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## **Regulations Amending the Motor Vehicle Safety Regulations (Interpretation, Section 18 and Standards 203, 204, 208, 212 and 219)**

*Statutory authority*

*Motor Vehicle Safety Act*

*Sponsoring department*

Department of Transport

### **REGULATORY IMPACT ANALYSIS STATEMENT**

*(This statement is not part of the Regulations.)*

#### ***Issue and objectives***

Section 208 of Schedule IV of the *Motor Vehicle Safety Regulations*, hereafter referred to as Canadian safety standard 208, *Occupant Restraint Systems in Frontal Impact*, has many areas of misalignment with the corresponding safety standard in the United States.

Differences include the 50th percentile adult male barrier test speed and injury criteria, the 5th percentile adult female static and dynamic tests, other out-of-position tests and the seat belt requirements in the rear inboard position. In addition, the current exceptions for disabled persons in Canadian safety standard 208 are too restrictive and thus only account for certain types of disabilities.

To enhance vehicle safety and align Canadian regulatory requirements more closely with those in the United States, it is proposed to revoke and replace the occupant protection requirements of the Canadian safety standard 208.

Industry stakeholders have raised concerns that Canadian safety standards 204, 212 and 219 have a slightly different test setup procedure than that of the United States with regards to the use of anthropomorphic test devices (crash test dummies). It is proposed to update these standards to more closely align with the United States standards.

Finally, many Canadian safety standards require certain information to be contained in the vehicle owner's manual. The provisions regarding the owner's manual itself are not very clear and thus require clarification.

Canada's policy to pursue harmonized motor vehicle regulations has reduced trade barriers within North America. It assists the Government in achieving the mutual goals of the three North American Free Trade Agreement (NAFTA) nations, which include encouraging compatibility of regulations and eliminating redundant testing.

## **Description and rationale**

### **Canadian safety standard 208, Occupant Restraint Systems in Frontal Impact**

On May 12, 2000, the United States Department of Transportation published a final rule ([see footnote 1](#)) that made several fundamental changes to its occupant protection requirements. The intent of the final rule was to improve frontal impact protection for both belted and unbelted motorists, as well as to reduce the risk of air bag-induced injury to small women, older occupants, children and those who are out of position at the moment of deployment. The final rule included the introduction of additional dynamic tests using a female crash test dummy, neck injury criteria, improved head protection, lower chest deflection limits and a series of out-of-position static tests.

In order to improve safety and maintain regulatory alignment with the United States, this proposal would replace the current Test Method 208 with a Technical Standards Document incorporated by reference and amended from time to time and would update Canadian safety standard 208. The revised standard would include the following changes:

- Adopting combined lap and shoulder seat belts at the inboard rear position of vehicles under 4 536 kg gross vehicle weight rating (GVWR);
- Modifying the 50th percentile male rigid barrier crash by
  - increasing the test speed from 48 km/h to 56 km/h,
  - adopting neck injury criteria, and
  - eliminating the head acceleration requirement;
- Adopting the 5th percentile female rigid barrier and offset deformable barrier requirements and test procedures; and
- Adopting the out-of-position driver and passenger requirements and test procedures.

While most of Canadian safety standard 208 would be aligned with the United States standard, areas that would remain unique to Canada include

- no requirement for unbelted barrier testing;
- no chest acceleration requirement; and
- unique barrier chest deflection limits for all vehicles up to 3 856 kg GVWR:
  - 55 mm for the 50th percentile male (63 mm in the United States), and
  - 45 mm for the 5th percentile female (52 mm in the United States).

These proposed changes are further described below.

#### Seat belts

This proposal would replace the existing text in the seat belt section of Canadian safety standard 208 with new regulatory text so that seat belt requirements would be more clearly presented. In addition, other changes which are summarized below are necessary to improve safety and align regulatory requirements with those of the United States.

The current Canadian safety standard 208 requires that a Type 2 seat belt (combined lap and shoulder belt) be installed in all forward-facing front and rear outboard seating positions and allows a Type 1 seat belt (lap belt only) to be installed at the inboard (centre) front and rear positions in vehicles with a GVWR under 4 536 kg.

In 1999, the National Highway Traffic Safety Administration in the United States published a report ([see footnote 2](#)) that reviewed the fatality risk of rear seat occupants. The report concluded that a Type 2 seat belt significantly improved protection to rear seat occupants over the use of a Type 1 seat belt.

Seat belts in modern vehicles are designed to protect a wide range of occupants but are not optimized to fit small children. Child booster seats are designed for use with Type 2 seat belts. To enhance safety and to ensure that booster seats can be properly used in all rear seating positions, this proposal would align Canada with the United States and require all passenger cars, multi-purpose passenger vehicles and trucks with a GVWR of 4 536 kg or less to be fitted with Type 2 seat belts at all rear forward or rearward facing designated seating positions.

In addition, walk-in vans with a GVWR of 4 536 kg or less currently have the option of installing a Type 1 or a Type 2 seat belt in the driver's position. Transport Canada has verified with manufacturers that all new walk-in vans of this size are built with Type 2 seat belts. This proposal eliminates the Type 1 seat belt option in the driver's position for walk-in vans with a GVWR under 4 536 kg. The requirement for vehicles, such as pickup trucks, that have a front inboard designated seating position would continue to allow a Type 1 or a Type 2 seat belt.

