

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 They have been replaced by the Motor Vehicle Safety Regulations of the Ministry of Transport, which are available from Information Canada.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.

97-GP-101a
23 September 1968
Effective Date
1 January 1969
AMENDMENT NO. 1
4 December 1968

CANADIAN GOVERNMENT SPECIFICATIONS BOARD

Standard

for

WINDSHIELD WIPING AND WASHING SYSTEMS -
PASSENGER CARS, MULTIPURPOSE PASSENGER
VEHICLES, TRUCKS AND BUSES

6. NOTES

6.1 In the last line change "97-GP-104" to read "97-GP-104a".



CANADA

CANADIAN GOVERNMENT SPECIFICATIONS BOARD

STANDARD

FOR

WINDSHIELD WIPING AND WASHING SYSTEMS -
PASSENGER CARS, MULTIPURPOSE PASSENGER
VEHICLES, TRUCKS AND BUSES

97-GP-104a

23 SEPTEMBER 1968

EFFECTIVE DATE

1 JANUARY 1969

SUPERSEDES 97-GP-104

24 MAY 1968

THIS STANDARD SPECIFIES REQUIREMENTS FOR WINDSHIELD WIPING AND
WASHING SYSTEMS.

DEPARTMENT OF DEFENCE PRODUCTION, OTTAWA, CANADA

97-GP-104a
23 September 1968
Effective Date
1 January 1969
Supersedes 97-GP-104
24 May 1968

CANADIAN GOVERNMENT SPECIFICATIONS BOARD

Standard

for

WINDSHIELD WIPING AND WASHING SYSTEMS -
PASSENGER CARS, MULTIPURPOSE PASSENGER VEHICLES
TRUCKS AND BUSES

1. PURPOSE AND SCOPE

1.1 This standard specifies requirements for windshield wiping and washing systems.

2. APPLICABLE PUBLICATIONS

2.1 The following publications are applicable to this standard:

2.1.1 Society of Automotive Engineers (SAE)
J903a, Passenger Car Windshield Wiper Systems, May 1966
J941, Passenger Car Driver's Eye Range, November 1965
J942, Passenger Car Windshield Washer Systems, November 1965
Aerospace-Automotive Drawing Standards, Ground Vehicle
Practice, Section E, September 1963.

3. APPLICABILITY

3.1 This standard applies to:

Passenger cars
Multipurpose passenger vehicles
Trucks
Buses.

4. DEFINITIONS

4.1 The term "seating reference point" is substituted for the terms "manikin H point" and "H" point wherever either of those terms appears in any SAE Standard or SAE Recommended Practice referred to in this standard.

4.2 "Daylight opening" means the maximum unobstructed opening through the glazing surface, as defined in par. 2.3.12 of Section E, Ground Vehicle Practice, SAE Aerospace-Automotive Drawing Standards.

4.3 "Glazing surface reference line" means the line resulting from the intersection of the glazing surface and a horizontal plane 25 inches above the seating reference point, as shown in Figure 1 of SAE J903a.

4.4 "Overall width" means the maximum over-all body width dimension "W116" as defined in Section E, Ground Vehicle Practice, SAE Aerospace-Automotive Drawing Standards.

4.5 "Plan view reference line" means:

4.5.1 For vehicles with bench-type seats, a line parallel to the vehicle longitudinal centerline at a distance outboard of the steering wheel centerline 0.15 times the difference between one-half of the shoulder room dimension and the steering-wheel-centerline to car-centerline dimension as shown in Figure 2 of SAE J903a.

4.5.2 For vehicles with individual type seats, either:

- (i) a line parallel to the vehicle longitudinal centerline which passes through the center of the driver's designated seating position; or
- (ii) a line parallel to the vehicle longitudinal centerline located so that the geometric center of the 95% eye range contour is positioned on the longitudinal centerline of the driver's designated seating position.

4.6 "Shoulder room dimension" means the front shoulder room dimension "W3" as defined in Section E, Ground Vehicle Practice, SAE Aerospace-Automotive Drawing Standards.

4.7 "95% eye range contour" means the 95th percentile tangential cutoff specified in SAE J941.

