

ISO 15242-3:2017-08 (E)

Rolling bearings - Measuring methods for vibration - Part 3: Radial spherical and tapered roller bearings with cylindrical bore and outside surface

| Contents | | Page |
|---------------------|---|-------------|
| Foreword | | iv |
| Introduction | | v |
| 1 | Scope | 1 |
| 2 | Normative references | 1 |
| 3 | Terms and definitions | 1 |
| 4 | Measurement process | 1 |
| 4.1 | Rotational frequency | 1 |
| 4.2 | Bearing axial load | 2 |
| 5 | Measurement and evaluation methods | 2 |
| 5.1 | Physical quantity measured | 2 |
| 5.2 | Frequency domain | 2 |
| 5.3 | Measurement of pulses and spikes | 3 |
| 5.4 | Measurement | 3 |
| 6 | Conditions for measurement | 3 |
| 6.1 | Bearing conditions for measurement | 3 |
| 6.1.1 | Prelubricated bearings | 3 |
| 6.1.2 | Non-prelubricated bearings | 3 |
| 6.2 | Conditions of the measurement environment | 4 |
| 6.3 | Conditions for the measuring device | 4 |
| 6.3.1 | Stiffness of the spindle/mandrel arrangement | 4 |
| 6.3.2 | Loading mechanism | 4 |
| 6.3.3 | Magnitude and alignment of the external load applied to the bearing | 4 |
| 6.3.4 | Axial location of the transducer and direction of measurement | 5 |
| 6.3.5 | Mandrel | 6 |
| Annex A (normative) | Measurement of external axial loading alignment | 7 |