

ICS 25.140.30

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

**GB 24459-2009**

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**Non-sparking beryllium copper alloy tools  
(English Translation)**

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Administration of the People's Republic of China**

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3 Classification and specification dimensions

3.1 Classification

1 single head wrench single head - round

2 double-headed wrench double-headed - round

3 chisel - - -

4 round hammer - - -

5 octagonal hammer - - -

6 barrel wrench - - flat type

7 wrench - - -

8 pipe clamps - 23 ° -

9 word spinning - - ordinary type

10 single head plum wrench single head 15 °, 45 ° -

11 double-headed wrench wrench double head 15 °, 45 ° -

12 carp pliers - - -

13 steel pliers - - -

15 other can be manufactured according to user requirements

3.2 Size

10 x 13 10 + 0.19 + 0.04 13

13 x 16 13 + 0.19 + 0.04 16

16 x 18 16 + 0.27 + 0.05 18

18 x 21 18

21 x 24 21

24 x 27 24

27 x 30 27

30 x 32 30

32 x 36 32

36 x 41 36

41 x 46 41

20 x.200.200 50 20 3 19

27 x.200.200 70 27 4.5 25

27 x 250 250 70 27 4.5 25

1 ?? 30 40

4.5 x 50 50 5 0.6  $4.5 \pm 0.2$

4.5 x 75 75 5 0.7  $5.5 \pm 0.3$

6 x 100 100 5.5 0.8  $6 \pm 0.3$

7 x 125 125 6 0.9  $7 \pm 0.3$

8 x 150 150 7 1.0  $8 \pm 0.3$

9 x.200.200 8 1.1  $9 \pm 0.3$

10 x 250 250 8 1.2  $10 \pm 0.3$

10 x 300 300 8 1.2  $10 \pm 0.3$

10 x 13  $10 + 0.24 + 0.04$  13

13 x 16  $13 + 0.30 + 0.04$  16

16 x 18  $16 + 0.35 + 0.05$  18

18 x 21 18

21 x 24 21

24 x 27 24

27 x 30 27

30 x 32 30

32 x 36 32

36 x 41 36

41 x 46 41

200.200 minimum  $47 \pm 3$  12 max 50 max 4 max

4 requirements

4.1 Materials

4.2 explosion resistance of beryllium copper alloy

4.3 size

4.4 appearance

4.5 Hardness

4.6 Strength

4.7 performance

100 to 150.200 to 250 300 to 375

4.8 Shear strength

5 test method

5.1 Chemical composition

|                                                    |                                                          |
|----------------------------------------------------|----------------------------------------------------------|
| 5.2                                                | Explosion-proof performance                              |
| 5.3                                                | Dimensions                                               |
| 5.4                                                | Appearance                                               |
| 5.5                                                | Hardness                                                 |
| 5.6                                                | Strength                                                 |
| 6 to 10                                            | below 0-0.040                                            |
| 10 ~ 18                                            | below 0-0.043                                            |
| 18 to 30                                           | or less 0-0.052                                          |
| 30 to 50                                           | or less 0-0.062                                          |
| 29.4 (3) 49 (5) 96 (10) 196 (20) 294 (30) 490 (50) |                                                          |
| 5.7                                                | performance                                              |
| 5.8                                                | Shear strength                                           |
| 6                                                  | inspection rules                                         |
| 6.1                                                | Type of inspection                                       |
| 6.2                                                | factory inspection                                       |
| 6.3                                                | Type inspection                                          |
| 6.4                                                | Inspection and judgment rules                            |
| 3                                                  | Hardness B 4.5 5.5 sqrt sqrt                             |
| 4                                                  | strength (wrench class) B 4.6 5.6 - sqrt                 |
| 5                                                  | Shear strength (pliers) B 4.8 5.8 - sqrt                 |
| 6                                                  | performance (pull class clamp class) B 4.7 5.7 sqrt sqrt |
| 7                                                  | edge size accuracy B 4.3 5.3 sqrt sqrt                   |
| 8                                                  | Basic dimensions C 4.3 5.3 sqrt sqrt                     |
| 9                                                  | Appearance Quality C 4.4 Visual inspection sqrt sqrt     |
| 11                                                 | Product packaging C 7.2 Visual inspection sqrt sqrt      |
| 7                                                  | mark, packaging, transportation, storage                 |
| 7.1                                                | mark                                                     |
| 7.2                                                | logo                                                     |
| 7.3                                                | Packaging                                                |
| 7.4                                                | transportation, storage                                  |

## Foreword

4.1,4.2 and 7.1 of this standard are mandatory and the rest are recommended.

The use of this standard JISM7615-1987 "beryllium copper alloy explosion-proof tool

category."

The main differences between this standard and JISM7615-1987 are as follows.

- the standard to delete the word with the strength of the relevant content;
- This standard adds Chapter 6 "Inspection Rules";
- This standard adds Chapter 7, "Marking, Packaging, Transportation, Storage".

This standard is proposed by the China Light Industry Federation.

This standard is under the jurisdiction of the National Committee for the Standardization of Hardware Products.

The drafting unit of this standard. National Light Industry Explosion-proof Tools Quality Supervision and Testing Center, Tianjin Hardware Tools Research Institute, Tianjin Factory, Cangzhou Bohai Explosion-proof Special Tools Co., Ltd., Shijiazhuang Xinda Explosion-proof Tools Factory, Shijiazhuang Yu-hsin explosion-proof tool limited liability the company.

## 1 Scope

This standard specifies the beryllium copper alloy explosion-proof tool classification, size, requirements, inspection methods, inspection rules and signs, packaging, transportation, Storage.

This standard applies to mines, factories and ships, vehicles, aircraft, oil, chemical, military, gunpowder, oil depots, petrol stations and other industries in the production, storage

The beryllium copper alloy explosion-proof tool used in the environment where the mechanical sparks may cause an explosion.

## 2 normative reference documents

The terms of this document are hereby incorporated by reference into this standard. Whichever is the date of the reference file, which is followed by all

The amendments (not including corrigenda) or revisions do not apply to this standard, however, the parties that encourage the agreement under this standard are

No use of the latest version of these files. For undated references, the latest edition of this document applies to this standard.

GB/T 230.1 Metallic materials - Rockwell hardness test - Part 1. Test methods (A, B, C, D, E, F, G, H, K, N, T)

(GB/T 230.1-2009, ISO 6508-1..2005, MOD)