

Test Report issued under the responsibility of:



TEST REPORT Machinery Directive 2006/42/EC Annex I Essential Health and safety requirements relating to the design and construction of machinery	
Report Reference No.	GZES191102656501
Date of issue.....	2020-01-10
Total number of pages.....	45
Testing Laboratory	SGS-CSTC Standards Technical Services Co., Ltd. Guangzhou Branch
Address.....	198 Kezhu Road, Science City, Economic & Technology Development Area, Guangzhou, Guangdong, China
Applicant's name	Shenzhen Kixin Electronics Co., Ltd.
Address.....	4/F, Maker Space, Hualian Industrial Zone, Huaning RD., Dalang ST., Longhua, Shenzhen, China
Test specification	
Standard	Machine Directive 2006/42/EC Annex I
Test procedure.....	SGS-CSTC
Non-standard test method	N/A
Test Report Form No.	2006/42/EC Annex I A
Test Report Form(s) Originator	SGS-CSTC
Master TRF.....	Dated 2012-12
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Test item description	Scooter
Trade Mark	Not supplied
Manufacturer.....	Same as applicant
Model/Type reference.....	X8
Ratings.....	For adapter: 100 V - 240 V~; 50 Hz / 60 Hz; 2.5 A; Class II For scooter: 36V  ; IPX4

Testing procedure and testing location:	
<input checked="" type="checkbox"/> Test Laboratory:	<p>Testing location/ address : SGS-CSTC Standards Technical Services Co., Ltd. Guangzhou Branch 198 Kezhu Road, Science City, Economic & Technology Development Area, Guangzhou, Guangdong, China</p> <p>Tested by (name + signature)..... : Sharon Wang <i>Sharon Wang</i></p> <p>Approved by (name + signature). : Andy Fan <i>Andy Fan</i></p>
<input type="checkbox"/> Testing procedure: TMP Tested by (name + signature)..... : Approved by (name + signature). : Testing location/ address :	
<input type="checkbox"/> Testing procedure: WMT Tested by (name + signature)..... : Witnessed by (name + signature): Approved by (name + signature). : Testing location/ address :	
<input type="checkbox"/> Testing procedure: SMT Tested by (name + signature)..... : Approved by (name + signature). : Supervised by (name + signature): Testing location/ address :	
<input type="checkbox"/> Testing procedure: RMT Tested by (name + signature)..... : Approved by (name + signature). : Supervised by (name + signature): Testing location/ address :	



Summary of testing:

All tests and assessments are performed on the prototype of the original sampled machine (X8) and the technical file which are submitted by the client.

Considering the results of the performed test according to standard Annex I of 2006/42/EC, the items under test are IN COMPLIANCE with the requested specifications specified in the standard.

Tests performed (name of test and test clause):

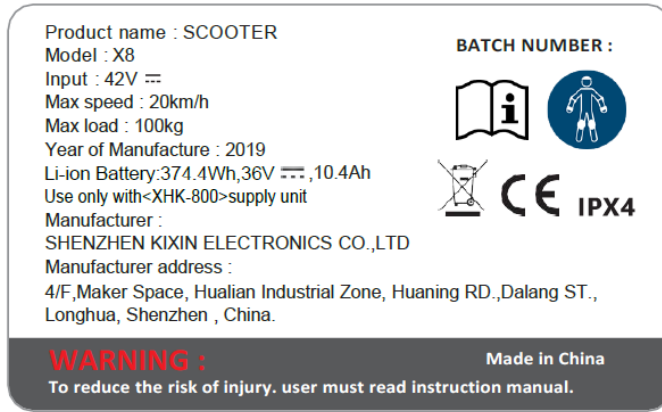
Full tests of Machinery Directive 2006/42/EC Annex I.

Test location:

SGS-CSTC Standards Technical Services Co., Ltd.
Guangzhou Branch
198 Kezhu Road, Science City, Economic & Technology Development Area, Guangzhou, Guangdong, China

Copy of marking plate

(Scooter Label)



(Adapter Label)



Possible test case verdicts:

- test case does not apply to the test object.....: N/A
- test object does meet the requirement.....: Pass (P)
- test object does not meet the requirement.....: Fail (F)

Testing:

Date of receipt of test item: 2019-11-16
 Date(s) of performances of tests: 2019-11-16 to 2020-01-06

General remarks:

The test results presented in this report relate only to the object tested.
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 Unless otherwise stated: (a) the results shown in this document refer only to the sample(s) tested and (b) such sample(s) are retained for 3 months. This document cannot be reproduced except in full, without prior approval of the company.

General product information:

Foldable scooter, electrical brake and mechanical brake, built in battery power supply charged by an adapter which supplied by client.

Directive 2006/42/EC Annex I			
Clause	Requirement	Remark	Verdict
1.1.	General remarks		—
1.1.1.	Definitions		—
	For the purpose of this Annex: (a) 'hazard' means a potential source of injury or damage to health;		—
	(b) 'danger zone' means any zone within and/or around machinery in which a person is subject to a risk to his health or safety;		—
	(c) 'exposed person' means any person wholly or partially in a danger zone;		—
	(d) 'operator' means the person or persons installing, operating, adjusting, maintaining, cleaning, repairing or moving machinery;		—
	(e) 'risk' means a combination of the probability and the degree of an injury or damage to health that can arise in a hazardous situation;		—
	(f) 'guard' means a part of the machinery used specifically to provide protection by means of a physical barrier;		—
	(g) 'protective device' means a device (other than a guard) which reduces the risk, either alone or in conjunction with a guard;		—
	(h) 'intended use' means the use of machinery in accordance with the information provided in the instructions for use;		—
	(i) 'reasonably foreseeable misuse' means the use of machinery in a way not intended in the instructions for use, but which may result from readily predictable human behaviour.		—
1.1.2.	Principles of safety integration		—
	(a) Machinery must be designed and constructed so that it is fitted for its function, and can be operated, adjusted and maintained without putting persons at risk when these operations are carried out under the conditions foreseen but also taking into account any reasonably foreseeable misuse thereof.		P

Directive 2006/42/EC Annex I			
Clause	Requirement	Remark	Verdict
	The aim of measures taken must be to eliminate any risk throughout the foreseeable lifetime of the machinery including the phases of transport, assembly, dismantling, disabling and scrapping.		
	(b) In selecting the most appropriate methods, the manufacturer or his authorised representative must apply the following principles, in the order given:		—
	— eliminate or reduce risks as far as possible (inherently safe machinery design and construction),		P
	— take the necessary protection measures in relation to risks that cannot be eliminated,		P
	— inform users of the residual risks due to any shortcomings of the protective measures adopted, indicate whether any particular training is required and specify any need to provide personal protection equipment.	PPE like skateboard helmet, and knee and elbow pads and wrist guards for protection shall be wear on	P
	(c) When designing and constructing machinery, and when drafting the instructions, the manufacture or his authorised representative must envisage not only the intended use of the machinery but also any reasonably foreseeable misuse thereof.		P
	The machinery must be designed and constructed in such a way as to prevent abnormal use if such use would engender a risk. Where appropriate, the instructions must draw the user's attention to ways —which experience has shown might occur — in which the machinery should not be used.		P
	(d) Machinery must be designed and constructed to take account of the constraints to which the operator is subject as a result of the necessary or foreseeable use of personal protective equipment.		P
	(e) Machinery must be supplied with all the special equipment and accessories essential to enable it to be Adjusted, maintained and used safely.		P
1.1.3.	Materials and products		—
	The materials used to construct machinery or products used and created during its use must not endanger persons' safety or health.		P

