

<u>Test R</u>	<u>eport</u>			Number:	SHAH01471727
Applicant:	oplicant: Yongkang Hydo Sports Co., Ltd. 32 Nanyangbei Road, Gushan, ` Zhejiang, China		o., Ltd. shan, Yongkang,	Date:	15 Jul, 2022
	Attn:	Jacky Wong			
Sample Description one(1) groups of sul Item Name Item No Quantity Goods Exported to Country of Origin Tests Conducted:	: bmitted sai	mple said to be : : : :	Skateboard HYDP22 6 Europe China	*****	****
AS TEQUESIEU D	**************************************		***************************************	*****	*******
Conclusion: <u>Tested samples</u> Submitted samples (Class A)		<u>Standa</u> EN 13 require	ard 613 : 2009 - Roller sports equ ements and test methods	ipment – Skateboards -	<u>Result</u> safety Pass
					to be continued

Authorized By: Intertek Testing Services Ltd. Zhejiang

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SAFETY REQUIREMENTS AND TEST METHODS FOR ROLLER SPORTS EQUIPMENT -SKATEBOARDS

As per EN 13613 : 2009 - Roller sports equipment – Skateboards - Safety requirements and test methods, the submitted samples were subjected to the following tests:

Number of samples tested : Two (2) Pieces.

Class of product : Class A .

Maximum user's weight: 100kg

Executive summary:

Clause	Requirement	Assessment
1	Scope	-
2	Normative references	-
3	Terms and definitions	-
4	Classification	-
4.1	Class A Skateboards intended for use by a rider of more than 20 kg up to 100 kg mass.	-
4.2	Class B Skateboards intended for use by a rider of more than 20 kg up to 50 kg.	-
5	Construction	-
5.1	General	-
5.2	Requirements	-
5.2.1	There shall be no projections above the upper surface of the deck. The complete upper surface of the deck shall be equipped with an anti-slide surface.	Р
5.2.2	When tested in accordance with 6.8, it shall not be possible to touch, with the test cylinder (see 6.8.2), any projection which has a length greater than 10 mm and less than 100 mm ² in area.	Р
	6.8 external design	
	6.8.1 principle	
	A test cylinder is used to assess protruding parts.	
	6.8.2 apparatus Test cylinder, of diameter 50 mm and minimum length 150 mm.	
	6.8.3 procedure Using the cylinder, test any projecting parts such as screws and levers that project by more than 10 mm and less than 100 mm ² in area. Present the cylinder at any angle to the part under test. Note whether or not the part under test touches the outer surface, excluding the ends, of the cylinder	
5.2.3	When the action bolt of the truck is fully tightened, no part of the action bolt shall be in contact with the underside of the deck.	Р
5.2.4	If a part of the axles and means of securing the wheels shall project beyond the out edge of the wheels then the axle and means of securing the wheel shall not project beyond the deck. All edges on the skateboard which can come into contact with parts of the body during normal use shall be rendered safe, or shaped so that injuries cannot occur.	Р
5.2.5	The corners and edges of the deck shall be rounded off and free from burr and sharp or protruding edges. The ends of the deck shall be rounded off with a minimum radius of 10 mm.	Р
5.2.6	Where self-locking nuts are used the entire thread, including the locking section, shall be in contact with the bolt. Self-locking nuts and other self-locking fixings that are loosened several times for the purpose of modification or servicing, shall be suitable for this purpose. The information supplied by the manufacturer shall indicate when self-locking nuts and other self-locking elements can lose their effectiveness.	Р

