(h) Repeat Steps (c) to (g) for all other projections identified in Step (b).

(i) Repeat the procedure for a bassinet, child restraint, toddler seat, toddler platform or other accessory.

E.5 Report

The following shall be reported:

(a) The identity of the vehicle.

(b) A description of the accessories and configurations in which the vehicle was tested.

(c) A description of any component that became detached.

(d) A reference to this test method, i.e. AS 2088:2022 Appendix E.

Appendix F
(normative)

Test for removability of a projection by a tensile force

F.1 Scope

This appendix sets out a method for determining the resistance to tensile force of any projection that is capable of being grasped with at least the thumb and forefinger or teeth of a child.

F.2 Principle

A specified tensile force is applied to the projection being tested for a specified period. The vehicle is then examined to ascertain whether any hazards resulted from the application of the tensile force.

F.3 Apparatus

The following apparatus are required:

(a) A means of applying and measuring a tensile force of 70 N ± 2 N.

(b) A timing device.

(c) A set of clamps.

F.4 Procedure

The procedure shall be as follows:

(a) Secure the vehicle.

(b) Identify all projections that are capable of being grasped with at least the thumb and forefinger or teeth of a child.

(c) Apply the clamp firmly to the projection.

(d) Apply a tensile force of 70 N ± 2 N evenly over a 5 s period in a direction parallel to the major axis of the projection.

(e) Maintain the required force for an additional 10 s, then remove the force and allow the projection to return to a relaxed condition.

(f) Reposition the clamp or apply another clamp firmly to the projection such that the tensile force can be applied perpendicularly to the major axis of the projection.

(g) Apply a tensile force of 70 N ± 2 N evenly over a 5 s period in a direction perpendicular to the major axis of the projection.

(h) Repeat Steps (c) to (g) for all other projections identified in Step (b).

(i) Repeat the procedure for a bassinet, child restraint, toddler seat, toddler platform or other accessory.

F.5 Report

The following shall be reported:

(a) The identity of the vehicle.

(b) A description of the accessories and configurations in which the vehicle was tested.

(c) A description of any component that became detached.

(d) A reference to this test method, i.e. AS 2088:2022 Appendix F.

Appendix G
(normative)

Test for hazardous sharp edges

G.1 Scope

This appendix sets out a method for testing a vehicle for hazardous sharp edges.

G.2 Principle

A specified self-adhesive tape is attached to a specified mandrel that is then rolled along the edge being tested. The tape is then examined for the length of cut.

G.3 Apparatus

The following apparatus are required:

(a) A mandrel made of steel having a test surface finish with a Roughness Average (R_a) value not greater than 0.4 µm when measured in accordance with ISO 4287 and a hardness of not less than 40 Hardness Rockwell C (HRC) in accordance with ISO 6508-1. The mandrel shall have a diameter of 9.53 mm ± 0.12 mm and be of a length that permits the mandrel to be positioned on the component being tested.

(b) Pressure sensitive polytetrafluroethylene (PTFE), high-temperature electrical insulation tape. The thickness of the PTFE tape shall be between 0.066 mm and 0.090 mm. The adhesive shall be pressure-sensitive silicone polymer with a nominal thickness of 0.08 mm. The width of the tape shall not be less than 6 mm. The temperature of the tape shall be maintained at 23 °C ± 2 °C during the test.

(c) A force gauge is required if the apparatus specified in Clause G.3(a) does not have an integral means of applying the required amount of force.

(d) A means of measuring length in millimetres.

G.4 Procedure

The procedure shall be as follows:

(a) Identify any surface on the vehicle which may present a sharp edge.

(b) Wrap the mandrel with one layer of the test tape so that the circumference and the width of the tape provide sufficient area for performing the test.

(c) Place the taped mandrel so that its axis is at 90° ± 5° to the line of a straight edge, or 90° ± 5° to a tangent at the test point of a curved edge, and the tape is in contact with the edge when the mandrel is rotated. Vary the angle of the test edge so that the worst case situation is presented, see Figure G.1.

(d) Apply a force not greater than 6 N to the mandrel and roll the mandrel 360° about its axis along the edge, ensuring that no relative motion occurs between the mandrel and the edge during the rotation of the mandrel.

The rotation of the mandrel is to have a smooth start and stop and a constant tangential velocity of 25 mm/s ± 2 mm/s during the centre 75 % of its rotation.

(e) Remove the tape from the mandrel without enlarging any cut in the tape or causing any score in the tape to become a cut.

(f) Measure the length of tape that is cut. This measurement shall include any intermittent cuts.

(g) Measure the length of tape that has contacted the edge during the test.

(h) Calculate the percentage length of the tape which has been cut during the test.