Directive 2006/42/EC Annex I			
Clause	Requirement	Remark	Verdict
	In particular, where fluids are used, machinery must be designed and constructed to prevent risks due to filling, use, recovery or draining.	No fluids used.	N/A
1.1.4.	Lighting		—
	Machinery must be supplied with integral lighting suitable for the operations concerned where the absence thereof is likely to cause a risk despite ambient lighting of normal intensity.	Front and rear light	P
	Machinery must be designed and constructed so that there is no area of shadow likely to cause nuisance, that there is no irritating dazzle and that there are no dangerous stroboscopic effects on moving parts due to the lighting.		P
	Internal parts requiring frequent inspection and adjustment, and maintenance areas must be provided with appropriate lighting.		N/A
1.1.5.	Design of machinery to facilitate its handling		—
	Machinery or each component part thereof must: — be capable of being handled and transported safely, — be packaged or designed so that it can be stored safely and without damage		P
	During the transportation of the machinery and/or its component parts, there must be no possibility of sudden movements or of hazards due to instability as long as the machinery and/or its component parts are handled in accordance with the instructions.		P
	Where the weight, size or shape of machinery or its various component parts prevents them from being moved by hand, the machinery or each component part must:		—
	— either be fitted with attachments for lifting gear, or		N/A
	— be designed so that it can be fitted with such attachments or		N/A
	— be shaped in such a way that standard lifting gear can easily be attached.		N/A

Directive 2006/42/EC Annex I			
Clause	Requirement	Remark	Verdict
	Where machinery or one of its component parts is to be moved by hand, it must:		—
	— either be easily movable, or		P
	— be equipped for picking up and moving in complete safety.		N/A
	Special arrangements must be made for the handling of tools and/or machinery parts which, even if lightweight, could be hazardous.		N/A
1.1.6.	Ergonomics		—
	Under the intended conditions of use, the discomfort, fatigue and physical and psychological stress faced by the operator must be reduced to the minimum possible, taking into account ergonomic principles such as:		—
	— allowing for the variability of the operator's physical dimensions, strength and stamina,		P
	— providing enough space for movements of the parts of the operator's body,		P
	— avoiding a machine-determined work rate,	Speed can be adjusted by rider	P
	— avoiding monitoring that requires lengthy concentration,	Have to concentration on traffics when drive scooter on the road	N/A
	— adapting the man/machinery interface to the foreseeable characteristics of the operators.		P
1.1.7.	Operating positions		—
	The operating position must be designed and constructed in such a way as to avoid any risk due to exhaust gases and/or lack of oxygen.		P
	If the machinery is intended to be used in a hazardous environment presenting risks to the health and safety of the operator or if the machinery itself gives rise to a hazardous environment, adequate means must be provided to ensure that the operator has good working conditions and is protected against any foreseeable hazards.		N/A
	Where appropriate, the operating position must be fitted with an adequate cabin designed, constructed		N/A

Directive 2006/42/EC Annex I			
Clause	Requirement	Remark	Verdict
	and/or equipped to fulfil the above requirements. The exit must allow rapid evacuation. Moreover, when applicable, an emergency exit must be provided in a direction which is different from the usual exit.		
1.1.8.	Seating		—
	Where appropriate and where the working conditions so permit, work stations constituting an integral part of the machinery must be designed for the installation of seats.	No need seat	N/A
	If the operator is intended to sit during operation and the operating position is an integral part of the machinery, the seat must be provided with the machinery.		N/A
	The operator's seat must enable him to maintain a stable position. Furthermore, the seat and its distance from the control devices must be capable of being adapted to the operator.		N/A
	If the machinery is subject to vibrations, the seat must be designed and constructed in such a way as to reduce the vibrations transmitted to the operator to the lowest level that is reasonably possible. The seat mountings must withstand all stresses to which they can be subjected. Where there is no floor beneath the feet of the operator, footrests covered with a slip-resistant material must be provided.		N/A
1.2.	CONTROL SYSTEMS		—
1.2.1.	Safety and reliability of control systems		—
	Control systems must be designed and constructed in such a way as to prevent hazardous situations from arising. Above all, they must be designed and constructed in such a way that:		—
	— they can withstand the intended operating stresses and external influences,		P
	— a fault in the hardware or the software of the control system does not lead to hazardous situations,	Circuit fault test were verified according to EN 60335-1	P

Directive 2006/42/EC Annex I			
Clause	Requirement	Remark	Verdict
	— errors in the control system logic do not lead to hazardous situations,		P
	— reasonably foreseeable human error during operation does not lead to hazardous situations.		P
	Particular attention must be given to the following points:		—
	— the machinery must not start unexpectedly,		P
	— the parameters of the machinery must not change in an uncontrolled way, where such change may lead to hazardous situations,		P
	— the machinery must not be prevented from stopping if the stop command has already been given,		P
	— no moving part of the machinery or piece held by the machinery must fall or be ejected,		P
	— automatic or manual stopping of the moving parts, whatever they may be, must be unimpeded,		P
	— the protective devices must remain fully effective or give a stop command,	Only stop and electrical brake to stop scooter at emergency	N/A
	— the safety-related parts of the control system must apply in a coherent way to the whole of an assembly of machinery and/or partly completed machinery.		N/A
	For cable-less control, an automatic stop must be activated when correct control signals are not received, including loss of communication.		N/A
1.2.2.	Control devices		—
	Control devices must be:		—
	— clearly visible and identifiable, using pictograms where appropriate,		P
	— positioned in such a way as to be safely operated without hesitation or loss of time and without ambiguity,		P
	— designed in such a way that the movement of the control device is consistent with its effect,		N/A

Directive 2006/42/EC Annex I			
Clause	Requirement	Remark	Verdict
	— located outside the danger zones, except where necessary for certain control devices such as an emergency stop or a teach pendant,		P
	— positioned in such a way that their operation cannot cause additional risk,		P
	— designed or protected in such a way that the desired effect, where a hazard is involved, can only be achieved by a deliberate action,		P
	— made in such a way as to withstand foreseeable forces; particular attention must be paid to emergency stop devices liable to be subjected to considerable forces.		P
	Where a control device is designed and constructed to perform several different actions, namely where there is no one-to-one correspondence, the action to be performed must be clearly displayed and subject to confirmation, where necessary.		N/A
	Control devices must be so arranged that their layout, travel and resistance to operation are compatible with the action to be performed, taking account of ergonomic principles.		P
	Machinery must be fitted with indicators as required for safe operation. The operator must be able to read them from the control position.		P
	From each control position, the operator must be able to ensure that no-one is in the danger zones, or the control system must be designed and constructed in such a way that starting is prevented while someone is in the danger zone.	Only one control position	N/A
	If neither of these possibilities is applicable, before the machinery starts, an acoustic and/or visual warning signal must be given. The exposed persons must have time to leave the danger zone or prevent the machinery starting up.		N/A
	If necessary, means must be provided to ensure that the machinery can be controlled only from control positions located in one or more predetermined zones or locations.		N/A

Directive 2006/42/EC Annex I			
Clause	Requirement	Remark	Verdict
	Where there is more than one control position, the control system must be designed in such a way that the use of one of them precludes the use of the others, except for stop controls and emergency stops.		N/A
	When machinery has two or more operating positions, each position must be provided with all the required control devices without the operators hindering or putting each other into a hazardous situation.		N/A
1.2.3.	Starting		—
	It must be possible to start machinery only by voluntary actuation of a control device provided for the purpose.		P
	The same requirement applies:		—
	— when restarting the machinery after a stoppage, whatever the cause,		P
	— when effecting a significant change in the operating conditions.		P
	However, the restarting of the machinery or a change in operating conditions may be effected by voluntary actuation of a device other than the control device provided for the purpose, on condition that this does not lead to a hazardous situation.		N/A
	For machinery functioning in automatic mode, the starting of the machinery, restarting after a stoppage, or a change in operating conditions may be possible without intervention, provided this does not lead to a hazardous situation.		N/A
	Where machinery has several starting control devices and the operators can therefore put each other in danger, additional devices must be fitted to rule out such risks. If safety requires that starting and/or stopping must be performed in a specific sequence, there must be devices which ensure that these operations are performed in the correct order.		N/A
1.2.4.	Stopping		—
1.2.4.1.	Normal stop		—

