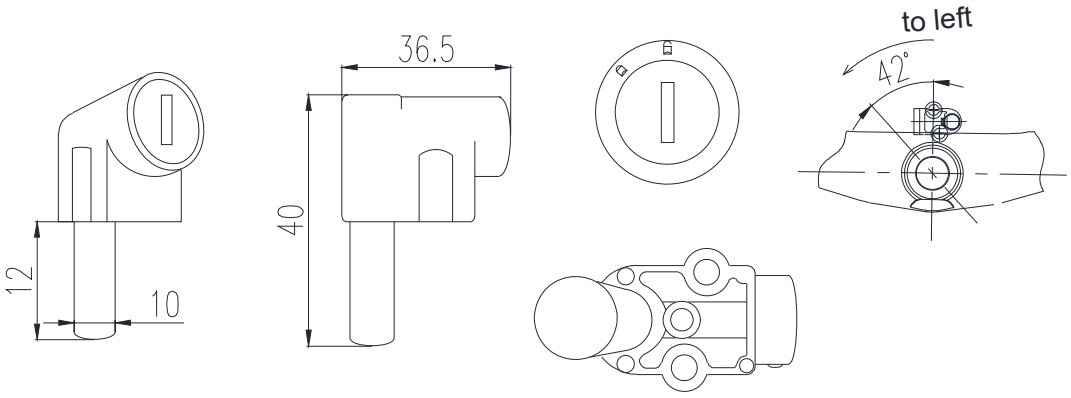
Société Nationale de Certification et d'Homologation



A Detail:



Title	Protective Device
Drawing NO.	HM-5-22

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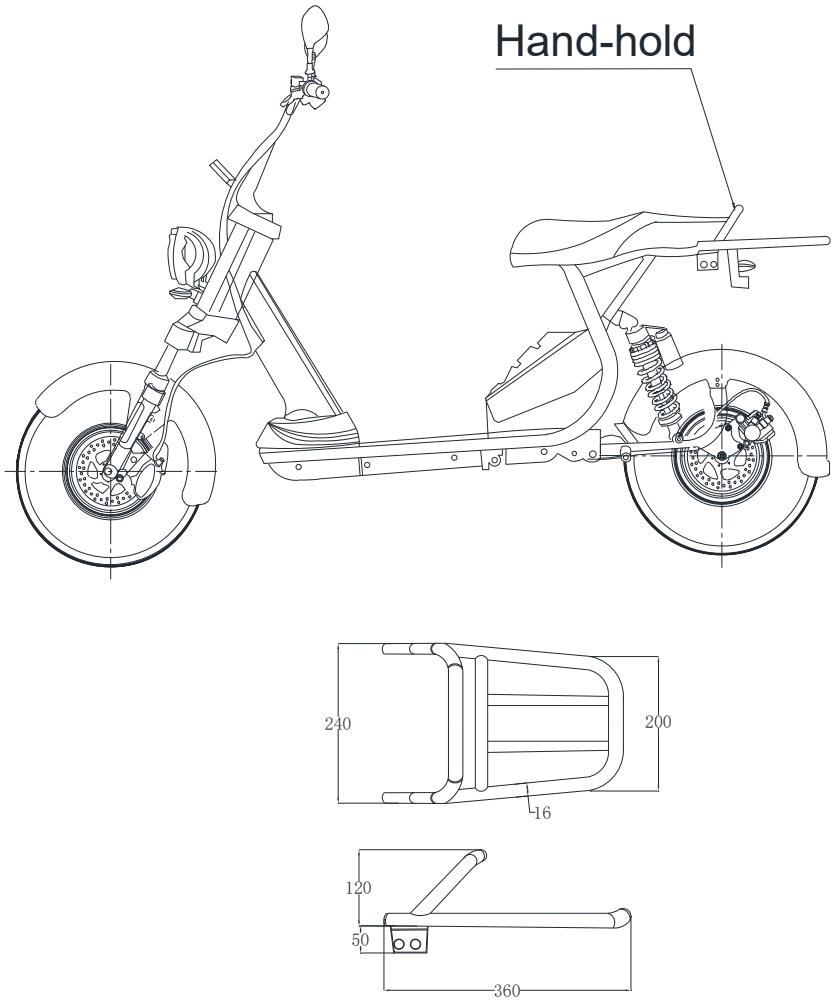
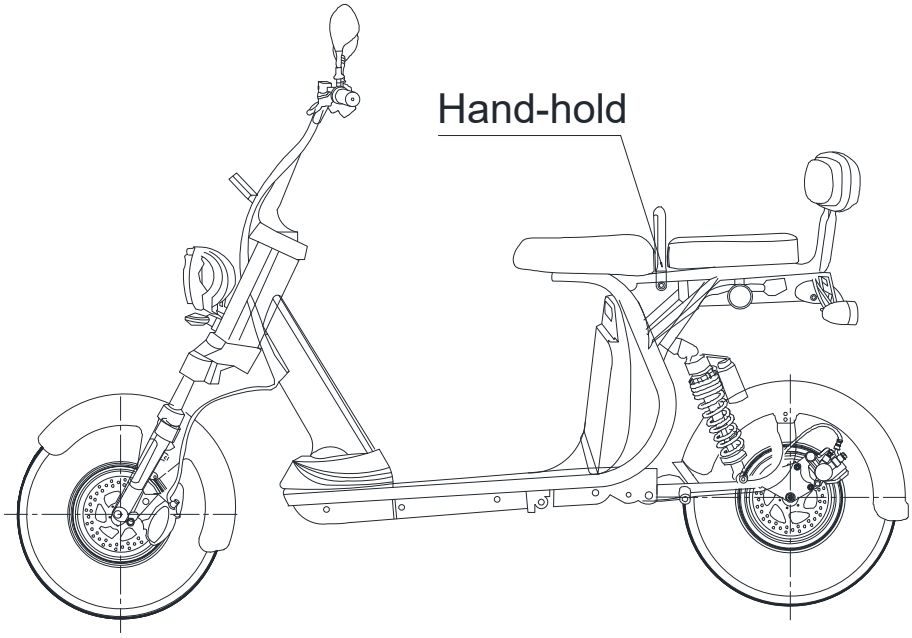
Société Nationale de Certification et d'Homologation