(i) Repeat the procedure in Steps (b) to (h) for all other surfaces on the vehicle which may present a sharp edge.

(j) Repeat the procedure for a bassinet, child restraint, toddler seat, toddler platform or other accessory.

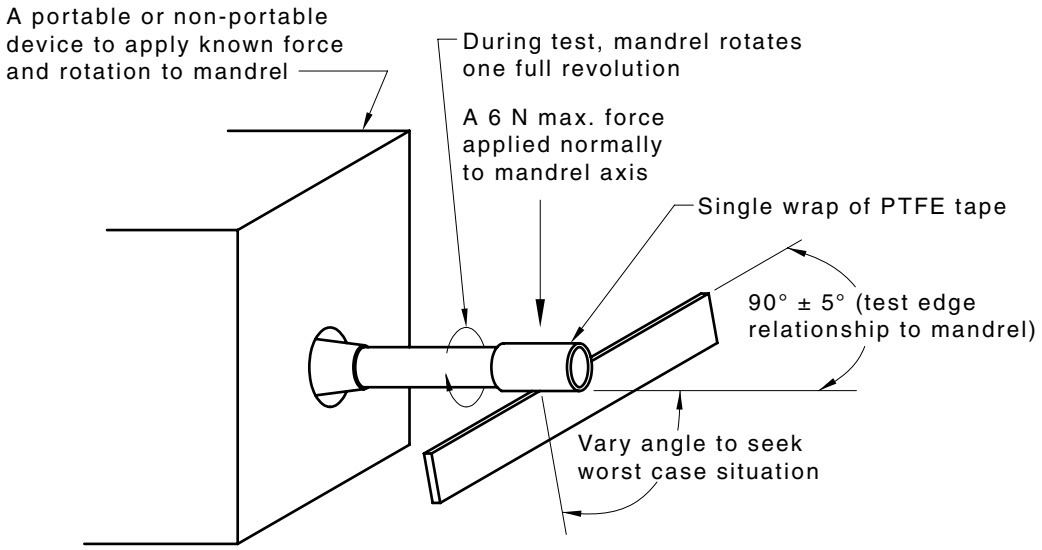

Figure G.1 — Typical sharp edge testing

G.5 Interpretation of results

If 50 % of the line of contact of the tape with the edge is completely cut, the edge is classed as a hazardous sharp edge.

G.6 Report

The following shall be reported:

(a) The identity of the vehicle.

(b) A description of the accessories and configurations in which the vehicle was tested.

(c) Any edge which was found to be a hazardous sharp edge.

(d) A reference to this test method, i.e. AS 2088:2022 Appendix G.

Appendix H
(normative)

Test for hazardous sharp points

H.1 Scope

This appendix sets out a method for testing a vehicle for hazardous sharp points.

H.2 Principle

A specified sharp point tester is applied to a sharp point, and it is observed whether or not the sharp point penetrates a specified distance into the sharp point tester.

H.3 Apparatus

The following apparatus are required:

(a) A sharp point tester (see Figure H.1) or any device utilizing the same reference dimensions and yielding precisely equivalent results.

The gauging cap shall have a gauging slot that is a rectangular opening having dimensions measuring 1.02 mm ± 0.02 mm wide by 1.15 mm ± 0.02 mm long.

The distance between the external face of the gauging cap and the end of the sensing head, which is intended to be contacted by the sharp point being tested, shall be 0.38 mm ± 0.02 mm, see Figure H.1.

The spring shall be such that it would enable a hazardous sharp point to light up the indicator lamp if the sharp point is inserted into the gauging slot with a force of 2 N.

(b) A means of applying and measuring a compressive force of 4 N.

H.4 Procedure

The procedure shall be as follows:

(a) Identify any projection on the vehicle which may present a sharp point.

(b) Adjust the sharp point tester by loosening the lock ring and rotating it so that it moves toward the indicator lamp assembly a sufficient distance to expose the calibration reference mark on the barrel. Rotate the gauging cap clockwise until the sensing head moves a distance of 0.12 mm from making contact with the dry cell, see Figure H.1.

If the gauging cap includes micrometer markings, the distance may be readily achieved by rotating the cap anticlockwise until the micrometer marking corresponds to the calibration reference mark. Lock the gauging cap in this position by rotating the lock ring until it fits firmly against the cap.

(c) Insert the test point in a direction judged to be most rigid for the point into the cap slot and apply a force of 4 N to depress the spring as far as is possible without shaving the point on the edges of the slot or extruding the point through the slot.

(d) Observe whether the indicator lamp lights up.

(e) Repeat the procedure in Steps (b) to (d) for all other projections on the vehicle which may present a sharp point.

