INTERNATIONAL STANDARD

ISO 7176-15

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Wheelchairs —

Part 15:
Requirements for information disclosure, documentation and labelling

Fauteuils roulants —

Partie 15: Exigences relatives à la diffusion des informations, à la documentation et à l'étiquetage

Reference number
ISO 7176-15:1996(E)

Contents

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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.

Draft International Standards adopted by the technical committees are circulated to the member bodies for approval before their acceptance as International Standards by the ISO Council. They are approved in accordance with ISO procedures requiring at least 75 % approval by the member bodies voting.

International Standard ISO 7176-15 was prepared by Technical Committee ISO/TC 173, *Technical systems and aids for disabled or handicapped persons*.

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 efficiency of brakes*

— *Part 4: Determination of energy consumption of electric wheelchairs and scooters — Theoretical range*

— *Part 5: Determination of overall dimensions, mass and turning space*

— *Part 6: Determination of maximum speed, acceleration and retardation 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 electric wheelchairs*

— *Part 11: Test dummies*

— *Part 13: Determination of coefficient of friction of test surfaces*

— *Part 14: Power and control systems for electric wheelchairs — Requirements and test methods*

— *Part 15: Requirements for information disclosure, documentation and labelling*

— *Part 16: Determination of flammability*

— *Part 17: Serial interface for electric wheelchair controllers*

— *Part 18: Stair-traversing devices*

— *Part 19: Wheeled mobility devices for use in motor vehicles*

— *Part 20: Determination of the performance of stand-up type wheelchairs*

— *Part 21: Requirements and test methods for electromagnetic compatibility of powered wheelchairs and motorized scooters*

— *Part 22: Setup procedures*

Annex A forms an integral part of this part of ISO 7176. Annex B is for information only.

Introduction

The results of wheelchair testing are used primarily by two groups:

a) prescribers and users of wheelchairs;

b) state or national institutions responsible for acceptance, testing and recommendations related to purchase and prescription of wheelchairs on a national scale.

Prescribers and users generally receive their presale information in brochures (specification sheets) provided directly or indirectly by manufacturers. State or national institutions receive information by way of test results, often supplied directly by the wheelchair manufacturer. The intention of this part of ISO 7176 is to meet the information needs of each group in a standardized manner. Standardization is important because it facilitates comparisons between products. The provision of documentation on wheelchair variations, product assembly, product distribution, maintenance and repair, etc., is intended to be consistent with good manufacturing practices followed in most consumer product industries.

A full range of tests to ISO 7176 produces a large number of results, only a proportion of which are useful to prescribers and users. It is only that proportion of the test results deemed useful to prescribers and users that are required for disclosure in the manufacturer's specification sheets. This reduces the volume of information disclosure in the presale specification sheets.

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Wheelchairs —

Part 15:
Requirements for information disclosure, documentation and labelling

1 Scope

This part of ISO 7176 specifies the information, documentation and labelling to be supplied with a wheelchair or provided in the presale specification sheets by the manufacturer.

2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this part of ISO 7176. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this part of ISO 7176 are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

ISO 6440:1985, *Wheelchairs — Nomenclature, terms and definitions.*

ISO 7176-1:1986, *Wheelchairs — Part 1: Determination of static stability.*

ISO 7176-2:1990, *Wheelchairs — Part 2: Determination of dynamic stability of electric wheelchairs.*

ISO 7176-3:1988, *Wheelchairs — Part 3: Determination of efficiency of brakes.*

ISO 7176-4:— [1], *Wheelchairs — Part 4: Determination of energy consumption of electric wheelchairs and scooters — Theoretical range.*

ISO 7176-5:1986, *Wheelchairs — Part 5: Determination of overall dimensions, mass and turning space.*

ISO 7176-6:1988, *Wheelchairs — Part 6: Determination of maximum speed, acceleration and retardation of electric wheelchairs.*

ISO 7176-7:— [2], *Wheelchairs — Part 7: Method of measurement of seating and wheel dimensions.*

ISO 7176-8:— [2], *Wheelchairs — Part 8: Requirements and test methods for static, impact and fatigue strengths.*

ISO 7176-9:1988, *Wheelchairs — Part 9: Climatic tests for electric wheelchairs.*

ISO 7176-10:1988, *Wheelchairs — Part 10: Determination of obstacle-climbing ability of electric wheelchairs.*

ISO 7176-11:1992, *Wheelchairs — Part 11: Test dummies.*

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1) To be published. (Revision of ISO 7176-4:1988)

2) To be published.

