ISO 21940-13:2012-03 (E)

Mechanical vibration - Rotor balancing - Part 13: Criteria and safeguards for the in-situ balancing of medium and large rotors

Contents

Page

Foreword iv

Introduction vi

1 Scope 1

2 Normative references 1

3 Terms and definitions 2

4 In-situ balancing 2
4.1 General 2
4.2 Reasons for in-situ balancing 2
4.3 Objectives of in-situ balancing 3

5 Criteria for performing in-situ balancing 3

6 Safeguards 4
6.1 Safety of personnel while operating close to a rotating shaft 4
6.2 Special operating envelope for in-situ balancing 4
6.3 Integrity and design of the correction masses and their attachments 4
6.4 Machinery-specific safety implications 4

7 Measurements 5
7.1 Vibration measurement equipment 5
7.2 Measurement errors 5
7.3 Phase reference signals 6

8 Operational conditions 7

9 Reporting 8
9.1 General 8
9.2 Report introduction 9
9.3 Vibration measurement equipment 9
9.4 Results 9
9.5 Text information 10

Annex A (normative) Precautions and safeguards for specific machine types during in-situ balancing 12

Annex B (informative) Example of an in-situ balancing report for a boiler fan 1 MW 13

Annex C (informative) Example of an in-situ balancing report for a large 50 MW turbine generator set 17

Bibliography 23