Consumer demand for improved cargo capacity by the use of foldable seats has resulted in the need for detachable seat belts. These detachable seat belts, which offer convenience while maintaining safety, come in two forms. The first form allows the shoulder belt to be detached while the lap belt remains operational. The second form requires the seat belt to detach at an anchorage point and renders the seat belt inoperable. This proposal would allow a detachable seat belt in a rear seating position in several instances including the interior position of a folding seat, at a removable seat, and at a seat adjacent to an aisle way. All these situations would allow for a seat belt that is detachable at an anchorage point. In instances where a seat can be adjusted to face multiple directions (swivel seat), a detachable shoulder belt would be permitted.

#### Collision testing

Vehicles offered for sale in Canada are tested in collisions with rigid barriers to assess injuries to occupants using crash test dummies. These test devices are modeled to represent the height and weight of a 50th percentile adult male occupant.

#### *50th percentile adult male barrier testing*

The United States final rule published in 2000 increased the test speed of the full frontal rigid barrier tests from 48 km/h to 56 km/h. This change resulted in a difference between the Canadian and U.S. regulations. The increase in test speed from 48 km/h to 56 km/h represents a 36% increase in energy in the crash event. The automobile industry requested that Transport Canada increase the regulatory test speed to match the U.S. requirement as they desire to test vehicles destined for sale in Canada and the United States at one common test speed. This proposal would align Canada with the United States by adopting the full frontal rigid barrier test speed of 56 km/h.

Canada currently has a more stringent chest deflection injury criterion in its safety standard than the United States. The current Transport Canada 50 mm requirement for chest deflection applies to vehicles with a GVWR of 2 722 kg or less. For vehicles with a GVWR between 2 722 kg and 3 856 kg, the Canadian standard is 60 mm. The U.S. standard for chest deflection in rigid barrier testing is 63 mm for vehicles with a GVWR of 3 856 kg or less. Transport Canada has considered harmonizing the 50th percentile male chest deflection requirements with those of the United States; however, there could be a resulting negative safety consequence as vehicles with less chest protection could be sold in Canada. Due to the speed change from 48 km/h to 56 km/h, it is proposed to increase the allowable chest deflection for the 50th percentile adult male to 55 mm for all vehicles with a GVWR of 3 856 kg or less.

Research studies ([see footnote 3](#)) and accident investigations have shown that air bags in conjunction with seat belts provide more protection to occupants compared to seat belts alone. When Canadian safety standard 208 was amended in 1998, not all vehicles had frontal air bags installed in the driver and passenger position. The head acceleration requirement found in the current Canadian safety standard 208 is used for instances where no air bag is present, whereas

the injury calculation is used in the presence of an air bag. Today all new vehicles that meet the crash protection requirements of safety standard 208 have frontal air bags. To ensure frontal air bags are installed, this proposal would eliminate the option of satisfying the frontal crash protection requirements of safety standard 208 by meeting a head acceleration requirement.

In the United States final rule, the most significant change to the injury evaluation criteria was the introduction of the neck injury formula known as “Nij,” which consists of a set of seven interrelated components that evaluate tension, compression, flexion and extension of the neck. This measure monitors the combined loading of the neck by the inflating air bag. This amendment proposes to adopt the same neck injury formula and related components as that of the United States.

#### *5th percentile female barrier testing*

In Canada, only the 50th percentile adult male crash test dummy is currently used in the driver and front passenger positions in full frontal rigid barrier tests. A 5th percentile adult female crash test dummy represents smaller adults and older adults who have a lower injury tolerance. This proposal would align Canada with the United States and require additional crash tests with the 5th percentile adult female dummy in the driver and front passenger position for the full frontal rigid barrier tests.

In an offset frontal collision involving two vehicles, only a portion of the involved vehicles’ front structure is engaged. Due to the crushing of the two vehicle structures, the actual collision event has a different time collision history than a full frontal rigid barrier event. If air bags are installed in the vehicle, they must be designed to perform in both types of collision. There is no offset deformable barrier test conducted in Canada. This proposal would align Canada with the United States and adopt the same dynamic test requirement in an offset deformable barrier test using a 5th percentile adult female crash test dummy in the driver and front passenger position.

The 5th percentile adult female dummy, from previous research, has a scaled factor of 0.817 ([see footnote 4](#)) from the 50th percentile adult male dummy to calculate the appropriate chest deflection limit. Using this scaling factor, it is proposed to have a 45 mm chest deflection limit for the 5th percentile adult female dummy barrier tests rather than the 52 mm limit used in the United States.

#### *Chest deflection limits*

In 2010, Transport Canada reviewed the chest deflection limits for the fixed collision barrier tests in this proposal. It was concluded that the combination of 55 mm limit for the 50th percentile adult male and 45 mm limit for the 5th percentile adult female would produce a slight improvement in chest protection as compared to the specifications in the current Canadian regulation.

