

ICS 17.040
CCS A 52

JJF

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

JJF 1410-2013

Replacing JJG 671-1990

**Calibration Specification for Dynamical Screw Travel Testers
(English Translation)**

Issued on: January 1, 1970

Implemented on: January 1, 1970

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

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Introduction

This specification is mainly based on the standard GB/T 17587.1-1998eqvISO 3408-3.1992 "Ball Deputy Part 1. Terminology and Symbols", GB/T 17587.3-1998eqvISO 3408-3.1992" Ball Vice - Part 3. Acceptance conditions and acceptance tests. " the specification for the revision, instead of JJG671-1990 "screw dynamic measuring instrument." Dynamic measuring instrument from the screw stroke the principle and function of departure, redefined the metrological characteristics of the portfolio, including.

--- Probe frame motion instead of straightness in horizontal and vertical straightness when the movable table;

--- Probe head frame motion frame/tailstock parallel connection of the head frame/flat tailstock connection with the primary rail Tailstock and a line of direction of movement of the direction of movement of the probe frame of two parallel composition metrological characteristics, instead of the head frame spindle taper Axis of the hole and tailstock sleeve taper from the center line of the table moving rail difference value, the centerline of the headstock spindle taper Parallelism with the table moving direction, tailstock sleeve taper parallel to the center line of the moving direction of the table and so on;

--- Stroke indication error instead of the x-axis is moved around the table, swing y-axis and z-axis;

Integrated measurement reproducibility --- instead of a multiple installation measurement repeatability and reproducibility of measurements multiple installations.

Standards and calibration methods have also been adjusted accordingly.

JJG671-1990 for the first release.

Screw Dynamic Travel gauge calibration specification

1 Scope

This instruction applies to Screw Dynamic Travel meter calibration.

2. References

This specification refers to the following documents.

JJF 1071 National Calibration Specifications writing rules the first part of the 1991 ball screw 1.. GB/T 17587.1-1998eqvISO 3408-1 and terminology symbol Part 1992 Ball screws 3.. GB/T 17587.3-1998eqvISO 3408-3 and acceptance conditions Acceptance inspection for dated references, only the dated edition applies to this rule; undated reference documents Member, the latest edition (including amendments) apply to this rule.

3 Terms

Terms and definitions GB/T 17587.1-1998 defined apply to this specification.

3.1 target stroke l_s specified travel [GB/T 17587.1-19983.2.4.5} Goal lead with the rotation number of turns of the product.

Note: Sometimes the nominal target stroke by stroke and stroke compensation values.

3.2 The actual average travel l_m actual mean travel [GB/T 17587.1-19983.2.4.7} Having a minimum of actual travel straightness deviation line.

3.3 effective stroke l_u useful travel [GB/T 17587.1-19983.2.4.8} Has designated precision

stroke portion (ie, travel plus the length of the ball nut body).

3.4 The actual mean travel deviation e_{0a} or e_{sa} actualmeantraveldeviation e_{0a} oresa {GB/T 17587.1-19983.2.5.3] in the effective stroke, the actual average travel itinerary l_m nominal difference of l_0 or actual average travel l_m target L_s the difference between the stroke.

3.5 V travelvariation stroke volume variation [GB/T 17587.1-19983.2.6} Parallel to the actual mean travel l_m and the actual value of the bandwidth inclusive trip curve.

Note: The amount of change in itinerary has been provided. 2π radian stroke and corresponding bandwidth value $V_{2\pi}$; 300mm travel with relative bandwidth V_{300} Correspondence; effective stroke bandwidth values V_u , respectively.

Note: The above bandwidth allowed bandwidth (symbol is "p") and the actual bandwidth (symbol "a") of the difference.

For example. within 300mm stroke length allows bandwidth V_{300p} ; actual bandwidth efficient travel within the V_{ua} .

4 Overview

Screw Dynamic Travel meter (hereinafter referred to as the screw measuring instrument) is a measure of the quality of the screw stroke equipment, measuring wire