ISO 18164:2026-08 (E)

Motorcycle tyres rolling resistance measurement methods - Single point test

Contents

Page

Foreword v

1 Scope 1

2 Normative references 1

3 Terms and definitions 1

4 Test methods 2

5 Test equipment 2
5.1 Drum specifications 2
5.1.1 Diameter 2
5.1.2 Surface 3
5.1.3 Width 3
5.2 Test rim 3
5.3 Load, alignment, control and instrumentation accuracies 3
5.4 Thermal environment 3
5.4.1 Reference conditions 3
5.4.2 Alternative conditions 3
5.4.3 Drum surface temperature 3

6 Test conditions 3
6.1 General 3
6.2 Test speeds 3
6.2.1 Single test speed 3
6.3 Test load 4
6.4 Test inflation pressure 4
6.5 Duration and speed 4

7 Test procedure 4
7.1 General 4
7.2 Thermal conditioning 4
7.3 Pressure adjustment 4
7.4 Warm-up 4
7.5 Measurement and recording 4
7.6 Measurement of parasitic losses 5
7.6.1 General 5
7.6.2 Skim test reading 5
7.6.3 Machine reading 6
7.6.4 Deceleration method 6
7.7 Allowance for machines exceeding sigma m criterion 6

8 Data interpretation 6
8.1 Calculation of parasitic losses 6
8.1.1 General 6
8.1.2 Force method at tyre spindle 7
8.1.3 Torque method at drum axis 7
8.1.4 Power method at drum axis 7
8.1.5 Deceleration method 7
8.2 Rolling resistance calculation 8
8.2.1 General 8

8.2.2 Force method at tyre spindle 8
8.2.3 Torque method at drum axis 8
8.2.4 Power method at drum axis 8
8.2.5 Deceleration method 8

9 Data analysis 9
9.1 Rolling resistance coefficient 9
9.2 Temperature correction 9
9.3 Drum diameter correction 9

9.4 Measurement result and rounding 10

Annex A (informative) Measurement methods of moment of inertia for drum and tyre assembly -- Deceleration method 11

Annex B (normative) Test equipment tolerances 16

Annex C (informative) Example for machine drift evaluation 19

Bibliography 21