(f) Repeat the procedure for a bassinet, child restraint, toddler seat, toddler platform or other accessory.

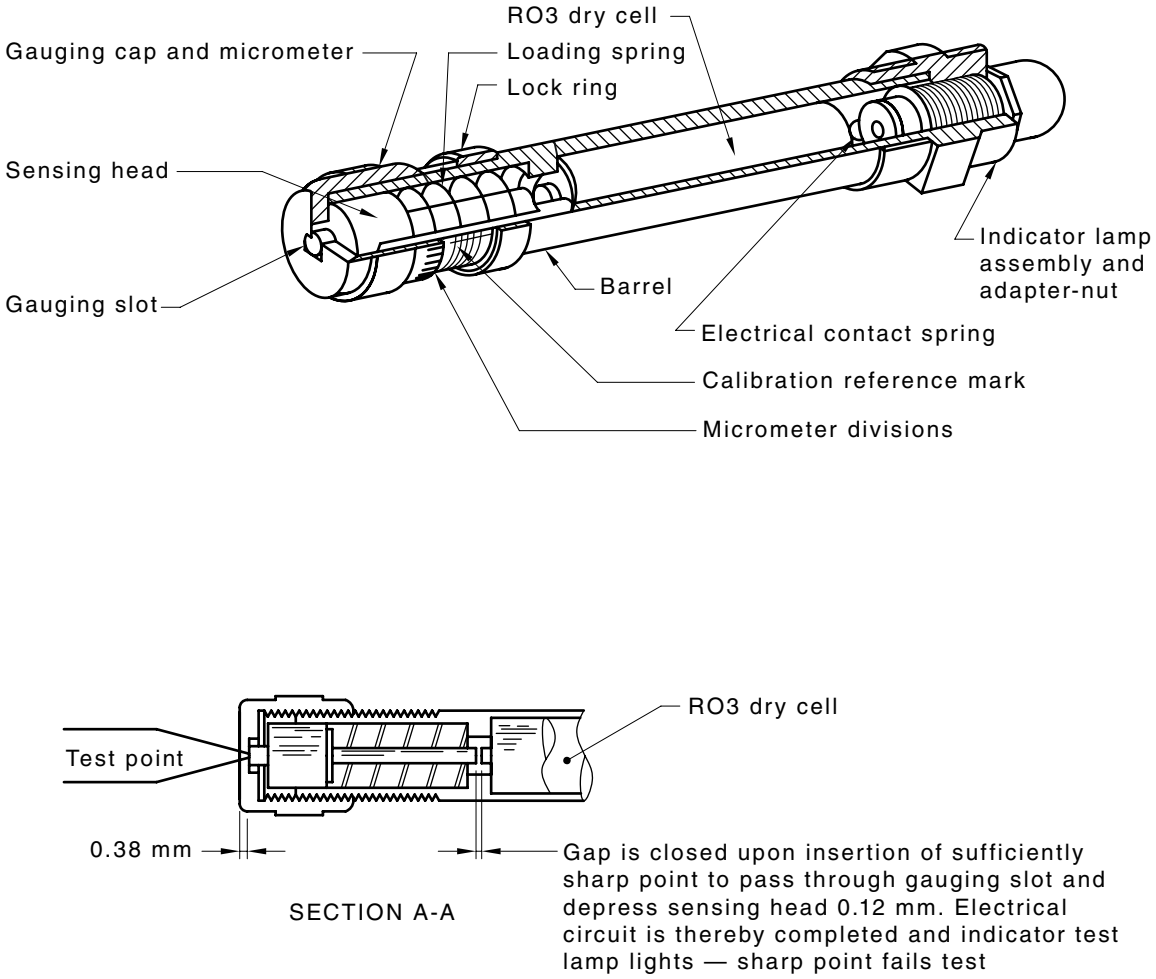

Figure H.1 — Sharp point tester

H.5 Interpretation of results

The depth of penetration of the test point determines sharpness, so that if the test point penetrates a distance of 0.51 mm ± 0.02 mm or more into the gauging slot, causing the indicator lamp to light, and the test point maintains its original shape while under a force of 4 N, the test point is classed as a hazardous sharp point.

H.6 Report

The following shall be reported:

(a) The identity of the vehicle.

(b) A description of the accessories and configurations in which the vehicle was tested.

(c) Any point which was found to be a hazardous sharp point.

(d) A reference to this test method, i.e. AS 2088:2022 Appendix H.

Appendix I
(normative)

Test for durability of parking brakes

I.1 Scope

This appendix sets out a method for determining the durability of a parking brake.

I.2 Principle

The parking brake is applied continuously 200 times and then examined for any damage.