The U.S. government has a New Car Assessment Program (NCAP) which crash tests vehicles for consumer rating purposes. Part of this program includes crash testing cars at 56 km/h into a rigid barrier and uses the same test procedures that are found in this proposal. Up to the 2010 model year, vehicles were tested with a 50th percentile adult male crash test dummy in the driver and front passenger position. As of the 2011 model year, vehicles are tested with a 50th percentile adult male in the driver position and a 5th percentile adult female crash test dummy in the front passenger position.

While there may be some regulatory and vehicle option differences between Canada and the United States, vehicles that are sold both in Canada and the United States would have similar, if not the same, frontal crash protection systems. Under this assumption, vehicle models sold in Canada that are tested under the NCAP program would likely achieve the same results for chest deflection limits in a frontal crash test. A review of the NCAP data from the 2007 model year forward, completed as of March 1, 2011, reveals the following:

Vehicle Model Year	Number of Vehicles Tested	Driver			Passenger		
		Dummy	Maximum Chest Deflection in mm	Average Chest Deflection in mm	Dummy	Maximum Chest Deflection in mm	Average Chest Deflection in mm
2007–2010	130	50th male	39.4	27.9	50th male	44.2	26.2
2011	51	50th male	37.2	24.2	5th female	29.1	16.9

This data suggests that the proposed regulatory chest deflection limits of 55 mm for the 50th percentile adult male and 45 mm for the 5th percentile adult female are achievable for many vehicles already being built. Transport Canada is currently unaware of any vehicle that would not meet the proposed chest deflection limits.

#### Out-of-position occupants

Transport Canada recommends that occupants be seated as far away from air bags as possible. However, it is necessary to ensure air bags are not overly aggressive when they initially deploy for rare instances where an occupant may be out of the recommended seated position. To reduce the risk of injury or death to occupants, this proposal would align Canada with the United States and adopt all air bag test methods and injury criteria for out-of-position occupants.

The out-of-position requirements consider 5th percentile female, infant, three-year-old and six-year-old crash test dummies in the front outboard passenger position. Requirements for the 5th percentile female crash test dummy would also apply to the driver's position to reduce the risk of injury to a smaller driver too close to the steering wheel. Although Transport Canada does not recommend children sit in the front seat of vehicles, the proposal would adopt the out-of-position child requirements of the United States to ensure protection to any occupant in the front passenger seat of a vehicle who is out of position at the time of collision.

#### Persons with disabilities

The current Canadian safety standard 208 has crash test exceptions for vehicles manufactured for operation by persons with disabilities. The existing requirements are too restrictive, as they only account for a driver who uses a wheelchair, and do not account for other disabilities. The proposed amendment would repeal the definition of "vehicle manufactured for operation by persons with disabilities" and create a new definition for "disabled persons" in section 2 of the *Motor Vehicle Safety Regulations*.

The proposed amendment would allow for a front driver or front passenger position that is intended for a disabled person to be exempted from the crash test requirements of Canadian safety standard 208, as long as the vehicle clearly displays a specified label stating that the position does not conform to the crash test requirements. The standard would also provide more flexibility in the types of seat belts, such as detachable or automatic seat belts, which could be installed for those positions.

#### **Section 18 – Owner's manual**

Paragraph 5(1)(f) of the *Motor Vehicle Safety Act* authorizes regulations that require the dissemination, in the prescribed form and manner, of specified information relating to the operation of vehicles. The proposal to add section 18 to the *Motor Vehicle Safety Regulations* is intended to clarify that both the provision of the information and the form and manner in which it is disseminated are regulatory requirements. In particular, section 18 would provide that

- every vehicle must be provided with an owner’s manual that contains the specified information relating to the operation of the vehicle;
- the owner’s manual must be available in English and French; and
- if the owner’s manual is not provided in paper copy, then the owner’s manual must be accessible in the vehicle occupant compartment with a device that is installed in or accompanies the vehicle.

**Related Canadian safety standards: 203, *Driver Impact Protection and Steering Control System*; 204, *Steering Column Rearward Displacement*; 212, *Windshield Mounting*; 219, *Windshield Zone Intrusion***

Canadian safety standard 203 would require a reference update due to the proposed changes to Canadian safety standard 208.

Canadian safety standard 204, *Steering Column Rearward Displacement*, states that in the prescribed frontal crash test, the steering column cannot displace more than 127 mm rearward. This test was developed prior to the introduction of the frontal crash test in Canadian safety standard 208. Transport Canada has reviewed the 204 regulatory requirements and is of the opinion that a vehicle cannot meet the crash test requirements of Canadian safety standard 208 if the steering column displaces more than 127 mm. To reduce the testing burden of manufacturers, it is proposed to exempt vehicles from meeting Canadian safety standard 204 if the dynamic requirements of Canadian safety standard 208 are met.

Canadian safety standards 204, *Steering Column Rearward Displacement*; 212, *Windshield Mounting*; and 219, *Windshield Zone Intrusion* recently introduced common test requirements that referenced Test Method 208 to allow for verification of multiple regulations at one time, thus reducing the testing burden of manufacturers. After the amendments were in place, the Canadian Vehicle Manufacturers Association raised concerns.

