

This is a preview of "ISO 7176-3:2012". [Click here to purchase the full version from the ANSI store.](#)

Third edition
2012-12-15

Wheelchairs —

Part 3: Determination of effectiveness of brakes

Fauteuils roulants —

Partie 3: Détermination de l'efficacité des freins



Reference number
ISO 7176-3:2012(E)

© ISO 2012

This is a preview of "ISO 7176-3:2012". Click [here](#) to purchase the full version from the ANSI store.



COPYRIGHT PROTECTED DOCUMENT

© ISO 2012

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office
Case postale 56 • CH-1211 Geneva 20
Tel. + 41 22 749 01 11
Fax + 41 22 749 09 47
E-mail copyright@iso.org
Web www.iso.org

Published in Switzerland

This is a preview of "ISO 7176-3:2012". Click here to purchase the full version from the ANSI store.

Contents

	Page
Foreword	iv
Introduction	vi
1 Scope	1
2 Normative references	1
3 Terms and definitions	1
4 Principle	1
5 Apparatus	2
6 Preparation of test wheelchair	3
7 Brake performance	3
7.1 General	3
7.2 Parking brakes	4
7.3 Running brakes, normal operation	4
7.4 Running brakes, operation by reverse command	5
7.5 Running brakes, emergency operation	5
8 Test report	5
9 Disclosure	6
Annex A (normative) Brake levers — Determination of operating force	8
Annex B (informative) Manual running brakes — Determination of performance	10
Annex C (informative) Running brakes — Alternative test method	12
Bibliography	14

Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

ISO 7176-3 was prepared by Technical Committee ISO/TC 173, *Assistive products for persons with disability*, Subcommittee SC 1, *Wheelchairs*.

This third edition cancels and replaces the second edition (ISO 7176-3:2003), all clauses of which have been technically revised.

Significant technical changes from the second edition are under consideration.

ISO 7176 consists of the following parts, under the general title *Wheelchairs*:

- *Part 1: Determination of static stability*
- *Part 2: Determination of dynamic stability of electric wheelchairs*
- *Part 3: Determination of effectiveness of brakes*
- *Part 4: Energy consumption of electric wheelchairs and scooters for determination of theoretical distance range*
- *Part 5: Determination of dimensions, mass and manoeuvring space*
- *Part 6: Determination of maximum speed, acceleration and deceleration of electric wheelchairs*
- *Part 7: Measurement of seating and wheel dimensions*
- *Part 8: Requirements and test methods for static, impact and fatigue strengths*
- *Part 9: Climatic tests for electric wheelchairs*
- *Part 10: Determination of obstacle-climbing ability of electrically powered wheelchairs*
- *Part 11: Test dummies*
- *Part 13: Determination of coefficient of friction of test surfaces*
- *Part 14: Power and control systems for electrically powered wheelchairs and scooters — Requirements and test methods*
- *Part 15: Requirements for information disclosure, documentation and labelling*
- *Part 16: Resistance to ignition of postural support devices*
- *Part 19: Wheeled mobility devices for use as seats in motor vehicles*

This is a preview of "ISO 7176-3:2012". [Click here to purchase the full version from the ANSI store.](#)

- *Part 21: Requirements and test methods for electromagnetic compatibility of electrically powered wheelchairs and scooters, and battery chargers*
- *Part 22: Set-up procedures*
- *Part 25: Batteries and chargers for powered wheelchairs - Requirements and test methods*
- *Part 26: Vocabulary*
- *Part 28: Requirements and test methods for stair-climbing devices*

This is a preview of "ISO 7176-3:2012". [Click here to purchase the full version from the ANSI store.](#)

Introduction

The performance of a wheelchair's brakes can be critical for safety. The tests specified in this part of ISO 7176 determine the ability of a wheelchair to stop in a safe manner on level ground and on a slope, and determine the ability of a wheelchair to remain stationary when parked on a slope.