



Transport Canada
Safety and Security

Transports Canada
Sécurité et sûreté

Road Safety

Sécurité routière

Standards and Regulations Division

TECHNICAL STANDARDS DOCUMENT

NO. 500

LOW-SPEED VEHICLES

The text of this document is based on the U.S. *Code of Federal Regulations, Title 49, Part 571*, Federal Motor Vehicle Safety Standard No. 500, Low-speed vehicles, issued in the Final Rule, Docket NHTSA 98-3949, published in the *Federal Register* on June 17, 1998 (Vol. 63, No. 116, p. 33194).

Effective Date: August 16, 2000
Mandatory Compliance Date: February 16, 2001

Motor Vehicle Standards and Research Branch
Road Safety and Motor Vehicle Regulation Directorate
TRANSPORT CANADA
Ottawa, Ontario
K1A 0N5

TECHNICAL STANDARDS DOCUMENT

Number 500

LOW-SPEED VEHICLES

(Ce document est aussi disponible en français.)

Introduction

As governed by section 12 of the *Motor Vehicle Safety Act* (Act), a Technical Standards Document reproduces the technical content of a regulation enacted by a foreign government (e.g. Federal Motor Vehicle Safety Standard issued by the National Highway Traffic Safety Administration of the United States Department of Transportation).

Because the requirements of the *Motor Vehicle Safety Regulations* (Regulations) may alter or override some provisions or specify additional requirements to those of a TSD, each TSD should be read in conjunction with the Act and relevant Regulation. As a guide, where modifications have been made, they are indicated in the margin of the TSD within parentheses.

Revisions to the TSD will be issued from time to time to incorporate amendments made to the reference document, and a Notice of TSD Revision will be published in the *Canada Gazette* Part I. A revision number is assigned to facilitate tracking of a TSD. The original version of a TSD is considered as “Revision 0”.

Identification of Changes

Certain non-technical changes may have been made to the foreign regulation. These may include the deletion of words, phrases, figures, and sections that do not apply under the Act or Regulations, the conversion of imperial to metric units, the deletion of superseded dates, and minor changes of an editorial nature. Additions will be underlined, and provisions that do not apply will be ~~stroked through~~. Where an entire section has been deleted, it will be replaced by: “[CONTENT DELETED]”. Changes will also be made where there is a reporting requirement or reference in the foreign regulation that does not apply in Canada. For example, the name and address of the foreign Department of Transportation are replaced by those of Transport Canada.

Effective Dates

The original version of a TSD comes into effect on the date that the regulation in which it first appears is published in *Canada Gazette* Part II, whereas an amended TSD comes into effect on the date of publication of its Notice of Revision in the *Canada Gazette* Part I. The appropriate *Canada Gazette* publication date will be indicated on the TSD as its Effective Date. For the 6 months following the Effective Date of a TSD, manufacturers and importers have the option of following that TSD, or the regulation or TSD it replaces. After the Mandatory Date of a TSD, the manufacturer or importer must follow its requirements.

Official Version of Technical Standards Documents

Technical Standards Documents may be consulted electronically in both HTML and Portable Document Format (PDF) on the Department of Transport's Web site at www.tc.gc.ca/RoadSafety/mvstm_tsd/index_e.htm. The PDF version is a replica of the TSD as published by the Department and is to be used for the purposes of legal interpretation and application. The HTML version is provided for information purposes only.

(Original signed by)

Director, Motor Vehicle Standards and Research
for the Minister of Transport,
Ottawa, Ontario

TABLE OF CONTENTS

TECHNICAL STANDARDS DOCUMENT

NUMBER 500

LOW-SPEED VEHICLES

<i>Introduction</i>	<i>i</i>
<i>S1. Scope</i>	<i>1</i>
<i>S2. Purpose</i>	<i>1</i>
<i>S3. Applicability</i>	<i>1</i>
<i>S4. [Reserved]</i>	<i>1</i>
<i>S5. Requirements</i>	<i>1</i>
<i>S6. General test conditions</i>	<i>2</i>
<i>S6.1. Ambient conditions</i>	<i>2</i>
<i>S6.2. Road test surface</i>	<i>2</i>
<i>S6.3. Vehicle conditions</i>	<i>2</i>
<i>S7. Test procedure</i>	<i>3</i>

Technical Standards Document Number 500

LOW-SPEED VEHICLES

The text of this document is based on the U.S. *Code of Federal Regulations, Title 49, Part 571*, Federal Motor Vehicle Safety Standard No. 500, Low-speed vehicles, issued in the Final Rule, Docket NHTSA 98-3949, published in the *Federal Register* on June 17, 1998 (Vol. 63, No. 116, p. 33194).

