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

GB 8337-2011

Replacing GB 8337-1996

Fusible plug device for gas cylinders

气瓶用易熔合金塞装置

(English Translation)

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Foreword

All technical contents of this standard is mandatory.

The standard according to GB/T 1.1-2009. drafting rules "Standardization Guide Part 1 standard structure and preparation of" analysis.

Instead of the standard GB 8337-1996 "with a fusible alloy cylinder plug." this standard GB 8337-1996 comparison, the main technical changes are as follows.

--- The "fusible alloy plug" to "fusible alloy plug device."

--- the fusible plug means well known to increase an operating temperature. 102.5 °C for the nominal working pressure is greater than 3.45MPa not more to 30MPa cylinders. And the nominal operating temperature of 70 °C fusible plug restrict the use of the apparatus a predetermined pressure.

--- increased anti nominal working pressure for not more than 3.45MPa greater than 30MPa cylinder fusible plug means and the extrusion test Fatigue test requirements.

--- fusible plug increases the pressure tightness test apparatus, the test pressure cylinders original nominal working pressure increased to 1.25 times the Cylinders nominal working pressure.

--- Appendix A for increasing the nominal working pressure of not more than 3.45MPa greater than 30MPa cylinder fusible plug fusible device Requirements alloy formulations.

Standard reference using the revised American edition 2005 Compressed Gas Association CGAS-1.1 "pressure relief means the first part. Pressure Compressed gas cylinder "of the content, the content is consistent in the art, it is not equivalent.

This standard is proposed and managed by the National cylinder Standardization Technical Committee (SAC/TC31).

This standard was drafted. Elephant valve Ltd., Shanghai Star to Environmental Equipment Co., Ltd., Ningbo Fu valves, gas Shanghai Body Valve Plant, Beijing Tianhai Industry Co., Ltd., Shanghai Dahua New brazing materials factory.

1 Scope

This standard specifies the basic requirements fusible alloy plug apparatus (hereinafter referred to as "fusible plug device") manufacture, inspection, testing and acceptance.

This standard applies to the cylinder mounted on the fusible plug means, the fusible alloy cylinder valve with a predetermined reference may be present standards.

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 469 Lead ingots GB/T 728 tin ingot GB 8335-2011 special threaded cylinder GB/T 7306.2-2000 55 ° pipe thread seal Part 2. Taper internal and the external threads GB/T 13005 The term & cylinders YS/T 72 Cadmium Ingot YS/T 536 (all) chemical analysis of bismuth

3 Terms and Definitions

GB/T 13005 defines the following terms and definitions apply to this document.

Fusible plug means fusibleplugdevice it is carried out by flowing the fusible alloy plug hole or melting operation can not be repeated opening and closing, a removable pressure relief means. In normal the case where the plug hole in a closed state, at a given temperature in

the plug hole to flow or melt the fusible alloy, so that the medium release bottle relief cylinders.

3.1.1.

Plug plugbody

It provided with removable plug hole member used for filling a plug hole fusible alloy.

3.1.2.

Fusible alloy fusiblealoy Low melting point metal material is formulated as a low-melting alloy by a certain percentage.

Fusible alloy flow temperature yieldtemperatureoffusiblealoy when tested in accordance with the provisions of 8.2, the eutectic temperature of a gold sample glycerin bath fuse.

Fusible plug means operating temperature yieldtemperatureoffusibleplugdevice when tested in accordance with the provisions of 8.3, fusible plug means the temperature of the fusible alloy extrusion glycerin bath when gas leakage.

Batch batch

Fusible plug means the same specifications, the same formulation fusible alloy, in the same manufacturing process and the same heat fusible alloy being defined by continuous infusion quantity.

4 Structure type and basic parameters

The basic structure type 4.1 fusible plug means Fusible plug means consists of two parts of the plug body and ease fluxing composition, the basic structure of the type shown in Figure 1.

Description.

1 --- plug;

2 --- fusible alloy.

1 a schematic view of the basic structure type fusible plug device of FIG.

4.2 Fusible alloy flow temperature

Fusible alloy flow temperature should meet the requirements of the operation temperature of the fusible plug means, the flow temperature range and deviation should satisfy 4.3
Fusible plug means a predetermined operation temperature.

4.3 Fusible plug means operating temperature

Operating temperature fusible plug device is divided into three. 70 °C $\pm$ 2 °C (nominal operating temperature was 70 °C, except for the well-dissolved acetylene cylinders He said working pressure is less than or equal to the cylinder 3.45MPa); 100 °C $\pm$ 5 °C (nominal operating temperature of 100 °C, for acetylene cylinders);

102.5 °C $\pm$ 5 °C (nominal operating temperature was 102.5 °C, for the nominal working pressure of 30MPa and not more than 3.45MPa greater than Cylinders).

5.1 Plug material

5.1.1

plug material should have sufficient mechanical properties and corrosion resistance, and should be compatible with the media bottle.

5.1.2

plug material copper alloy, steel or other suitable metal should be used. Plug for dissolved acetylene cylinders, non-selected amount of copper 70% of the copper alloy, and silver, zinc, cadmium and its alloys.

5.1.3

chemical composition and mechanical properties of the plug material should conform to appropriate technical standards, to meet the requirements of manufacture and use, and should be effective the quality certificate, or should retest.

5.2 Plug basic types

5.2.1

plug type can be substantially Referring to FIG 2, other types may also be employed. However, any type of plug, which shall be constructed to have sufficient Strength and stiffness, can not be deformed in use.

5.2.2

In vitro threaded plug should PZ27.8 PZ19.2 or conical external threads, or GB specified in GB 8335-2011/T 7306.2-2000 specified in R21/R21 or 4 /. 8 conical external threads.

a) Cone b) stepped hole c) a threaded bore 2 a schematic view of the basic version of the plug body Easy 6-fluxing

6.1 Configuration fusible alloy materials shall comply with relevant technical standards, and should have a valid certificate of quality, or should retest.

6.2 fusible alloy should be bismuth, lead, tin, cadmium gravimetrically composition suitable eutectic alloy containing bismuth content of not less than 48%, the formula See Appendix