Directive 2006/42/EC Annex I			
Clause	Requirement	Remark	Verdict
	Machinery must be fitted with a control device whereby the machinery can be brought safely to a complete stop.	Electrical and mechanical brake can bring bike to completer stop	P
	Each workstation must be fitted with a control device to stop some or all of the functions of the machinery, depending on the existing hazards, so that the machinery is rendered safe.	Control device is only installed on work station	N/A
	The machinery's stop control must have priority over the start controls.		P
	Once the machinery or its hazardous functions have stopped, the energy supply to the actuators concerned must be cut off.		P
1.2.4.2.	Operational stop		—
	Where, for operational reasons, a stop control that does not cut off the energy supply to the actuators is required, the stop condition must be monitored and maintained.		N/A
1.2.4.3.	Emergency stop		—
	Machinery must be fitted with one or more emergency stop devices to enable actual or impending danger to be averted.		N/A
	The following exceptions apply:		—
	— machinery in which an emergency stop device would not lessen the risk, either because it would not reduce the stopping time or because it would not enable the special measures required to deal with the risk to be taken,	It's not practical to install an emergency stop device on this kind of electrical scooter. Electrical brake, power switch and rear mechanical brake can stop the scooter at emergency.	P
	— portable hand-held and/or hand-guided machinery.		N/A
	The device must:		—
	— have clearly identifiable, clearly visible and quickly accessible control devices,		N/A
	— stop the hazardous process as quickly as possible, without creating additional risks,		N/A
	— where necessary, trigger or permit the triggering of certain safeguard movements.		N/A

Directive 2006/42/EC Annex I			
Clause	Requirement	Remark	Verdict
	Once active operation of the emergency stop device has ceased following a stop command, that command must be sustained by engagement of the emergency stop device until that engagement is specifically overridden; it must not be possible to engage the device without triggering a stop command; it must be possible to disengage the device only by an appropriate operation, and disengaging the device must not restart the machinery but only permit restarting.		N/A
	The emergency stop function must be available and operational at all times, regardless of the operating mode.		N/A
	Emergency stop devices must be a back-up to other safeguarding measures and not a substitute for them.		N/A
1.2.4.4.	Assembly of machinery		—
	In the case of machinery or parts of machinery designed to work together, the machinery must be designed and constructed in such a way that the stop controls, including the emergency stop devices, can stop not only the machinery itself but also all related equipment, if its continued operation may be dangerous.		N/A
1.2.5.	Selection of control or operating modes		—
	The control or operating mode selected must override all other control or operating modes, with the exception of the emergency stop.	Only one control and operating mode	N/A
	If machinery has been designed and constructed to allow its use in several control or operating modes requiring different protective measures and/or work procedures, it must be fitted with a mode selector which can be locked in each position. Each position of the selector must be clearly identifiable and must correspond to a single operating or control mode.		N/A
	The selector may be replaced by another selection method which restricts the use of certain functions of the machinery to certain categories of operator.		N/A

Directive 2006/42/EC Annex I			
Clause	Requirement	Remark	Verdict
	<p>If, for certain operations, the machinery must be able to operate with a guard displaced or removed and/or a protective device disabled, the control or operating mode selector must simultaneously:</p> <ul style="list-style-type: none"> — disable all other control or operating modes, — permit operation of hazardous functions only by control devices requiring sustained action, — permit the operation of hazardous functions only in reduced risk conditions while preventing hazards from linked sequences, — prevent any operation of hazardous functions by voluntary or involuntary action on the machine's sensors. 		N/A
	<p>If these four conditions cannot be fulfilled simultaneously, the control or operating mode selector must activate other protective measures designed and constructed to ensure a safe intervention zone.</p>		N/A
	<p>In addition, the operator must be able to control operation of the parts he is working on from the adjustment point.</p>		N/A
1.2.6.	Failure of the power supply		—
	<p>The interruption, the re-establishment after an interruption or the fluctuation in whatever manner of the power supply to the machinery must not lead to dangerous situations.</p>		P
	<p>Particular attention must be given to the following points:</p>		—
	<ul style="list-style-type: none"> — the machinery must not start unexpectedly, 		P
	<ul style="list-style-type: none"> — the parameters of the machinery must not change in an uncontrolled way when such change can lead to hazardous situations, 		P
	<ul style="list-style-type: none"> — the machinery must not be prevented from stopping if the command has already been given, 		P
	<ul style="list-style-type: none"> — no moving part of the machinery or piece held by the machinery must fall or be ejected, 		P
	<ul style="list-style-type: none"> — automatic or manual stopping of the moving parts, whatever they may be, must be unimpeded, 		P

Directive 2006/42/EC Annex I			
Clause	Requirement	Remark	Verdict
	— the protective devices must remain fully effective or give a stop command.		P
1.3.	PROTECTION AGAINST MECHANICAL HAZARDS		—
1.3.1.	Risk of loss of stability		—
	Machinery and its components and fittings must be stable enough to avoid overturning, falling or uncontrolled movements during transportation, assembly, dismantling and any other action involving the machinery.	Scooter can not use on steep road according to instruction manual	N/A
	If the shape of the machinery itself or its intended installation does not offer sufficient stability, appropriate means of anchorage must be incorporated and indicated in the instructions.		N/A
1.3.2.	Risk of break-up during operation		—
	The various parts of machinery and their linkages must be able to withstand the stresses to which they are subject when used.	Verified battery package according to EN 62133	P
	The durability of the materials used must be adequate for the nature of the working environment foreseen by the manufacturer or his authorised representative, in particular as regards the phenomena of fatigue, ageing, corrosion and abrasion.		P
	The instructions must indicate the type and frequency of inspections and maintenance required for safety reasons. They must, where appropriate, indicate the parts subject to wear and the criteria for replacement.		P
	Where a risk of rupture or disintegration remains despite the measures taken, the parts concerned must be mounted, positioned and/or guarded in such a way that any fragments will be contained, preventing hazardous situations.		P
	Both rigid and flexible pipes carrying fluids, particularly those under high pressure, must be able to withstand the foreseen internal and external stresses and must be firmly attached and/or protected to ensure that no risk is posed by a rupture.	No fluid	N/A

Directive 2006/42/EC Annex I			
Clause	Requirement	Remark	Verdict
	Where the material to be processed is fed to the tool automatically, the following conditions must be fulfilled to avoid risks to persons:		—
	— when the workpiece comes into contact with the tool, the latter must have attained its normal working condition,		N/A
	— when the tool starts and/or stops (intentionally or accidentally), the feed movement and the tool movement must be coordinated.		N/A
1.3.3.	Risks due to falling or ejected objects		—
	Precautions must be taken to prevent risks from falling or ejected objects.		N/A
1.3.4.	Risks due to surfaces, edges or angles		—
	Insofar as their purpose allows, accessible parts of the machinery must have no sharp edges, no sharp angles and no rough surfaces likely to cause injury.		P
1.3.5.	Risks related to combined machinery		—
	Where the machinery is intended to carry out several different operations with manual removal of the piece between each operation (combined machinery), it must be designed and constructed in such a way as to enable each element to be used separately without the other elements constituting a risk for exposed persons.		N/A
	For this purpose, it must be possible to start and stop separately any elements that are not protected.		N/A
1.3.6.	Risks related to variations in operating conditions		—
	Where the machinery performs operations under different conditions of use, it must be designed and constructed in such a way that selection and adjustment of these conditions can be carried out safely and reliably.		N/A
1.3.7.	Risks related to moving parts		—
	The moving parts of machinery must be designed and constructed in such a way as to prevent risks of contact which could lead to accidents or must,	Construction designed to prevent to access moving part during scooter run	P