5. DETAIL REQUIREMENTS

5.1 Windshield Wiping System - Each vehicle shall have a power-driven windshield wiping system that meets the following requirements:

5.1.1 Frequency

5.1.1.1 Each windshield wiping system shall have at least two frequencies or speeds.

5.1.1.2 One frequency or speed shall be at least 45 cycles per minute regardless of engine load and engine speed.

5.1.1.3 Regardless of engine load and engine speed, the highest and one lower frequency or speed shall differ by at least 15 cycles per minute. Such lower frequency or speed shall be at least 20 cycles per minute regardless of engine speed and engine load.

5.1.1.4 Compliance with par. 5.1.1.2 and 5.1.1.3 may be demonstrated by testing under the conditions specified in Sections 4.1.1 and 4.1.2 of SAE J903a.

5.1.2 Wiped Area - When tested wet in accordance with SAE J903a, each passenger car windshield wiping system shall wipe the percentage of Areas A, B and C of the windshield (established in accordance with 5.1.2.1) that:

(a) is specified in column 2 of Table I, II, III or IV as applicable.

(b) is within the area bounded by a perimeter line on the glazing surface 1 inch from the edge of the daylight opening.

5.1.2.1 Areas A, B and C shall be established as shown in Figures 1 and 2 of SAE J903a, using the angles specified in Columns 3 through 6 of Table I, II, III or IV as applicable.

5.2 Windshield Washing System

5.2.1 Each passenger car shall have a windshield washing system that meets the requirements of SAE J942, except that the reference to "the effective wiper pattern defined in SAE J903a, par. 3.1.2" in par. 3.1 of SAE J942 shall be replaced by "the areas established in accordance with par. 5.1.2.1 of CGSB 97-GP-104".

- 5.2.2 Each multipurpose passenger vehicle, truck and bus shall have a windshield washing system that meets the requirements of SAE J942, except that the reference to "the effective wipe pattern defined in SAE J903a, par. 3.1.2" in par. 3.1 of SAE J942 shall be replaced by "the pattern design by the manufacturer for the windshield wiping system on the exterior surface of the windshield glazing".

6. NOTES

- 6.1 The requirements in this standard are identical with those in United States Federal Motor Vehicle Safety Standard No. 104, Windshield Wiping and Washing Systems - Passenger Cars, Multipurpose Passenger Vehicles, Trucks and Buses, 1 January 1969, and changes in that standard will be duly incorporated in CGSB Standard 97-GP-104.
- 6.2 Certification to U.S. Standard No. 104 applicable at date of manufacture will certify conformance to CGSB Standard 97-GP-104.
- 6.3 Publications listed in Section 2 are available from the Canadian Government Specifications Board.
- 6.4 Further related information may be found in the CGSB Guide to Traffic Safety, also available from the Canadian Government Specifications Board.

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Table I

Passenger cars less than 60 inches in over-all width

Column 1	Column 2	Column 3	Column 4	Column 5	Column 6
<u>Area</u>	<u>Minimum per cent to be wiped</u>	<u>Angles in Degrees</u>			
		<u>Left</u>	<u>Right</u>	<u>Up</u>	<u>Down</u>
A	80	16	49	7	5
B	94	13	46	4	3
C	99	7	15	3	1

Table II

Passenger cars 60 or more but less than 64 inches
in over-all width

Column 1	Column 2	Column 3	Column 4	Column 5	Column 6
<u>Area</u>	<u>Minimum per cent to be wiped</u>	<u>Angles in Degrees</u>			
		<u>Left</u>	<u>Right</u>	<u>Up</u>	<u>Down</u>
A	80	17	51	8	5
B	94	13	49	4	3
C	99	7	15	3	1

Table III

Passenger cars 64 or more but less than 68 inches
in over-all width

Column 1	Column 2	Column 3	Column 4	Column 5	Column 6
Area	Minimum per cent to be wiped	Angles in Degrees			
		<u>Left</u>	<u>Right</u>	<u>Up</u>	<u>Down</u>
A	80	17	53	9	5
B	94	14	51	5	3
C	99	8	15	4	1

Table IV

Passenger cars 68 or more inches in over-all width

Column 1	Column 2	Column 3	Column 4	Column 5	Column 6
Area	Minimum per cent to be wiped	Angles in Degrees			
		<u>Left</u>	<u>Right</u>	<u>Up</u>	<u>Down</u>
A	80	18	56	10	5
B	94	14	53	5	3
C	99	10	15	5	1