

97-GP SERIES

CANCELLATION
March 1971

CANADIAN GOVERNMENT SPECIFICATIONS BOARD

Standards
for

AUTOMOTIVE VEHICLE SAFETY

Standards 97-GP-101 to 97-GP-301 inclusive, covering safety features for automotive vehicles, have been cancelled. They have been replaced by the Motor Vehicle Safety Regulations of the Ministry of Transport, which are available from Information Canada.

Publication 97-GP, Guide to Traffic Safety, has also been cancelled.



CANADA

CANADIAN GOVERNMENT SPECIFICATIONS BOARD

STANDARD

FOR

OCCUPANT PROTECTION IN INTERIOR IMPACT - PASSENGER CARS

97-GP-201a

6 DECEMBER 1968

EFFECTIVE DATE

1 JANUARY 1970

TO SUPERSEDE 97-GP-201

24 MAY 1968

THIS STANDARD SPECIFIES REQUIREMENTS TO AFFORD PROTECTION FROM IMPACT
FOR OCCUPANTS OF PASSENGER CARS.

DEPARTMENT OF DEFENCE PRODUCTION, OTTAWA, CANADA

97-GP-201a*
6 December 1968
Effective Date
1 January 1970

To supersede 97-GP-201*
24 May 1968

CANADIAN GOVERNMENT SPECIFICATIONS BOARD

Standard

for

OCCUPANT PROTECTION IN INTERIOR IMPACT -
PASSENGER CARS

1. PURPOSE AND SCOPE

1.1 This standard specifies requirements to afford protection from impact for occupants of passenger cars.

2. APPLICABLE PUBLICATIONS

2.1 The following publications are applicable to this standard:

- 2.1.1 Society of Automotive Engineers (SAE)
J839b, Passenger Car Side Door Latch
Systems, May 1965
J850, Barrier Collision Tests, February 1963
J921, Instrument Panel Laboratory Impact Test
Procedure, June 1965
J977, Instrumentation for Laboratory Impact Tests,
November 1966

3. APPLICABILITY

3.1 This standard applies to:
Passenger Cars

4. DEFINITIONS

4.1 "Interior compartment door" means any door in the interior of the vehicle installed by the manufacturer as a cover for storage space normally used for personal effects.

* This standard will become effective 1 January 1970 at which time it will supersede 97-GP-201 dated 24 May 1968. It is issued in the interim for information and to provide sufficient time for manufacturers to design their products to comply.

5. DETAIL REQUIREMENTS

5.1 Instrument Panels - Except as provided in par. 5.1.1, when that area of the instrument panel that is within the head impact area is impacted in accordance with par. 5.1.2 by a 15-pound 6.5-inch diameter head form at a relative velocity of 15 miles per hour, the deceleration of the head form shall not exceed 80g continuously for more than 3 milliseconds.

5.1.1 The requirements of par. 5.1 do not apply to:

- (a) Console assemblies
- (b) Areas less than 5 inches inboard from the juncture of the instrument panel attachment to the body side inner structure
- (c) Areas closer to the windshield juncture than those statically contactable by the head form with the windshield in place
- (d) Areas outboard of any point of tangency on the instrument panel of a 6.5-inch diameter head form tangent to and inboard of a vertical longitudinal plane tangent to the inboard edge of the steering wheel
- (e) Areas below any point at which a vertical line is tangent to the rearmost surface of the panel.

5.1.2 Demonstration Procedures - Tests shall be performed as described in SAE J921, using the specified instrumentation or instrumentation that meets the performance requirements specified in SAE J977, except that:

- (a) The origin of the line tangent to the instrument panel surface shall be a point on a transverse horizontal line through a point 5 inches horizontally forward of the seating reference point of the front outboard passenger designated seating position, displaced vertically an amount equal to the rise that results from a 5-inch forward adjustment of the seat or 0.75 inch
- (b) Direction of impact shall be either:
 - (1) in a vertical plane parallel to the vehicle longitudinal axis, or
 - (2) in a plane normal to the surface at the point of contact.

5.2 Seat Backs - Except as provided in par. 5.2.1, when that area of the seat back that is within the head impact area is impacted in accordance with par. 5.2.2 by a 15-pound 6.5-inch diameter head form at a relative velocity of 15 miles per hour, the deceleration of the head form shall not exceed 80g continuously for more than 3 milliseconds.