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Clause	Requirement	Assessment
5.2.7	When tested in accordance with 6.5, the coefficient of adhesion (μ_0) of the wheels shall be a minimum of 0.3. <u>6.5</u> wheel adhesion test <u>6.5.1</u> principle	Р
	The wheel adhesion is tested by pulling a wheel along a steel plate with a fine brushed and degreased surface of arithmetical mean roughness $r_a = 1.5 \mu m$ to $2.0 \mu m$. <u>6.5.2</u> apparatus	
	Steel plate, with a parallel lay and surface texture between $r_a = 1.5 \mu m$ and $r_a = 2.0 \mu m$ and two weights, each of 20±0.5kg mass. 6.5.3 procedure	
	Degrease the tyre surface of the wheels of the skateboard and the steel plate. Measure the mass of the skateboard. Load the skateboard with a mass of 20±0.5kg over each axle and place it on the steel plate so that the lay is perpendicular to the force to be applied. Apply force without shock to the trucks and when the wheels are at the point of slipping, measure the applied force	
	6.5.4 calculation of results	
5.2.8	When tested in accordance with 6.6, the wheel bearings shall not get stuck or disintegrate. <u>6.6</u> Speed test 6.6.1 principle	Р
	A loaded skateboard is driven at speed and the wheel bearings are examined for signs of damage. <u>6.6.2</u> procedure For skateboards class a, place a mass of 50±0.5kg over the one axle set of wheels under test. Run the skateboard continuously at a speed of 20±0.5km/h for at least 6 min. For skateboards class b, place a mass of 40±0.5km over the one axle set of wheels under test. Run	
	the skateboard continuously at a speed of 20±0.5km/h for at least 3 min. Note whether or not the wheel bearings seize up or disintegrate.	
5.2.9	When tested in accordance with 6.7, 6.9 and 6.10 no part of the skateboard shall break; there shall be no signs of functional damage and no fastening devices shall have worked loose. <u>6.7</u> Endurance test 6.7.1 Principle	Р
	One set of wheels of a skateboard not tested in accordance with 6.6 is subjected to a simulation of normal wear and tear using a cylindrical ramp apparatus. The skateboard is then examined for any damage to its function ability. 6.7.2 Apparatus	
	The test is carried out on a drum rotating at a circumferential speed of 0.5 m/s. The drum is fitted with ramps offset one to another and evenly spaced. The distance between these ramps shall be such that the skateboard passes over at least one ramp in	
	1.5 s. <u>6.7.3</u> Procedure Test the set of wheels of the skateboard referred to 6.7.1 while the skateboard is allowed only to mayou	
	vertically on the tested end and is fixed horizontally and vertically on the other end of the skateboard. Place a mass $= 40\pm0.5$ kg for skateboards of class a and $= 25\pm0.5$ kg for class b over a length of 75 mm centrally over the deck axle.	
	For skateboards class a and b set the cylinder in motion and run it until the distance covered by the wheels under test is 25±0.5km. Note whether or not there is any breakage, signs of functional damage, or any fastening devices have	
	worked loose.	

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Clause	Requirement	Assessment			
	6.9 Drop test	Р			
	6.9.1 Principle A cylindrical mass is dropped freely on to various points on a skateboard, which is then examined for any damage to its integrity				
	6.9.2 Apparatus				
	The test apparatus shall consist of :				
	 Cylindrical weight, of mass 20±0.5kg and diameter 100±0.1mm; 				
	B) Sheet of rubber, fitted to the weight, of thickness of 17±0.1mm and 70±2 shore A;				
	C) Guide tube.				
	6.9.3 Procedure				
	Drop the cylindrical weight, in free fall, down the guide tube on to the centre of the skateboard three times, then three times on to the central area of one axle, and finally three times on to the central area of the other axle. During the test, hold the skateboard to prevent it from rolling away. For skateboards class A, drop the weight through 300±5mm on to the centre of the board and through 200+5mm on to the centre of the axles.				
	For skateboards class B, drop the weight through 200±5mm on to the centre of the board and through 200±5mm on to the centre of the axles.				
	Carry out the test after the skateboard has been conditioned for 24 h at conditions specified in 6.4. If plastic material is used for decks or trucks the skateboard has to be conditioned for at least 6 h at a temperature of $(-5\pm1)^{\circ}$ start the test within 1 min of removing the skateboard from the conditioning environment and complete it within 5 min.				
	Note whether or not there is any breakage, signs of functional damage or any fastening devices have worked loose.				
	<u>6.10</u> Impact test				
	6.10.1 Principle				
	A skateboard is driven against a kerb and is examined for damage to its integrity.				
	 <u>b.10.2</u> apparatus Dynamic impact test rig, comprising the following : A) Skateboard is accelerated in a controlled fashion up to 18 km/h; 				
	B) A kerb, with a height equal to the diameter of the wheel, held rigidly in position.				
	6.10.3 Procedure				
	Drive the skateboard three times against the kerb.				
	worked loose				
6	Test methods	_			
6.1	General	-			
	All tests shall be carried out on fully assembled skateboards at the mid-steering setting.				
6.2	Test specimens Two test specimens (two skateboards) of the same type shall be tested in accordance with the order described in 6.3.	-			
6.3	Order of testing	-			
6.3.1	Specimen 1	-			
	A) Wheel adhesion test (see 6.5).				
	B) Speed test (see 6.6).				
	C) Endurance test (see 6.7).				
6.3.2	Specimen 2	-			
	The specimen shall be subjected to the test in the following order :				
	A) Test of external design (see 6.8).				
	B) Drop test (see 6.9).				