Title	Handholds
Drawing NO.	HM-5-23



Top view

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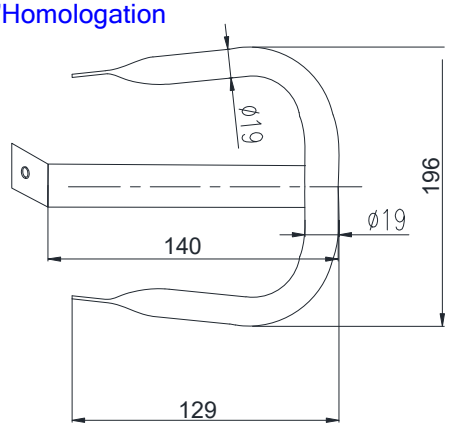
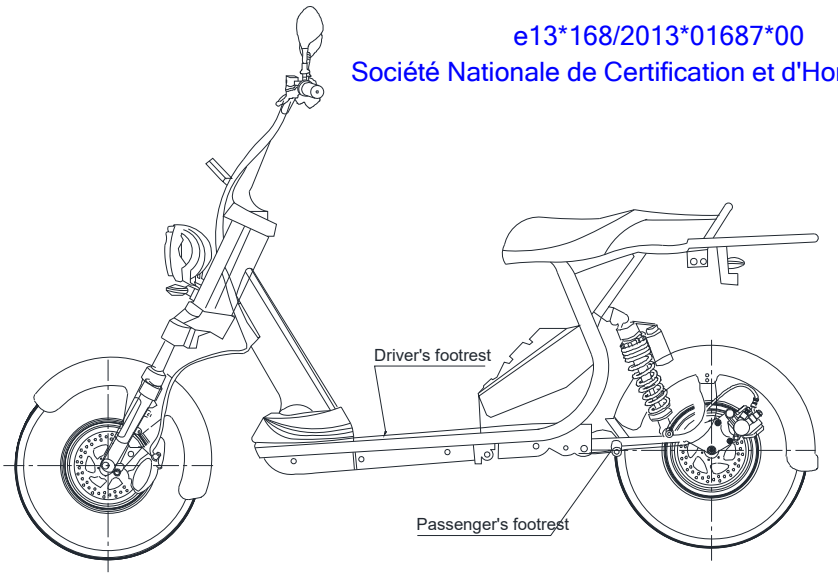
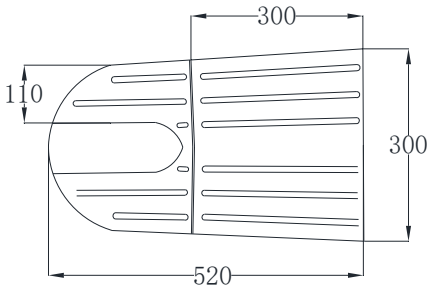


Title	Handholds
Drawing NO.	HM-5-23-1

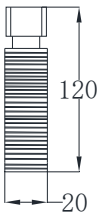
e13*168/2013*01687*00
Société Nationale de Certification et d'Homologation



Driver's footrest:

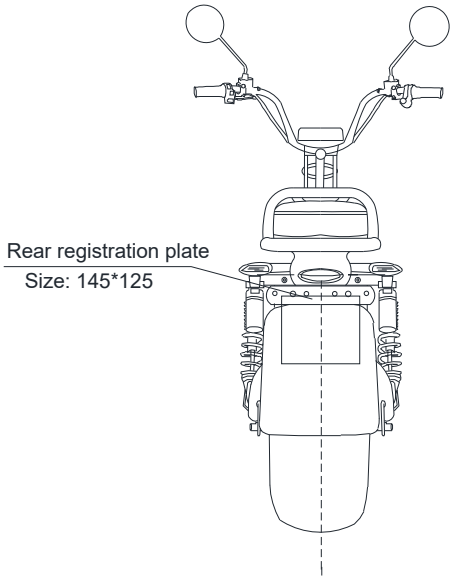


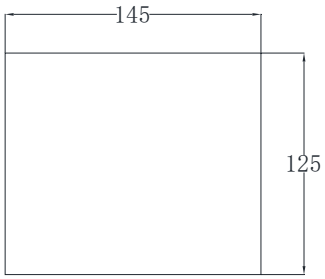
Passenger's footrest:



Title	Footrest
Drawing NO.	HM-5-24

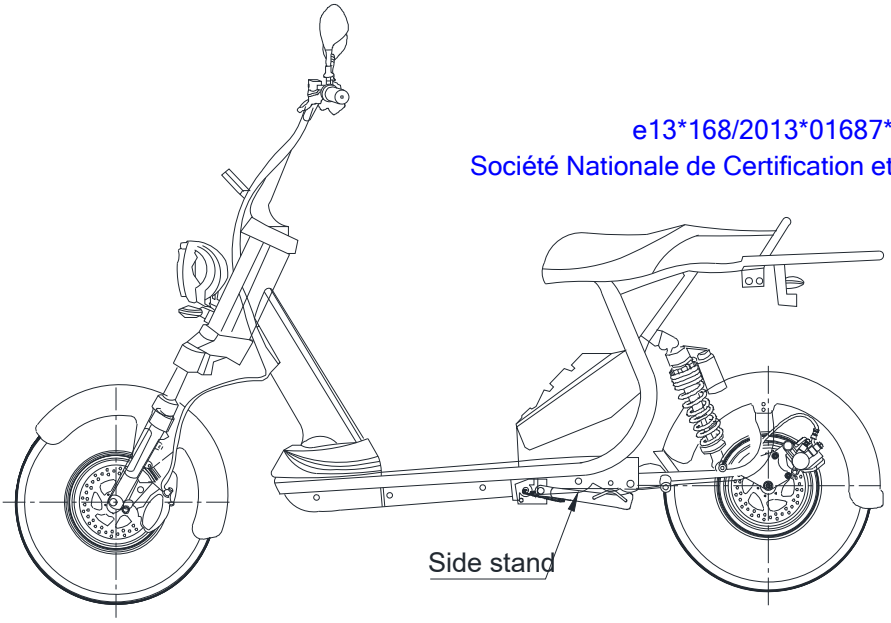
e13*168/2013*01687*00
Société Nationale de Certification et d'Homologation



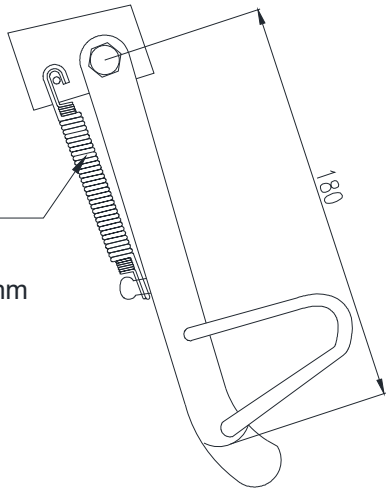


Title	Rear Registration Plate
Drawing NO.	HM-5-25

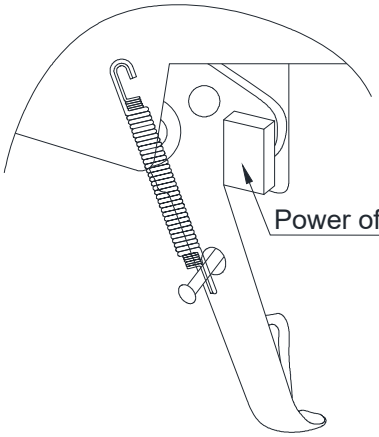
e13*168/2013*01687*00
Société Nationale de Certification et d'Homologation



Side stand



Side stand spring
big spring: ∅ 19mm
Small Spring: ∅ 8.5mm



Title	Side Stand
Drawing NO.	HM-5-26

Manufacturer's statement on endurance testing (Annex V to Commission Delegated Regulation (EU) No 3/2014)

The undersigned: Hu Xia /general manager

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Société Nationale de Certification et d'Homologation

Company name and address of manufacturer:

ZHEJIANG YIXING INDUSTRY AND TRADE LIMITED
ROOM 2103, 21/F HO KING COMMERCIAL CENTRE NO. 2-16 FA YUEN STREET MONG KOK, KOWLOON HONG KONG