Directive 2006/42/EC Annex I			
Clause	Requirement	Remark	Verdict
	where risks persist, be fitted with guards or protective devices.		
	All necessary steps must be taken to prevent accidental blockage of moving parts involved in the work. In cases where, despite the precautions taken, a blockage is likely to occur, the necessary specific protective devices and tools must, when appropriate, be provided to enable the equipment to be safely unblocked.		N/A
	The instructions and, where possible, a sign on the machinery shall identify these specific protective devices and how they are to be used.		N/A
1.3.8.	Choice of protection against risks arising from moving parts		—
	Guards or protective devices designed to protect against risks arising from moving parts must be selected on the basis of the type of risk. The following guidelines must be used to help to make the choice.		P
1.3.8.1	Moving transmission parts		—
	Guards designed to protect persons against the hazards generated by moving transmission parts must be:		—
	— either fixed guards as referred to in section 1.4.2.1, or	Moving transmission parts are enclosed	P
	— interlocking movable guards as referred to in section 1.4.2.2.		N/A
	Interlocking movable guards should be used where frequent access is envisaged.		N/A
1.3.8.2	Moving parts involved in the process		—
	Guards or protective devices designed to protect persons against the hazards generated by moving parts involved in the process must be:		—
	— either fixed guards as referred to in section 1.4.2.1, or		P
	— interlocking movable guards as referred to in section 1.4.2.2, or		N/A
	— protective devices as referred to in section 1.4.3, or		N/A

Directive 2006/42/EC Annex I			
Clause	Requirement	Remark	Verdict
	— a combination of the above.		N/A
	However, when certain moving parts directly involved in the process cannot be made completely inaccessible during operation owing to operations requiring operator intervention, such parts must be fitted with:		—
	— fixed guards or interlocking movable guards preventing access to those sections of the parts that are not used in the work, and	All moving parts are covered by the enclosure of scooter except the two wheels. It's inevitable to expose the two wheels. Residual risk: access to the rotating wheels will cause injure.	P
	— adjustable guards as referred to in section 1.4.2.3 restricting access to those sections of the moving parts where access is necessary.		N/A
1.3.9.	Risks of uncontrolled movements		—
	When a part of the machinery has been stopped, any drift away from the stopping position, for whatever reason other than action on the control devices, must be prevented or must be such that it does not present a hazard.	Residual risk: It's important for the user to keep sufficient braking distance to avoid crash and impact.	N/A
1.4.	REQUIRED CHARACTERISTICS OF GUARDS AND PROTECTIVE DEVICES		—
1.4.1.	General requirements		—
	Guards and protective devices must:		—

Directive 2006/42/EC Annex I			
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	<ul style="list-style-type: none"> — be of robust construction, — be securely held in place, — not give rise to any additional hazard, — not be easy to by-pass or render non-operational, — be located at an adequate distance from the danger zone, — cause minimum obstruction to the view of the production process, and — enable essential work to be carried out on the installation and/or replacement of tools and for maintenance purposes by restricting access exclusively to the area where the work has to be done, if possible without the guard having to be removed or the protective device having to be disabled. 		P
	In addition, guards must, where possible, protect against the ejection or falling of materials or objects and against emissions generated by the machinery.		P
1.4.2.1.	Fixed guards		—
	Fixed guards must be fixed by systems that can be opened or removed only with tools.		P
	Their fixing systems must remain attached to the guards or to the machinery when the guards are removed.	Fixing systems are captive type	P
	Where possible, guards must be incapable of remaining in place without their fixings.		N/A
1.4.2.2.	Interlocking movable guards		—
	Interlocking movable guards must:		—
	— as far as possible remain attached to the machinery when open,		N/A
	— be designed and constructed in such a way that they can be adjusted only by means of an intentional action.		N/A
	Interlocking movable guards must be associated with an interlocking device that:		—

Directive 2006/42/EC Annex I			
Clause	Requirement	Remark	Verdict
	— prevents the start of hazardous machinery functions until they are closed and		N/A
	— gives a stop command whenever they are no longer closed.		N/A
	Where it is possible for an operator to reach the danger zone before the risk due to the hazardous machinery functions has ceased, movable guards must be associated with a guard locking device in addition to an interlocking device that:		—
	— prevents the start of hazardous machinery functions until the guard is closed and locked, and		N/A
	— keeps the guard closed and locked until the risk of injury from the hazardous machinery functions has ceased.		N/A
	Interlocking movable guards must be designed in such a way that the absence or failure of one of their components prevents starting or stops the hazardous machinery functions.		N/A
1.4.2.3.	Adjustable guards restricting access		—
	Adjustable guards restricting access to those areas of the moving parts strictly necessary for the work must be:		—
	— adjustable manually or automatically, depending on the type of work involved, and		N/A
	— readily adjustable without the use of tools.		N/A
1.4.3.	Special requirements for protective devices		—
	Protective devices must be designed and incorporated into the control system in such a way that:		—
	— moving parts cannot start up while they are within the operator's reach,		N/A
	— persons cannot reach moving parts while the parts are moving, and		N/A
	— the absence or failure of one of their components prevents starting or stops the moving parts.		N/A

Directive 2006/42/EC Annex I			
Clause	Requirement	Remark	Verdict
	Protective devices must be adjustable only by means of an intentional action.		N/A
1.5.	RISKS DUE TO OTHER HAZARDS		—
1.5.1.	Electricity supply		—
	Where machinery has an electricity supply, it must be designed, constructed and equipped in such a way that all hazards of an electrical nature are or can be prevented.	Verdict based on electrical safety test report	P
	The safety objectives set out in Directive 73/23/EEC shall apply to machinery. However, the obligations concerning conformity assessment and the placing on the market and/or putting into service of machinery with regard to electrical hazards are governed solely by this Directive.		P
1.5.2.	Static electricity		—
	Machinery must be designed and constructed to prevent or limit the build-up of potentially dangerous electrostatic charges and/or be fitted with a discharging system.	Friction generates charges, it will be discharge to the ground due to the two wheels are keep in touch with ground during usage.	P
1.5.3.	Energy supply other than electricity		—
	Where machinery is powered by source of energy other than electricity, it must be so designed, constructed and equipped as to avoid all potential risks associated with such sources of energy.		N/A
1.5.4.	Errors of fitting		—
	Errors likely to be made when fitting or refitting certain parts which could be a source of risk must be made impossible by the design and construction of such parts or, failing this, by information given on the parts themselves and/or their housings. The same information must be given on moving parts and/or their housings where the direction of movement needs to be known in order to avoid a risk.		N/A
	Where necessary, the instructions must give further information on these risks.		N/A
	Where a faulty connection can be the source of risk, incorrect connections must be made		N/A

Directive 2006/42/EC Annex I			
Clause	Requirement	Remark	Verdict
	impossible by design or, failing this, by information given on the elements to be connected and, where appropriate, on the means of connection.		
1.5.5.	Extreme temperatures		—
	Steps must be taken to eliminate any risk of injury arising from contact with or proximity to machinery parts or materials at high or very low temperatures.		P
	The necessary steps must also be taken to avoid or protect against the risk of hot or very cold material being ejected.		P
1.5.6.	Fire		—
	Machinery must be designed and constructed in such a way as to avoid any risk of fire or overheating posed by the machinery itself or by gases, liquids, dust, vapours or other substances produced or used by the machinery.		P
1.5.7.	Explosion		—
	Machinery must be designed and constructed in such a way as to avoid any risk of explosion posed by the machinery itself or by gases, liquids, dust, vapours or other substances produced or used by the machinery.		P
	Machinery must comply, as far as the risk of explosion due to its use in a potentially explosive atmosphere is concerned, with the provisions of the specific Community Directives.		N/A
1.5.8.	Noise		—
	Machinery must be designed and constructed in such a way that risks resulting from the emission of airborne noise are reduced to the lowest level, taking account of technical progress and the availability of means of reducing noise, in particular at source.		P
	The level of noise emission may be assessed with reference to comparative emission data for similar machinery.		P
1.5.9.	Vibrations		—
	Machinery must be designed and constructed in such a way that risks resulting from vibrations		N/A

