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

GB 32459-2015

**Fire emergency rescue equipments - General technical
specification for manual rescue tools**

消防应急救援装备 手动破拆工具通用技术条件

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Foreword

This standard Chapter 5, Chapter 7 and

8.1.1 is mandatory, the rest are recommended. This standard was drafted in accordance with rules GB/T 1.1-2009 given. The standard proposed by the People's Republic of China Ministry of Public Security. This standard by the National Fire Protection Standardization Technical Committee (SAC/TC113). This standard was drafted. Ministry of Public Security Shanghai Fire Research Institute. The main drafters. Nguyen Zhen, Zhao Yihui, Zhu Qing, Zhang Lei, FU Jian bridge, Shi Wei. Emergency rescue equipment Manually operated rescue tools conditions

1 Scope

GB 32459-2015 is the Chinese national standard on fire emergency rescue equipments -

general technical specification for manual rescue tools, 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 31 December 2015 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 2016. 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 standard specifies the fire emergency rescue equipment in terms and definitions hand rescue tools, classification and models, technical requirements, test methods, Inspection rules and signs, packaging, transportation and storage. This standard applies to manual firefighters rescue tools used in rescue operations in fire fighting and rescue.

2 Normative references

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

GB/T 191 Packaging Pictorial signs Determination of vulcanized rubber or thermoplastic rubber tensile stress - strain properties GB/T 528

GB/T 531.1 vulcanized rubber or thermoplastic rubber hardness test pressure into Part 1. Method Shore Hardness (Shore Hardness)

GB/T 1931 wood moisture content determination method

GB/T 6060.2 surface roughness comparison specimens ground, bored, milled, shaped and planed Ratings and metal test specimens and the

GB/T 6461-2002 metallic substrate by etching other inorganic coating layer after the test

GB/T 9969 General Industrial Product Manual

GB/T 10125-2012 artificial atmosphere corrosion test Salt spray test

3 Terms and Definitions

The following terms and definitions apply to this document.

3.1 Manual rescue tools manualrescuetooll Collectively variety of human rescue tools without the aid of electricity, fuel, gas and other drives, carried and operated by a single person's firefighters.

3.2 Impact Po Chai percussiverescuetool And by the piston Qianzai punch, chisel composed mainly rescue tools used to manually open and concrete masonry structures obstacle.

3.3 Fire Naogou longhandhook By a single or double hooks with a hook head flexible rods, mainly for rescue ceiling, a manual rescue tools open channel other operations.

3.4 Pry ax pryaxe Having a portable hand picking nail pull rescue tools, cutting chisel and a thin steel sheet, cutting and other functions.

3.5 Manual rescue tools group manualrescuetoolkit Combination with a variety of hand tools rescue rescue function.

4 Elongation at break /% ≥ 250 ≥ 200 Permanent deformation at break /% $<$

20 Shore A hardness/HA 75 ± 5 NOTE. aging conditions of temperature 70°C , time 144h.

5.4.2 wood material moisture content Manual rescue tool handle made of wood material, the wood material moisture content should not exceed 16%.

5.4.3 Salt spray corrosion resistance of metal materials Partially manual rescue tools of the metal after 48h neutral salt spray test GB/T 10125-2012 predetermined, should be consistent with the appearance of GB/T 6461-2002 appearance rating slight predetermined level requirements.

4.1 Classification code and main parameters

4.1.1 Manual rescue tools and functions can be divided according to the structure.

- fire ax, code-named XF;
- Fire waist ax, codenamed YF;
- Fire Naogou under the symbol NG;
- impact ripper, a code for CJ;
- pry ax, code-named XF; QF.

4.1.2 rescue tools manual master parameters are as follows:

- fire ax, ax waist fire, fire Naogou, the total length of pry ax [millimeters (mm)];
- is an impact ripper impact stroke [millimeters (mm)].

4.2 Model Manual Model methodology rescue tools should meet the following requirements. PS Manual rescue tools Feature code (see 4.1.1) The main parameters (see 4.1.2)/Enterprise custom Example 1. The total length of 2500mm, fire rated tension of

1500N model Naogou PSNG-2500/1500. Example 2. 810mm length of the fire ax (ax flat) model PSXF-810/P. Example 3. The total length of 285mm waist ax fire model PSYF-285. Example 4. The impact stroke of 400mm Type of impact ripper PSCJ-400. Example 5. The total length of 800mm pry ax model PSQF-800.

5.1 Appearance requirements

5.1.1 Manual rescue tools should be simple structure, solid and reliable, the surface should be smooth, flat, there should not affect operation of cracks, burrs, bump damage For defects and performance.

5.1.2 rescue tools hand casting surface should be smooth, without cracks, porosity, shrinkage, defects such as trachoma.

5.1.3 Manual rescue tools, such as metal surfaces for painting, the paint surface should not hang paint, bubbles and other defects.

5.1.4 The rescue tools hand welding process, the weld surface may not have weld, slag inclusions, cracks, craters and other defects.

5.1.5 The use of rescue tools hand threaded, the thread may not have tooth decay, breakage and flaws in strength.

5.1.6 rescue tools hand edge portion should be structured, a surface roughness Ra not greater than 6.3 μ m.

5.1.7 rescue tools hand, if the rubber handle sets, the surface should be no pit, bubble, defects such as slag, and patterns should be regular, clear.

5.2 Quality Requirements Mass one-piece hand rescue tools should not exceed 10kg, rescue tools hand set of quality should not exceed 25kg.

5.3 Safety Requirements

5.3.1 insulation Manual rescue tool handle to be insulated handle portion 2h immersion insulation resistance should be not less than 10M Ω .

5.3.2 tensile properties from Manual rescue tools of the tool head and the handle non-integrated structure, to be fitted securely, when tension is applied 12500N, should Pull off.

5.4 Material Requirements Physical and mechanical properties of rubber materials

5.4.1 Manual rescue tool handle made of a rubber material, their physical and mechanical properties of the rubber material should meet the requirements of Table 1. Table 1 manual rescue tool handle required physical and mechanical properties of a rubber material After