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Clause	Requirement	Assessment
	C) Impact test (see 6.10).	
6.4	Conditioning and testing temperatures Unless otherwise specified the skateboard shall be conditioned and tested either at a temperature of $(23\pm2)^{\circ}$ and a relative humidity of (50 ± 5) % or at a temperature of $(20\pm2)^{\circ}$ and a relative humidity of (65 ± 5) %.	-

Clause	Requirement	Assessment
7	Marking Each skateboard shall be legibly and durably marked with the following information :	
	B) The name, trademark or other means of identification of the manufacturer or retailer:	
	C) Means of identification of the model:	
	D) Maximum mass limit of the user;	
	E) Advice: the use of protective equipment is recommended.	
8	Information supplied by the manufacturer	-
8.1	General All skateboard shall be supplied with information supplied by the manufacturer. This document shall contain, in text or picture form, at least the information in accordance with 8.2 to 8.5.	
8.2	 Information about the construction of the skateboard The following shall be included : A) A note to the effect that modifications shall be made that can impair safety; B) A note indicating if self-locking nuts and other self-locking fixings can lose their effectiveness. 	Ρ
8.3	 Instructions for use The following notes shall be included : A) Notes concerning limitations of use according to regulations of road safety and recommendations regarding, or descriptions of, suitable surface (flat, clean, dry and where possible away from other road users). B) Use of the following protective equipment; hand/wrist protection, knee protection, head protection and elbow protection. C) Instruction to check that the skateboard steering mechanism, if present, is correctly adjusted and that the connective components are firmly secured. D) Description for use and for braking. 	P
8.4	 Servicing and maintenance instructions Clear note stating that regular maintenance enhances the safety of the equipment. This includes : A) Note regarding the maintenance of the bearings; B) Replacement of wheels and cushions (where possible or present); C) Lubrication of the bearings; D) Steering adjustment; E) Note to remove any sharp edges created through use; F) Inspection; G) Note to look for splinters and cracks in the deck and to replace when needed. 	Ρ
8.5	Skateboards safety code Warning: skateboards can be dangerous. For details see annex a.	Р

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Clause		Requirement		
	A)	Choose to skateboard in places which allow you to improve your skills, not on pavements or streets, where serious accidents have happened to skateboarders and other people.		
	B)	Children under eight years of age should be supervised at all times when skateboarding.		
	C)	Learn everything slowly, including new tricks. When losing balance don't wait until you fall, step off and start again. Ride down gentle slopes at first. Then ride slopes where your speed is only as fast as you can run off the board without falling.		
	D)	Most serious skateboard injuries are broken bones so learn to fall (by rolling if possible) without the skateboard first.		
	E)	Skateboarders starting to learn need try with a friend or parent. Most bad accidents happen in the first month.		
	F)	Before you jump off a skateboard watch where it may go; it could injure someone else.		
	G)	Avoid skateboarding on wet or uneven surfaces.		
	H)	Join a club in your area and learn more. Prove you are a good skateboarder and care about yourself and others.		

Abbreviation: P = Pass; NA = Not Applicable; NR = Not Requested by the Applicant

Date Sample Received: Jun 29, 2022 Testing Period: Jun 29, 2022 to Jul 15, 2022

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Submitted Sample

End of report

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