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NATIONAL STANDARD OF THE PEOPLE'S REPUBLIC OF CHINA

GB/Z 18029.5-2021

Wheelchairs - Part 5: Determination of dimensions, mass and manoeuvring space

Issued on: December 31, 2021 **Implemented on: December 31, 2021**

Issued by: State Administration for Market Regulation, China National Standardization Administration

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foreword

This document is in accordance with the provisions of GB/T 1.1-2020 "Guidelines for Standardization Work Part 1.Structure and Drafting Rules of Standardization Documents" drafted.

This document is part 5 of GB/T 18029 "Wheelchair Vehicles". GB/T 18029 has released the following parts.

--- Part 1.Determination of static stability;

--- Part 2.Determination of dynamic stability of electric wheelchairs;

--- Part 3.Determination of braking performance;

--- Part 4.Determination of theoretical energy consumption of electric wheelchairs and electric scooters;

--- Part 5.Determination of dimensions, mass and operating space;

--- Part 6.Determination of the maximum speed, acceleration and deceleration of electric wheelchairs;

--- Part 7.Measurement of seat and wheel dimensions;

--- Part 8.Requirements and test methods for static strength, impact strength and fatigue strength;

--- Part 9.Climatic test methods for electric wheelchairs;

--- Part 10.Determination of the obstacle-surmounting ability of electric wheelchairs;

--- Part 11.Test dummies;

--- Part 13.Determination of the coefficient of friction of the test surface;

--- Part 14.Requirements and test methods for power and control systems for electric

wheelchairs and electric scooters;

--- Part 15.Requirements for information release, document issuance and identification;

--- Part 16.Flame retardancy of postural fixation devices;

--- Part 19.Wheeled mobile devices that can be used as motor vehicle seats;

--- Part 21.Electromagnetic compatibility requirements and test methods for electric wheelchairs, electric scooters and battery chargers;

--- Part 22.Adjustment procedures;

--- Part 26.Terminology;

--- Part 28.Requirements and test methods for stair climbing appliances.

This document replaces GB/T 18029.5-2008 "Wheelchairs - Part 5.Determination of dimensions, mass and operating space", and

Compared with GB/T 18029.5-2008, in addition to structural adjustment and editorial changes, the main technical changes are as follows.

--- Added the measurement of external dimensions such as loading length, width, and height; the measurement of total mass, the mass of the heaviest part, etc.; the width of the pivot, the turning

Determination of operating space such as corner passage width, entry depth, etc. (see Chapter 8).

This document is equivalent to ISO 7176-5.2008 "Wheelchairs - Part 5.Determination of dimensions, mass and operating space", the document type is

The ISO standard is adjusted as my country's guiding technical document.

Please note that some content of this document may be patented. The issuing agency of this document assumes no responsibility for identifying patents.

Introduction

According to the document user principle, GB/T 18029 "Wheelchair Vehicles" stipulates that wheelchair users, manufacturers, testing institutions and other relevant parties should pay attention

requirements for the design, performance, testing, infrastructure, and information release of wheelchair vehicles. GB/T 18029 is intended to consist of 22 parts.

--- Part 1.Determination of static stability;

--- Part 2.Determination of dynamic stability of electric wheelchairs;

--- Part 3.Determination of braking performance;

--- Part 4.Determination of theoretical energy consumption of electric wheelchairs and electric scooters;

--- Part 5.Determination of dimensions, mass and operating space;

--- Part 6.Determination of the maximum speed, acceleration and deceleration of electric wheelchairs;

--- Part 7.Measurement of seat and wheel dimensions;

--- Part 8.Requirements and test methods for static strength, impact strength and fatigue strength;

--- Part 9.Electric wheelchair climatic test method;

--- Part 10.Determination of the obstacle-surmounting ability of electric wheelchairs;

--- Part 11.Test dummies;

--- Part 13.Determination of the coefficient of friction of the test surface;

--- Part 14.Requirements and test methods for power and control systems for electric wheelchairs and electric scooters;

--- Part 15.Requirements for information release, document issuance and identification;

--- Part 16.Flame retardancy of postural fixation devices;

--- Part 19.Wheeled mobile devices that can be used as motor vehicle seats;

--- Part 21.Electromagnetic compatibility requirements and test methods for electric wheelchairs, electric scooters and battery chargers;

--- Part 22.Adjustment procedures;

--- Part 25.Batteries and chargers for electric wheelchairs;

--- Part 26.Terminology;

--- Part 28.Requirements and test methods for stair climbing appliances;

--- Part 30.Wheelchair test methods and requirements for changing the occupant's posture.

Among them, Part 26 is the term; Part 11, Part 13 stipulates the infrastructure requirements for wheelchair testing; Part 22 stipulates

Sets test preparation requirements; Part 15 sets out information release requirements; Parts 1, 3, 5, 7, 8

Part, Part 10, Part 16 specifies the general requirements and test methods for all wheelchairs (including manual and electric); Part 2,

Part 4, Part 6, Part 9, Part 14, Part 21, Part 25 set out the requirements and

Test methods; Parts 19, 28, and 30 specify requirements for special functional wheelchairs.

This document provides appropriate test procedures and techniques for measuring important dimensions and mass of manual wheelchairs, electric wheelchairs including electric mobility scooters

Require. Can be used to evaluate usability for a given environment.

This document uses a new approach to reference a wheelchair in a range of sizes based on the intended occupant's reference size

size is preselected. This new method is to ensure comparison and repetition of test results.

The information in this document serves three main readership groups.

--- physicians and wheelchair occupants;

--- Designers and government authorities;

--- Manufacturers, wheelchair suppliers, clinicians and testing laboratories.

Product characteristics are very important to wheelchair occupants, designers and government authorities, such as the overall

Size, estimate of required space and maneuverability. The different eigenvalues need to be published in the wheelchair's instructions. These values are available to (consumers) in

Determine the suitability of the special requirements and needs of the wheelchair before purchasing.

The technical characteristics of wheelchairs are also important for wheelchair manufacturers, wheelchair suppliers, clinicians and testing laboratories, and they are required before production.

To refer to the requirements in Appendix A, consider items such as setting up, adjusting, preparing, and testing the wheelchair.

The technical report of ISO /T R13570-1[1] can make a brief explanation to the different parts of GB/T 18029.

The ISO /T R13570-2[2] technical report is also under consideration.

Wheelchairs Part 5.

Determination of size, mass and operating space

1 Scope

This document describes the testing methods for the dimensions and mass of wheelchair