

ICS 45.100
CCS J81



**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB 19402-2012

Replacing GB/T 19402-2003

Safety requirements for passengers funiculars

客运地面缆车安全要求

Issued on: September 3, 2012

Implemented on: July 1, 2013

**Issued by: General Administration of Quality Supervision, Inspection and
Quarantine of the People's Republic of China;
Standardization Administration of China**

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Foreword

The standard 3.1 ~ ~ 3.6.7, 3.7, 3.8, 4.1, 4.2, 4.3.1, 4.3.2 3.5, 3.6.1, Chapter 5, Chapter 6, 7.1, 7.2, 7.4, 7.5, 7.6, 8.1, 8.2, 8.5,

8.6 and Appendix B mandatory, the rest are recommended. This standard was drafted in accordance with GB/T 1.1-2009 given rules. This standard replaces GB/T 19402-2003 "passenger ropeway ground technical specifications." This standard and GB/T 19402-2003 compared to the main changes are as follows:

--- Name from "ground passenger cable car technical specifications" to "ground tramway passenger safety requirements";

- Delete terms and definitions (see the 2003 edition of Chapter 3);
- Modify the slope of the line difference allowable value, modified by $\pm 18\%$ to $\pm 20\%$ (see 312, 2003 version 4.1.1.);
- Increased the normal acceleration requirements (see 3.1.5);
- Modify the boundaries of the scope of requirements (see 32, 2003 edition of 4.1.7.);
- Modify the maximum operating speed, modified by 10m/s to 12m/s (see 34, 2003 version 4.2.1.);
- Increased or stop by the station house when the maximum speed requirements (see 3.4.3);
- Modify the effective area of the car by 0.6 0.16 x n revised to 0.6 0.20 x n (see 35, 2003 version 4.3.1.);
- Modified payload and route calculation calculation rope (see 362, 2003 version 5.1.1.);
- Modify the dynamic load factor by 1.2 revised to 1.3 (see 367, 2003 version 5.1.5.);
- Wind loads has been modified by the wind pressure 200Pa modify runtime 0.25kN/m², wind pressure 1200Pa modify decommissioning 0.8kN/m² (see 3661, 2003 version 5.1.4.1...);

1 Scope

GB 19402-2012 is the Chinese national standard on safety requirements for passengers funiculars, in the field of railway engineering. It carries no /T suffix, which in the Chinese system means compliance is mandatory: a product or a practice within its scope has to meet it to be lawfully made, sold or carried out in China. It was issued on 3 September 2012 by the General Administration of Quality Supervision, Inspection and Quarantine of the People's Republic of China; Standardization Administration of China, and has been in force since 1 July 2013. Classification: ICS 45.100, CCS J81. 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 safety requirements for passenger ground cable car design, manufacture, installation, operation and other aspects. This standard applies to commercial passenger ground lifts. This standard does not apply to non-profit-ground commuter cable car lifts and docks, mines, underground professional use.

1.2 Rolled profiles and square tube holder 2

Note. Allow the use of wind tunnel test data obtained.

3.6.7 Dynamic load During the civil structures should consider the effect of the calculation of the track and wheel material, loading of the vehicle should be multiplied by the dynamic load factor $\phi = 1.3$.

2 Normative references

The following documents for the application of this document is essential. For dated references, only the dated version suitable for use herein Member. For undated references, the latest edition (including any amendments) applies to this document.

GB/T 229 metal Charpy pendulum impact test method

GB/T 1031 Geometrical product specifications (GPS) Surface texture Profile method
Surface roughness parameters and their values

GB/T 3480 involute cylindrical gear carrying capacity calculation methods

GB 3805-2008 extra low voltage (ELV) limits

GB 5226.1-2008 Safety of machinery - Electrical equipment - Part I. General technical conditions

GB 8918 important uses rope

GB/T 9075 cableway wire rope inspection and scrap specification

GB 12352 Safety rules for aerial tramway

GB 50007 Code for design of building foundation

GB 50009 building structural load specifications

GB 50010 Design of Concrete Structures Steel structure design specification GB
50017-2003

GB 50061 66kV and below overhead power line design specifications

GB 50231 mechanical equipment installation construction and acceptance of universal norms DL/T 5161.1 ~ 5161.17 electrical equipment installation engineering quality inspection and assessment procedures

3.1 Line Selection

3.1.1 Select the line, you should consider.

--- Local climate and geographical conditions, the cable car through the roads and buildings

across facilities and emergency requirements;

--- Avoid endangering the safety of the tramway has built in the region avalanches, landslides, tsunamis, floods, etc., approved by the competent authorities, to take When precautions exception;

--- Effect of acceleration on the normal staff (see 3.1.5);

--- Rope on the wheel support Toso safety (see 3.1.4);

--- Vehicle safety-oriented, and the slope of the line changes (see 3.1.2);

--- Required braking force and the role of the safety rail brake.

3.1.2 Ground track longitudinal inclination variation value beta (on line, the difference between the lower slope angle) should not exceed $\pm 20\%$ ($\pm 11^\circ 19'$). Variable slope lifts Line is shown in Figure 1. Explanation. alpha

--- differential slope angle; m1

--- the segment slope; m2

--- lower slopes.

1 cable car line schematic variable slope

3.1.3 Trend lines should be smooth to make rope. Should be able to observe from the station to the line on the vehicle deceleration start position at least.

3.1.4 For recessed line, wire rope should be securely supported on Toso round. When the maximum deceleration brake, the rope should not be from Toso float on the wheel.

3.2 Size Limits

3.2.1 Scope limit depends on the vehicle itself lifts the shape and geometry. It should also consider.

a) When the vehicle is running to change the slope of the curve and on the track when the vehicle is moving in the horizontal and vertical directions;

b) the vehicle lateral floating;

c) suspension of the vehicle in all directions possible mobile device;

d) axis with respect to the rail (normal gauge) the possible lateral movement;

e) possible dimensional offsets (such as vehicles, rail position);

f) the obstacle clearance requirements between the hand.

--- All windows can be opened and open vehicles 1.0m;

--- Tilt windows is not less than 0.2m;