

INDUSTRY STANDARD OF THE PEOPLE'S REPUBLIC OF CHINA

JJG 557-2011

Replacing JJG 557-1988

Verification Regulation of Standard Torque-meters (English Translation)

Issued on: November 30, 2011

Implemented on: May 30, 2012

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

Table of Contents

1 Scope (1)	
2. References (1)	
3 Terminology and units of measurement (1)	
3.1 The term (1)	
3.2 Symbols, meanings and units (1)	
4 Overview (3)	
5 Metering performance requirements (3)	
5.1 Strain gauge torque meter, etc. (3)	
5.2 Dial-type torque meter (4)	
6 General Requirements (4)	
6.1 Visual inspection (4)	
6.2 Torque meter set of (4)	
6.3 Other technical characteristics requirements (4)	
6.4 Indicating instrument usage (4)	
6.5 Indicating instrument resolution (4)	
6.6 Indicating instrument replacement (5)	
7 Control of measuring instruments (5)	
7.1 Test conditions (5)	
7.2 Test items and test methods (5)	
7.3 Verification Results Processing (9)	
7.4 Test cycle (9)	
Appendix A Test flow diagram (10)	
Appendix B Strain gauge torque meter test certificate and other standards-page format (11)	
Appendix C Dial gauge type torque meter standard test certificate-page format (12)	
Appendix D Strain gauge torque meter test results and other standards in the notice page format (13)	
Appendix E Dial type torque meter standard test results in the notice page format (14)	
Appendix F Strain gauge torque meter test records and other standard format (15)	
Appendix G Standard dial-type torque meter calibration record format (16)	

3 Terminology and units of measurement (1)

3.1

The term (1)

7.4 Test cycle (9)

Appendix A test flow diagram (10)

Appendix B strain gauge torque meter test certificate and other standards-page format (11)

Appendix C dial gauge type torque meter standard test certificate-page format (12)

Appendix D strain gauge torque meter test results and other standards in the notice page format (13)

Appendix E dial type torque meter standard test results in the notice page format (14)

Appendix F strain gauge torque meter test records and other standard format (15)

Appendix G standard dial-type torque meter calibration record format (16)

Torque meter standard test procedures

1 Scope

The order applies to dial-type strain and other standard torque meter (hereinafter referred to as torque meter) initial verification, after Continued use of verification and inspection.

2. References

This procedure references the following documents.

JJF1011-2006 force value and hardness measurement terms and definitions JB/T 5483-1991 standard torque meter technical conditions 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 terminology and units of measurement

3.1 Terms

Dial standards torque meter standardtorsionmeter Elastomer rod, indicating device for the dial indicator torque meter, also known as the standard torque meter.

3.2 symbols, meanings and units Symbols, meanings and units are shown in Table 1.

Table 1 Symbols, Meaning and Unit

experiment

Types of

Symbol Meaning Unit

1 A xl

Torque measurement corresponding to the lower limit deformation indication (or lose Out)
mV/V, Nm, mm, V, Hz, etc.

2 A r indicating torque meter resolution means mV/V, Nm, mm, V, Hz, etc.

3 A Zr return homodyne% FS

4 A or BR Repeatability%

5 A or B Sb long-term stability%

6 A epsilon% difference between forward and backward

7 AE indication error% Interpolation error% within 8 A Ip

9 A Rot azimuth error%

10 A-1 j 0 ° azimuth measurement without numbers