The Association noted that standards 204, 212 and 219 do not require the use of instrumented anthropomorphic test devices; however, each standard references the loading procedures of Test Method 208, which requires the use of instrumented anthropomorphic test devices. To remedy this discrepancy, the proposal would remove the reference to Test Method 208 in Canadian safety standards 204, 212 and 219 and align Canada with the United States by introducing technical standard documents for each of these safety standards.

### **Consultation**

Transport Canada informs the automotive industry, public safety organizations and the general public when changes are planned to the *Motor Vehicle Safety Regulations*. This gives them the opportunity to comment on these changes by letter or email. Transport Canada also consults regularly, in face-to-face meetings or teleconferences, with the automotive industry, public safety organizations, the provinces and the territories.

In addition, Transport Canada meets regularly with the federal authorities of other countries. Given that harmonized regulations are key to trade and to a competitive Canadian automotive industry, Transport Canada and the United States Department of Transportation hold semi-annual meetings to discuss issues of mutual interest and planned regulatory changes. In addition, Transport Canada officials participate in and support the development of Global Technical Regulations, which are developed by the World Forum for the Harmonization of Vehicle Regulations under the direction of the United Nations Economic Commission for Europe.

Consultations on the proposed amendment to Canadian safety standard 208 have been extensive, starting with the publication of a Notice of Intent by Transport Canada on June 30, 2001, in the *Canada Gazette*, Part I. ([see footnote 5](#)) The Notice focused on static and dynamic test requirements and would have resulted in significant costs to manufacturers. This pre-proposal

was opposed by automotive industry stakeholders, and they requested that Canada fully harmonize their occupant protection requirements with those of the United States. Full harmonization with the United States was not possible as the injury criteria in Canada were already more stringent than in the United States.

Transport Canada has been working closely with the Canadian Vehicle Manufacturers' Association and the Association of International Automobile Manufacturers of Canada to determine the best path towards implementing an increased dynamic test speed while considering the effects of this change on chest deflection values. In 2011, the associations provided comments to Transport Canada on a version similar to this proposal. This proposal retains safety benefits for occupants while satisfying the needs of automobile industry stakeholders.

With respect to the seat belt portion of this proposal, a letter was sent to the Canadian Vehicle Manufacturers' Association and the Association of International Automobile Manufacturers' of Canada in June 2008 requesting comments regarding seat belt modifications. Both associations responded with a joint letter in August 2008 outlining two concerns regarding inconsistencies between the proposal and the U.S. standard regarding detachable seat belts. These inconsistencies have been addressed in this proposal. The Canadian Transportation Equipment Association was also contacted for comments on the use of Type 2 seat belts in walk-in vans less than 4 536 kg. They reported that the proposal poses no concerns to its members.

With respect to persons with disabilities, a discussion document was submitted to Transport Canada in October 2010 by SRD Bolduc Inc. which identified some areas of concern that certain Canadian safety standards requirements compromise accessibility of vehicles for disabled consumers. While this amendment addresses some of the more significant items addressed in the document, other items may be addressed in future amendments.

### ***Implementation, enforcement and service standards***

Motor vehicle manufacturers and importers are responsible for ensuring that their products conform to the requirements of the *Motor Vehicle Safety Regulations*. Transport Canada monitors self-certification programs of manufacturers and importers by reviewing their test documentation, inspecting vehicles and testing vehicles obtained in the open market. In addition, when a defect in a vehicle or equipment is identified, the manufacturer or importer must issue a Notice of Defect to the owners and to the Minister of Transport. Any person or company who contravenes a provision of the *Motor Vehicle Safety Act* is guilty of an offence, and liable to the applicable penalty set out in the Act.

### ***Contact***

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Please note: It is important that your submission be provided to the attention of the person noted above before the closing date. Submissions not sent directly to the person noted may not be considered as part of this regulatory proposal. Individual responses to submissions will not be provided. The *Canada Gazette*, Part I, will contain any changes that are made resulting from comments received, along with a summary of relevant comments. Please indicate in your submission if you do not wish to be identified or if you do not wish to have your comments published in the *Canada Gazette*, Part I.

## PROPOSED REGULATORY TEXT

Notice is hereby given, pursuant to subsection 11(3) of the *Motor Vehicle Safety Act* ([see footnote a](#)), that the Governor in Council, pursuant to subsections 5(1) ([see footnote b](#)) and 11(1) of that Act, proposes to make the annexed *Regulations Amending the Motor Vehicle Safety Regulations (Interpretation, Section 18 and Standards 203, 204, 208, 212 and 219)*.

Interested persons may make representations with respect to the proposed Regulations to the Minister of Transport within 75 days after the date of publication of this notice. All such representations must be in writing and cite the *Canada Gazette*, Part I, and the date of publication of this notice, and be sent to Anthony Jaz, Senior Regulatory Development Engineer, Road Safety and Motor Vehicle Regulation Directorate, Department of Transport, 16th Floor, 275 Slater Street, Ottawa, Ontario K1A 0N5 (email: [anthony.jaz@tc.gc.ca](mailto:anthony.jaz@tc.gc.ca)).

