

Test Report

No.: 70.300.20.10379.01

Date: 2020-11-16

Applicant: YONGKANG HYDO SPORTS CO., LTD
Address: 32 NANYANGBEI ROAD, GUSHAN, YONGKANG, ZHEJIANG, CHINA
Sample Description: Skateboard
Product Type: HYD3108
Country of Origin: China
Receipt Date of Sample: 2020-11-06
Date of Testing: 2020-11-06 ~ 2020-11-16
Sample Submitted: The sample(s) was (were) submitted by applicant and identified.
Test Result: Refer to the data listed in following pages

Test Item

EN 13613-2009 Roller sports equipment - Skateboards - Safety requirements and tests methods

Conclusion

Pass

TÜV SÜD Certification and Testing (China) Co., Ltd. Shanghai Branch
Testing Center

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Unless otherwise agreed upon, Pass or Fail verdicts are given based on the measured values without any considerations of measurement uncertainties.
Please note, every test method has a measurement uncertainty which has been evaluated by the laboratory according to ISO/IEC 17025 requirements. By taking measurement uncertainties into account it might happen that measured values can neither be assessed as Pass nor as Fail.

Description of the test subject:

Sample list		Description	Photo
Sample Received on: 2020-11-06		Class A Maximum user weight: 100 kg Net weight: 2.1 kg	
Skateboard	2 pcs		

Abbreviation summary:

P = Pass; F = Fail; NA = Not applicable



Test Result(s):

EN 13613-2009 Roller sports equipment - Skateboards - Safety requirements and tests methods

Clause	Requirement	Result	Verdict
5	Construction		
5.2	Requirement		
5.2.1	There shall be no projections above the upper surface of the deck. The complete upper surface deck shall be equipped with an anti-slide surface.	Complied	P
5.2.2	External design Using the cylinder of diameter 50 mm and minimum length 150 mm, 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. When tested in accordance with External design, it shall not be possible to touch, with the test cylinder, any projection which has a length greater than 10 mm and less than 100 mm ² in area.	Complied	P
5.2.3	When the action bolt of the truck is fully tightened, no part of the action blot shall be in contact with the underside of the deck.	Complied	P
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.	Complied	P
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.	Complied	P
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.	Complied	P

Clause	Requirement	Result	Verdict
5.2.7	<p>Wheel adhesion test</p> <p>Degrease the tyre surface of the wheels of the skateboard and the steel plate with a parallel lay and surface texture between Ra = 1.5µm to Ra = 2.0µm and two weights, each of 20 kg mass. Measure the mass of the skateboard. Load the skateboard with a mass of 20 kg over each axle and place it on the steel plate so that the lay is perpendicular to the force to be applied. Apply force F without shock to the trucks and when the heels are at the point of slipping, measure the applied force F.</p> <p>Calculate the coefficient of adhesion of the wheels μ_0 from equation:</p> $\mu_0 = \frac{F}{(40 + m)g}$ <p>When tested in accordance with Wheel adhesion test, the coefficient of adhesion (μ_0) of the wheels shall be a minimum of 0.3.</p>	$\mu_0 = 0.62$	P
5.2.8	<p>Speed test</p> <p>Place a mass of 50 kg over the one axle set of wheels under test. Run the skateboard continuously at a speed of 20 km/h for 6 min.</p> <p>When tested in accordance with Speed test, the wheel bearings shall not seize up or disintegrate.</p>	Complied	P
5.2.9	<p>Endurance test</p> <p>Test the set of wheels of the skateboard while the skateboard is allowed only to move vertically on the tested end and is fixed horizontally and vertically on the other end of the skateboard. Place a mass of 40 kg for skateboards over a length of 75 mm centrally over the deck axle. Set the cylinder in motion and run it until the distance covered by the wheels under test is 25 km. (The test is carried out on a drum at a circumferential speed of 0.5m/s).</p>	Complied	P
	<p>Drop test</p> <p>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.</p> <p>Drop the weight through 300 mm on to the centre of the board and through 200 mm on to the centre of the axles.</p>	Complied	P
	<p>Impact test</p> <p>Drive the skateboard three times against the kerb.</p> <p>When tested in accordance with Endurance test, drop test and Impact test no part of the skateboard shall break, there shall be no signs of functional damage and no fastening devices shall have worked loose.</p>	Complied	P

Clause	Requirement	Result	Verdict
7	Marking		
	Each skateboard shall be legibly and durably marked with the following information:		
	the number of this European Standard;	Complied	P
	the name, trademark or other means of identification of the manufacturer or retailer;	Complied	P
	means of identification of the model;	Complied	P
	maximum mass limit of the skateboard;	Complied	P
	Advice: The use of protective equipment is recommended.	Complied	P
8	General		
8.1	Information supplied by the manufacturer		
	All skateboards shall be supplied with information supplied by the manufacturer.	Complied	P
	This document shall contain, in text or picture form, at least the information in accordance with 8.2 to 8.5	Complied	P
8.2	Information about the construction of the skateboard		
	The following notes shall be included:		
	a note to the effect that modifications shall be made that can impair safety;	Complied	P
	a note indicating when self-locking nuts and other self-locking fixings may lose their effectiveness.	Complied	P
8.3	Instructions for use		
	The following notes shall be included:		
	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).	Complied	P
	Use of the following protective equipment; hand/wrist protection, knee protection, head protection and elbow protection.	Complied	P
	Instruction to check that the skateboard steering mechanism, if present, is correctly adjusted and that the connective components are firmly secured.	Complied	P
	Description of the correct techniques for use and for braking.	Complied	P
8.4	Servicing and maintenance instruction		
	Clear note stating that regular maintenance enhances the safety of the equipment. This includes:		
	a) note regarding the maintenance of the bearings;	Complied	P
	b) replacement of wheels and buffers (where possible or present);	Complied	P

Clause	Requirement	Result	Verdict
	c) lubrication of the bearings;	Complied	P
	d) steering adjustment;	Complied	P
	e) note to remove any sharp edges created through use;	Complied	P
	f) inspection;	Complied	P
	g) note to look for splinters and cracks in the deck and to replace when needed.	Complied	P
8.5	Skateboards safety code		
	WARNING-Skateboarding can be dangerous. Proposal for details see Annex A.	Complied	P

