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

GB 21976.2-2012

**Escape apparatus for building fire - Part 2: Automatic and
repetitive rescue controlled descent device**

建筑火灾逃生避难器材 第2部分：逃生缓降器

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Foreword

Section 4 of this chapter, Chapter 6, and

7.1 are mandatory, the rest are recommended. GB 21976 "building fire escape evacuation equipment" is divided into the following sections.

- Part 1. with a guide;
- Part 2. escape ease down;
- Part 3. escape ladder;
- Part 4. escape slide;
- Part 5. emergency escape device;
- Part 6. escape justice;

--- Part 7. Fire filter self contained breathing apparatus;

--- Part 8. Chemical Oxygen fire self contained breathing apparatus; This section GB Part of 221,976. This section drafted in accordance with GB/T 1.1-2009 given rules. This section presents the People's Republic of China Ministry of Public Security. This part of the National Standardization Technical Committee appliances Fire Fire accessories Technical Committee (SAC/TC113/SC5) centralized. This section drafted by: Ministry of Public Security Shanghai Fire Research Institute. The main drafters of this section. Li Baozhong, Zhou Wei-wide, gold Wei, Ma Weiguang, Han Xiang, Li Shen, Sun Weidong. This section first release. Building fire escape evacuation equipment Part 2. escape ease down

1 Scope

GB 21976.2-2012 is the Chinese national standard on escape apparatus for building fire - part 2: automatic and repetitive rescue controlled descent device, in the field of environment and health protection, safety. 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 5 November 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 June 2013. Classification: ICS 13.220.10, CCS C85. 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 section GB 21976 specifies the escape ease down (hereinafter referred to as slow descent) model, technical requirements, test methods, inspection rules, Signs, packaging, transport and storage. This section applies to the governor, ropes, belts, safety hooks, metal fittings and rope reel composition, relying on user security weight Decline and slow descent can be used reciprocally.

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 191 Packaging - Pictorial signs

GB/T 9969 General Instructions industrial products YB/T 5197 rope aviation

3 Models

Model ease down by the class code with the main group of parameters, the following form.
Escape Evacuation Equipment Ease down - - Cable length in meters (m) Example. 30m
length of rope ease down, the model for the TH-30. 4. Technical Requirements

4.1 appearance quality Ease down the various components should be no deformation, damage and other anomalies. The outer surface of the metal parts should be smooth, no rust, spots, burrs and corrosion Etching treatment. Rope ends should be protected was bandaged.

4.2.1 Ropes

4.2.1.1 Wire Rope Aviation should be used with wire rope diameter shall be not less than 3mm, the material shall comply with the YB/T 5197 requirements of.

4.2.1.2 cored rope Cord rope aviation should be used in diameter not less than 3mm, the material shall comply with the YB/T 5197 requirements of. Outer material should be cotton Yarn or synthetic material. Whole rope should be consistent with the structure, tightly woven, uniform thickness, no distortions.

4.2.2 belt Seat belt material should be cotton or synthetic material. Bandwidth 40 mm ~ 80 mm, with a thickness of 1 mm ~ 3 mm, with a long 1000mm ~ 1800mm, and the length can be adjusted with a buckle by user bust size.

4.2.3 safety hook Safety hook should be made of a metal material and a safety device to prevent misuse of open, reliable safety device should be locked.

4.2.4 rope reel Rope reel by rubber, plastic and other non-metallic material, and no sharp edges and protrusions.

4.3 Strength

4.3.1 strength machine Ease down after strength testing machine, rope, governor and other components should force no significant deformation, breakage, detachment and other anomalies.

4.3.2 belt and metal fittings strength Belts and metal connectors after strength test, the seat belt webbing, buckles and metal fittings shall cause rupture phenomenon.

4.3.3 Safety hook intensity After the safety hook by strength testing, body and safety hook safety device shall not obvious deformation, fracture, loss and other anomalies.

4.3.4 rope strength After the rope strength testing without obvious deformation, breakage, cored rope may not happen with the cord from the outer phenomena.

4.4 The rate of decline

4.4.1 Different load rate of decline Minimum load specified in Table 1, the standard load and

maximum load state, slow down the rate of decline should be 0.16m/s ~ 1.5m/s.

4.4.2 repetition rate of decline In the standard load conditions, the rate of decline slow down each time with respect to the rate of decline was repeated 20 times the average deviation should not exceed $\pm 20\%$.

4.4.3 lowering speed rope after soaking Ease down rope soaked in water after a standard test load rate of decline, the rate of decline should be 0.16m/s ~ 1.5m/s. Table 1 in units of Newton Load the type of load value The minimum load of $343 \pm$

5 The maximum load of 981 ± 5

4.4.4 After the cold treatment the rate of decline Ease down after low temperature treatment standard load lowering speed test, the rate of decline should be 0.16m/s ~ 1.5m/s.

4.4.5 After the high temperature treatment rate of decline Ease down after the high temperature treatment standard load lowering speed test, the rate of decline should be 0.16m/s ~ 1.5m/s.

4.5 anti-drop performance After the slow descent through the drop test, the governor, safety hooks, belts, ropes and rope reel and other components should be no breakage, damage and other anomalies. Then the standard rate of decline in the load test, the rate of decline should be 0.16m/s ~ 1.5m/s.

4.6 impact resistance Ease down after the impact test, the governor, safety hooks, belts, ropes and other components should be no significant deformation, damage and other anomalies. then Standard load lowering speed test, the rate of decline should be 0.16m/s ~ 1.5m/s.

4.7 Reliability Ease down after minimal load reliability test, a standard load, maximum load lowering speed test, the rate of decline should be 0.16m/s ~ 1.5m/s. Test speed, safety hooks, ropes should be no deformation, damage and other anomalies.

4.8 Corrosion Resistance Ease down after salt spray test, the metal parts should be no significant corrosion. Then the standard rate of decline in the load test, the decline Speed should be 0.16m/s ~ 1.5m/s.

5.1 Test conditions Conditions

5.1.1 The test shall be the rate of decline wind speed of not more than 2m/s is the next.

5.1.2 When the slow descent rope sample length is less than 15m, height drop test speed test is the length of the rope; the rope when the sample When the length is not less than 15m, height drop test speed test is 15m.

5.2 appearance quality inspection By visual method to ease down for visual quality