

ICS 17.160
CCS J 04



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

GB/T 23718.6-2014

**Condition monitoring and diagnostics of machines --
Requirements for qualification and assessment of personnel --
Part 6: Acoustic emission**

机器状态监测与诊断 人员资格与人员评估的要求 第6部分：声发射
(English Translation)

Issued on: June 24, 2014

Implemented on: March 1, 2015

Issued by: Standardization Administration of China

Table of Contents

Preface

Introduction

1 Scope

2 Normative references

3 Terms and definitions

Rated by 4 persons (acoustic emission)

5 Eligibility

6 5 examination

Appendix A (normative) acoustic emission machine condition monitoring and diagnostic training course requirements and minimal training time

Appendix B (normative) standard exam 9 sources

Reference

Foreword

GB/T 23718 "machine condition monitoring and diagnostics of staff qualifications and staff assessment requirements" have been or plan to publish the following sections.

- Part 1. Process of certification bodies and certification requirements;
- Part 2. Vibration condition monitoring and diagnostics;
- Part 3. training institutions and the requirements of the training process;
- Part 4. on-site lubrication analysis;
- Part 5. Lubrication Laboratory Technician/Analyst;
- Part 6. Acoustic emission;
- Part 7. Thermography;
- Part 8. Ultrasound;
- Part 9. condition monitoring expert.

This part of GB/T 23718 Part 6.

This section drafted in accordance with GB/T 1.1-2009 given rules.

This section uses the translation method identical with ISO 18436-6:2008 "machine condition monitoring and diagnostics of qualified personnel and staff to assess Partial

Evaluation 6. Acoustic emission. " this part made the following editorial changes.

--- Of ISO 18436-6:2008 references other international standards, have been adopted as the equivalent of a standard used instead of the corresponding standard International standards;

--- According to the latest information on the name of this series of standards has been amended and supplemented.

This part of the National mechanical vibration, shock and condition monitoring Standardization Technical Committee (SAC/TC53) and focal points.

This part of the main drafting unit. Wuhan University of Technology, Chinese Academy of special test equipment, measuring and testing Guangzhou Institute of Technology, Zhengzhou Machinery Research Institute.

Introduction

The acoustic emission technology in machine condition monitoring is an important means of most industries in the development of predictive maintenance programs adopted. other Non-interference technologies include infrared thermography, vibration analysis, lube oil analysis, grain shape analysis and motor current analysis. This successful application Some return on investment in manufacturing technology gained far more than expected. However, the effectiveness of these methods depends on the measurement and data analysis the competence of personnel.

This part of the assessment performed by the agency, whether to train staff and evaluators to the task, they need to have the appropriate Theoretical and practical knowledge of machine condition monitoring and diagnosis.

This section provides for the use of acoustic emission technique for machine condition monitoring of personnel qualification requirements and assessment of these persons method.

Machine condition monitoring and diagnostics of personnel qualifications and Staff assessment requirements - Part 6. Acoustic emission

1 Scope

This section GB/T 23718 specifies the use of acoustic emission technology in machine condition monitoring and diagnostic personnel qualification and assessment of personnel Requirements.

Certificate of compliance with this section or proof for machine condition monitoring using acoustic emission equipment acoustic emission measurement and analysis Personnel qualification and certification capacity of the certification procedure does not apply special

machines and other specific circumstances.

This section provides the art tertiary authentication scheme.

2 Normative references

The following documents for the application of this document is essential. For dated references, only the dated version suitable for use herein Member. For undated references, the latest edition (including any amendments) applies to this document.

GB/T 20921-2007 machine condition monitoring and diagnostics Vocabulary (ISO 13372:2004, IDT) GB/T 22393-2008 machine condition monitoring and diagnostics of general guidelines (ISO 17359:2003, IDT) GB/T 22394-2008 machine condition monitoring and diagnostic data interpretation and diagnostics techniques General guidelines (ISO 13379:2003, IDT) GB/T 23718.1-2009 machine condition monitoring and diagnostics training and certification requirements - Part 1. certification bodies and the requirements of the certification process (ISO 18436-1:2004, IDT) GB/T 25742.1-2010 machine condition monitoring and diagnostic data processing, communication and presentation - Part 1. General guidelines (ISO 13374-1:2003, IDT) GB/T 25889-2010 machine condition monitoring and diagnostics of acoustic emission (ISO 22096:2007, IDT) ISO/IEC 17000 Conformity assessment - Vocabulary and general principles (Conformityassessment-Vocabularyandgeneral principles) ISO 18436-3 requires machine condition monitoring and diagnostics of qualified personnel and personnel evaluation - Part 3. training institutions and trained Cheng requirements (Condition monitoringanddiagnosticsofmachines-Requirementsforqualificationand assessmentofpersonnel-Part 3. Requirementsfortrainingbodiesandthetrainingprocess) ASTM E650-97 (2007) Installation Guide piezoelectric acoustic emission sensor (Standardguideformountingpiezoe-lectricacousticemissionsensors) ASTM E1106-07 acoustic emission sensors Standard Test Methods for absolute calibration (Standardtestmethodforprimary calibrationofacousticemissionsensors) ASTM E2374-04 Acoustic Emission System Performance Verification (Standardguideforacousticemissionsystem performanceverification) EN1330-9:2000 Non-destructive testing - Terminology - Part 9. Test of acoustic emission term (Non-destructivetesting-Terminology-Part 9. Termsusedinacousticemission) EN13477-1:2001 acoustic emission device characteristics - Part 1. Device Description (Non-destructivetesting-Acoustic emission-Equipmentcharacterization-Part 1. Equipmentdescription) EN13477-2:2001 Non-destructive testing - Acoustic emission device characteristics - Part 2. Verification of operating characteristic (Non-destructive