

INDUSTRY STANDARD OF THE PEOPLE'S REPUBLIC OF CHINA

JJG 638-2015

Replacing JJG 638-1990

Hydraulic Vibration Testing System (English Translation)

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6.5 Test cycle (12)

Appendix A Verification Certificate Inside Page Format (13)

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Introduction

This procedure is revised in accordance with JJF1002-2010 "Rules for the preparation of national metrological verification procedures".

This procedure replaces JJG 638-1990 "hydraulic vibration test bed".

Compared with JJG 638-1990, in addition to editorial changes, the main technical changes are as follows.

--- increased the introduction;

- Added reference documents (see 2);
 - increase the hydraulic vibration test system structure diagram (see Figure 1);
 - increase the vibration controller, random vibration measurement performance requirements and test methods (see 4.1,4.3);
 - the measurement of the frequency stability of the measurement requirements and verification methods;
 - harmonized indicators of vibration amplitude indication error (see 4.2.1);
- A "dynamic signal analyzer" has been added to the test equipment (see 6.1.2.1);
- modified the "lateral vibration ratio" of the test equipment (see 6.1.2.3);
 - "Level recorder" and "digital frequency meter" are removed from the verification equipment;
 - the addition of the "Verification Project" (see 6.2);
 - In accordance with ISO TC108/SC6 Resolution on ISO 8626. 1989 "Horizontal Movement Ratio" the calculation formula of the transverse vibration ratio (6.3.11);
 - "Appendix 1 check item selection", "Appendix 2 verification result record format" is deleted;
 - Added "Verification certificate page format" (see Appendix A);
 - Added "Verification result page format" (see Appendix B).

The previous version of the procedures issued.

--- JJG 638-1990.

Test procedure for hydraulic vibration test system

1 Scope

This procedure applies to the first test of hydraulic vibration test system, follow-up inspection and use of inspection.

2 reference file

This procedure refers to the following documents.

JQF1156 vibration impact speed measurement terms and definitions GB/T 5170.15-2005
Electrical and electronic products Environmental testing equipment Basic parameters
Verification method Vibration (positive String) test with hydraulic shaking table GB/T
5170.21 Electrical and electronic products Environmental testing equipment Basic
parameters Test method Vibration (random) test Application of hydraulic shaking table GB/T
10179 description of hydraulic servo vibration test equipment characteristics GB/T 21116

hydraulic vibration table for dated references, only the dated edition applies to this rule; references that are not dated , The latest version (including all amendments) applies to this procedure.

3 Overview

Hydraulic vibration test system (hereinafter referred to as vibration test system) is used to produce sinusoidal vibration, random vibration, etc.

A complete set of equipment for the vibration test of the test piece in advance. It is usually by the vibration controller, Servo control device, hydraulic vibration generator, hydraulic source, control sensor (accelerometer or displacement meter) and ancillary equipment and other components, as shown in Figure 1.

Figure 1 hydraulic vibration test system structure diagram

4 Measurement performance requirements 4.1 vibration controller

4.1.1 Frequency indication error Vibration controller in the specified frequency range, the frequency indication error in line with the provisions of Table 1.