

DIN ISO 13373-3:2015-12 (E)

Condition monitoring and diagnostics of machines - Vibration condition monitoring - Part 3: Guidelines for vibration diagnosis (ISO 13373-3:2015)

Contents		Page
National foreword		3
National Annex NA (informative) Bibliography		4
Introduction		7
1 Scope		8
2 Normative references		8
3 Terms and definitions		8
4 Measurements		8
4.1 Vibration measurements		8
4.2 Machine operational parameter measurements		9
5 Structured diagnostic approach		9
6 Additional analysis and testing		10
6.1 General		10
6.2 Not requiring changes to operating parameters		10
6.2.1 General		10
6.2.2 Trend analysis		10
6.2.3 Phase analysis		10
6.2.4 Resonance test		10
6.2.5 Measurement of operational deflection shape		10
6.2.6 Long-time waveform capture		10
6.3 Requiring changes to operating parameters		11
6.3.1 Changes to operating conditions		11
6.3.2 Complete experimental modal analysis		11
6.4 Changes to the physical state of the machine		11
7 Additional diagnostic techniques		11
8 Considerations when recommending actions		12
Annex A (normative) Process tables for the systematic approach to vibration analysis of machines		13
Annex B (informative) Installation faults common to all machines		19
Annex C (informative) Diagnosis of radial hydrodynamic fluid-film bearings		26
Annex D (informative) Diagnosis of rolling element bearings		36
Bibliography		43