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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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<b>Contents</b>	Page
<b>Foreword</b> .....	iv
<b>Introduction</b> .....	v
<b>1 Scope</b> .....	1
<b>2 Normative references</b> .....	1
<b>3 Terms and definitions</b> .....	1
<b>4 Assessment body</b> .....	2
<b>4.1 Charter</b> .....	2
<b>4.2 General provisions</b> .....	2
<b>4.3 Requirements</b> .....	3
<b>4.4 Responsibilities</b> .....	3
<b>4.5 Organizational structure of the assessment body</b> .....	4
<b>4.6 Examination centres</b> .....	4
<b>4.7 Technical committees for certification</b> .....	4
<b>5 Requirements for assessment body personnel</b> .....	5
<b>5.1 General provisions</b> .....	5
<b>5.2 Additional criteria for examiners</b> .....	5
<b>6 Classification of personnel</b> .....	6
<b>6.1 General</b> .....	6
<b>6.2 Categories</b> .....	6
<b>6.3 Employer</b> .....	6
<b>7 Eligibility for examination</b> .....	6
<b>7.1 General</b> .....	6
<b>7.2 Mature candidate entry</b> .....	6
<b>8 Qualification examinations</b> .....	7
<b>8.1 Conduct of examinations</b> .....	7
<b>8.2 Grading</b> .....	7
<b>8.3 Re-examination</b> .....	7
<b>9 Certification</b> .....	8
<b>9.1 Administration</b> .....	8
<b>9.2 Recognition documents</b> .....	8
<b>10 Validity and renewal of recognition</b> .....	8
<b>10.1 Validity of recognition</b> .....	8
<b>10.2 Renewal of recognition</b> .....	8
<b>10.3 Late renewal of recognition</b> .....	9
<b>10.4 Reassessment</b> .....	9
<b>11 Files</b> .....	9
<b>12 Transition period</b> .....	9
<b>Annex A (normative) Code of ethics</b> .....	10
<b>Annex B (normative) Qualifications for examiners and invigilators</b> .....	11
<b>Bibliography</b> .....	12

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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*

This corrected version of ISO 18436-1:2012 incorporates a revised text of 7.2.

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## 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 attestation 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.