
Technical Report No.64.190.13.00907.01
Date 2013-04-19

Client Dongguan Utop Sporting Goods Co.,Ltd
Weixiang Road,Niushan Community
Foreign Economic Industrial Park, Dongcheng District
Dongguan, Guangdong China

Contact person..... Ms. Cindy

Production facility Dongguan Utop Sporting Goods Co.,Ltd
Weixiang Road,Niushan Community
Foreign Economic Industrial Park, Dongcheng District
Dongguan, Guangdong China

Test subject..... Skateboard

Model..... UT-4010

Test specification According to client specification:
EN 13613:2009 (Physical tests clauses)

Purpose of examination..... According to above test specification

Test result..... **Pass**

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1 Description of the test subject

1.1 Function

Skateboard for general use

1.2 Consideration of the foreseeable misuse

NIL

1.3 Technical Data

| Model | Dimension | Weight |
|---------|---------------------|--------|
| UT-4010 | L102 x W25 x H15 cm | 3.5 kg |

2 Order

2.1 Date of Purchase Order, Customer's Reference

2013-04-07

2.2 Receipt of Test Sample, Location

2pcs samples were received on 2013-04-07, Jiangsu TUV product service ltd. Guangzhou Branch, MES lab

2.3 Date of Testing

2013-04-07 to 2013-04-18

2.4 Location of Testing

Jiangsu TUV Product Service Ltd. Guangzhou Branch, MES Lab

2.5 Points of Non-compliance or Exceptions of the Test Procedure

(Not Applicable)

3 Test results

3.1 Summary of Deviation:

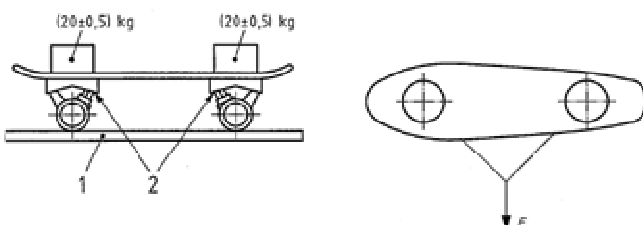
NIL

3.2 Test summary

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| EN 13613:2009 (Test clause numbering according to EN 13613:2009.) Class A for UT-4010 |
| Verdict: P/p = Pass; F/f = Fail; NA/na = Not applicable; NT/nt = Not test as client's requirement. |

| Clause | Requirement – Test | Measurements Results – Remarks | Verdict |
|--------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------|---------|
| 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. | Anti-slide surface was found. | P |
| 5.2.2 | <p>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 mm² in area.</p> <p>6.8 External design Using the cylinder, test any projecting parts such as screws and levers that project by more than 10 mm and less than 100 mm² 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.</p> | Meet requirement. | P |
| 5.2.3 | When the action bolt (kingpin) of the truck is fully tightened, no part of the action bolt shall be in contact with the underside of the deck. | No any part of the action bolt was contact with the underside of the deck. | P |

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| 5.2.4 | <p>If a part of the axles and means of securing the wheels shall project beyond the outer edge of the wheels than the axle and means of securing the wheels shall not project beyond the deck.</p> <p>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.</p> | <p>Meet requirement.</p> <p>No any part project beyond the deck.</p> <p>All edges are rendered safe.</p> | P |
| 5.2.5 | <p>The corners and edges of the deck shall be rounded off and free from burr and sharp or protruding edges. The outlines of the deck shall be rounded off with a minimum radius of 10 mm.</p> | <p>Meet requirement.</p> <p>The conners and edges are rounded off with radius>10mm.</p> | P |
| 5.2.6 | <p>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.</p> | <p>Meet requirement.</p> | P |
| | <p>The information supplied by the manufacturer shall indicate if self-locking nuts and other self-locking elements can loose their effectiveness.</p> | <p>No instruction manual was provided.</p> | |
| 5.2.7 | <p>When tested in accordance with 6.5, the coefficient of adhesion (μ_0) of the wheels shall be a minimum of 0,3.</p> | <p>UT-4010</p> <p>$\mu_0=0.52$</p> | P |

