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NATIONAL STANDARD OF THE PEOPLE'S REPUBLIC OF CHINA

GB/T 18879-2020

Replacing GB/T 18878-2008

Specifications of summer toboggan run

滑道通用技术条件

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1 Scope

GB/T 18879-2020 is the Chinese national standard on specifications of summer toboggan run, in the field of domestic and commercial equipment, entertainment, sport. The /T suffix marks it as a recommended standard: it is not compulsory by itself, but it becomes binding as soon as a contract, a tender or a customer specification calls it up - which in practice is how most foreign buyers meet it. It was issued on 2 June 2020 by the State Administration for Market Regulation; Standardization Administration of China, and has been in force since 2 June 2020. Classification: ICS 97.200.40, CCS Y57. This page is published from the

official record of the standard held by the Chinese standards administration: the identification, the dates, the classification and the issuing body are taken from there. The clause text, the tables and the numeric limits are in the document itself, which is delivered complete in English translation.

This Standard specifies the general rules, technical requirements, inspection, detection and test requirements, accompanying documents, identification, packaging, transportation and storage of summer toboggan run. This Standard is applicable to summer toboggan run. This Standard is not applicable to water slides, slides without rigid manned tools and other slides, on which, the downward sliding of toboggan is not operated by passengers.

2 Normative References

The following documents are indispensable to the application of this document. In terms of references with a specified date, only versions with a specified date are applicable to this document. In terms of references without a specified date, the latest version (including all the modifications) is applicable to this document.

GB/T 191 Packaging - Pictorial Marking for Handling of Goods

GB/T 755 Rotating Electrical Machines - Rating and Performance

GB/T 1032 Test Procedures for Three-phase Induction Motors

GB 2894 Safety Signs and Guideline for the Use

GB/T 3805 Extra-low Voltage (ELV) - Limit Values

GB 4053.3 Safety Requirements for Fixed Steel Ladders and Platform - Part 3: Industrial Guardrails and Steel Platform

GB 4706.1 Household and Similar Electrical Appliances - Safety - Part 1: General Requirements

GB/T 5226.1 Electrical Safety of Machinery - Electrical Equipment of Machines - Part 1: General Requirements GB 5725 Safety Nets

GB 8408 Large-scale Amusement Device Safety Code

GB/T 8923 (all parts) Preparation of Steel Substrates before Application of Paints and Related Products - Visual Assessment of Surface Cleanliness slides on a track made of profiles.

3.1.3 Electrical toboggan run Electrical toboggan run refers to a facility, through which, a manned toboggan does not completely rely on gravity during the sliding process on a fixed track and uses electric power as the power for sliding.

3.2 Average Inclination of Summer Toboggan Run Average inclination of summer toboggan run refers to the ratio of the overall height difference of the summer toboggan run to the

horizontal projection of the total extended length of the summer toboggan run.

3.3 Accessory of Summer Toboggan Run Accessory of summer toboggan run refers to other facilities required for summer toboggan sports in addition to the main structure of the summer toboggan run. NOTE: it includes: toboggan for summer toboggan run, lifting system, label, marking, reflector, safety net, supporting structure, lighting equipment, power distribution equipment and electrical control system, etc.

5.2 Machinery and Structure

5.2.1 Summer toboggan run edge of the curved chute shall be equipped with a smooth protrusion, so as to prevent the toboggan from rushing out of the chute.

5.2.1.10 For pipeway summer toboggan run, the outer pipeway of the curve should be higher than the inner pipeway, so as to reduce the influence of centrifugal force on the passengers' safety.

5.2.1.11 When a curve is connected to another curve, and the centers of two arcs are on the same side of the summer toboggan run, the two arcs shall be equipped with a smooth transition; when the centers of the two arcs are on the opposite side of the summer toboggan run, the sum of the length of the exit and entrance end of the transition section between the two arcs shall be not less than 6 m.

5.2.1.12 The leap section shall comply with the following requirements:

a) The maximum inclination of the leap section of non-powered summer toboggan run shall be not greater than 50%;

b) The length of the leap section shall be not greater than 12 m;

c) The leap section shall be arranged on the straight section of the downhill rail; the distance between the starting point of the leap section and the end of the upper curve shall be not less than 5 m; the distance between the end of the leap section and the starting point of the lower curve shall be not less than 5 m;

d) On the same straight section, a maximum of 2 leap sections are allowed; the distance between the leap sections shall be not less than 10 m.

5.2.1.13 The wave section shall comply with the following requirements:

a) The maximum inclination of the wave section shall be 30%;

b) The wave section shall be set on the straight section of the downhill rail; the distance between the starting point of the wave section and the end point of the upper curve shall be not less than 5 m; the distance between the end of the wave section and the starting point of the lower curve shall be not less than 5 m;

c) On the same straight section, a maximum of 4 wave sections are allowed.

5.2.1.14 The obstacle-free distance between the track of the summer toboggan run and both sides of the toboggan shall be not less than 500 mm; the obstacle-free distance above the seating surface of the toboggan shall be not less than

5.2.1.15 The visible distance in front of the center point of any track of the downhill rail shall be not less than 15 m; when it is less than 15 m, effective measures shall be set up to ensure a sufficient sighting distance. a straight line, and parallel to the projection of the centerline of the ropeway on the horizontal plane.

5.2.4 Signs and markings

5.2.4.1 At the entrance and exit of the summer toboggan run, there shall be striking passenger notification signs (if necessary, there shall also be English instructions). The signs include, but are not limited to the following content:

a) While riding the toboggan, passengers shall maintain a distance and avoid rear-end collisions. In the event of a rear-end collision, passengers in the rear toboggan shall be held responsible.

b) Passengers shall abide by the rules and regulations of the operation of the summer toboggan run and follow the instructions of the staff.

c) Pregnant women, people suffering from spinal diseases, hypertension, heart diseases, epilepsy and mental illness, or those without self-control ability, for Appendix B.

5.3 Riding System

5.3.1 All toboggans shall be numbered, and the font shall be clear and eye-catching.

5.3.2 The toboggans shall be equipped with a braking device, which shall satisfy the following requirements:

a) When a deceleration or brake handle is used, there shall be an elastic reset device to reset the handle. When the handles are arranged on the side of the toboggan, the control handles shall be symmetrically arranged. The handles shall be easy and reliable to operate; pull backward for braking and push forward for acceleration; there shall also be clear signs of operation.

b) For toboggan runs without spacing control, when a toboggan is parked on the track, it is naturally in the braking state, and the toboggan shall not automatically slide downwards on any descending toboggan run except the leap section.

c) For toboggan runs without spacing control, after the toboggan stops in any section of the downhill rail, the toboggan can start to slide down by itself when the braking device is fully released.

d) The braking distance of the toboggan shall not exceed 8 m in any section of the non-leap