ISO 7176-30:2018-12 (E)

Wheelchairs - Part 30: Wheelchairs for changing occupant posture - Test methods and requirements

Contents

Page

Foreword v

Introduction vi

1 Scope 1

2 Normative references 1

3 Termsanddefinitions 2

4 Test methods 3
4.1 General principle 3
4.2 Test preparation 3
4.3 Determining the maximum drivable configuration 4
4.4 Order of testing 4

5 General requirements 4
5.1 Application 4
5.2 Static stability 4
5.3 Dynamic stability of electrically powered wheelchairs 5
5.4 Efficiency of brakes 6
5.5 Overall dimensions 6
5.6 Strength tests 6
5.6.1 General 6
5.6.2 Multi drum test 6
5.6.3 Seat impact strength - Test method 7
5.7 Wheelchairs for use as a seat in a motor vehicle 8
5.8 Climatic tests for wheelchairs for changing occupant postures 9
5.9 Back support strength 9
5.10 Requirements for the operation force of levers 9

6 Specificrequirementsforelectricallypoweredwheelchairsandscooters 9
6.1 Electrical, power and other controls and mechanisms 9
6.2 Theoretical range/postural cycles of electrically powered wheelchairs and scooters due to the energy consumption of the OABSS 10
6.2.1 For OABSS's which share a power source with the wheelchair's drive system -- Modified theoretical range 10
6.2.2 For OABSS's which have a separate power source dedicated to the OABSS -- Theoretical cycle capacity 10
6.3 Test methods of maximum speed of electrically powered wheelchairs 11
6.4 Obstacle climbing -- Determination of obstacle climbing ability of electrically powered wheelchairs 11

7 Specificrequirementsforwheelchairswitheitheranelectricallyormanually operatedbodysupportsystemforoccupantnotexceeding150kg-Backsupport applied wheelchair tip fatigue strength 11
7.1 General 11
7.2 Requirement 11
7.3 Test method 12

8 Back-supportadjustmentforcetest(unlocked)forrecliningtypewheelchair 13

9 Specificrequirementsforwheelchairswithstand-upmechanisms 14
9.1 Strength test for wheelchairs that incorporate a stand-up mechanism with lower leg support 14
9.1.1 General 14
9.1.2 Test methods 14
9.2 Strength test for the wheelchairs for changing occupant posture which has stand- up mechanism with hip/upper torso support 15
9.2.1 General 15
9.2.2 Test methods 16

10 Requirements for information disclosure 17

11 Test report 17

AnnexA(informative) Recommendations for lower leg support of the wheelchair with stand-up mechanism 19

Bibliography 20