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TECHNICAL STANDARDS DOCUMENT No. 124, Revision 0R

Accelerator Control Systems

The text of this document is based on Federal Motor Vehicle Safety Standard No. 124, *Accelerator Control Systems*, as published in the U.S. *Code of Federal Regulations*, Title 49, Part 571, revised as of October 1, 2006.

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Introduction

As defined by section 12 of the *Motor Vehicle Safety Act*, a Technical Standards Document (TSD) is a document that reproduces an enactment of a foreign government (e.g. a Federal Motor Vehicle Safety Standard issued by the U.S. National Highway Traffic Safety Administration). According to the Act, the *Motor Vehicle Safety Regulations* may alter or override some provisions contained in a TSD or specify additional requirements; consequently, it is advisable to read a TSD in conjunction with the Act and its counterpart Regulation. As a guide, where the corresponding Regulation contains additional requirements, footnotes indicate the amending subsection number.

TSDs are revised from time to time in order to incorporate amendments made to the reference document, at which time a Notice of Revision is published in the *Canada Gazette*, Part I. All TSDs are assigned a revision number, with “Revision 0” designating the original version.

Identification of Changes

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or sections that do not apply under the Act or Regulations, the conversion of imperial to metric units, the deletion of superseded dates, and minor changes of an editorial nature.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

Effective Date and Mandatory Compliance Date

Compliance with the requirements of a TSD that is being introduced for the first time is not mandatory until six months after publication in the *Canada Gazette*, Part II, of the Regulations that incorporate the TSD. In the case of a revision, compliance becomes mandatory six months after publication of the Notice of revision in the *Canada Gazette*, Part I, as long as the requirements of the previous version continue to be met. Voluntary compliance is permitted as of the Effective Date of the TSD.

Official Version of Technical Standards Documents

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.

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S1. Scope

This Technical Standards Document (TSD) standard establishes requirements for the return of a vehicle's throttle to the idle position when the driver removes the actuating force from the accelerator control, or in the event of a severance or disconnection in the accelerator control system.

S2. Purpose

The purpose of this TSD standard is to reduce deaths and injuries resulting from engine overspeed caused by malfunctions in the accelerator control system.

S3. Application

[CONTENT DELETED] For applicability, see Schedule III and subsection 124(1) of Schedule IV to the [Motor Vehicle Safety Regulations](#).

S4. Definitions

S4.1

* **Ambient temperature** means the surrounding air temperature at a distance such that it is not significantly affected by heat from the vehicle under test. (*Température ambiante*)

* **Driver-operated accelerator control system** means all vehicle components, except the fuel metering device, that regulate engine speed in direct response to movement of the driver-operated control and that return the throttle to the idle position upon release of the actuating force. (*Système de commande d'accélération actionné par le conducteur*)

* **Fuel metering device** means the carburetor, or in the case of certain engines, the fuel injector, fuel distributor, or fuel injection pump. (*Dispositif de dosage du carburant*)

* **Idle position** means the position of the throttle at which it first comes in contact with an engine idle speed control appropriate for existing conditions according to the manufacturers' recommendations. These conditions include, but are not limited to, engine speed adjustments for a cold engine, air conditioning, and emission control, and the use of throttle setting devices. (*Position de ralenti*)

* **Throttle** means the component of the fuel metering device that connects to the driver-operated accelerator control system and that, by input from the driver-operated accelerator control system, controls the engine speed. (*Papillon des gaz*)

* Please see subsection 2(1) of the [Motor Vehicle Safety Regulations](#) for the applicable definition.

S4.2 In the case of vehicles powered by electric motors, the words *throttle* and *idle* refer to the motor speed controller and motor shutdown, respectively.

S5. Requirements

The vehicle shall meet the following requirements when the engine is running under any load condition and at any ambient temperature between -40°C and $+52^{\circ}\text{C}$ after 12 hours of conditioning at any temperature within that range.

S5.1 There shall be at least two sources of energy capable of returning the throttle to the idle position within the time limit specified by S5.3 from any accelerator position or speed whenever the driver removes the opposing actuating force. In the event of failure of one source of energy by a single severance or disconnection, the throttle shall return to the idle position within the time limits specified by S5.3, from any accelerator position or speed, whenever the driver removes the opposing actuating force.

S5.2 The throttle shall return to the idle position from any accelerator position or any speed of which the engine is capable whenever any one component of the accelerator control system is disconnected or severed at a single point. The return to idle shall occur within the time limit specified by S5.3, measured either from the time of severance or disconnection or from the first removal of the opposing actuating force by the driver.

S5.3 Except as provided below, maximum time to return to idle position shall be 1 second for vehicles of 4536 kilograms or less GVWR, and 2 seconds for vehicles of more than 4536 kilograms GVWR. Maximum time to return to idle position shall be 3 seconds for any vehicle that is exposed to ambient air at -18°C to -40°C during the test or for any portion of the 12-hour conditioning period.