Directive 2006/42/EC Annex I			
Clause	Requirement	Remark	Verdict
	produced by the machinery are reduced to the lowest level, taking account of technical progress and the availability of means of reducing vibration, in particular at source.		
	The level of vibration emission may be assessed with reference to comparative emission data for similar machinery.		N/A
1.5.10.	Radiation		—
	Undesirable radiation emissions from the machinery must be eliminated or be reduced to levels that do not have adverse effects on persons.		N/A
	Any functional ionising radiation emissions must be limited to the lowest level which is sufficient for the proper functioning of the machinery during setting, operation and cleaning. Where a risk exists, the necessary protective measures must be taken.		N/A
	Any functional non-ionising radiation emissions during setting, operation and cleaning must be limited to levels that do not have adverse effects on persons.		N/A
1.5.11.	External radiation		—
	Machinery must be designed and constructed in such a way that external radiation does not interfere with its operation.		N/A
1.5.12.	Laser radiation		—
	Where laser equipment is used, the following should be taken into account:		N/A
	— laser equipment on machinery must be designed and constructed in such a way as to prevent any accidental radiation,		N/A
	— laser equipment on machinery must be protected in such a way that effective radiation, radiation produced by reflection or diffusion and secondary radiation do not damage health,		N/A
	— optical equipment for the observation or adjustment of laser equipment on machinery must be such that no health risk is created by laser radiation.		N/A
1.5.13.	Emissions of hazardous materials and substances		—

Directive 2006/42/EC Annex I			
Clause	Requirement	Remark	Verdict
	Machinery must be designed and constructed in such a way that risks of inhalation, ingestion, contact with the skin, eyes and mucous membranes and penetration through the skin of hazardous materials and substances which it produces can be avoided.		P
	Where a hazard cannot be eliminated, the machinery must be so equipped that hazardous materials and substances can be contained, evacuated, precipitated by water spraying, filtered or treated by another equally effective method.	Batteries unit are totally covered by the scooter enclosure.	P
	Where the process is not totally enclosed during normal operation of the machinery, the devices for containment and/or evacuation must be situated in such a way as to have the maximum effect.		N/A
1.5.14.	Risk of being trapped in a machine		—
	Machinery must be designed, constructed or fitted with a means of preventing a person from being enclosed within it or, if that is impossible, with a means of summoning help.		N/A
1.5.15.	Risk of slipping, tripping or falling		—
	Parts of the machinery where persons are liable to move about or stand must be designed and constructed in such a way as to prevent persons slipping, tripping or falling on or off these parts.	<p>Though the scooter is well design to avoid tripping and falling, the scooter will response to the movement of human body to keep balance, slipping and falling are still the residual risk.</p> <p>It is important to wear safety gear when using this device a skateboard helmet, and knee and elbow pads and wrist guards for protection from falls.</p> <p>Warning are given in the instruction manual.</p>	P
	Where appropriate, these parts must be fitted with handholds that are fixed relative to the user and that enable them to maintain their stability.		P
1.5.16.	Lightning		—

Directive 2006/42/EC Annex I			
Clause	Requirement	Remark	Verdict
	Machinery in need of protection against the effects of lightning while being used must be fitted with a system for conducting the resultant electrical charge to earth.		N/A
1.6.	MAINTENANCE		—
1.6.1.	Machinery maintenance		—
	Adjustment and maintenance points must be located outside danger zones. It must be possible to carry out adjustment, maintenance, repair, cleaning and servicing operations while machinery is at a standstill.		P
	If one or more of the above conditions cannot be satisfied for technical reasons, measures must be taken to ensure that these operations can be carried out safely (see section 1.2.5).		N/A
	In the case of automated machinery and, where necessary, other machinery, a connecting device for mounting diagnostic fault-finding equipment must be provided.		N/A
	Automated machinery components which have to be changed frequently must be capable of being removed and replaced easily and safely. Access to the components must enable these tasks to be carried out with the necessary technical means in accordance with a specified operating method.		N/A
1.6.2.	Access to operating positions and servicing points		—
	Machinery must be designed and constructed in such a way as to allow access in safety to all areas where intervention is necessary during operation, adjustment and maintenance of the machinery.		P
1.6.3.	Isolation of energy sources		—
	Machinery must be fitted with means to isolate it from all energy sources. Such isolators must be clearly identified. They must be capable of being locked if reconnection could endanger persons. Isolators must also be capable of being locked where an operator is unable, from any of the points to which	Power off switch used to isolate energy source during operation	P

Directive 2006/42/EC Annex I			
Clause	Requirement	Remark	Verdict
	he has access, to check that the energy is still cut off.		
	In the case of machinery capable of being plugged into an electricity supply, removal of the plug is sufficient, provided that the operator can check from any of the points to which he has access that the plug remains removed.	For battery charger	P
	After the energy is cut off, it must be possible to dissipate normally any energy remaining or stored in the circuits of the machinery without risk to persons.		P
	As an exception to the requirement laid down in the previous paragraphs, certain circuits may remain connected to their energy sources in order, for example, to hold parts, to protect information, to light interiors, etc. In this case, special steps must be taken to ensure operator safety.		N/A
1.6.4.	Operator intervention		—
	Machinery must be so designed, constructed and equipped that the need for operator intervention is limited. If operator intervention cannot be avoided, it must be possible to carry it out easily and safely.		P
1.6.5.	Cleaning of internal parts		—
	The machinery must be designed and constructed in such a way that it is possible to clean internal parts which have contained dangerous substances or preparations without entering them; any necessary unblocking must also be possible from the outside. If it is impossible to avoid entering the machinery, it must be designed and constructed in such a way as to allow cleaning to take place safely.		N/A
1.7.	INFORMATION		—
1.7.1.	Information and warnings on the machinery		—
	Information and warnings on the machinery should preferably be provided in the form of readily understandable symbols or pictograms. Any written or verbal information and warnings must be expressed in an official Community language or		P

Directive 2006/42/EC Annex I			
Clause	Requirement	Remark	Verdict
	languages, which may be determined in accordance with the Treaty by the Member State in which the machinery is placed on the market and/or put into service and may be accompanied, on request, by versions in any other official Community language or languages understood by the operators.		
1.7.1.1.	Information and information devices		—
	The information needed to control machinery must be provided in a form that is unambiguous and easily understood. It must not be excessive to the extent of overloading the operator.		P
	Visual display units or any other interactive means of communication between the operator and the machine must be easily understood and easy to use.		P
1.7.1.2.	Warning devices		—
	Where the health and safety of persons may be endangered by a fault in the operation of unsupervised machinery, the machinery must be equipped in such a way as to give an appropriate acoustic or light signal as a warning.		N/A
	Where machinery is equipped with warning devices these must be unambiguous and easily perceived. The operator must have facilities to check the operation of such warning devices at all times.		N/A
	The requirements of the specific Community Directives concerning colours and safety signals must be complied with.		N/A
1.7.2.	Warning of residual risks		—
	Where risks remain despite the inherent safe design measures, safeguarding and complementary protective measures adopted, the necessary warnings, including warning devices, must be provided.	Warning notices were mentioned in instruction detailed	P
1.7.3.	Marking of machinery		—
	All machinery must be marked visibly, legibly and indelibly with the following minimum particulars:		—

