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JJG

NATIONAL METROLOGY VERIFICATION REGULATION OF THE PEOPLE'S REPUBLIC OF CHINA

JJG 1086-2013

Verification Regulation of Pneumatic Piston Gauge

气体活塞式压力计

(English Translation)

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Introduction

JJF1002 "national verification procedures write rules", JJF1001 "common measurement terms and definitions" JJF1008 "Pressure measurement terminology and definitions" and JJF1059 "Evaluation and Expression of Uncertainty in Measurement" common structure Cost procedures developed fundamental series specifications.

The reference to international regulations Organization of Legal Metrology (OIML) International Recommendation "pressure balance" (Pressure Balance) were formulated, using the basic principles which, for specific methods and technical indicators were refined, complement Filling and modification.

Gas piston gauge test procedures

1 Scope

The order applies to the upper limit of the measurement range is not higher than 10MPa, working medium and lubricating medium are gas piston system Body, measure the gauge and/or gas piston gauge of absolute pressure (hereinafter referred to as gauge) initial verification, Use and subsequent verification check.

This procedure does not apply to loading weights or non-rotating piston gauge system.

2. References

This procedure references the following documents.

JJG 99 weight

JJF1001 common measurement terms and definitions JJF1008 pressure measurement terminology and definitions OIMLR110 pressure balance of international recommendations (PressureBalance) 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

Pressure gauge is the use of hydrostatic equilibrium pressure measurement principle of measuring instruments, generally by the piston system, special Weight, pressure calibration components.

Measuring gauge measuring range lower and upper limits specified by the manufacturer, the upper limit of the measurement range of the general press 1 x 10n, 1.6 x 10n, 2.5 x 10n, 4 x 10n, 6 x 10n (MPa) select series.

4 metering performance requirements 4.1 accuracy class Relations gauge accuracy classes and maximum permissible errors shall comply with the requirements of Table 1

Table 1 Accuracy class and maximum permissible error

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Accuracy class maximum permissible error 0.005 ± 0.005% actually measured pressure value 0.01 ± 0.01% actual measured pressure value 0.02 ± 0.02% actual measured pressure value 0.05 ± 0.05% actual measured pressure value 4.2 piston effective area the maximum permissible error and gauge the level of accuracy of the relationship between the effective piston area shall conform to Table 2.1.

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