

ICS 17.040
CCS A 52

JJG

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

JJG 30-2012

Replacing JJG 30-2002

**Verification Regulation of Current Calipers
(English Translation)**

Issued on: January 1, 1970

Implemented on: January 1, 1970

**Issued by: General Administration of Quality Supervision, Inspection and
Quarantine**

Table of Contents

Introduction (II)

1 Scope (1)

2. References (1)

3 Overview (1)

4 Metering performance requirements (4)

4 Metering performance requirements (4)

Width and width difference (4) 4.1 scale mark

4.3 Measuring surface flatness (4)

The basic size deviation and parallelism within 4.4 arc jaws (5)

5.2 Interaction of each part (6)

5.3 the relative position of each part (6)

6.3 Test methods (8)

Processing 6.4 Verification Results (11)

6.5 Test cycle (11)

Appendix A calibration certificate/test results in the notice page and format (12)

Introduction

JJG 30 "Universal caliper", JJG 31 "height caliper", JJF1072 "tooth thickness caliper calibration specification" common structure Technical regulations to meter gauge calipers class.

JJG 30 "Universal caliper" Writing is a "national verification procedures to write the rules," according to the JJF1002-2010 Provisions of JJG 30-2002 "Universal caliper" subject to revisions. "Universal caliper" Compared with JJG 30-2002, the main technical changes in addition to editorial changes outside as follows.

--- Based JJG 146-2011 "Block", the abolition of the technical requirements of 6 equal blocks (see 6.2);

--- Based JJG 63-2007 "knife-shaped ruler" to cancel the 0 and level 1 requirements (see

6.2);

--- Taking into account the depth of the caliper have I, II, III kinds of structure type, and is the most common type I, test procedures Scope depth caliper type I limited depth caliper, with reference to the implementation of other types;

--- Indication of the maximum permissible error, cancel the (0 ~ 150) mm stepper, are classified as less than 200mm of system an index, while increasing (0 ~ 70) mm sub-block (see 4.9);

--- Cancel "knife-edge within the jaws of the basic dimensions" requirement, instead of the error within the jaws of the knife shown is controlled System (see 4.9 and 6.3.12);

--- Increase digital caliper interpolation error class requirements (see 4.9 and 6.3.12);

--- Increased foot body length requirements (see 5.2.3);

--- The relative position of each part of the increase "vernier and main scale engraved lines engraved lines should be parallel, not visible eyesight pour Oblique "requirements (see 5.3.1);

--- Increase "when two outer caliper amount claw merger, eyesight should be no visible gap" requirements (see 5.3.4);

--- Increase in the measurement error performance requirements shown in the "cursor with a table or digital calipers outer jaws indication error in Inside and outside ends of the two measurement positions, which is not more than the absolute value of the difference between the readings of the measuring range of the corresponding maximum permissible error, "the Regulations to control and ensure that the actual use of the caliper jaws parallelism and size of the outer end of the inside (see 4.9).

Previous version JJG 30-2002 release conditions.

--- JJG 30-1992, JJG 32-1987, JJG 192-1979, JJG 400-1985, JJG 526-1988 merger;

--- JJG 30-1984.

Universal caliper test procedures

1 Scope

This procedure is applied to the value or indexing resolution of 0.01mm, 0.02mm, 0.05mm and 0.10mm, measured an amount ranging from 0 ~ 2000mm various specifications cursor with a table or digital calipers, I type depth caliper initial verification, subsequent Check verification and use of other types of calipers may also be implemented by reference.

2. References

This procedure references the following documents.

GB/T 21388-2008 cursor, with table and digital display depth caliper GB/T 21389-2008 cursor, with table and several Caliper for dated references, only the dated edition applies to this procedure; undated reference documents Member, the latest edition (including any amendments) applies to this procedure.

3 Overview

Caliper is the use of common foot box with jaws (or plane) relative motion foot body through a cursor, indicating Digital table or displayed on the pitch parallel ruler ruler box body and two jaws (or measuring surface) between the outer scale for measuring Inch, size and depth in the size and blind holes, stepped holes and grooves and other relevant dimensions of the measuring instruments. The main structure Respectively form a caliper (see Figure 1, Figure 2, Figure 3), digital calipers (Figures 4 and 5), with table caliper (see

Figure 6), I type vernier caliper depth (see Figure 7), I type digital depth caliper (see Figure 8).

Vernier caliper amount claw Fig.1 with blade Jaw blade within 1-; 2- foot frame; 3- fastening screw; 4- foot body; 5- main scale;

6- depth measuring rod; 7- depth measurement surface; 8- vernier; 9- outer jaws