



BSI Standards Publication

Condition monitoring and diagnostics of machines — General guidelines

National foreword

This British Standard is the UK implementation of ISO 17359:2018. It supersedes BS ISO 17359:2011, which is withdrawn.

The UK participation in its preparation was entrusted to Technical Committee GME/21/7, Mechanical vibration, shock and condition monitoring - Condition monitoring.

A list of organizations represented on this committee can be obtained on request to its secretary.

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

© The British Standards Institution 2018
Published by BSI Standards Limited 2018

ISBN 978 0 580 94282 2

ICS 17.160

Compliance with a British Standard cannot confer immunity from legal obligations.

This British Standard was published under the authority of the Standards Policy and Strategy Committee on 28 February 2018.

Amendments/corrigenda issued since publication

Date	Text affected
------	---------------

INTERNATIONAL STANDARD

ISO
17359

Third edition
2018-01-04

Condition monitoring and diagnostics of machines — General guidelines

*Surveillance et diagnostic d'état des machines — Lignes
directrices générales*



Reference number
ISO 17359:2018(E)



COPYRIGHT PROTECTED DOCUMENT

© ISO 2018, Published in Switzerland

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized otherwise in any form or by any means, electronic or mechanical, including photocopying, or posting on the internet or an intranet, without prior written permission. Permission can be requested from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office
Ch. de Blandonnet 8 • CP 401
CH-1214 Vernier, Geneva, Switzerland
Tel. +41 22 749 01 11
Fax +41 22 749 09 47
copyright@iso.org
www.iso.org

Contents

Page

Foreword	iv
Introduction	v
1 Scope	1
2 Normative references	1
3 Terms and definitions	1
4 Overview of condition monitoring procedure	1
5 Cost benefit analysis	3
6 Equipment audit	3
6.1 Identification of equipment	3
6.2 Identification of equipment function	4
7 Reliability and criticality audit	4
7.1 Reliability block diagram	4
7.2 Equipment criticality	4
7.3 Failure modes, effects and criticality analysis	4
7.4 Alternative maintenance tasks	5
8 Monitoring method	5
8.1 Measurement technique	5
8.2 Accuracy of monitored parameters	5
8.3 Feasibility of monitoring	5
8.4 Operating conditions during monitoring	6
8.5 Monitoring interval	6
8.6 Data acquisition rate	6
8.7 Record of monitored parameters	6
8.8 Measurement locations	6
8.9 Initial alert/alarm criteria	7
8.10 Baseline data	7
9 Data acquisition and analysis	8
9.1 Measurement and trending	8
9.2 Quality of measurements	8
9.3 Measurement comparison to alert/alarm criteria	8
9.4 Diagnosis and prognosis	8
9.5 Improving diagnosis and/or prognosis confidence	9
10 Determine maintenance action	9
11 Review	10
12 Training	10
Annex A (informative) Examples of condition monitoring parameters	11
Annex B (informative) Matching fault(s) to measured parameter(s) or technique(s)	12
Annex C (informative) Typical information to be recorded when monitoring machine types shown in Annex A	24
Annex D (informative) Overview of condition monitoring standards	26
Bibliography	28