ISO 7176-13:1989, *Wheelchairs — Part 13: Determination of coefficient of friction of test surfaces.*

ISO 7176-14:— [2], *Wheelchairs — Part 14: Power and control systems for electric wheelchairs — Requirements and test methods.*

ISO 7176-16:— [2], *Wheelchairs — Part 16: Determination of flammability.*

3 Definitions

For the purposes of this part of ISO 7176, the definitions given in ISO 6640 and the following definitions apply.

3.1 test information disclosure: Test information derived as a result of testing in accordance with ISO 7176, parts 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 14 and 16.

NOTE — Tests in accordance with ISO 7176, parts 17, 18, 19, 20, 21, 22, ISO 10542-1 and ISO 10542-2 will also be included, upon their approval as International Standards.

3.2 documentation: Assembly instructions, user's manual, maintenance and repair information, warranty information and any precautionary statements related to the usage of wheelchairs.

3.3 labelling: Permanent markings displayed on the wheelchairs.

3.4 test report: Standardized reports that have been developed to facilitate the collection and reporting of test performance or measurements.

3.5 wheelchair testing: Testing in accordance with the tests detailed in ISO 7176, parts 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 14, and 16.

NOTE — Tests in accordance with ISO 7176, parts 17, 18, 19, 20, 21, 22, ISO 10542-1 and ISO 10542-2 will also be included, upon their approval as International Standards.

3.6 wheelchair variations: Differences that occur in a single model or product line of a wheelchair as a result of interchanging component parts such as wheels, seat and back upholstery, armrests, footrests, etc.

3.7 specification sheets: Manufacturer's pre-sale literature that gives wheelchair performance information.

3.8 service manual: Document giving detailed information on repair and maintenance procedures, usually provided to specialist service facilities.

3.9 user manual: Post-sale information normally provided with the wheelchair to inform the user about the assembly, operation, maintenance, repair and warranty aspects of wheelchair ownership.

3.10 information upon request: Available information on a specific wheelchair derived from testing to ISO 7176, but not a requirement for disclosure as specified in this part of ISO 7176.

3.11 specific wheelchair: Wheelchair that can be uniquely identified, e.g. by model and number.

3.12 wheelchair accessory: Additional component or components, not considered as a variation of a single model, which may be added onto the wheelchair.

4 Guidance

Testing to ISO 7176 results in several different types of test information and therefore the need for several methods of disclosing the information. Several tests yield a specific measured value. Others test to a recommended performance value (RPV), with an option for the manufacturer to disclose the amount by which the wheelchair exceeds the RPV. In other cases, tests call for a pass/fail disclosure. The disclosure requirements specific to each of these test methods are contained in clause 5.

Annex A provides a list of the required formats for disclosure. To obtain test method reference numbers, refer to the current relevant ISO 7176 test method.

Test reports are appended to relevant parts of ISO 7176. Manufacturers may use these reports for communication of test results to test institutions, and those persons requesting test information on a specific wheelchair that is not a requirement for disclosure under this part of ISO 7176.

5 Requirements for disclosure of test information in manufacturer's specification sheets

The specification sheet shall contain the following:

a) the model designation and/or any other information that will uniquely identify the wheelchair model;

b) the mass of the test dummy used in the test;

c) either:

   i) the performance values listed in annex A, in the order and using the wording shown, or

   ii) if the part of ISO 7176 specifies a method of disclosure, that method shall have precedence over i) [3) 4)];

d) maximum occupant mass.