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| | <p>6.5 Wheel adhesion test</p> <p>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 $(20 \pm 0,5)$ kg over each axle and place it on the steel plate so that the lay is perpendicular to the force F to be applied. Apply force without shock to the trucks (see Figure 3) and when the wheels are at the point of slipping, measure the applied force F.</p>  <p>Figure 3</p> <p>Calculate the coefficient of adhesion of the wheels:</p> $\mu_0 = \frac{F}{(40 + m) \times g}$ <p>where</p> <ul style="list-style-type: none"> F is the force applied, in newtons; m is the mass of the skateboard, in kilograms; g is the acceleration due to gravity, i.e. 9,81 m/s². | <p>For Modle UT-4010:</p> <p>m=3.5kg</p> <p>F=226N</p> <p>$\mu_0=0.52$</p> | |
| 5.2.8 | When tested in accordance with 6.6, the wheel bearings shall not get stuck or disintegrate. | <p>Meet requirement.</p> <p>No any damage was found after test.</p> | P |

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| | 6.6 Speed test For skateboards Class A, place a mass of $(50 \pm 0,5)$ kg over the one axle set of wheels under test. Run the skateboard continuously at a speed of $(20 \pm 0,5)$ km/h for at least 6 min. For skateboards Class B, place a mass of $(40 \pm 0,5)$ kg over the one axle set of wheels under test. Run the skateboard continuously at a speed of $(20 \pm 0,5)$ km/h for at least 3 min. Note whether or not the wheel bearings seize up or disintegrate. | Class A at 20km/h for 6min. | |
| 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. | Meet requirement. | P |

6.7 Endurance test

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 (see Figure 4).

Place a mass $m = (40 \pm 0,5)$ kg for skateboards of Class A and $m = (25 \pm 0,5)$ 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 $(25 \pm 0,5)$ km.

Note whether or not there is any breakage, signs of functional damage, or any fastening devices have worked loose.

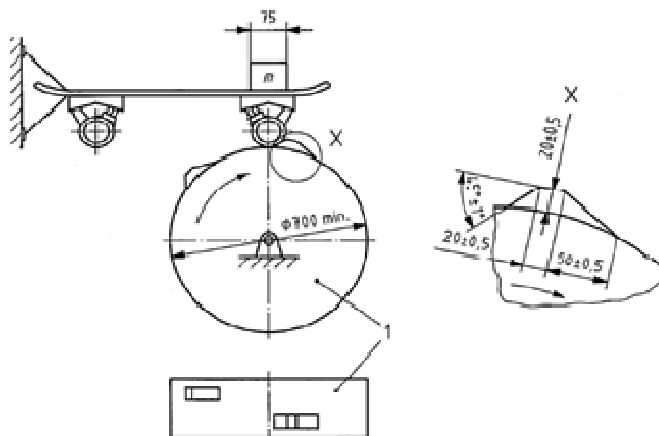


Figure 4

Class A.

Load 40kg at 0.5m/s for 25km.

No any damage was found after test.

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| | <p>6.9 Drop test</p> <p>Drop the cylindrical weight (20 kg), 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>For skateboards Class A, drop the weight through (300 ± 5) mm on to the centre of the board and through (200 ± 5) mm on to the centre of the axles.</p> <p>For skateboards Class B, drop the weight through (200 ± 5) mm on to the centre of the board and through (200 ± 5) mm on to the centre of the axles.</p> <p>Carry out the test after the skateboard has been conditioned for at least 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 + 1) °C. Start the test within 1 min of removing the skateboard from the conditioning environment and complete it within 5 min.</p> <p>Note whether or not there is any breakage, signs of functional damage or any fastening devices have worked loose.</p> | <p>Class A.</p> <p>Drop 20kg weight through 300mm to the centre of the board and through 200mm on the centre of the axles for 3times.</p> <p>No any damage was found after test.</p> | P |
| | <p>6.10 Impact test</p> <p>Drive the skateboard (speed: 18 km/h) three times against the kerb.</p> <p>Note whether or not there is any breakage, signs of functional damage, or any fastening devices have worked loose.</p> | No any damage was found after test. | P |

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| 7 | Marking Each skateboard shall be legibly and durably marked with the following information: a) the number of this European Standard; b) the name, trademark or other means of identification of the manufacturer or retailer; c) means of identification of the product; d) maximum mass limit of the user; e) advice: The use of protective equipment is recommended. | Meet requirement. | P |
| 8 | Information supplied by the manufacturer | | |
| 8.1 | General All skateboards 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. | Meet requirement. | P |
| 8.2 | Information about the construction of the skateboard The following shall be included: a) a note to the effect that no 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. c) | Meet requirement. | P |

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| 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 surfaces (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 using and for braking. | Meet requirement. | 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. | Meet requirement. | P |

4 **Remark**
NIL

Jiangsu TÜV Product Service Ltd. Guangzhou Branch
TÜV SÜD Group

Engineer:



Tony Lin



Technical Report checked:



Levor Wei

Appendix A-----Product Photos



End of report