I.3 Procedure

The procedure shall be as follows:

(a) Apply the parking brake 200 times, using the same position of engagement each time.

NOTE 1 Some parking brakes require a pin, rod, clip, or other device to enter one of a series of holes, notches, or other indentations in, or protrusions on, a wheel. On application of the parking brake it may still be necessary to rotate the wheel or wheels on which it operates before the pin enters one of the holes. On each application of this type of parking brake ensure that the wheel is in such a position that the pin, rod, clip, or other device does not immediately engage one of the holes, and then rotate the wheel until the mechanism engages as described above.

NOTE 2 Some parking brakes use a mechanism that work by applying pressure or friction to a part of the wheel. With this type of parking brake, it is not necessary to rotate the wheel further.

(b) Inspect the mechanism for structural failure.

I.4 Report

The following shall be reported:

(a) The identity of the vehicle.

(b) A description of the configurations in which the vehicle was tested.

(c) Any structural failure of the parking brake as observed in Clause I.3 Step (b).

(d) A reference to this test method, i.e. AS 2088:2022 Appendix I.

Appendix J
(normative)

Determination of efficiency of parking brakes

J.1 Scope

This appendix sets out a method for testing the efficiency of parking brakes.

J.2 Principle

The loaded vehicle, with the parking brake applied, is placed on a slope and allowed to settle. It is then recorded whether the parking brake kept the vehicle stationary.

J.3 Apparatus

The following apparatus are required:

(a) A flat surface covered with 60 grit size aluminium oxide paper on a tilting platform capable of continuous adjustment.

(b) Apparatus for loading, see Appendix A.

(c) Apparatus for marking the position of the wheels on the surface, see Appendix R.

(d) A timing device.

(e) A means of measuring length in millimetres.

(f) An inclinometer.

J.4 Procedure

The procedure shall be as follows:

(a) Perform Steps (b) to (j) using the following orientations of the vehicle with respect to the slope of the tilting platform:

  (i) The vehicle in line with the tilt axis, facing sideways to the slope.

  (ii) The vehicle across the tilt axis, facing downhill.

  (iii) The vehicle across the tilt axis, facing uphill.

(b) Set the surface of the platform to the horizontal position.

(c) Release all parking brakes.

(d) Load the vehicle in accordance with Appendix A. Load any storage container and pockets accordingly.

(e) Set all the wheels in the position they would normally assume when the vehicle is travelling in the forward direction.

(f) Apply the manual parking brake in accordance with the manufacturer's instructions.

If the parking brake is of the type that requires a pin, rod, clip or other device to enter one of a series of holes, notches or other indentations in, or protrusions on, a wheel, rotate the wheel in a controlled manner until the device is preventing movement on each wheel on which it operates and holds the vehicle at that position.

(g) Locate the position of the wheels using the method specified in Appendix R.

NOTE 1 Locate the position of wheels that are equipped with the corresponding brake only when under test. For example, if the parking brake under test is acting on the rear wheels only, it is not necessary to locate the position of the front wheels.

(h) Tilt the platform gradually to an angle of 12° ± 0.5° to the horizontal and allow the vehicle to settle for not less than 30 s.

(i) Locate the position of the wheels using the method specified in Appendix R.

(j) Measure and record the distance between the two points marking the corresponding wheel positions in Steps (g) and (i).

(k) If the vehicle has an automatic parking brake, repeat Steps (a) to (j), but skip Step (f) every time it is encountered, i.e. do not apply the manual parking brake.

NOTE 2 Ensure that there is adequate platform surface for the vehicle to roll onto in case it needs to move a short distance for the automatic parking brake to react.

(l) If the vehicle has any other parking brake, repeat the applicable steps of the procedure for that parking brake.

(m) Where a vehicle has the option for a bassinet, child restraint, toddler seat, or other accessory that the child will sit or lie in or stand on, perform the test in accordance with this procedure but with the use of the applicable test masses specified in Appendix A.

(n) If the vehicle has an automatic brake, using the distances obtained in Step (j), identify which vehicle setup (i.e. orientation and combination of accessory or accessories, such as facing downhill with toddler seat fitted) resulted in the greatest distance of movement.

(o) Perform the applicable steps of this test for the vehicle setup identified in Step (n), but this time, after performing Step (h), leave the setup in place for 2 h before proceeding to Step (i).

J.5 Report

The following shall be reported:

(a) The identity of the vehicle.

(b) A description of the accessories and configurations in which the vehicle was tested.

(c) The efficiency of the parking brake and the resistance to rolling being the distances measured between the two points marking the position of each wheel as measured in Clause J.4 Step (j).

(d) A reference to this test method, i.e. AS 2088:2022 Appendix J.