Name and address of the manufacturer's representative (if any):

MINIMOTOS SPORT, S.L.
C/ LA MITJANA 7 - POLIGONO EL BOCH, CREVILLENT, ALICANTE, SPAIN

Hereby states that the vehicles:

0.1. Make (trade name of the manufacturer): SHANSU, Easycool, yuki, HIMOTO, aMoto, CITYCOCO, Rooley, Rooder, Strollwheel, HECHT MOTORS, ZMOTOS, MALCOR IBÉRICA, R RETELLI

0.2. Type: HM-5

0.2.1. Variant(s): 00,01

0.2.2. Version(s): 00, 01

0.2.3. Commercial name(s) (if available): electric scooter, EGREEN, HECHT COCIS, HECHT COCIS ZERO

0.3. Category, subcategory and sub-subcategory of vehicle: L1e-B

for which type-approval is sought shall withstand normal use as intended for at least 16500 km travelled within five years of first registration, taking into account regular and scheduled maintenance and specific equipment adjustments, as described clearly and unambiguously in the instructions manual delivered with the vehicles.
The undersigned furthermore confirms that the endurance of the systems, parts and equipment critical for functional safety is ensured through appropriate testing and the use of good engineering practice.

This declaration has no bearing on any vehicle warranty.

Place: Hong Kong Date: 31.10.2022

Signature:  Name and position in the company: Hu Xia /general manager

Manufacturer's statement on structure integrity (Annex XIX to Commission Delegated Regulation (EU) No 3/2014)

The undersigned: Hu Xia /general manager

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Company name and address of manufacturer:

ZHEJIANG YIXING INDUSTRY AND TRADE LIMITED
ROOM 2103, 21/F HO KING COMMERCIAL CENTRE NO. 2-16 FA YUEN STREET MONG KOK, KOWLOON HONG KONG

Name and address of the manufacturer's representative (if any):

MINIMOTOS SPORT, S.L.
C/ LA MITJANA 7 - POLIGONO EL BOCH, CREVILLENT, ALICANTE, SPAIN

Hereby states that the vehicles:

0.1. Make (trade name of the manufacturer): SHANSU, Easycool, yuki, HIMOTO, aMoto, CITYCOCO, Rooley, Rooder, Strollwheel, HECHT MOTORS, ZMOTOS, MALCOR IBÉRICA, R RETELLI

0.2. Type: HM-5

0.2.1. Variant(s): 00,01

0.2.2. Version(s): 00, 01

0.2.3. Commercial name(s) (if available): electric scooter, EGREEN, HECHT COCIS, HECHT COCIS ZERO

0.3. Category, subcategory and sub-subcategory of vehicle: L1e-B

shall be constructed in a proper manner and are designed to be sufficiently robust to withstand the intended use over the vehicle's lifetime, taking into account regular and scheduled maintenance and specific equipment adjustments, as described clearly and unambiguously in the instructions manual delivered with the vehicles.

The undersigned furthermore agrees to and guarantees that specific analyses of vehicle structures, components and/or parts using engineering calculations, virtual testing methods and/or structural testing shall be made available in a timely manner to the approval authority and the European Commission upon request in case of a recall due to a serious safety risk.

This declaration applies to all vehicles covered by the type-approval to which this statement is annexed and has no bearing on any vehicle warranty.

Place: Hong Kong Date: 31.10.2022

Signature:  Name and position in the company: Hu Xia /general manager

Manufacturer's certificate on access to ~~vehicle OBD (stage I) and~~ vehicle repair and maintenance information

e13*168/2013*01687*00
Société Nationale de Certification et d'Homologation

Reference number: HM-5-00

The undersigned: Hu Xia /general manager

Company name and address of manufacturer:

ZHEJIANG YIXING INDUSTRY AND TRADE LIMITED
ROOM 2103, 21/F HO KING COMMERCIAL CENTRE NO. 2-16 FA YUEN STREET MONG KOK, KOWLOON HONG KONG

Name and address of the manufacturer's representative (if any):

MINIMOTOS SPORT, S.L.
C/ LA MITJANA 7 - POLIGONO EL BOCH, CREVILLENT, ALICANTE, SPAIN

Hereby states that the vehicles:
it provides access to ~~vehicle OBD and~~ vehicle repair and maintenance information in compliance with

- Chapter XV of Regulation (EU) No 168/2013

with respect to the types of vehicle, engine and pollution-control device listed in Addendum 1 to this certificate.

The following derogation is applied: ~~carry-over systems.~~

The principal website addresses, through which the relevant information may be accessed and which are hereby certified to be in compliance with the above provisions, are listed in Addendum 2 to this certificate along with the contact details of the manufacturer's representative listed in Addendum 3 to this certificate, whose signature is below.

Where applicable: The manufacturer hereby also certifies that it has complied with the obligation in Article 57(8) of Regulation (EU) No 168/2013 to provide the relevant information for previous approvals of these vehicle types no later than six months after the date of type-approval.

Place: Hong Kong Date: 31.10.2022

Signature:  Name and position in the company: Hu Xia /general manager

Addenda:

1: List of the types of vehicle, engine and pollution-control device

2: Web sites addresses

3: Contact details

Addendum 1
to
Manufacturer's certificate with reference number HM-5-00 on access to ~~vehicle OBD (stage I) and~~ vehicle repair and maintenance information

List of the types of vehicle:

0.2. Type: HM-5

0.2.1. Variant(s): 00,01

0.2.2. Version(s): 00, 01

0.2.3. Commercial name(s) (if available): electric scooter, EGREEN, HECHT COCIS, HECHT COCIS ZERO

0.3. Category, subcategory and sub-subcategory of vehicle: L1e-B

1. Type-approval number including extension number (if available): N.A.

1.1. Type-approval issued on (date, if available): N.A.

List of the types of engines:

3. ~~Combustion engine~~/ electric motor/~~hybrid~~ application code: Variant 00: HM5SS xxxxxxxxx
Variant 01: SS60V2000W XXXXXXXX

3.1. Type-approval number (if available): N.A.

3.2. Type-approval issued on (date, if available): N.A.

List of the types of pollution-control devices:

0.7. Make(s) (trade name(s) of manufacturer): N.A.

0.8. Type: N.A.

0.8.1. Commercial name(s) (if available): N.A.

0.8.2. Type-approval number including extension number (if available): N.A.

0.8.3. Type-approval issued on (date, if available): N.A.

Addendum 2
to
Manufacturer's certificate with reference number HM-5-00 on access to ~~vehicle OBD (stage I) and~~ vehicle repair and maintenance information

Web site addresses referred to in this certificate:
http://www.zjshansu.com/

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Addendum 3 Société Nationale de Certification et d'Homologation

to

Manufacturer’s certificate with reference number HM-5-00 on access to ~~vehicle OBD (stage I) and~~ vehicle repair and maintenance information

Contact details of the manufacturer’s representative referred to in this certificate:

Name and position in the company: ABDELLATIF KHALFI NASIRI
TEL: + 00346763856697
E-mail: abdulkhalfi@gmail.com

Manufacturer's declaration on powertrain tampering prevention measures (anti-tampering)