Ottawa, February 2, 2012

JURICA ČAPKUN  
*Assistant Clerk of the Privy Council*

### REGULATIONS AMENDING THE MOTOR VEHICLE SAFETY REGULATIONS (INTERPRETATION, SECTION 18 AND STANDARDS 203, 204, 208, 212 AND 219)

#### AMENDMENTS

**1. (1) The definitions “Type 2A shoulder belt” and “vehicle manufactured for operation by persons with disabilities” in subsection 2(1) of the *Motor Vehicle Safety Regulations* ([see footnote 6](#)) are repealed.**

**(2) The definition “tell-tale” in subsection 2(1) of the Regulations is replaced by the following:**

“tell-tale” means an optical signal that, when alight, indicates the activation or deactivation of a device, its correct or defective functioning or condition, or its failure to function; (*témoin*)

**(3) Subsection 2(1) of the Regulations is amended by adding the following in alphabetical order:**

“disabled person” means a person who, for orthopaedic reasons or because of the person’s build or other physical characteristics, requires a vehicle that has been adapted to accommodate their disability; (*personne handicapée*)

**2. The Regulations are amended by adding the following after section 17:**

#### OWNER’S MANUAL

**18. (1)** For the purposes of paragraph 5(1)(f) of the Act, for each vehicle to which the national safety mark is applied or that is imported into Canada, a company shall provide, in written, electronic or optical form, an owner’s manual containing the information required by these Regulations relating to the operation of the vehicle.

(2) The owner’s manual shall be available in both official languages.

(3) If the owner’s manual is available only in electronic or optical form, it shall be capable of being used inside the occupant compartment using a device installed in or supplied with the



vehicle.

**3. Subsection 203(4) of Schedule IV to the Regulations is replaced by the following:**

(4) Subsections (2) and (3) do not apply to a vehicle that conforms to the requirements of S5 and S14 of *Technical Standards Document No. 208, Occupant Crash Protection* (TSD 208), as amended from time to time.

(5) Subsection (4) expires on January 31, 2016.

**4. Section 204 of Schedule IV to the Regulations is replaced by the following:**

**204.** (1) Every passenger car and three-wheeled vehicle, and every multi-purpose passenger vehicle, bus and truck — other than a walk-in van — with a GVWR of 4 536 kg or less and an unloaded vehicle mass of 2 495 kg or less, shall conform to the requirements of *Technical Standards Document No. 204, Steering Control Rearward Displacement* (TSD 204), as amended from time to time.

(2) For the purposes of this section, the words “passenger car” used in TSD 204 mean “passenger car” and “three-wheeled vehicle”.

(3) Subsection (1) does not apply to a vehicle that conforms to the requirements of S5 and S14 of *Technical Standards Document No. 208, Occupant Crash Protection* (TSD 208), as amended from time to time.

(4) This section expires on January 31, 2016.

**5. The heading “OCCUPANT RESTRAINT SYSTEMS IN FRONTAL IMPACT (STANDARD 208)” before section 208 of Schedule IV to the Regulations is replaced by the following:**

OCCUPANT PROTECTION IN FRONTAL IMPACTS (STANDARD 208)

**6. Section 208 of Schedule IV to the Regulations is replaced by the following:**

**208.** (1) Every enclosed motorcycle shall be equipped at every designated seating position with a Type 2 manual seat belt assembly that

- (a) has an upper torso restraint that cannot be detached from the pelvic restraint;
- (b) can be adjusted by means of an emergency-locking retractor; and
- (c) cannot be detached from any anchorage point.

(2) Every passenger car and three-wheeled vehicle, and every truck or multi-purpose passenger vehicle with a GVWR of 4 536 kg or less, shall be equipped

(a) at each front outboard designated seating position except the one referred to in paragraph (b), and at each rear designated seating position except those referred to in paragraphs (c) and (d), with a Type 2 manual seat belt assembly that

- (i) has an upper torso restraint that cannot be detached from the pelvic restraint,
- (ii) can be adjusted by means of an emergency-locking retractor, and

(iii) cannot be detached from any anchorage point;

(b) at each front outboard designated seating position that is designed for a disabled person, with a Type 2 seat belt assembly;

(c) at each rear designated seating position that has a seat designed to be easily removed and replaced by means of equipment installed by a manufacturer for that purpose, or that is adjacent to a walkway located between the seat and the side of the vehicle and designed to allow access to more rearward seating positions, or that is an inboard designated seating position that has a seat whose back can be folded so that no part of the back extends above a horizontal plane located 250 mm above the highest seating reference point on the seat, with a Type 2 manual seat belt assembly that conforms to the requirements of paragraph (a) or with a Type 2 manual seat belt assembly that

(i) can be detached from the upper or lower anchorage point, but not from both, by means of a key or key-like object,

(ii) can be adjusted by means of an emergency-locking retractor, and

(iii) has an upper torso restraint that cannot be detached from the pelvic restraint;

(d) at each rear designated seating position that has a seat that can be adjusted to change the direction it is facing, with a Type 2 manual seat belt assembly that conforms to the requirements of paragraph (a) and can function regardless of the direction the seat is adjusted to face, or with a Type 2 manual seat belt assembly that cannot be detached from any anchorage point and that

