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NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA

GB/T 18159-2019

Replacing GB/T 18159-2008

Specifications of amusement rides coaster category

滑行车类游乐设施通用技术条件

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Foreword

This Standard was drafted in accordance with the rules given in GB/T 1.1-2009.

This Standard replaces GB/T 18159-2008 "Specifications of Amusement Rides Coaster Category". Compared with GB/T 18159-2008, in addition to editorial modifications, the main technical changes are as follows:

- modified the scope;
- added the requirements for running speed error;
- added the requirements for connection bolt calculation;
- modified the requirements for design load value;
- modified the impact coefficient;
- added the requirements for material;
- added the requirements for column and track deformation;
- added the requirements for redundant safety structure of vehicle connector;
- added the requirements for gear train shock absorption measures;
- added the requirements for vehicle safety envelope;
- added the requirements for transmission system impact coefficient;
- added the requirements for main connection form;
- modified the safety factor of traction wire rope and traction chain;
- added the requirements for electrical safety functions and their demand levels;
- added the requirements for paint coating;
- added non-reverse test;
- added vehicle speed testing;
- added acceleration testing;
- added column and track deformation testing;
- added interlocking testing;

- added safety bar interlock testing;
- added accompanying documents, marks, packaging, transportation and storage;
- modified Annex A of Edition 2008.

This Standard was proposed by and shall be under the jurisdiction of National Technical Committee on ropeway and rides of Standardization Administration of China (SAC/TC 250).

The drafting organizations of this Standard: China Special Equipment Inspection and Research Institute, Zhongshan Jinma Technology Entertainment Equipment Co., Ltd., Hebei Huatong Sili Amusement Equipment Co., Ltd., Beijing Shibaolai Amusement Equipment Co., Ltd., Sunac (Hainan) Cultural Tourism Operation Management Co., Ltd. Beijing Branch, Hebei China Metallurgical Equipment Manufacturing Co., Ltd., Hebei Zhipao Amusement Equipment Manufacturing Co., Ltd., Shandong Huaye Metallurgical Equipment Manufacturing Co., Ltd., Beijing Jialong Jiuhua Amusement Equipment Manufacturing Co., Ltd., Zhuji Jinhou Amusement Equipment Manufacturing Co., Ltd., Guangdong Daxin Amusement Intelligent Technology Co., Ltd.

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Versions of standard substituted by this Standard are:

- GB 18159-2000, GB/T 18159-2008.

Specifications of amusement rides coaster category

1 Scope

This Standard specifies general rules, technical requirements, inspection, testing and test requirements, accompanying documents, marks, packaging, transportation and storage for amusement rides coaster category.

This Standard is applicable to amusement rides coaster category.

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

GB/T 191, *Packaging and storage marks*

GB/T 755-2008, *Rotating electrical machines - Rating and performance*

GB/T 1032, *Test procedures for three-phase induction motors*

GB/T 1447, *Fiber-reinforced plastics composites - Determination of tensile properties*

GB/T 1449, *Test method for flexural properties of glass fiber-reinforced plastics*

GB/T 1451, *Test method for the Charpy impact resistance of glass fiber-reinforced plastics*

GB/T 3805-2008, *Extra-low voltage (ELV) - Limit values*

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 8408-2018, *Large-scale amusement device safety code*

GB/T 8923 (all parts), *Mapping requirements for the natural disaster remote sensing thematic maps*