Directive 2006/42/EC Annex I			
Clause	Requirement	Remark	Verdict
	— the business name and full address of the manufacturer and, where applicable, his authorised representative,		P
	— designation of the machinery,		P
	— the CE Marking (see Annex III),		P
	— designation of series or type,		P
	— serial number, if any,		P
	— the year of construction, that is the year in which the manufacturing process is completed,		P
	It is prohibited to pre-date or post-date the machinery when affixing the CE marking.		P
	Furthermore, machinery designed and constructed for use in a potentially explosive atmosphere must be marked accordingly.		N/A
	Machinery must also bear full information relevant to its type and essential for safe use. Such information is subject to the requirements set out in section 1.7.1.		P
	Where a machine part must be handled during use with lifting equipment, its mass must be indicated legibly, indelibly and unambiguously.		N/A
1.7.4.	Instructions		--
	All machinery must be accompanied by instructions in the official Community language or languages of the Member State in which it is placed on the market and/or put into service.	English	P
	The instructions accompanying the machinery must be either 'Original instructions' or a 'Translation of the original instructions', in which case the translation must be accompanied by the original instructions.		P
	By way of exception, the maintenance instructions intended for use by specialised personnel mandated by the manufacturer or his authorised representative may be supplied in only one Community language which the specialised personnel understand.		N/A

Directive 2006/42/EC Annex I			
Clause	Requirement	Remark	Verdict
	The instructions must be drafted in accordance with the principles set out below.		P
1.7.4.1.	General principles for the drafting of instructions		—
	(a) The instructions must be drafted in one or more official Community languages. The words 'Original instructions' must appear on the language version(s) verified by the manufacturer or his authorised representative.		P
	(b) Where no 'Original instructions' exist in the official language(s) of the country where the machinery is to be used, a translation into that/those language(s) must be provided by the manufacturer or his authorised representative or by the person bringing the machinery into the language area in question. The translations must bear the words 'Translation of the original instructions'.		N/A
	(c) The contents of the instructions must cover not only the intended use of the machinery but also take into account any reasonably foreseeable misuse thereof.		P
	(d) In the case of machinery intended for use by non-professional operators, the wording and layout of the instructions for use must take into account the level of general education and acumen that can reasonably be expected from such operators.		P
1.7.4.2.	Contents of the instructions		—
	Each instruction manual must contain, where applicable, at least the following information:		—
	(a) the business name and full address of the manufacturer and of his authorised representative;		P
	(b) the designation of the machinery as marked on the machinery itself, except for the serial number (see section 1.7.3);		P
	(c) the EC declaration of conformity, or a document setting out the contents of the EC declaration of conformity, showing the particulars of the machinery, not necessarily including the serial number and the signature;		P

Directive 2006/42/EC Annex I			
Clause	Requirement	Remark	Verdict
	(d) a general description of the machinery;		P
	(e) the drawings, diagrams, descriptions and explanations necessary for the use, maintenance and repair of the machinery and for checking its correct functioning;		P
	(f) a description of the workstation(s) likely to be occupied by operators;		P
	(g) a description of the intended use of the machinery;		P
	(h) warnings concerning ways in which the machinery must not be used that experience has shown might occur;		P
	(i) assembly, installation and connection instructions, including drawings, diagrams and the means of attachment and the designation of the chassis or installation on which the machinery is to be mounted;		P
	(j) instructions relating to installation and assembly for reducing noise or vibration;		N/A
	(k) instructions for the putting into service and use of the machinery and, if necessary, instructions for the training of operators;		P
	(l) information about the residual risks that remain despite the inherent safe design measures, safeguarding and complementary protective measures adopted;		P
	(m) instructions on the protective measures to be taken by the user, including, where appropriate, the personal protective equipment to be provided;		P
	(n) the essential characteristics of tools which may be fitted to the machinery;		P
	(o) the conditions in which the machinery meets the requirement of stability during use, transportation, assembly, dismantling when out of service, testing or foreseeable breakdowns;		P
	(p) instructions with a view to ensuring that transport, handling and storage operations can be made safely, giving the mass of the machinery and		P

Directive 2006/42/EC Annex I			
Clause	Requirement	Remark	Verdict
	of its various parts where these are regularly to be transported separately;		
	(q) the operating method to be followed in the event of accident or breakdown; if a blockage is likely to occur, the operating method to be followed so as to enable the equipment to be safely unblocked;		P
	(r) the description of the adjustment and maintenance operations that should be carried out by the user and the preventive maintenance measures that should be observed;		P
	(s) instructions designed to enable adjustment and maintenance to be carried out safely, including the protective measures that should be taken during these operations;		P
	(t) the specifications of the spare parts to be used, when these affect the health and safety of operators;		P
	(u) the following information on airborne noise emissions:		—
	— the A-weighted emission sound pressure level at workstations, where this exceeds 70 dB(A); where this level does not exceed 70 dB(A), this fact must be indicated,		N/A
	— the peak C-weighted instantaneous sound pressure value at workstations, where this exceeds 63 Pa(130 dB in relation to 20 µPa),		N/A
	— the A-weighted sound power level emitted by the machinery, where the A-weighted emission sound pressure level at workstations exceeds 80 dB(A).		N/A
	These values must be either those actually measured for the machinery in question or those established on the basis of measurements taken for technically comparable machinery which is representative of the machinery to be produced.		N/A
	In the case of very large machinery, instead of the A-weighted sound power level, the A-weighted emission sound pressure levels at specified positions around the machinery may be indicated.		N/A

Directive 2006/42/EC Annex I			
Clause	Requirement	Remark	Verdict
	Where the harmonised standards are not applied, sound levels must be measured using the most appropriate method for the machinery. Whenever sound emission values are indicated the uncertainties surrounding these values must be specified. The operating conditions of the machinery during measurement and the measuring methods used must be described.		N/A
	Where the workstation(s) are undefined or cannot be defined, A-weighted sound pressure levels must be measured at a distance of 1 metre from the surface of the machinery and at a height of 1,6 metres from the floor or access platform. The position and value of the maximum sound pressure must be indicated.		N/A
	Where specific Community Directives lay down other requirements for the measurement of sound pressure levels or sound power levels, those Directives must be applied and the corresponding provisions of this section shall not apply;		N/A
	(v) where machinery is likely to emit non-ionising radiation which may cause harm to persons, in particular persons with active or non-active implantable medical devices, information concerning the radiation emitted for the operator and exposed persons.		N/A
1.7.4.3	Sales Literature		—
	Sales literature describing the machinery must not contradict the instructions as regards health and safety aspects. Sales literature describing the performance characteristics of machinery must contain the same information on emissions as is contained in the instructions.		P
2.	SUPPLEMENTARY ESSENTIAL HEALTH AND SAFETY REQUIREMENTS FOR CERTAIN CATEGORIES OF MACHINERY		—
3.	SUPPLEMENTARY ESSENTIAL HEALTH AND SAFETY REQUIREMENTS TO OFFSET HAZARDS DUE TO THE MOBILITY OF MACHINERY		—

Directive 2006/42/EC Annex I			
Clause	Requirement	Remark	Verdict
	Machinery presenting hazards due to its mobility must meet all the essential health and safety requirements described in this chapter (see General Principles, point 4).		P
3.1	General		—
3.1.1	Definitions		—
	(a) 'Machinery presenting hazards due to its mobility' means <ul style="list-style-type: none"> — machinery the operation of which requires either mobility while working, or continuous or semicontinuous movement between a succession of fixed working locations, or — machinery which is operated without being moved, but which may be equipped in such a way as to enable it to be moved more easily from one place to another. 		—
3.2	WORK POSITIONS		—
3.2.1	Driving position		—
	Visibility from the driving position must be such that the driver can, in complete safety for himself and the exposed persons, operate the machinery and its tools in their foreseeable conditions of use. Where necessary, appropriate devices must be provided to remedy hazards due to inadequate direct vision.		P
	Machinery on which the driver is transported must be designed and constructed in such a way that, from the driving positions, there is no risk to the driver from inadvertent contact with the wheels and tracks.	Wheels guard is provided.	P
	The driving position of ride-on drivers must be designed and constructed in such a way that a driver's cab may be fitted, provided this does not increase the risk and there is room for it. The cab must incorporate a place for the instructions needed for the driver.	No cab. It is not applicable for this kind of product	N/A
3.2.2	Seating		—
	Where there is a risk that operators or other persons transported by the machinery may be	No seating	N/A

