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D409-16

Motor vehicles for the transportation of persons with physical disabilities

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Standards Update Service

D409-16

June 2016

Title: *Motor vehicles for the transportation of persons with physical disabilities*

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D409-16

***Motor vehicles for the
transportation of persons with
physical disabilities***



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*Published in June 2016 by CSA Group
A not-for-profit private sector organization
178 Rexdale Boulevard, Toronto, Ontario, Canada M9W 1R3*

*To purchase standards and related publications, visit our Online Store at shop.csa.ca
or call toll-free 1-800-463-6727 or 416-747-4044.*

ISBN 978-1-4883-0417-0

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Preface

This is the fourth edition of CSA D409, *Motor Vehicles for the Transportation of persons with physical disabilities*. It supersedes the previous editions published in 2002, 1992 and 1984.

The scope of this edition, has been reduced to no longer address school buses. Provisions for accessible school buses are now covered in CSA D250.

It is intended that this Standard be applied to motor vehicles operated for, or on behalf of, any person, club, agency, or organization that provides a transportation service for persons with physical disabilities. This Standard does not apply to transit vehicles and intercity motor coaches.

This Standard makes reference to several motor vehicle safety regulations (MVSR) contained in federal regulations. The applicability of some MVSR requirements is dependent on the gross vehicle weight rating (GVWR) of the vehicle. Some MVSR requirements apply to vehicles having a GVWR of 4536 kg (10 000 lb) and under, while some apply to vehicles having a GVWR of over 4536 kg (10 000 lb).

Note: *In order to accommodate common vehicle sizes, this Standard has adjusted this threshold to 4581 kg (10 100 lb).*

Many of the basic vehicle design and performance requirements found in the MVSR and the affiliated Federal standards, included in the 2002 edition of D409, have been removed from this edition (with the many references to the MVSR, these are now considered redundant). In addition, basic manufacturing requirements not related to safety or accessibility have been eliminated from this Standard.

The following are other significant changes made in this edition:

- a) modified weight ranges for various vehicle sizes (harmonization with U.S. classification scheme);
- b) added provisions for vehicles powered with alternative fuel systems;
- c) modified design requirements for mobility aid securement and occupant restraint (MASOR) systems (Clause 7.2.2);
- d) modified requirements for the positioning of MASOR systems (Figure 3); and
- e) modified requirements for the anchor points for MASOR systems (Figure 4).

This Standard was prepared by the Technical Committee on Motor Vehicles for the Transportation of Persons with Physical Disabilities, under the jurisdiction of the Strategic Steering Committee on Mechanical Industrial Equipment Safety, and has been approved by the Technical Committee.

Notes:

- 1) *Use of the singular does not exclude the plural (and vice versa) when the sense allows.*
- 2) *Although the intended primary application of this Standard is stated in its Scope, it is important to note that it remains the responsibility of the users of the Standard to judge its suitability for their particular purpose.*
- 3) *This Standard was developed by consensus, which is defined by CSA Policy governing standardization — Code of good practice for standardization as “substantial agreement. Consensus implies much more than a simple majority, but not necessarily unanimity”. It is consistent with this definition that a member may be included in the Technical Committee list and yet not be in full agreement with all clauses of this Standard.*
- 4) *To submit a request for interpretation of this Standard, please send the following information to inquiries@csagroup.org and include “Request for interpretation” in the subject line:*
 - a) *define the problem, making reference to the specific clause, and, where appropriate, include an illustrative sketch;*
 - b) *provide an explanation of circumstances surrounding the actual field condition; and*
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- 5) This Standard is subject to review five years from the date of publication. Suggestions for its improvement will be referred to the appropriate committee. To submit a proposal for change, please send the following information to inquiries@csagroup.org and include "Proposal for change" in the subject line:
- a) Standard designation (number);
 - b) relevant clause, table, and/or figure number;
 - c) wording of the proposed change; and
 - d) rationale for the change.

D409-16

Motor vehicles for the transportation of persons with physical disabilities

1 Scope

1.1

This Standard applies to motor vehicles other than passenger cars (as defined in Section 2 of the *Motor Vehicle Safety Act*) designed and manufactured, or converted, and equipped for the purpose of transporting persons with physical disabilities.

1.2

This Standard specifies

- a) the design and manufacture of the vehicle, lifts, and ramps;
- b) the mobility aid location and securement; and
- c) the required safety equipment.

1.3

This Standard does not apply to any transit bus and any over-the-road bus.

This Standard also does not apply to school bus (see CSA D250).

1.4

The values given in SI units are the units of record for the purposes of this Standard. The values given in parentheses are for information and comparison only.

1.5

In this Standard, “shall” is used to express a requirement, i.e., a provision that the user is obliged to satisfy in order to comply with the standard; “should” is used to express a recommendation or that which is advised but not required; and “may” is used to express an option or that which is permissible within the limits of the Standard.

Notes accompanying clauses do not include requirements or alternative requirements; the purpose of a note accompanying a clause is to separate from the text explanatory or informative material.

Notes to tables and figures are considered part of the table or figure and may be written as requirements.

Annexes are designated normative (mandatory) or informative (nonmandatory) to define their application.

2 Reference publications

This Standard refers to the following publications and where such reference is made it shall be to the edition listed below.