1. Vehicle manufacturer's declaration on powertrain tampering prevention measures (anti-tampering):
— not to market interchangeable components which could enable propulsion unit performance to exceed levels applicable to the relevant (sub) category;
— manufacturer-facilitated modifications shall not increase the propulsion unit performance of the vehicle;
— modifications and interchangeability of parts and components

Manufacturer's declaration not to market interchangeable components which could enable propulsion unit performance to exceed levels applicable to the relevant (sub) category

0.4. Company name and address of manufacturer:

ZHEJIANG YIXING INDUSTRY AND TRADE LIMITED
ROOM 2103, 21/F HO KING COMMERCIAL CENTRE NO. 2-16 FA YUEN STREET
MONG KOK, KOWLOON HONG KONG

0.4.2 Name and address of the manufacturer's representative (if any):

MINIMOTOS SPORT, S.L.
C/ LA MITJANA 7 - POLIGONO EL BOCH, CREVILLENT, ALICANTE, SPAIN

Hereby declares that:
For the L1e~~/L2e, (L3e/L4e) A1/(L3e/L4e) A2/L6e/L7e~~ category vehicle:

0.1. Make (trade name of the manufacturer): SHANSU, Easycool, yuki, HIMOTO, aMoto, CITYCOCO, Rooley, Rooder, Strollwheel, HECHT MOTORS, ZMOTOS, MALCOR IBÉRICA, R RETELLI

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0.2. Type: HM-5

0.2.1.Variant(s): 00, 01

0.2.2.Version(s): 00, 01

0.2.3. Commercial name(s) (if available): electric scooter, EGREEN, HECHT COCIS, HECHT COCIS ZERO

0.3. Category, subcategory and sub-subcategory of vehicle: L1e-B

Will not market interchangeable components which could enable propulsion unit performance to exceed levels applicable to the relevant (sub) category;

and that

The manufacturer-facilitated modifications of the following characteristics:

~~(a) spark delivery of the ignition system if applicable;~~

~~(b) fuel feed and delivery system;~~

~~(c) air-intake system including air filter(s) (modification or removal);~~

(d) propulsion battery configuration or electric power to the electric motor(s) if applicable;

(e) drive-train;

(f) and the control unit(s) that control(s) the propulsion unit performance of the powertrain.

shall comply with the requirements set out in point 2.6. of Annex II to Commission Delegated Regulation (EU) No 44/2014

~~For L3e-A2/L4e-A2/L7e category vehicles the manufacturer~~

~~declares that:~~

~~The modifications and interchangeability of:~~

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~~(a) spark delivery of the ignition system, if applicable;~~

~~(b) fuel feed and delivery system;~~

~~(c) air-intake system including air filter(s) (modification or removal);~~

~~(d) the drive-train;~~

~~(e) the control unit(s) for the propulsion unit performance of the powertrain;~~

~~(f) removal of any component (mechanical, electrical, structural, etc.) which limits full engine load, leading to any change in the propulsion unit performance as approved in accordance with Annex II (A) to Regulation (EU) No 168/2013~~

~~shall comply with the requirements set out in point 5.2 of Annex II to Commission Delegated Regulation (EU) No 44/2014~~

Place: Hong Kong Date: 31.10.2022

Signature: 

Name and position in the company: Hu Xia/general manager

Statement Concerning Authority of Signature on COC Paper

We, ZHEJIANG YIXING INDUSTRY AND TRADE LIMITED declare that the undersigned persons will be the authorized person to sign the COC paper of the vehicle.

Type: HM-5

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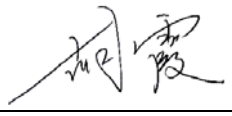
Specification of signature of COC:

Name	Position	Signature
Hu Xia	general manager	

ZHEJIANG YIXING INDUSTRY AND TRADE LIMITED
Place: Hong Kong
Date: 31.10.2022

COMPLETE VEHICLE
EU CERTIFICATE OF CONFORMITY

The undersigned, Hu Xia /general manager
Hereby certifies that the following complete vehicle:

0.1. Make (trade name of the manufacturer): SHANSU, Easycool, yuki, HIMOTO, aMoto, CITYCOCO, Rooley, Rooder, Strollwheel, HECHT MOTORS, ZMOTOS, MALCOR IBÉRICA, R RETELLI

0.2. Type: HM-5

0.2.1. Variant: 00

0.2.2. Version: 00

0.2.3. Commercial name (if available): EGREEN, electric scooter, HECHT COCIS, HECHT COCIS ZERO

0.3. Category, subcategory and sub-subcategory of vehicle: L1e-B

0.4 Company name and address of manufacturer:

ZHEJIANG YIXING INDUSTRY AND TRADE LIMITED
ROOM 2103, 21/F HO KING COMMERCIAL CENTRE NO. 2-16 FA YUEN STREET MONG KOK, KOWLOON HONG KONG

0.4.2. Name and address of manufacturer's authorized representative (if any):

MINIMOTOS SPORT, S.L.
C/ LA MITJANA 7 - POLIGONO EL BOCH, CREVILLENT, ALICANTE, SPAIN

0.5.1. Location of the manufacturer's statutory plate(s): C, x1260, y0, z435

0.5.2. Method of attachment of the manufacturer's statutory plate(s): Riveted

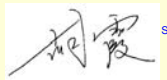
0.6. Location of the vehicle identification number: R, x380, y20, z460

1. Vehicle identification number: ☆R68HM500?????????☆

conforms in all respects to the type described in EU type-approval (e13*168/2013*?????*00 type-approval number including extension number) issued on (DD, MM, YYYY date of issue)
and can be permanently registered in Member States having right/left-hand traffic and using metric/~~imperial~~ units for the speedometer.

Hong Kong, China ---------- (place)

DD, MM, YYYY ---------- (date)



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General manager ---------- (signature)

General construction characteristics

1.3. Number of axles: 2 and wheels: 2
1.3.1. Axles with twinned wheels: N.A.
1.3.2. Powered axles: R
6.2.4. Advanced braking system: ~~ABS / CBS / Both ABS and CBS /~~ None

Main dimensions

2.2.1.	Length:	2110 mm
2.2.2.	Width:	920 mm
2.2.3.	Height:	1130 mm
2.2.4.	Wheelbase:	1520 mm
2.2.4.1.	Wheelbase sidecar:	N.A.
2.2.5.	Track width	
2.2.5.1.	Track width front:	N.A.
2.2.5.2.	Track width rear:	N.A.
2.2.5.3.	Track width sidecar:	N.A.
2.2.10.6	Ground clearance between the axles:	N.A.
2.2.15.	Wheelbase to ground clearance ratio:	N.A.
2.2.17	Seat height:	N.A.

Masses

2.1.1.	Mass in running order:	62 kg
2.1.2.	Actual mass:	144 kg
2.1.3.	Technically permissible maximum laden mass:	219 kg
2.1.3.1.	Technically permissible maximum mass on front axle:	79 kg
2.1.3.2.	Technically permissible maximum mass on rear axle:	140 kg
2.1.3.3.	Technically permissible maximum mass on sidecar axle:	N.A.
2.1.7.	Technically permissible maximum towable mass:	
	Braked: N.A. Unbraked: N.A.	
2.1.7.1.	Technically permissible maximum laden mass of the combination:	N.A.
2.1.7.2.	Technically permissible maximum mass at the coupling point:	N.A.