Directive 2006/42/EC Annex I			
Clause	Requirement	Remark	Verdict
	crushed between parts of the machinery and the ground should the machinery roll or tip over, in particular for machinery equipped with a protective structure referred to in section 3.4.3 or 3.4.4, their seats must be designed or equipped with a restraint system so as to keep the persons in their seats, without restricting movements necessary for operations or movements relative to the structure caused by the suspension of the seats. Such restraint systems should not be fitted if they increase the risk.		
3.2.3	Positions for other persons		—
	If the conditions of use provide that persons other than the driver may occasionally or regularly be transported by the machinery or work on it, appropriate positions must be provided which enable them to be transported or to work on it without risk.	No transportation of other persons.	N/A
	The second and third paragraphs of section 3.2.1 also apply to the places provided for persons other than the driver.		N/A
3.3	CONTROL SYSTEMS		—
	If necessary, steps must be taken to prevent unauthorised use of controls.		P
	In the case of remote controls, each control unit must clearly identify the machinery to be controlled from that unit. The remote control system must be designed and constructed in such a way as to affect only: — the machinery in question, — the functions in question. Remote controlled machinery must be designed and constructed in such a way that it will respond only to signals from the intended control units.	No remote control	N/A
3.3.1	Control devices		—
	The driver must be able to actuate all control devices required to operate the machinery from the driving position, except for functions which can be		P

Directive 2006/42/EC Annex I			
Clause	Requirement	Remark	Verdict
	<p>safely actuated only by using control devices located elsewhere.</p> <p>These functions include, in particular, those for which operators other than the driver are responsible or for which the driver has to leave the driving position in order to control them safely.</p>		
	<p>Where there are pedals, they must be so designed, constructed and fitted as to allow safe operation by the driver with the minimum risk of incorrect operation. They must have a slip-resistant surface and be easy to clean.</p> <p>Where their operation can lead to hazards, notably dangerous movements, the control devices, except for those with preset positions, must return to the neutral position as soon as they are released by the operator.</p>	No pedals.	N/A
	<p>In the case of wheeled machinery, the steering system must be designed and constructed in such a way as to reduce the force of sudden movements of the steering wheel or the steering lever caused by shocks to the guide wheels.</p>		P
	<p>Any control that locks the differential must be so designed and arranged that it allows the differential to be unlocked when the machinery is moving.</p>		N/A
	<p>The sixth paragraph of section 1.2.2, concerning acoustic and/or visual warning signals, applies only in the case of reversing.</p>		N/A
3.3.2	Starting/moving		—
	<p>All travel movements of self-propelled machinery with a ride-on driver must be possible only if the driver is at the controls.</p>		P
	<p>Where, for operating purposes, machinery is fitted with devices which exceed its normal clearance zone (e.g. stabilisers, jib, etc.), the driver must be provided with the means of checking easily, before moving the machinery, that such devices are in a particular position which allows safe movement.</p>		N/A
	<p>This also applies to all other parts which, to allow safe movement, have to be in particular positions, locked if necessary.</p>		N/A

Directive 2006/42/EC Annex I			
Clause	Requirement	Remark	Verdict
	Where it does not give rise to other risks, movement of the machinery must depend on safe positioning of the aforementioned parts.		N/A
	It must not be possible for unintentional movement of the machinery to occur while the engine is being started.		P
3.3.3	Travelling function		—
	Without prejudice to road traffic regulations, self-propelled machinery and its trailers must meet the requirements for slowing down, stopping, braking and immobilisation so as to ensure safety under all the operating, load, speed, ground and gradient conditions allowed for.		P
	The driver must be able to slow down and stop self-propelled machinery by means of a main device. Where safety so requires, in the event of a failure of the main device, or in the absence of the energy supply needed to actuate the main device, an emergency device with a fully independent and easily accessible control device must be provided for slowing down and stopping.	Electrical and rear wheel mechanical brake can stop this scooter immediately at emergency. However there are still risk if brake distance is not enough and may be falling forward because of inertia. PPE is necessary when ride scooter.	P
	Where safety so requires, a parking device must be provided to render stationary machinery immobile. This device may be combined with one of the devices referred to in the second paragraph, provided that it is purely mechanical.		N/A
	Remote-controlled machinery must be equipped with devices for stopping operation automatically and immediately and for preventing potentially dangerous operation in the following situations: — if the driver loses control, — if it receives a stop signal, — if a fault is detected in a safety-related part of the system, — if no validation signal is detected within a specified time.	No remote control device	N/A
	Section 1.2.4 does not apply to the travelling function.		P

Directive 2006/42/EC Annex I			
Clause	Requirement	Remark	Verdict
3.3.4	Movement of pedestrian-controlled machinery		—
	<p>Movement of pedestrian-controlled self-propelled machinery must be possible only through sustained action on the relevant control device by the driver. In particular, it must not be possible for movement to occur while the engine is being started.</p> <p>The control systems for pedestrian-controlled machinery must be designed in such a way as to minimise the risks arising from inadvertent movement of the machine towards the driver, in particular:</p> <ul style="list-style-type: none"> — crushing, — injury from rotating tools. 		N/A
	The speed of travel of the machinery must be compatible with the pace of a driver on foot.		N/A
	In the case of machinery on which a rotary tool may be fitted, it must not be possible to actuate the tool when the reverse control is engaged, except where the movement of the machinery results from movement of the tool. In the latter case, the reversing speed must be such that it does not endanger the driver.		N/A
3.3.5	Control circuit failure		—
	A failure in the power supply to the power-assisted steering, where fitted, must not prevent machinery from being steered during the time required to stop it		N/A
3.4	PROTECTION AGAINST MECHANICAL HAZARDS.		—
3.4.1	Uncontrolled movements		—
	Machinery must be designed, constructed and where appropriate placed on its mobile support in such a way as to ensure that, when moved, uncontrolled oscillations of its centre of gravity do not affect its stability or exert excessive strain on its structure.		P
3.4.2	Moving transmission parts		—

Directive 2006/42/EC Annex I			
Clause	Requirement	Remark	Verdict
	By way of exception to section 1.3.8.1, in the case of engines, moveable guards preventing access to the moving parts in the engine compartment need not have interlocking devices if they have to be opened either by the use of a tool or key or by a control located in the driving position, providing the latter is in a fully enclosed cab with a lock to prevent unauthorised access.		N/A
3.4.3	Roll-over and tip-over		—
	Where, in the case of self-propelled machinery with a ride-on driver, operator(s) or other person(s), there is a risk of rolling or tipping over, the machinery must be fitted with an appropriate protective structure, unless this increases the risk.	Need wear PPE to avoid hazard when tip over or roll over	N/A
	This structure must be such that in the event of rolling or tipping over it affords the ride-on person(s) an adequate deflection-limiting volume.		N/A
	In order to verify that the structure complies with the requirement laid down in the second paragraph, the manufacturer or his authorised representative must, for each type of structure concerned, perform appropriate tests or have such tests performed.		N/A
3.4.4	Falling objects		—
	Where, in the case of self-propelled machinery with a ride-on driver, operator(s) or other person(s), there is a risk due to falling objects or material, the machinery must be designed and constructed in such a way as to take account of this risk and fitted, if its size allows, with an appropriate protective structure.		N/A
	This structure must be such that, in the event of falling objects or material, it guarantees the ride-on person(s) an adequate deflection-limiting volume.		N/A
	In order to verify that the structure complies with the requirement laid down in the second paragraph, the manufacturer or his authorised representative must, for each type of structure concerned, perform appropriate tests or have such tests performed.		N/A
3.4.5	Means of access		—