(i) has a pelvic restraint that restrains the movement of the pelvis regardless of the direction the seat is adjusted to face and is equipped with an emergency-locking retractor, and

(ii) in the case of a seat that can be placed in a forward-facing or rear-facing position or within  $\pm 30^\circ$  of either position, has an upper torso restraint that

(A) can be detached from the pelvic restraint,

(B) can be adjusted by means of an emergency-locking retractor,

(C) is for use only in conjunction with the pelvic restraint, and

(D) can function when the seat is in any position in which it can be placed within that range; and

(e) at each rear designated seating position that has a side-facing seat, and at each front inboard designated seating position,

(i) with a Type 2 manual seat belt assembly that conforms to the requirements of paragraph (a),

(ii) with a Type 2 manual seat belt assembly that

(A) has a pelvic restraint that can be adjusted by means of an emergency-locking retractor, an automatic-locking retractor or a manual adjusting device,

(B) has an upper torso restraint that can be adjusted by means of

an emergency-locking retractor or a manual adjusting device, and

(C) cannot be detached from any anchorage point, or

(iii) with a Type 1 manual seat belt assembly that

(A) can be adjusted by means of an emergency-locking retractor, an automatic-locking retractor or a manual adjusting device, and

(B) cannot be detached from any anchorage point.

(3) Every truck and multi-purpose passenger vehicle with a GVWR greater than 4 536 kg shall be equipped

(a) at each front outboard designated seating position

(i) with a Type 2 manual seat belt assembly that

(A) has an upper torso restraint that cannot be detached from the pelvic restraint,

(B) has a pelvic restraint that can be adjusted by means of an emergency-locking retractor or an automatic-locking retractor,

(C) if the pelvic restraint can be adjusted by means of an automatic-locking retractor, has an upper torso restraint that can be adjusted by means of an emergency-locking retractor, and

(D) cannot be detached from any anchorage point, or

(ii) with a Type 1 manual seat belt assembly that

(A) can be adjusted by means of an emergency-locking retractor or an automatic-locking retractor,

(B) cannot be detached from any anchorage point; and

(b) at each rear designated seating position, and at each front inboard designated seating position,

(i) with a Type 2 manual seat belt assembly that conforms to the requirements of subparagraph (a)(i),

(ii) with a Type 2 manual seat belt assembly that

(A) has a pelvic restraint that can be adjusted by means of an emergency-locking retractor, an automatic-locking retractor or a manual adjusting device, and

(B) has an upper torso restraint that can be adjusted by means of an emergency-locking retractor or a manual adjusting device, or

(iii) with a Type 1 manual seat belt assembly that can be adjusted by means of an emergency-locking retractor, an automatic-locking retractor or a manual adjusting device.

(4) In the case of a motor home, the number of designated seating positions with seat belts

shall not be less than the number of sleeping positions.

(5) Every bus with a GVWR of 4 536 kg or less, other than a school bus, shall be equipped

(a) at each front outboard designated seating position, and at each rear designated seating position except those referred to in paragraphs (b) to (d), with a Type 2 manual seat belt assembly that

(i) has an upper torso restraint that cannot be detached from the pelvic restraint,

(ii) can be adjusted by means of an emergency-locking retractor, and

(iii) cannot be detached from any anchorage point;

(b) at each rear designated seating position that has a seat designed to be easily removed and replaced by means of equipment installed by a manufacturer for that purpose, or that is adjacent to a walkway located between the seat and the side of the vehicle and designed to allow access to more rearward seating positions, or is an inboard designated seating position that has a seat whose back can be folded so that no part of the back extends above a horizontal plane located 250 mm above the highest seating reference point on the seat, with a Type 2 manual seat belt assembly that conforms to the requirements of paragraph (a) or with a Type 2 manual seat belt assembly that

(i) can be detached from the upper or lower anchorage point, but not from both, by means of a key or key-like object,

(ii) can be adjusted by means of an emergency-locking retractor, and

(iii) has an upper torso restraint that cannot be detached from the pelvic restraint;

(c) at each rear designated seating position that has a seat that can be adjusted to change the direction it is facing, with a Type 2 manual seat belt assembly that conforms to the requirements of paragraph (a) and can function regardless of the direction the seat is adjusted to face, or with a Type 2 manual seat belt assembly that cannot be detached from any anchorage point and that

(i) has a pelvic restraint that restrains the movement of the pelvis regardless of the direction the seat is adjusted to face and is equipped with an emergency-locking retractor, and

(ii) in the case of a seat that can be placed in a forward-facing or rear-facing position or within  $\pm 30^\circ$  of either position, an upper torso restraint that

(A) can be detached from the pelvic restraint,

(B) that can be adjusted by means of an emergency-locking retractor,

(C) is for use only in conjunction with the pelvic restraint, and

(D) can function when the seat is in any position in which it can be placed within that range; and

(d) at each rear designated seating position that has a side-facing seat,

(i) with a Type 2 manual seat belt assembly that conforms to the

requirements of paragraph (a),

(ii) with a Type 2 manual seat belt assembly that

(A) has a pelvic restraint that can be adjusted by means of an emergency-locking retractor, an automatic-locking retractor or a manual adjusting device, and

(B) cannot be detached from the pelvic restraint or from any anchorage point, or

(iii) with a Type 1 manual seat belt assembly that

(A) can be adjusted by means of an emergency-locking retractor, an automatic-locking retractor or a manual adjusting device, and

(B) cannot be detached from any anchorage point.