Powertrain

3.1.1.1.	Manufacturer:	N.A.
3.1.1.2.	Engine code (as marked on the engine or other means of identification):	N.A.
3.2.1.2.	Working principle of the combustion engine: ~~internal combustion engine (ICE)/positive ignition/ compression ignition/external combustion engine (ECE)/turbine/compressed air~~	N.A.
3.2.1.4.1.	Number of cylinders:	N.A.
3.2.1.4.2.	Arrangement of cylinders:	~~LI / V / O / S~~ N.A.
3.2.1.5.	Engine capacity:	N.A.
1.9.	Maximum net power: N.A.	
1.10.	Ratio maximum net power/mass of the vehicle in running order:	N.A.
3.2.3.1.	Fuel type:	N.A.
3.2.3.2.	Vehicle fuel combination:	~~mono-fuel/bi-fuel/flex-fuel~~ N.A.
3.2.3.2.1.	Maximum amount of bio-fuel acceptable in fuel:	N.A.

3.1.2.1. Manufacturer: Yongkang Shansu Technology Co., Ltd.
3.1.2.2. Electric motor code (as marked on the engine or other means of identification): HM5SS xxxxxxxxx
3.3.3.4. ~~15~~/30 minutes power: 1.5 kW at 350 min^{-1}
3.1.3.1. Manufacturer: N.A.
3.1.3.2. Application code (as marked on the engine or other means of identification): N.A.
3.3.1. Electric vehicle configuration: pure electric~~/hybrid electric/manpower -electric~~
3.3.5.2. Category of hybrid electric vehicle: ~~off-vehicle charging/not off-vehicle charging~~ N.A.
3.9.2. Maximum assistance factor: N.A.

Maximum speed

1.8. Maximum speed of vehicle: 45 km/h
3.9.3. Maximum vehicle speed for which the electric motor gives assistance: N.A.

Drive-train and control

3.5.3.9. Transmission (type): W
3.5.4. Gear ratios: N.A.
3.5.4.1. Final drive ratio: N.A.
3.5.4.2. Overall gear ratio in highest gear: N.A.

Installation of tyres

6.18.1.1. Tyre size designation:

Axle 1: Option 1: 225/40-10 57N 7.00X10 225 kPa
Option 2: 225/40-10 58M 7.00X10 225 kPa
Option 3: 215/40-12 56J 7.00X12 225 kPa
Option 4: 215/40-12 56J 7.50X12 225 kPa
Option 5: 225/55-8 57J 7.00X8 225 kPa

Axle 2: Option 1: 225/40-10 57N 7.00X10 250 kPa
Option 2: 225/40-10 58M 7.00X10 250 kPa
Option 3: 215/40-12 56J 7.00X12 250 kPa
Option 4: 215/40-12 56J 7.50X12 250 kPa
Option 5: 225/55-8 57J 7.00X8 250 kPa

Sidecar wheel: N.A.

Bodywork

6.20.2.1. Door configuration and number of doors: N.A.
6.16.1. Number of seating positions: 2
6.16.1.1. Location and arrangement: N.A.

Coupling devices

7.2.8. Type-approval number of coupling-device: N.A.

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Environmental performance

4.0.1. Environmental step: Euro (~~3~~/4/5/~~5+~~)
4.0.6. Sound level measured according to: N.A.
4.0.6.1. Stationary: N.A. at engine speed: N.A.
4.0.6.2. Drive-by: N.A.
4.0.6.3. Limit value for Lurban: N.A.

3.2.15. Exhaust emissions measured according to Regulation (EU) No 134/2014 including all amendments up to (EU) 2018/295
3.2.15.1. Type I test: tailpipe emissions after cold start, including the deterioration factor, if applicable:
CO : N.A.
THC : N.A.
NMHC : N.A.
NOx : N.A.
THC+NOx : N.A.
PM : N.A.
3.2.15.2 Type II test: tailpipe emissions at (increased) idle and free acceleration:
HC: N.A.
CO: N.A.
3.2.15.3. Smoke corrected absorption coefficient: N.A.

Energy efficiency

4.0.2. Fuel consumption: N.A.
4.0.3. CO_2 emissions: N.A.
4.0.4. Energy consumption: 35 Wh/km
4.0.5. Electric range: 57 km

Conversion of the performance of the vehicle:

8.1. Vehicle appropriate for converting its performance level between subcategories (L3e/L4e)-A2 and (L3e/L4e)-A3 and vice versa: ~~yes/no~~ N.A.

Additional information:

9.1. Remarks: N.A
9.2. Exemptions: N.A.

COMPLETE VEHICLE
EU CERTIFICATE OF CONFORMITY

The undersigned, Hu Xia /general manager
Hereby certifies that the following complete vehicle:

0.1. Make (trade name of the manufacturer): SHANSU, Easycool, yuki, HIMOTO, aMoto, CITYCOCO, Rooley, Rooder, Strollwheel, HECHT MOTORS, ZMOTOS, MALCOR IBÉRICA, R RETELLI

0.2. Type: HM-5

0.2.1. Variant: 00

0.2.2. Version: 01

0.2.3. Commercial name (if available): EGREEN, electric scooter, HECHT COCIS, HECHT COCIS ZERO

0.3. Category, subcategory and sub-subcategory of vehicle: L1e-B

0.4 Company name and address of manufacturer:

ZHEJIANG YIXING INDUSTRY AND TRADE LIMITED
ROOM 2103, 21/F HO KING COMMERCIAL CENTRE NO. 2-16 FA YUEN STREET MONG KOK, KOWLOON HONG KONG

0.4.2. Name and address of manufacturer's authorized representative (if any):

MINIMOTOS SPORT, S.L.
C/ LA MITJANA 7 - POLIGONO EL BOCH, CREVILLENT, ALICANTE, SPAIN

0.5.1. Location of the manufacturer's statutory plate(s): C, x1260, y0, z435

0.5.2. Method of attachment of the manufacturer's statutory plate(s): Riveted

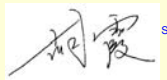
0.6. Location of the vehicle identification number: R, x380, y20, z460

1. Vehicle identification number: ☆R68HM501?????????☆

conforms in all respects to the type described in EU type-approval (e13*168/2013*?????*00 type-approval number including extension number) issued on (DD, MM, YYYY date of issue)
and can be permanently registered in Member States having right/left-hand traffic and using metric~~/imperial~~ units for the speedometer.

Hong Kong, China ---------- (place)

DD, MM, YYYY ---------- (date)



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Société Nationale de Certification et d'Homologation

General manager

---------- (signature)

General construction characteristics

1.3. Number of axles: 2 and wheels: 2
1.3.1. Axles with twinned wheels: N.A.
1.3.2. Powered axles: R
6.2.4. Advanced braking system: ~~ABS / CBS / Both ABS and CBS /~~ None

Main dimensions

2.2.1.	Length:	2110 mm
2.2.2.	Width:	920 mm
2.2.3.	Height:	1130 mm
2.2.4.	Wheelbase:	1520 mm
2.2.4.1.	Wheelbase sidecar:	N.A.
2.2.5.	Track width	
2.2.5.1.	Track width front:	N.A.
2.2.5.2.	Track width rear:	N.A.
2.2.5.3.	Track width sidecar:	N.A.
2.2.10.6	Ground clearance between the axles:	N.A.
2.2.15.	Wheelbase to ground clearance ratio:	N.A.
2.2.17	Seat height:	N.A.