Directive 2006/42/EC Annex I			
Clause	Requirement	Remark	Verdict
	Handholds and steps must be designed, constructed and arranged in such a way that the operators use them instinctively and do not use the control devices to assist access.		P
3.4.6	Towing devices		—
	All machinery used to tow or to be towed must be fitted with towing or coupling devices designed, constructed and arranged in such a way as to ensure easy and secure connection and disconnection and to prevent accidental disconnection during use. Insofar as the tow bar load so requires, such machinery must be equipped with a support with a bearing surface suited to the load and the ground.		N/A
3.4.7.	Transmission of power between self-propelled machinery (or tractor) and recipient machinery		—
	Removable mechanical transmission devices linking self-propelled machinery (or a tractor) to the first fixed bearing of recipient machinery must be designed and constructed in such a way that any part that moves during operation is protected over its whole length.		N/A
	On the side of the self-propelled machinery (or tractor), the power take-off to which the removable mechanical transmission device is attached must be protected either by a guard fixed and linked to the self-propelled machinery (or tractor) or by any other device offering equivalent protection.		N/A
	It must be possible to open this guard for access to the removable transmission device. Once it is in place, there must be enough room to prevent the drive shaft damaging the guard when the machinery (or the tractor) is moving.		N/A
	On the recipient machinery side, the input shaft must be enclosed in a protective casing fixed to the machinery.		N/A
	Torque limiters or freewheels may be fitted to universal joint transmissions only on the side adjoining the driven machinery. The removable		N/A

Directive 2006/42/EC Annex I			
Clause	Requirement	Remark	Verdict
	mechanical transmission device must be marked accordingly.		
	All recipient machinery, the operation of which requires a removable mechanical transmission device to connect it to self-propelled machinery (or a tractor), must have a system for attaching the removable mechanical transmission device so that, when the machinery is uncoupled, the removable mechanical transmission device and its guard are not damaged by contact with the ground or part of the machinery.		N/A
	The outside parts of the guard must be so designed, constructed and arranged that they cannot turn with the removable mechanical transmission device. The guard must cover the transmission to the ends of the inner jaws in the case of simple universal joints and at least to the centre of the outer joint or joints in the case of wide-angle universal joints.		N/A
	If means of access to working positions are provided near to the removable mechanical transmission device, they must be designed and constructed in such a way that the shaft guards cannot be used as steps, unless designed and constructed for that purpose.		N/A
3.5	PROTECTION AGAINST OTHER HAZARDS		—
3.5.1	Batteries		—
	The battery housing must be designed and constructed in such a way as to prevent the electrolyte being ejected on to the operator in the event of rollover or tipover and to avoid the accumulation of vapours in places occupied by operators.		P
	Machinery must be designed and constructed in such a way that the battery can be disconnected with the aid of an easily accessible device provided for that purpose.		P
3.5.2	Fire		—

Directive 2006/42/EC Annex I			
Clause	Requirement	Remark	Verdict
	<p>Depending on the hazards anticipated by the manufacturer, machinery must, where its size permits:</p> <ul style="list-style-type: none"> — either allow easily accessible fire extinguishers to be fitted, or — be provided with built-in extinguisher systems. 		N/A
3.5.3	Emissions of hazardous substances		—
	<p>The second and third paragraphs of section 1.5.13 do not apply where the main function of the machinery is the spraying of products. However, the operator must be protected against the risk of exposure to such hazardous emissions.</p>		N/A
3.6	INFORMATION AND INDICATIONS		—
3.6.1	Signs, signals and warnings		—
	<p>All machinery must have signs and/or instruction plates concerning use, adjustment and maintenance, wherever necessary, so as to ensure the health and safety of persons. They must be chosen, designed and constructed in such a way as to be clearly visible and indelible.</p>		P
	<p>Without prejudice to the provisions of road traffic regulations, machinery with a ride-on driver must have the following equipment:</p> <ul style="list-style-type: none"> — an acoustic warning device to alert persons, — a system of light signals relevant to the intended conditions of use; the latter requirement does not apply to machinery intended solely for underground working and having no electrical power, — where necessary, there must be an appropriate connection between a trailer and the machinery for the operation of signals. 		P
	<p>Remote-controlled machinery which, under normal conditions of use, exposes persons to the risk of impact or crushing must be fitted with appropriate means to signal its movements or with means to protect persons against such risks. The same applies to machinery which involves, when in use, the constant repetition of a forward and backward movement on a single axis where the area to the</p>		N/A

Directive 2006/42/EC Annex I			
Clause	Requirement	Remark	Verdict
	rear of the machine is not directly visible to the driver.		
	Machinery must be constructed in such a way that the warning and signalling devices cannot be disabled unintentionally. Where it is essential for safety, such devices must be provided with the means to check that they are in good working order and their failure must be made apparent to the operator.		P
	Where the movement of machinery or its tools is particularly hazardous, signs on the machinery must be provided to warn against approaching the machinery while it is working; the signs must be legible at a sufficient distance to ensure the safety of persons who have to be in the vicinity.		N/A
3.6.2	Marking		—
	The following must be shown legibly and indelibly on all machinery: <ul style="list-style-type: none"> — nominal power expressed in kilowatts (kW), — mass of the most usual configuration, in kilograms (kg); and, where appropriate: <ul style="list-style-type: none"> — maximum drawbar pull provided for at the coupling hook, in Newtons (N), — maximum vertical load provided for on the coupling hook, in Newtons (N). 	Scooter label marked with nominal current	P
3.6.3	Instructions		—
3.6.3.1	Vibrations		—
	The instructions must give the following information concerning vibrations transmitted by the machinery to the hand-arm system or to the whole body: <ul style="list-style-type: none"> — the vibration total value to which the hand-arm system is subjected, if it exceeds 2,5 m/s². Where this value does not exceed 2,5 m/s², this must be mentioned, — the highest root mean square value of weighted acceleration to which the whole body is subjected, 		N/A

Directive 2006/42/EC Annex I			
Clause	Requirement	Remark	Verdict
	if it exceeds 0,5 m/s ² . Where this value does not exceed 0,5 m/s ² , this must be mentioned, — the uncertainty of measurement.		
	These values must be either those actually measured for the machinery in question or those established on the basis of measurements taken for technically comparable machinery which is representative of the machinery to be produced.		N/A
	Where harmonised standards are not applied, the vibration must be measured using the most appropriate measurement code for the machinery concerned.		N/A
	The operating conditions during measurement and the measurement codes used must be described.		N/A
3.6.3.2	Multiple uses		—
	The instructions for machinery allowing several uses depending on the equipment used and the instructions for the interchangeable equipment must contain the information necessary for safe assembly and use of the basic machinery and the interchangeable equipment that can be fitted.		N/A
4.	SUPPLEMENTARY ESSENTIAL HEALTH AND SAFETY REQUIREMENTS TO OFFSET HAZARDS DUE TO LIFTING OPERATIONS		N/A
5.	SUPPLEMENTARY ESSENTIAL HEALTH AND SAFETY REQUIREMENTS FOR MACHINERY INTENDED FOR UNDERGROUND WORK		N/A
6.	SUPPLEMENTARY ESSENTIAL HEALTH AND SAFETY REQUIREMENTS FOR MACHINERY PRESENTING PARTICULAR HAZARDS DUE TO THE LIFTING OF PERSONS		N/A



Photos

Refer to test report GZES191102656601

-- End of Test Report --