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NATIONAL STANDARD OF THE PEOPLE'S REPUBLIC OF CHINA

GB/T 27906-2026

Replacing GB/T 27906-2011

Line throwing appliances

救生抛投器

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Foreword

This document complies with the provisions of GB/T 1.1-2020 "Standardization Work Guidelines Part

1.Structure and Drafting Rules of Standardization Documents". Drafting. This document replaces GB/T 27906-2011 "Rescue Throwing Devices". Compared with GB/T 27906-2011, the main differences are structural adjustments and editorial changes. Aside from the modifications, the main technical changes are as follows:

a) The scope has been changed (see Chapter 1, Chapter 1 of the.2011 edition);

b) Terms and definitions have been changed (see Chapter 3, Chapter 3 of the.2011 edition);

c) The model designation method has been changed (see Chapter 4, Chapter 4 of the.2011 edition);

d) General requirements and test methods have been added (see 5.1, 6.1);

e) The appearance requirements have been changed (see 5.2,

5.1 in the.2011 version);

f) Structural requirements and test methods (sections

6.2 in the.2011 edition) have been removed;

g) The test methods for projectile distance and projectile deviation angle have been modified (see 6.3,.2011 version of 6.3);

h) Quality requirements and test methods have been added (see

i) The requirements and test methods for salt spray corrosion resistance have been revised (see 5.5, 6.5, and

6.4 in the.2011 edition);

5.1 General Requirements

5.1.1 The pneumatic projectile shall be equipped with a projection pressure gauge with an accuracy of not less than

2.5 and a minimum graduation value not greater than

0.5 MPa, in a dark environment. The pressure reading should be able to be read under normal conditions.

5.1.2 The launcher shall be equipped with a launch safety device. The disengagement action of the safety device shall be distinct from the launch action of the launcher, and the safety device shall... It has an automatic reset function.

5.1.3 For launchers equipped with a base, the base shall have stabilizing measures and shall be equipped with a launch angle adjustment device. Additionally, the launcher body or base shall be equipped with a launch angle adjustment device. The nominal emission angle is noted above.

5.1.4 The pneumatic projectile body or base shall be marked with reference values for the projectile pressure and projectile distance at the nominal launch angle; the electric projectile... The reference values for projectile power and projectile distance at the nominal launch angle should be marked on the projectile body or base.

5.1.5 If the thrown object contains general lifesaving equipment, it shall comply with the relevant standards and regulations; if the thrown object contains rope, it shall be equipped with a rope reel. Device.

5.1.6 Pneumatic throwing devices with external air supply function shall have interfaces that comply with the requirements of XF124.

5.2 Appearance Requirements

5.2.1 The surface of the life-saving thrower (hereinafter referred to as "thrower") should be smooth and free from defects such as burrs, pinholes, looseness, cracks, and scars.

5.2.2 The connectors and fasteners of the throwing device shall be securely assembled.

5.3 Performance Parameters The performance parameters of the projectile should conform to the provisions of Table 2, and the launching distance should not be less than the rated launching distance.

5.4 Quality

5.4.1 The mass of the throwing device itself should not exceed 15 kg.

5.4.2 The weight of the base of the throwing device (where applicable) should not exceed 15 kg.

5.5 Salt spray corrosion resistance After a 120-hour neutral salt spray test, the metal parts of the projectile should not show significant corrosion, and the launching distance should not be less than the rated distance. 90% of the launch distance.

5.6 Sealing performance During the sealing performance test, no leakage should occur in any of the pressurized components of the pneumatic thrower.

5.7 Pressure Resistance After undergoing a pressure resistance test at twice the rated working pressure, there should be no leakage or deformation in any of the pressure-bearing components of the pneumatic throwing device.

5.8 High Temperature Resistance After the high-temperature test, the projectile should show no obvious swelling, adhesion, or delamination of any components, and the projectile distance should not be less than the rated projectile distance. 90%.

5.9 Low-temperature resistance After the low-temperature test, the components of the projectile should show no obvious shrinkage, cracking, or brittleness, and the launching distance should not be less than the rated launching distance. 90%.

5.10 Reliability Performance After reliability performance testing, no parts of the launcher should detach or break, and the launching distance should not be less than the rated launching distance. 90%.

5.11 Safety valve opening pressure The opening pressure of the safety valve of the pneumatic throwing device should be

1.1 times the rated working pressure, and the error should not exceed ±0.5MPa.

5.12 Gas Cylinder The steel gas cylinders in the launcher should meet the requirements of GB/T 5099, and the aluminum alloy gas cylinders should meet the requirements of GB/T

11640.(The last part, "compound gas," appears to be incomplete and possibly refers to a different gas type.) The bottle should meet the requirements of GB 28053.

5.13.1 Rope

5.13.1.1 Rope Appearance The surface of the rope should not have any mechanical damage, and the entire rope should be of uniform thickness and consistent structure.

5.13.1.2 Rope breaking strength The breaking strength of land-based ropes should not be less than 2kN, and the breaking strength of water-based ropes should not be less than 6kN.

5.13.1.3 Buoyancy performance of water ropes The rope used for water should be able to float on the water surface, and the floating time should not be less than 1 hour.

5.13.2 Inflatable life ring

5.13.2.1 Fabric breaking strength The warp and weft tensile strength of the fabric of an inflatable life ring should not be less than 800N.

5.13.2.2 Fabric tear strength The tear strength of the fabric in an inflatable life ring should not be less than 35N in the warp and weft directions.

5.13.2.3 Buoyancy and Buoyancy Loss The buoyancy of an inflatable life ring should not be less than 100N, and the buoyancy loss should not exceed 5% after immersion in water for 12 hours.

5.13.2.4 Inflation performance Inflatable life rings should have the function of automatically inflating and unfolding upon contact with water, and the time to fully unfold should not exceed 5 seconds.

5.13.2.5 Tensile strength of the inflation head The inflation head of an inflatable life ring should not be affected by a tensile force of 220N.

5.13.2.6 Internal Overpressure Performance The internal pressure of the inflatable life ring reaches 70 kPa, and no signs of damage should appear after maintaining this pressure for 2 minutes.

5.13.3 Anchor Hook

5.13.3.1 Claw Strength When a single hook claw of the anchor is subjected to a tensile force of 11kN, it should not break or suffer structural failure that affects its function.

5.13.3.2 Connection Strength The connection between the anchor hook and the rope or other traction device should not break or be damaged when subjected to a tensile force of 20kN.

5.14 Operational Performance The release force of the safety device of the launcher shall