Masses

2.1.1.	Mass in running order:	62 kg
2.1.2.	Actual mass:	144 kg
2.1.3.	Technically permissible maximum laden mass:	219 kg
2.1.3.1.	Technically permissible maximum mass on front axle:	79 kg
2.1.3.2.	Technically permissible maximum mass on rear axle:	140 kg
2.1.3.3.	Technically permissible maximum mass on sidecar axle:	N.A.
2.1.7.	Technically permissible maximum towable mass:	
	Braked: N.A. Unbraked: N.A.	
2.1.7.1.	Technically permissible maximum laden mass of the combination:	N.A.
2.1.7.2.	Technically permissible maximum mass at the coupling point:	N.A.

Powertrain

3.1.1.1.	Manufacturer:	N.A.
3.1.1.2.	Engine code (as marked on the engine or other means of identification):	N.A.
3.2.1.2.	Working principle of the combustion engine: ~~internal combustion engine (ICE)/positive ignition/ compression ignition/external combustion engine (ECE)/turbine/compressed air~~	N.A.
3.2.1.4.1.	Number of cylinders:	N.A.
3.2.1.4.2.	Arrangement of cylinders:	~~LI / V / O / S~~ N.A.
3.2.1.5.	Engine capacity:	N.A.
1.9.	Maximum net power: N.A.	
1.10.	Ratio maximum net power/mass of the vehicle in running order:	N.A.
3.2.3.1.	Fuel type:	N.A.
3.2.3.2.	Vehicle fuel combination:	~~mono-fuel/bi-fuel/flex-fuel~~ N.A.
3.2.3.2.1.	Maximum amount of bio-fuel acceptable in fuel:	N.A.

3.1.2.1. Manufacturer: Yongkang Shansu Technology Co., Ltd.
3.1.2.2. Electric motor code (as marked on the engine or other means of identification): HM5SS xxxxxxxxx
3.3.3.4. ~~15~~/30 minutes power: 1.5 kW at 270 min^{-1}
3.1.3.1. Manufacturer: N.A.
3.1.3.2. Application code (as marked on the engine or other means of identification): N.A.
3.3.1. Electric vehicle configuration: pure electric~~/hybrid electric/manpower -electric~~
3.3.5.2. Category of hybrid electric vehicle: ~~off-vehicle charging/not off-vehicle charging~~ N.A.
3.9.2. Maximum assistance factor: N.A.

Maximum speed

1.8. Maximum speed of vehicle: 25 km/h
3.9.3. Maximum vehicle speed for which the electric motor gives assistance: N.A.

Drive-train and control

3.5.3.9. Transmission (type): W
3.5.4. Gear ratios: N.A.
3.5.4.1. Final drive ratio: N.A.
3.5.4.2. Overall gear ratio in highest gear: N.A.

Installation of tyres

6.18.1.1. Tyre size designation:

Axle 1: Option 1: 225/40-10 57N 7.00X10 225 kPa
Option 2: 225/40-10 58M 7.00X10 225 kPa
Option 3: 215/40-12 56J 7.00X12 225 kPa
Option 4: 215/40-12 56J 7.50X12 225 kPa
Option 5: 225/55-8 57J 7.00X8 225 kPa

Axle 2: Option 1: 225/40-10 57N 7.00X10 250 kPa
Option 2: 225/40-10 58M 7.00X10 250 kPa
Option 3: 215/40-12 56J 7.00X12 250 kPa
Option 4: 215/40-12 56J 7.50X12 250 kPa
Option 5: 225/55-8 57J 7.00X8 250 kPa

Sidecar wheel: N.A.

Bodywork

6.20.2.1. Door configuration and number of doors: N.A.
6.16.1. Number of seating positions: 2
6.16.1.1. Location and arrangement: N.A.

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Coupling devices

7.2.8. Type-approval number of coupling-device: N.A.

Environmental performance

4.0.1. Environmental step: Euro (~~3~~/4/5/~~5+~~)
4.0.6. Sound level measured according to: N.A.
4.0.6.1. Stationary: N.A. at engine speed: N.A.
4.0.6.2. Drive-by: N.A.
4.0.6.3. Limit value for Lurban: N.A.

3.2.15. Exhaust emissions measured according to Regulation (EU) No 134/2014 including all amendments up to (EU) 2018/295
3.2.15.1. Type I test: tailpipe emissions after cold start, including the deterioration factor, if applicable:
CO : N.A.
THC : N.A.
NMHC : N.A.
NOx : N.A.
THC+NOx : N.A.
PM : N.A.
3.2.15.2 Type II test: tailpipe emissions at (increased) idle and free acceleration:
HC: N.A.
CO: N.A.
3.2.15.3. Smoke corrected absorption coefficient: N.A.

Energy efficiency

4.0.2. Fuel consumption: N.A.
4.0.3. CO_2 emissions: N.A.
4.0.4. Energy consumption: 30 Wh/km
4.0.5. Electric range: 68 km

Conversion of the performance of the vehicle:

8.1. Vehicle appropriate for converting its performance level between subcategories (L3e/L4e)-A2 and (L3e/L4e)-A3 and vice versa: ~~yes/no~~ N.A.

Additional information:

9.1. Remarks: N.A
9.2. Exemptions: N.A.

COMPLETE VEHICLE
EU CERTIFICATE OF CONFORMITY

The undersigned, Hu Xia /general manager
Hereby certifies that the following complete vehicle:

0.1. Make (trade name of the manufacturer): SHANSU, Easycool, yuki, HIMOTO, aMoto, CITYCOCO, Rooley, Rooder, Strollwheel, HECHT MOTORS, ZMOTOS, MALCOR IBÉRICA, R RETELLI

0.2. Type: HM-5

0.2.1. Variant: 01

0.2.2. Version: 00

0.2.3. Commercial name (if available): EGREEN, electric scooter, HECHT COCIS, HECHT COCIS ZERO

0.3. Category, subcategory and sub-subcategory of vehicle: L1e-B

0.4 Company name and address of manufacturer:

ZHEJIANG YIXING INDUSTRY AND TRADE LIMITED
ROOM 2103, 21/F HO KING COMMERCIAL CENTRE NO. 2-16 FA YUEN STREET MONG KOK, KOWLOON HONG KONG

0.4.2. Name and address of manufacturer's authorized representative (if any):

MINIMOTOS SPORT, S.L.
C/ LA MITJANA 7 - POLIGONO EL BOCH, CREVILLENT, ALICANTE, SPAIN

0.5.1. Location of the manufacturer's statutory plate(s): C, x1260, y0, z435

0.5.2. Method of attachment of the manufacturer's statutory plate(s): Riveted

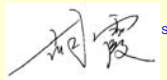
0.6. Location of the vehicle identification number: R, x380, y20, z460

1. Vehicle identification number: ☆R68HM500?????????☆

conforms in all respects to the type described in EU type-approval (e13*168/2013*?????*00 type-approval number including extension number) issued on (DD, MM, YYYY date of issue)
and can be permanently registered in Member States having right/left-hand traffic and using metric/~~imperial~~ units for the speedometer.

