INTERNATIONAL STANDARD

ISO 18436-1

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Condition monitoring and diagnostics of machines — Requirements for qualification and assessment of personnel —

Part 1: Requirements for assessment bodies and the assessment process

Surveillance et diagnostic d'état des machines — Exigences relatives à la qualification et à l'évaluation du personnel —

Partie 1: Exigences relatives aux organismes d'évaluation et au mode opératoire d'évaluation

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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

ISO 18436-1 was prepared by Technical Committee ISO/TC 108, *Mechanical vibration, shock and condition monitoring*, Subcommittee SC 5, *Condition monitoring and diagnostics of machines*.

This second edition cancels and replaces the first edition (ISO 18436-1:2004), which has been technically revised. It also incorporates the Technical Corrigendum ISO 18436-1:2004/Cor. 1:2006.

ISO 18436 consists of the following parts, under the general title *Condition monitoring and diagnostics of machines — Requirements for qualification and assessment of personnel*:

— *Part 1: Requirements for assessment bodies and the assessment process*

— *Part 2: Vibration condition monitoring and diagnostics*

— *Part 3: Requirements for training bodies and the training process*

— *Part 4: Field lubricant analysis*

— *Part 5: Lubricant laboratory technician/analyst*

— *Part 6: Acoustic emission*

— *Part 7: Thermography*

The following part is under preparation:

— *Part 8: Ultrasound*

The following part is planned:

— *Part 9: Condition monitoring specialists*

Introduction

Condition monitoring and diagnostics of machines are integral parts of an effective maintenance programme. Non-intrusive technologies used in condition monitoring and fault diagnosis include vibration, infrared thermography, oil and wear debris analysis, acoustic and ultrasonic analysis, and electric signature analysis. In many instances, these technologies act as complimentary condition monitoring tools. The skills and expertise of the practitioners performing the measurements and analysing the data are critical to the effective application of these technologies.

This part of ISO 18436 defines the requirements for persons and organizations operating assessment systems in the non-intrusive machine condition monitoring and diagnostic technologies that use the technology parts of ISO 18436. General requirements for assessment body personnel are contained in this part of ISO 18436. Specific requirements for the assessment of personnel in condition monitoring and diagnostics are contained in ISO 18436-2 and ISO 18436-4 to ISO 18436-9.

In accordance with ISO/IEC 17000, an assessment body (person or organization) may be a first-party conformity assessment organization issuing a declaration of conformity, a second party issuing an attestion of conformity or it may be a third-party certification body compliant with ISO/IEC 17024 issuing certificates of conformity. This part of ISO 18436 specifies the general provisions for certification bodies; however, where applicable, they should apply to first and second parties.

Condition monitoring and diagnostics of machines — Requirements for qualification and assessment of personnel —

Part 1: Requirements for assessment bodies and the assessment process

1 Scope

This part of ISO 18436 specifies requirements for persons and organizations ("assessment body") operating conformity assessment systems for personnel who perform machinery condition monitoring, identify machine faults, and recommend corrective action. Procedures for the conformity assessment of condition monitoring and diagnostic personnel are specified.

NOTE These requirements are in addition to those of ISO/IEC 17000, ISO/IEC 17024, and ISO/IEC 17050-1.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO/IEC 17000:2004, *Conformity assessment — Vocabulary and general principles*

ISO/IEC 17024:2012, *Conformity assessment — General requirements for bodies operating certification of persons*

ISO/IEC 17050 (all parts), *Conformity assessment — Supplier's declaration of conformity*

ISO 18436 (all relevant parts), *Condition monitoring and diagnostics of machines — Requirements for qualification and assessment of personnel*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO/IEC 17000, ISO/IEC 17024, ISO/IEC 17050 and the following apply.

3.1
certificate
certificate issued by a certification body in accordance with the conditions of its accreditation and bearing an accreditation symbol or statement certificate issued by a certification body in accordance with the conditions of its accreditation and bearing an accreditation symbol or statement

Note 1 to entry: The certificate shall state the relevant part of ISO 18436 dealing with the specific technology concerned

3.2
certification body
organization that meets the requirements of ISO/IEC 17024 for third-party certification bodies and issues a certificate of conformity

3.3
examination centre
centre approved by the certification body where qualification examinations are carried out

[SOURCE: ISO 9712:2012,[1] 3.8.]