(6) Every bus with a GVWR greater than 4 536 kg shall be equipped, at the driver's designated seating position,

(a) with a Type 2 manual seat belt assembly that

(i) has an upper torso restraint that cannot be detached from the pelvic restraint and that can be adjusted by means of an emergency-locking retractor,

(ii) has a pelvic restraint that can be adjusted by means of an emergency-locking retractor or an automatic-locking retractor, and

(iii) cannot be detached from any anchorage point; or

(b) Type 1 manual seat belt assembly that

(i) can be adjusted by means of an emergency-locking retractor or an automatic-locking retractor, and

(ii) cannot be detached from any anchorage point.

(7) Every school bus with a GVWR of 4 536 kg or less shall be equipped, at the driver's designated seating position, with a Type 2 manual seat belt assembly that

(a) has an upper torso restraint that cannot be detached from the pelvic restraint;

(b) can be adjusted by means of an emergency-locking retractor; and

(c) cannot be detached from any anchorage point.

(8) [Reserved]

(9) An automatic-locking retractor that is installed in order for a seat belt assembly to conform to the requirements of paragraphs (2)(e), (3)(a), (3)(b) or (5)(d) or subsection (6) shall

(a) engage the next locking position when a length of seat belt webbing between 19 mm and 77 mm has moved into the retractor, as measured from an initial position determined by extending the seat belt webbing to 75 per cent of its total length from the retractor; and

(b) if used on a vehicle seat that has a suspension system, be attached to the suspended portion of the vehicle seat.

*Seat Belt Fit*

(10) A Type 2 manual seat belt assembly shall be constructed so that, when a 50th percentile adult male occupant is secured in place by the seat belt assembly, the intersection of the upper torso restraint and the pelvic restraint shall be at least 150 mm from the front vertical centreline of the occupant, measured along the centreline of the pelvic restraint, with

(a) any upper torso restraint manual adjusting device adjusted in accordance with the manufacturer's instructions;

(b) the seat adjusted to its rearmost and lowest position; and

(c) the seat back adjusted to the manufacturer's nominal design riding position.

(11) When the seat is placed in any position, the seat back is placed in the manufacturer's nominal design riding position and any adjustable seat belt anchorage is placed in the manufacturer's nominal design position for a 50th percentile adult male occupant, every pelvic restraint shall

(a) at the driver's designated seating position, be adjustable to fit any occupant whose dimensions range from those of a 5th percentile adult female to those of a 95th percentile adult male; and

(b) at all of the other designated seating positions, be adjustable to fit any occupant whose dimensions range from those of a 50th percentile six-year-old child to those of a 95th percentile adult male.

(12) When the seat is placed in any position, the seat back is placed in the manufacturer's nominal design riding position and any adjustable seat belt anchorage is placed in the manufacturer's nominal design position for a 50th percentile adult male occupant, every upper torso restraint shall be adjustable to fit any occupant whose dimensions range from those of a 5th percentile adult female to those of a 95th percentile adult male.

*Technical Standards Document No. 208*

(13) Every passenger car, multi-purpose passenger vehicle, truck, bus and three-wheeled vehicle, and their owner's manuals, shall conform to the requirements of *Technical Standards Document No. 208, Occupant Crash Protection* (TSD 208), as amended from time to time.

(14) For the purposes of this section,

(a) the words "passenger car" used in TSD 208 mean "passenger car" and "three-wheeled vehicle"; and

(b) the word "dummy" used in the English version of TSD 208 means "anthropomorphic test device".

(15) Despite subsection (13), every vehicle with a front outboard designated seating position that is designed for a disabled person may, instead of conforming to the requirements of S5, S7.1, S7.2, S7.4 and S14 to S27 of TSD 208, display the following statement on one or more labels, permanently affixed in view of the occupants of the front designated seating positions, in letters of not less than six points in height: "The [here refer to the outboard designated seating position in

the front row of designated seating positions that does not conform to the requirements set out in CMVSS 208] does not conform to all the requirements set out in CMVSS 208. / La [insérer ici la place assise désignée extérieure de la première rangée de places assises désignées qui n'est pas conforme aux exigences prévues par la NSVAC] n'est pas conforme à toutes les exigences prévues par la NSVAC 208.”.

(16) Despite subsection (13), every three-wheeled vehicle shall, at the option of the manufacturer, either conform to the requirements of S5 and S14 to S27 of TSD 208 or display the following statement on one or more labels, permanently affixed in view of the occupants of the front designated seating positions, in letters of not less than six points in height: “This vehicle does not conform to the requirements of the dynamic or static tests set out in CMVSS 208. / Ce véhicule n'est pas conforme aux exigences des essais dynamiques ou statiques prévues par la NSVAC 208.”