6 Test report

If a manufacturer makes available performance values resulting from the testing of a specific model of wheelchair to parts of ISO 7176, these values shall be disclosed as specified in the relevant part of ISO 7176.

7 Documentation

7.1 General

The following information shall be available in the official languages of countries in which the wheelchair is marketed.

a) The specification sheets (see clause 5);

b) a statement as to which features and options are included in specific models of wheelchairs;

c) a description of the intended use, (for example, maximum mass of the user, or indoor/outdoor use);

d) either:

   i) details of the warranty, or

   ii) if no warranty is provided, a statement to that effect;

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3) The items in annex A which apply are only those that are relevant to the specific wheelchair being disclosed. For example, parts of the table apply only to powered wheelchairs and therefore would not apply to manual wheelchairs.

4) Wheelchair accessory manufacturers should indicate in their specification sheets how their product may affect the results of the wheelchair manufacturer's disclosed information on a specific wheelchair.

e) information on how to get repairs and service;

f) information as to whether a service manual is available; and

g) a user manual.

7.2 User manual

7.2.1 At least one copy of the user manual shall be supplied with each wheelchair.

7.2.2 When illustrations show components that are referred to in the text of the user manual, these components shall be numbered or named for positive identification. Illustrations shall be numbered or named for positive identification.

7.3 Contents of user manual

User manuals shall contain the following information:

a) details of the warranty as specified in 7.1d);

b) general characteristics as follows:

   i) description of the wheelchair type, accompanied by pictures or drawings of the wheelchair and a non-technical description of how the wheelchair is intended to be used,

   ii) description of the intended user, including maximum occupant mass,

   iii) the environment in which the wheelchair is intended to be used and any environmental conditions that might be harmful to the wheelchair, such as temperature and humidity,

   iv) if pneumatic tyres are fitted, the recommended inflation pressure or pressure range, given in kilopascals;

c) if a wheelchair is marketed for user-assembly, the following information:

   i) a list of components,

   ii) information about any tools or equipment needed to assemble the wheelchair,

   iii) instructions on how to inspect for missing or damaged parts,

   iv) instructions for assembling, installing and removing any parts supplied by the manufacturer,

   v) instructions on how to prepare the wheelchair for storage, shipment or travel, for example, removal of any batteries;

d) instructions for operation of the wheelchair as follows:

   i) complete operating instructions for safe use including:

      — instructions for operating the wheelchair on surfaces likely to be encountered by the user,

      — instructions for transfer of the user to and from the wheelchair,

      — illustrations to clarify these instructions;

      NOTE — Illustrations should be given for the following situations: ramps, steep terrain, kerbs and steps, and transfer.

   ii) any common misuse of the wheechair known by the manufacturer that might lead to personal injury or damage to the wheelchair;

e) maintenance instructions accompanied by annotated illustrations, and the following information:

   i) details of any maintenance, including:

      — any service, maintenance and/or fault-finding for which the manufacturer intends the user to be responsible,

      — information about the type of tools or equipment needed to repair and service the wheelchair,

      — frequency of maintenance,

— a list of materials necessary, including any part numbers and procurement information,

— identification of circumstances in which an operation should be undertaken by the manufacturer, distributor or service agent,

ii) instructions on methods of cleaning,

iii) for parts that the manufacturer intends to be readily replaced, the following:

— ordering information,

— instructions for access removal,

— replacement and testing, and

— annotated illustrations of the parts (including tyres and batteries) and their location,

iv) information on how to perform potentially hazardous maintenance operations, such as battery servicing and tyre inflation;

f) instructions for carrying out performance checks;

g) description of wheelchair repair procedures as follows:

i) identification of parts that are intended to be repaired by the user,

ii) identification of parts that have to be serviced by the manufacturer or an authorized service facility in order to maintain warranties and serviceability,

iii) identification of any parts that can be removed and sent to the manufacturer/distributor or other party for repair,

iv) identification of circumstances in which the manufacturer, distributor or service agent should undertake the repair,

v) a list of authorized service facilities [5],

vi) information on whether or not any replacement units are available,

vii) packing and shipping instructions when necessary.

