ISO 8100-34:2021-12 (E)

Lifts for the transport of persons and goods - Part 34: Measurement of lift ride quality

Contents

Page

Foreword ... **iv**

Introduction ... **v**

1 Scope ... **1**

2 Normative references ... **1**

3 Terms and definitions ... **1**

4 Measuring instrumentation ... **3**
4.1 General ... 3
4.2 Characteristics ... 3
4.3 Processing of vibration data ... 4
4.4 Environmental effects ... 4
4.5 Sound measurement requirements ... 4
4.6 Calibration requirements ... 4
4.6.1 General ... 4
4.6.2 Vibration measuring system ... 4
4.6.3 Acceleration measuring system ... 5
4.6.4 Sound measuring system ... 5

5 Evaluation of ride quality ... **5**
5.1 Boundaries of calculation ... 5
5.2 Acceleration and deceleration ... 6
5.2.1 General ... 6
5.2.2 Maximum acceleration and deceleration ... 7
5.2.3 A95 acceleration and deceleration ... 7
5.3 Jerk ... 7
5.3.1 General ... 7
5.3.2 Maximum jerk ... 7
5.4 Vibration ... 8
5.4.1 General ... 8
5.4.2 Horizontal vibration: *x*- and *y*-axes ... 9
5.4.3 Vertical vibration: *z*-axis ... 9
5.5 Velocity ... 10
5.5.1 General ... 10
5.5.2 Maximum velocity ... 10
5.5.3 V95 velocity ... 11
5.6 Sound ... 11

6 Procedure and expression of results ... **12**
6.1 Preparation for measurement and expression of results ... 12
6.1.1 General ... 12
6.1.2 Auxiliary car equipment ... 12
6.1.3 Auxiliary landing equipment ... 12
6.1.4 Building plant and equipment ... 12
6.2 Location of transducers ... 12
6.2.1 General ... 12
6.2.2 Coupling of instrumentation to floor ... 13
6.3 Personnel ... 14
6.4 Measurement process ... 14
6.5 Reporting of results ... 15

Annex A (normative) **Calculation of peak-to-peak vibration levels** ... **16**

Annex B (normative) **Calculation of constant and non-constant acceleration regions** ... **17**

Bibliography ... **18**