5.2.1 The requirements of par. 5.2 do not apply to rearmost, side-facing, back-to-back, folding auxiliary jump, and temporary seats.

5.2.2 Demonstration Procedures - Tests shall be performed as described in SAE J921, using the specified instrumentation or instrumentation that meets the performance requirements specified in SAE J977, except that:

- (a) The origin of the line tangent to the uppermost seat back frame component shall be a point on a transverse horizontal line through the seating reference point of the right rear designated seating position, with adjustable forward seats in their rearmost design driving position, and reclinable forward seat backs in their nominal design driving position.
- (b) The direction of impact shall be either:
 - (1) in a vertical plane parallel to the vehicle longitudinal axis, or
 - (2) in a plane normal to the surface at the point of contact.
- (c) For seats without installed head restraints, tests shall be performed for each individual split or bucket seat back at points within 4.0 inches left and right of its centerline and for each bench seat back between points 4.0 inches outboard of the centerline of each outboard designated seating position.
- (d) For seats having installed head restraints, each test shall be conducted with the head restraint in place at its lowest adjusted position, at a point on the head restraint centerline.
- (e) For a seat that is installed in more than one body style, tests conducted at the fore and aft extremes identified by application of subparagraph (a) shall be deemed to have demonstrated all intermediate conditions.

5.3 Interior Compartment Doors - Each interior compartment door (par. 4.1) assembly located in an instrument panel, console assembly, seat back, or side panel adjacent to a designated seating position shall remain closed when tested in accordance with either par. 5.3.1 (a) and 5.3.1 (b), or 5.3.1 (a) and 5.3.1 (c). Additionally, any interior compartment door located in an instrument panel or seat back shall remain closed when the instrument panel or seat back is tested in accordance with par. 5.1 and 5.2. All interior compartment door assemblies with a locking device shall be tested with the locking device in an unlocked position.

5.3.1 Demonstration procedures

- (a) Subject the interior compartment door latch system to an inertia load of 10g in a horizontal transverse direction and an inertia load of 10g in a vertical direction in accordance with the procedure described in Section 5 of SAE J839b or approved equivalent.
- (b) Conduct a front-end longitudinal barrier collision test at not less than 30 miles per hour in accordance with SAE J850 or an approved equivalent.
- (c) Subject the interior compartment door latch system to a horizontal inertia load of 30g in a longitudinal direction in accordance with the procedure described in Section 5 of SAE J839b or an approved equivalent.

5.4 Sun Visors

5.4.1 Two sun visors shall be provided, constructed of or covered with energy-absorbing material.

5.4.2 Each sun visor mounting shall present no rigid material edge radius of less than 0.125 inch that is statically contactable by a spherical 6.5-inch diameter head form.

5.5 Armrests

5.5.1 General - Each installed armrest shall conform to at least one of the following:

- (a) It shall be constructed with energy-absorbing material and shall deflect or collapse laterally at least 2 inches without permitting contact with any underlying rigid material.

- (b) It shall be constructed with energy-absorbing material that deflects or collapses to within 1.25 inches of a rigid test panel surface without permitting contact with any rigid material. Any rigid material between 0.5 and 1.25 inches from the panel surface shall have a minimum vertical height of not less than 1 inch.
- (c) Along not less than 2 continuous inches of its length, the armrest shall, when measured vertically in side elevation, provide at least 2 inches of coverage within the pelvic impact area.

5.5.2 Folding Armrests - Each armrest that folds into the seat back or between two seat backs shall either:

- (a) meet the requirements of par. 5.5.1, or
- (b) be constructed of, or covered with, energy-absorbing material.

6. NOTES

6.1 The requirements in this standard are identical with those in U.S. Federal Motor Vehicle Safety Standard No. 201, Occupant Protection in Interior Impact - Passenger Cars, amended and issued 21 October 1968. Changes in that standard will be duly incorporated in CGSB Standard 97-GP-201a.

6.2 Certification to U.S. Standard No. 201 applicable at date of manufacture will certify conformance to CGSB Standard 97-GP-201.

6.3 The publications listed in Section 2 are available from the Canadian Government Specifications Board.

Correspondence regarding this standard should be addressed to the Canadian Government Specifications Board, c/o Department of Defence Production, Ottawa 4, Canada.