S1. Scope

This Technical Standards Document (TSD) standard specifies requirements for low-speed vehicles.

S2. Purpose

The purpose of this TSD standard is to ensure that low-speed vehicles operated on the public streets and roads, ~~and highways~~ are equipped with the minimum motor vehicle equipment appropriate for motor vehicle safety.

S3. Applicability

This TSD standard applies to low-speed vehicles.

S4. [Reserved]

S5. Requirements

- (a) When tested in accordance with test conditions in S6 and test procedures in S7, the maximum speed attainable in 1.6 km (1 mile) by each low-speed vehicle shall not be more than 40 kilometers per hour (25 miles per hour).
- (b) Each low-speed vehicle shall be equipped with:
 - (1) Headlamps,
 - (2) Front and rear turn signal lamps,
 - (3) Tail lamps,
 - (4) Stop lamps,
 - (5) Reflex reflectors: one red on each side as far to the rear as practicable, and one red on the rear,
 - (6) An exterior mirror mounted on the driver's side of the vehicle and either an exterior mirror mounted on the passenger's side of the vehicle or an interior mirror,
 - (7) A parking brake,

- (8) A windshield of AS-1 or AS-5 composition that conforms to the American National Standard Institute's "*Safety Code for Safety Glazing Materials for Glazing Motor Vehicles Operating on Land Highways*," Z-26.1-1977, January 28, 1977, as supplemented by Z26.1a, July 3, 1980 (~~incorporated by reference; see 49 CFR 571.5~~),
- (2) (9) A VIN that conforms to the requirements of ~~part 565~~ section 115 of the *Motor Vehicle Safety Regulations*, Vehicle Identification Number ~~of this chapter~~, and
- (3) (10) A Type 1 or Type 2 seat belt assembly conforming to section 209 of the *Motor Vehicle Safety Regulations*, ~~Sec. 571.209 of this part, Federal Motor Vehicle Safety Standard No. 209~~, Seat belt assemblies, installed at each designated seating position.

S6. General test conditions

Each vehicle must meet the performance limit specified in S5(a) under the following test conditions.

S6.1. Ambient conditions

S6.1.1. Ambient temperature. The ambient temperature is any temperature between 0°C (32°F) and 40°C (104°F).

S6.1.2. Wind speed. The wind speed is not greater than 5 m/s (11.2 mph).

S6.2. Road test surface

S6.2.1. Pavement friction. Unless otherwise specified, the road test surface produces a peak friction coefficient (PFC) of 0.9 when measured using a standard reference test tire that meets the specifications of American Society for Testing and Materials (ASTM) E-1136, "*Standard Specification for A Radial Standard Reference Test Tire*," in accordance with ASTM Method E-1337-90, "*Standard Test Method for Determining Longitudinal Peak Braking Coefficient of Paved Surfaces Using a Standard Reference Test Tire*," at a speed of 64.4 km/h (40.0 mph), without water delivery (~~incorporated by reference; see 49 CFR 571.5~~).

S6.2.2. Gradient. The test surface has not more than a 1 percent gradient in the direction of testing and not more than a 2 percent gradient perpendicular to the direction of testing.

S6.2.3. Lane width. The lane width is not less than 3.5 m (11.5 ft).

S6.3. Vehicle conditions

S6.3.1. The test weight for maximum speed is unloaded vehicle weight plus a mass of 78 kg (170 pounds), including driver and instrumentation.

S6.3.2. No adjustment, repair or replacement of any component is allowed after the start of the first performance test.

S6.3.3. Tire inflation pressure. Cold inflation pressure is not more than the maximum permissible pressure molded on the tire sidewall.

S6.3.4. Break-in. The vehicle completes the manufacturer's recommended break-in agenda as a minimum condition prior to beginning the performance tests.

S6.3.5. Vehicle openings. All vehicle openings (doors, windows, hood, trunk, convertible top, cargo doors, etc.) are closed except as required for instrumentation purposes.

S6.3.6. Battery powered vehicles. Prior to beginning the performance tests, propulsion batteries are at the state of charge recommended by the manufacturer or, if the manufacturer has made no recommendation, at a state of charge of not less than 95 percent. No further charging of any propulsion battery is permissible.

S7. Test procedure. Each vehicle must meet the performance limit specified in S5(a) under the following test procedure. The maximum speed performance is determined by measuring the maximum attainable vehicle speed at any point in a distance of 1.6 km (1.0 mile) from a standing start and repeated in the opposite direction within 30 minutes.