AS ISO 18436.4:2014
ISO 18436-4:2014

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Australian STANDARD

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

Part 4: Field lubricant analysis

STANDARDS Australia

This Australian Standard® was prepared by Committee ME-087, Machine Condition Monitoring. It was approved on behalf of the Council of Standards Australia on 27 November 2014.
This Standard was published on 18 December 2014.

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This Standard was issued in draft form for comment as DR AS ISO 18436.4:2014.

Standards Australia wishes to acknowledge the participation of the expert individuals that contributed to the development of this Standard through their representation on the Committee and through the public comment period.

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First published as AS ISO 18436.4:2014.

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Published by SAI Global Limited under licence from Standards Australia Limited, GPO Box 476, Sydney, NSW 2001, Australia

ISBN 978 1 74342 937 2

PREFACE

This Standard was prepared by the Standards Australia Committee ME-087, Machine Condition Monitoring.

The objective of this Standard is to specify the requirements for qualification and assessment of personnel who perform machinery condition monitoring and diagnostics using field lubricant analysis.

This Standard is identical with, and has been reproduced from, ISO 18436-4:2014, *Condition monitoring and diagnostics of machines—Requirements for qualification and assessment of personnel*, Part 4: *Field lubricant analysis.*

As this Standard is reproduced from an International Standard, the following applies:

(a) In the source text ‘this part of ISO 18436’ should read ‘this Australian Standard’.

(b) A full point substitutes for a comma when referring to a decimal marker.

None of the normative references in the source document have been adopted as Australian or Australian/New Zealand Standards.

The term ‘normative’ has been used in this Standard to define the application of the annex to which it applies. A ‘normative’ annex is an integral part of a Standard.

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INTRODUCTION

Using lubricant analysis to monitor condition and diagnose faults in machinery is a key activity in predictive maintenance programmes for most industries. Other non-intrusive technologies including thermography, vibration analysis, acoustic emission, and motor current analysis are used as complementary condition analysis tools. Those in the manufacturing industry who have diligently and consistently applied these techniques have experienced a return on investment far exceeding their expectations. However, the effectiveness of these programmes depends on the capabilities of individuals who perform the measurements and analyse the data.

A programme, administered by an assessment body, has been developed to train and assess the competence of personnel whose duties require the appropriate theoretical and practical knowledge of machinery monitoring and diagnostics.

This part of ISO 18436 defines the requirements against which personnel in the non-intrusive machinery condition monitoring and diagnostics technologies associated with field lubricant analysis for machinery condition monitoring are to be qualified and the methods of assessing such personnel.

AUSTRALIAN STANDARD

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

Part 4: Field lubricant analysis

1 Scope

This part of ISO 18436 specifies the requirements for qualification and assessment of personnel who perform machinery condition monitoring and diagnostics using field lubricant analysis.

A certificate or declaration of conformity to this part of ISO 18436 will provide recognition of the qualifications and competence of individuals to perform field lubricant analysis for machinery condition monitoring. This procedure is not applicable to specialized equipment or other specific situations.

This part of ISO 18436 specifies a three-category classification programme that is based on the technical areas delineated herein.

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 13372, *Condition monitoring and diagnostics of machines — Vocabulary*

ISO 18436-1:2012, *Condition monitoring and diagnostics of machines — Requirements for qualification and assessment of personnel — Part 1: Requirements for assessment bodies and the assessment process*

ISO 18436-3, *Condition monitoring and diagnostics of machines — Requirements for qualification and assessment of personnel — Part 3: Requirements for training bodies and the training process*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 13372 and the following apply.

3.1
lubricant
any substance interposed between two surfaces in relative motion for the purpose of modifying the friction and reducing the wear between them

Note 1 to entry: Hydraulic and heat transfer fluids are considered lubricants.

3.2
lubricant analysis
process of monitoring and performing investigative testing of lubricants, with subsequent interpretation, reporting, and response to obtained results

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