8 Permanent labelling

8.1 The following shall be marked in a permanent manner on each wheelchair:

a) the name and address of the manufacturer of the wheelchair;

b) the model designation and serial number of the wheelchair;

c) the year of manufacture;

d) any driving restrictions;

e) recommended maximum mass of the user.

8.2 Tyres shall be marked with the size of the tyre.

5) If this information is not known, a clearly marked space for this information to be added by the supplier should be provided.

Annex A
(normative)

Information disclosure in manufacturer's specification sheets

Manufacturer:.....

Address: .....

Model: .....

Maximum occupant mass:.....

Disclosure information (ISO)							
Standard reference		**min.**	**max.**	**Standard reference**		**min.**	**max.**
	Overall length with legrest	..... mm	.....mm		Seat plane angle	..... °	..... °
	Overall width	..... mm	.....mm		Effective seat depth	.....mm	..... mm
	Folded length	..... mm	.....mm		Effective seat width	.....mm	..... mm
	Folded width	..... mm	.....mm		Seat surface height at front edge	.....mm	..... mm
	Folded height	..... mm	.....mm		Backrest angle	..... °	..... °
	Total mass	.....kg	..... kg		Backrest height	.....mm	..... mm
	Mass of the heaviest part	.....kg	..... kg		Footrest to seat distance	.....mm	..... mm
	Static stability downhill	..... °	..... °		Leg to seat surface angle	..... °	..... °
	Static stability uphill	..... °	..... °		Armrest to seat distance	.....mm	..... mm
	Static stability sideways	..... °	..... °		Front location of armrest structure	.....mm	..... mm
	Energy consumption	..... km	.....km		Handrim diameter	.....mm	..... mm
	Dynamic stability uphill	..... °	..... °		Horizontal location of axle	.....mm	..... mm
	Obstacle climbing	..... mm	.....mm		Minimum turning radius	.....mm	—
	Maximum speed forward	..... km/h	..... km/h				
	Minimum braking distance from max speed	..... mm	.....mm				

The wheelchair conforms to the following standards:

a) requirements and test methods for static, impact and fatigue strengths (ISO 7176-8) Yes ☐

b) power and control systems for electric wheelchairs — requirements and test methods (ISO 7176-14) Yes ☐

c) climatic test in accordance with ISO 7176-9 Yes ☐

d) requirements for resistance to ignition in accordance with ISO 7176-16. Yes ☐

The items in this annex which apply are only those that are relevant to the specific wheelchair being disclosed. For example, parts of the table apply only to powered wheelchairs and therefore would not apply to manual wheelchairs.

Annex B
(informative)

Bibliography

[1] ISO 7176-17:—[6], *Wheelchairs — Part 17: Serial interface for electric wheelchair controllers.*

[2] ISO 7176-18:—[6], *Wheelchairs — Part 18: Stair-traversing devices.*

[3] ISO 7176-19:—[6], *Wheelchairs — Part 19: Wheeled mobility devices for use in motor vehicles.*

[4] ISO 7176-20:—[6], *Wheelchairs — Part 20: Determination of the performance of stand-up type wheelchairs.*

[5] ISO 7176-21:—[6], *Wheelchairs — Part 21: Electromagnetic compatibility of powered wheelchairs and motorized scooters.*

[6] ISO 7176-22:—[6], *Wheelchairs — Part 22: Setup procedures.*

[7] ISO 10542-1:—[6], *Wheelchairs — Tie-down and occupant restraint systems for motor vehicles — Part 1: General requirements.*

[8] ISO 10542-2:—[6], *Wheelchairs — Tie-down and occupant restraint systems for motor vehicles — Part 2: Particular requirements for belt systems.*

6) To be published.

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Descriptors: disabled persons aids, wheel chairs, technical documents, technical data sheets, instructions, instructions for use, labelling.

Price based on 8 pages