(17) If a label referred to in subsection (15) or (16) is displayed in a vehicle, the English and French versions of the owner's manual shall include the statement contained on the label.

(18) The information contained on the label referred to in S4.5.1(a) of TSD 208 shall be in both official languages.

(19) Despite S4.5.4 of TSD 208, that provision also applies to a vehicle manufactured on or after September 1, 2012.

(20) Despite S6.4(b) of TSD 208, the compression deflection of the sternum relative to the spine of the upper thorax of each anthropomorphic test device shall not exceed 55 mm.

(21) The information referred to in S4.5, S7.1.1.5 and S7.4.2 of TSD 208 shall be provided in the English and French versions of the owner's manual.

(22) S14 of TSD 208 applies to every passenger car, and to every truck, bus and multi-purpose passenger vehicle — other than a walk-in van — with a GVWR of 3 856 kg or less and an unloaded vehicle weight of 2 495 kg or less.

(23) Despite S15.3.4 of TSD 208, the compression deflection of the sternum relative to the spine of the upper thorax of each anthropomorphic test device shall not exceed 45 mm, when the vehicle is tested in accordance with S16.1(a)(2) or S18 of TSD 208.

(24) Subsections (13) to (23) expire on January 31, 2016.

#### *Air Bag Warning Labels*

(25) If a vehicle is equipped with an air bag at the right front outboard designated seating position, the vehicle shall have a label or labels permanently affixed to the sun visor at that designated seating position or in a readily visible area adjacent to the sun visor stating, in letters of not less than 6 points in height, in both official languages, the following warnings:

(a) in the case of an air bag that can be deactivated by means of a manual air bag cut-off switch, a warning not to install a rear-facing child restraint system or an infant restraint system in that designated seating position unless the air bag is deactivated; and

(b) in any other case, a warning not to install a rear-facing child restraint system or an infant restraint system in that designated seating position.

#### *Transitional Provision*

(26) Until September 1, 2014, buses, trucks, enclosed motorcycles, multi-purpose passenger

vehicles, passenger cars and three-wheeled vehicles may conform to the requirements of this section as it read on the day before the day on which this subsection came into force.

**7. Section 212 of Schedule IV to the Regulations is replaced by the following:**

**212.** (1) Every passenger car and three-wheeled vehicle, and every multi-purpose passenger vehicle, bus and truck — other than a walk-in van, a forward control configuration vehicle or an open-body type vehicle with a fold-down or removable windshield — with a GVWR of 4 536 kg or less, shall conform to the requirements of *Technical Standards Document No. 212, Windshield Mounting* (TSD 212), as amended from time to time.

(2) For the purposes of this section, the words “passenger car” used in TSD 212 mean “passenger car” and “three-wheeled vehicle”.

(3) This section expires on January 31, 2016.

**8. Section 219 of Schedule IV to the Regulations is replaced by the following:**

**219.** (1) Every passenger car and three-wheeled vehicle, and every multi-purpose passenger vehicle, bus and truck — other than a walk-in van, a forward control configuration vehicle or an open-body type vehicle with a fold-down or removable windshield — with a GVWR of 4 536 kg or less, shall conform to the requirements of *Technical Standards Document No. 219, Windshield Zone Intrusion* (TSD 219), as amended from time to time.

(2) For the purposes of this section, the words “passenger car” used in TSD 219 mean “passenger car” and “three-wheeled vehicle”.

(3) This section expires on January 31, 2016.

**COMING INTO FORCE**

**9. These Regulations come into force on the day on which they are published in the *Canada Gazette, Part I*.**

[6-1-o]

[Footnote a](#)

S.C. 1993, c. 16

[Footnote b](#)

S.C. 1999, c. 33, s. 351

[Footnote 1](#)

United States Federal Register: Rules and Regulations; *Federal Motor Vehicle Safety Standards; Occupant Crash Protection*, Vol. 65, No. 93, May 12, 2000; p. 30680 (final rule).

[Footnote 2](#)

“Effectiveness of Lap/Shoulder Belts in the Back Outboard Seating Positions,” DOT HS 808 945, NHTSA Technical Report, June 1999.

[Footnote 3](#)

Road Safety and Motor Vehicle Regulation Directorate, *Evaluation of the Effectiveness of Air Bags and Seat Belts*, Transport Canada, 2001, TP13187.



[Footnote 4](#)

Mertz, H. J., Prasad, P., and Irwin, A. L. (2003), Biomechanical and Scaling Bases for Frontal and Side Impact Injury Assessment Reference Values Proc., 47th Stapp Car Crash Conference, pp. 155–188. Society of Automotive Engineers, Warrendale, PA.

[Footnote 5](#)

*Canada Gazette*, Part I, June 30, 2001, "Notice of Intent to Amend Section 208, 'Occupant Restraint Systems in Frontal Impact,' of the *Motor Vehicle Safety Regulations*."

[Footnote 6](#)

C.R.C., c. 1038

**NOTICE:**

The format of the electronic version of this issue of the *Canada Gazette* was modified in order to be compatible with extensible hypertext markup language (XHTML 1.0 Strict).

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