Hong Kong, China ---------- (place)

DD, MM, YYYY ---------- (date)



e13*168/2013*01687*00
Société Nationale de Certification et d'Homologation

General manager ---------- (signature)

General construction characteristics
1.3. Number of axles: 2 and wheels: 2
1.3.1. Axles with twinned wheels: N.A.
1.3.2. Powered axles: R
6.2.4. Advanced braking system: ~~ABS / CBS / Both ABS and CBS /~~ None

Main dimensions

2.2.1.	Length:	2110 mm
2.2.2.	Width:	920 mm
2.2.3.	Height:	1130 mm
2.2.4.	Wheelbase:	1520 mm
2.2.4.1.	Wheelbase sidecar:	N.A.
2.2.5.	Track width	
2.2.5.1.	Track width front:	N.A.
2.2.5.2.	Track width rear:	N.A.
2.2.5.3.	Track width sidecar:	N.A.
2.2.10.6	Ground clearance between the axles:	N.A.
2.2.15.	Wheelbase to ground clearance ratio:	N.A.
2.2.17	Seat height:	N.A.

Masses

2.1.1.	Mass in running order:	62 kg
2.1.2.	Actual mass:	144 kg
2.1.3.	Technically permissible maximum laden mass:	219 kg
2.1.3.1.	Technically permissible maximum mass on front axle:	79 kg
2.1.3.2.	Technically permissible maximum mass on rear axle:	140 kg
2.1.3.3.	Technically permissible maximum mass on sidecar axle:	N.A.
2.1.7.	Technically permissible maximum towable mass:	
	Braked: N.A. Unbraked: N.A.	
2.1.7.1.	Technically permissible maximum laden mass of the combination:	N.A.
2.1.7.2.	Technically permissible maximum mass at the coupling point:	N.A.

Powertrain
3.1.1.1. Manufacturer: N.A.
3.1.1.2. Engine code (as marked on the engine or other means of identification): N.A.
3.2.1.2. Working principle of the combustion engine: ~~internal combustion engine (ICE)/positive ignition/ compression ignition/external combustion engine (ECE)/turbine/compressed air~~ N.A.
3.2.1.4.1. Number of cylinders: N.A.
3.2.1.4.2. Arrangement of cylinders: ~~LI / V / O / S~~ N.A.
3.2.1.5. Engine capacity: N.A.
1.9. Maximum net power: N.A.
1.10. Ratio maximum net power/mass of the vehicle in running order: N.A.
3.2.3.1. Fuel type: N.A.
3.2.3.2. Vehicle fuel combination: ~~mono-fuel/bi-fuel/flex-fuel~~ N.A.
3.2.3.2.1. Maximum amount of bio-fuel acceptable in fuel: N.A.

3.1.2.1. Manufacturer: Yongkang Shansu Technology Co., Ltd.
3.1.2.2. Electric motor code (as marked on the engine or other means of identification): SS60V2000W XXXXXXXX
3.3.3.4. ~~15~~/30 minutes power: 2.0 kW at 500 min^{-1}
3.1.3.1. Manufacturer: N.A.
3.1.3.2. Application code (as marked on the engine or other means of identification): N.A.
3.3.1. Electric vehicle configuration: pure electric~~/hybrid electric/manpower -electric~~
3.3.5.2. Category of hybrid electric vehicle: ~~off-vehicle charging/not off-vehicle charging~~ N.A.
3.9.2. Maximum assistance factor: N.A.

Maximum speed

1.8. Maximum speed of vehicle: 45 km/h
3.9.3. Maximum vehicle speed for which the electric motor gives assistance: N.A.

Drive-train and control

3.5.3.9. Transmission (type): W
3.5.4. Gear ratios: N.A.
3.5.4.1. Final drive ratio: N.A.
3.5.4.2. Overall gear ratio in highest gear: N.A.

Installation of tyres

6.18.1.1. Tyre size designation:

Axle 1: Option 1: 225/40-10 57N 7.00X10 225 kPa
Option 2: 225/40-10 58M 7.00X10 225 kPa
Option 3: 215/40-12 56J 7.00X12 225 kPa
Option 4: 215/40-12 56J 7.50X12 225 kPa
Option 5: 225/55-8 57J 7.00X8 225 kPa

Axle 2: Option 1: 225/40-10 57N 7.00X10 250 kPa
Option 2: 225/40-10 58M 7.00X10 250 kPa
Option 3: 215/40-12 56J 7.00X12 250 kPa
Option 4: 215/40-12 56J 7.50X12 250 kPa
Option 5: 225/55-8 57J 7.00X8 250 kPa

Sidecar wheel: N.A.

Bodywork

6.20.2.1. Door configuration and number of doors: N.A.
6.16.1. Number of seating positions: 2
6.16.1.1. Location and arrangement: N.A.

Coupling devices

7.2.8. Type-approval number of coupling-device: N.A.

Environmental performance

4.0.1. Environmental step: Euro (~~3~~/4/5/~~5+~~)
4.0.6. Sound level measured according to: N.A.
4.0.6.1. Stationary: N.A. at engine speed: N.A.
4.0.6.2. Drive-by: N.A.
4.0.6.3. Limit value for Lurban: N.A.

3.2.15. Exhaust emissions measured according to Regulation (EU) No 134/2014 including all amendments up to (EU) 2018/295
3.2.15.1. Type I test: tailpipe emissions after cold start, including the deterioration factor, if applicable:
CO : N.A.
THC : N.A.
NMHC : N.A.
NOx : N.A.
THC+NOx : N.A.
PM : N.A.
3.2.15.2 Type II test: tailpipe emissions at (increased) idle and free acceleration:
HC: N.A.
CO: N.A.
3.2.15.3. Smoke corrected absorption coefficient: N.A.

Energy efficiency

4.0.2. Fuel consumption: N.A.
4.0.3. CO_2 emissions: N.A.
4.0.4. Energy consumption: 36 Wh/km
4.0.5. Electric range: 50 km

Conversion of the performance of the vehicle:

8.1. Vehicle appropriate for converting its performance level between subcategories (L3e/L4e)-A2 and (L3e/L4e)-A3 and vice versa: ~~yes/no~~ N.A.

Additional information:

9.1. Remarks: N.A
9.2. Exemptions: N.A.

COMPLETE VEHICLE
EU CERTIFICATE OF CONFORMITY

The undersigned, Hu Xia /general manager
Hereby certifies that the following complete vehicle:

0.1. Make (trade name of the manufacturer): SHANSU, Easycool, yuki, HIMOTO, aMoto, CITYCOCO, Rooley, Rooder, Strollwheel, HECHT MOTORS, ZMOTOS, MALCOR IBÉRICA, R RETELLI

0.2. Type: HM-5

0.2.1. Variant: 01

0.2.2. Version: 01

0.2.3. Commercial name (if available): EGREEN, electric scooter, HECHT COCIS, HECHT COCIS ZERO

0.3. Category, subcategory and sub-subcategory of vehicle: L1e-B

0.4 Company name and address of manufacturer:

ZHEJIANG YIXING INDUSTRY AND TRADE LIMITED
ROOM 2103, 21/F HO KING COMMERCIAL CENTRE NO. 2-16 FA YUEN STREET MONG KOK, KOWLOON HONG KONG

0.4.2. Name and address of manufacturer's authorized representative (if any):

MINIMOTOS SPORT, S.L.
C/ LA MITJANA 7 - POLIGONO EL BOCH, CREVILLENT, ALICANTE, SPAIN

0.5.1. Location of the manufacturer's statutory plate(s): C, x1260, y0, z435

0.5.2. Method of attachment of the manufacturer's statutory plate(s): Riveted

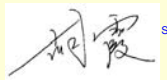
0.6. Location of the vehicle identification number: R, x380, y20, z460

1. Vehicle identification number: ☆R68HM501?????????☆

conforms in all respects to the type described in EU type-approval (e13*168/2013*?????*00 type-approval number including extension number) issued on (DD, MM, YYYY date of issue)
and can be permanently registered in Member States having right/left-hand traffic and using metric~~/imperial~~ units for the speedometer.

Hong Kong, China ---------- (place)

DD, MM, YYYY ---------- (date)



e13*168/2013*01687*00
Société Nationale de Certification et d'Homologation

General manager ---------- (signature)

General construction characteristics

1.3. Number of axles: 2 and wheels: 2
1.3.1. Axles with twinned wheels: N.A.
1.3.2. Powered axles: R
6.2.4. Advanced braking system: ~~ABS / CBS / Both ABS and CBS /~~ None

Main dimensions

2.2.1.	Length:	2110 mm
2.2.2.	Width:	920 mm
2.2.3.	Height:	1130 mm
2.2.4.	Wheelbase:	1520 mm
2.2.4.1.	Wheelbase sidecar:	N.A.
2.2.5.	Track width	
2.2.5.1.	Track width front:	N.A.
2.2.5.2.	Track width rear:	N.A.
2.2.5.3.	Track width sidecar:	N.A.
2.2.10.6	Ground clearance between the axles:	N.A.
2.2.15.	Wheelbase to ground clearance ratio:	N.A.
2.2.17	Seat height:	N.A.

Masses

2.1.1.	Mass in running order:	62 kg
2.1.2.	Actual mass:	144 kg
2.1.3.	Technically permissible maximum laden mass:	219 kg
2.1.3.1.	Technically permissible maximum mass on front axle:	79 kg
2.1.3.2.	Technically permissible maximum mass on rear axle:	140 kg
2.1.3.3.	Technically permissible maximum mass on sidecar axle:	N.A.
2.1.7.	Technically permissible maximum towable mass:	
	Braked: N.A. Unbraked: N.A.	
2.1.7.1.	Technically permissible maximum laden mass of the combination:	N.A.
2.1.7.2.	Technically permissible maximum mass at the coupling point:	N.A.

Powertrain

3.1.1.1.	Manufacturer:	N.A.
3.1.1.2.	Engine code (as marked on the engine or other means of identification):	N.A.
3.2.1.2.	Working principle of the combustion engine: ~~internal combustion engine (ICE)/positive ignition/ compression ignition/external combustion engine (ECE)/turbine/compressed air~~	N.A.
3.2.1.4.1.	Number of cylinders:	N.A.
3.2.1.4.2.	Arrangement of cylinders: ~~LI / V / O / S~~	N.A.
3.2.1.5.	Engine capacity:	N.A.
1.9.	Maximum net power: N.A.	
1.10.	Ratio maximum net power/mass of the vehicle in running order:	N.A.
3.2.3.1.	Fuel type:	N.A.
3.2.3.2.	Vehicle fuel combination: ~~mono-fuel/bi-fuel/flex-fuel~~	N.A.
3.2.3.2.1.	Maximum amount of bio-fuel acceptable in fuel:	N.A.

3.1.2.1. Manufacturer: Yongkang Shansu Technology Co., Ltd.
3.1.2.2. Electric motor code (as marked on the engine or other means of identification): SS60V2000W XXXXXXXX
3.3.3.4. ~~15~~/30 minutes power: 2.0 kW at 300 min^{-1}
3.1.3.1. Manufacturer: N.A.
3.1.3.2. Application code (as marked on the engine or other means of identification): N.A.
3.3.1. Electric vehicle configuration: pure electric~~/hybrid electric/manpower -electric~~
3.3.5.2. Category of hybrid electric vehicle: ~~off-vehicle charging/not off-vehicle charging~~ N.A.
3.9.2. Maximum assistance factor: N.A.

Maximum speed

1.8. Maximum speed of vehicle: 25 km/h
3.9.3. Maximum vehicle speed for which the electric motor gives assistance: N.A.

Drive-train and control

3.5.3.9. Transmission (type): W
3.5.4. Gear ratios: N.A.
3.5.4.1. Final drive ratio: N.A.
3.5.4.2. Overall gear ratio in highest gear: N.A.

Installation of tyres

6.18.1.1. Tyre size designation:

Axle 1: Option 1: 225/40-10 57N 7.00X10 225 kPa
Option 2: 225/40-10 58M 7.00X10 225 kPa
Option 3: 215/40-12 56J 7.00X12 225 kPa
Option 4: 215/40-12 56J 7.50X12 225 kPa
Option 5: 225/55-8 57J 7.00X8 225 kPa

Axle 2: Option 1: 225/40-10 57N 7.00X10 250 kPa
Option 2: 225/40-10 58M 7.00X10 250 kPa
Option 3: 215/40-12 56J 7.00X12 250 kPa
Option 4: 215/40-12 56J 7.50X12 250 kPa
Option 5: 225/55-8 57J 7.00X8 250 kPa

Sidecar wheel: N.A.

Bodywork

6.20.2.1. Door configuration and number of doors: N.A.
6.16.1. Number of seating positions: 2
6.16.1.1. Location and arrangement: N.A.

Coupling devices

7.2.8. Type-approval number of coupling-device: N.A.

Environmental performance

4.0.1. Environmental step: Euro (~~3~~/4/5/~~5+~~)
4.0.6. Sound level measured according to: N.A.
4.0.6.1. Stationary: N.A. at engine speed: N.A.
4.0.6.2. Drive-by: N.A.
4.0.6.3. Limit value for Lurban: N.A.

3.2.15. Exhaust emissions measured according to Regulation (EU) No 134/2014 including all amendments up to (EU) 2018/295
3.2.15.1. Type I test: tailpipe emissions after cold start, including the deterioration factor, if applicable:
CO : N.A.
THC : N.A.
NMHC : N.A.
NOx : N.A.
THC+NOx : N.A.
PM : N.A.
3.2.15.2 Type II test: tailpipe emissions at (increased) idle and free acceleration:
HC: N.A.
CO: N.A.
3.2.15.3. Smoke corrected absorption coefficient: N.A.

Energy efficiency

4.0.2. Fuel consumption: N.A.
4.0.3. CO_2 emissions: N.A.
4.0.4. Energy consumption: 29 Wh/km
4.0.5. Electric range: 56 km

Conversion of the performance of the vehicle:

8.1. Vehicle appropriate for converting its performance level between subcategories (L3e/L4e)-A2 and (L3e/L4e)-A3 and vice versa: ~~yes/no~~ N.A.

Additional information:

9.1. Remarks: N.A
9.2. Exemptions: N.A.