



# American Rally Association Open Classes 2022 Aerodynamic Rules Overview

10/21/2021

With the evolving aerodynamic standards in rally around the world, the ARA is updating the bodywork rules for 2022. The specific regulations are being finalized, but this document is meant to give teams the guidelines to develop their bodywork for the upcoming 2022 season. The regulations will include these updates and be released in a bulletin with the effective date of Jan 1, 2022. Any questions regarding these changes can be directed to Doug Nagy, the ARA technical director, at [ararallytech@usacracing.com](mailto:ararallytech@usacracing.com).

## General:

- Competitor must declare vehicle make, model, and year for dimensions used.
- All bodywork changes from OEM must be submitted to ARA Technical Director for approval a minimum of 45 days before start of event and approved by ARA before being used in competition.
- All vehicle measurements will be done in whole millimeters +/- 1%. Any digits to the right of the decimal will be dropped.
- The intent is that cars eligible for competition in 2021 will continue to be legal for competition in 2022.

## Common Standards:

- Front door openings shall remain unmodified
  - Including width of chassis, height of opening, and length of opening
  - Measured at pinch weld of opening
- Rear luggage opening shall remain unmodified
  - Including location, size, and shape,
  - Measured at pinch weld of opening
- Windshield angle unmodified from OEM position
- Base of windshield unmoved from OEM location
- Dimensions supplied by OEM or referenced by GRP A paperwork TBD
- Bumpers and fascias are to be made from rigid materials.



### Changes allowed:

- Total length not to exceed OEM length plus 3 %
- Front overhang not to exceed OEM plus 7%
  - Measured from centerline of front wheels to the forward most point of the vehicle.
- Rear overhang not to exceed OEM plus 7%
  - Measured from centerline of rear wheels to the rearward most point of the vehicle.
- Total width not to exceed OEM width plus 10 %
  - Measured at widest point.
  - Total width not to exceed 2000 mm in any case including mirrors
- The front air dam
  - May be modified by downward or forward extension.
  - May extend no more than 60 mm forward of the furthest forward point of the front bumper face at any point.
  - Must fit within the front overhang and total length percentages and may be no wider than the front fenders.
- Wings, their elements, and mountings must not extend beyond the body as viewed in plan view nor extend above the roof line more than 76 mm when viewed directly from the side. Wings, their elements, and mountings are not considered part of the plan view in any case and may not define it.
- Rear diffusers may be added but must be below the lower luggage opening in their entirety. The rear diffuser may define the plan view but cannot extend rearward more than 50mm of the rearmost point of the rear bumper. It must fall within the approved body and overhang dimensions.
- Devices or additions forward of the windshield must be below the line of the hood when viewed from the side. They cannot define the plan view and must fall within it. ARA technical inspectors reserve the right to refuse any aerodynamic component based on safety concerns.
- Any aerodynamic plates or element extending from major body surfaces must have a 10 mm minimum section width at outside edge.
- The radiator opening of the front bumper and fascia may be enlarged or reduced. Additional openings in the front bumper or fascia may be added for the sole purpose of providing cooling air flow to the front brakes or auxiliary heat exchangers located in the front engine compartment.



**Definitions:**

**Exterior Bodywork**

All the entirely suspended parts of the car licked by the airstream.

**Hood**

The bodywork forward of the base of the windshield between the front fenders and behind the front fascia.

**Front Bumper**

The front fascia furthest-forward projection between the headlights.

**Fascia**

The front body work forward of the front wheel openings and front hood cut line that integrates with the fenders.

**Radiator opening**

A recess and opening in the fascia or front bumper allowing air to access the forward-most engine compartment heat exchangers.

**Front fender**

The body side forward of the front door front cut line and outboard of the hood side cut line.

**Front air dam**

The lowest 100mm of the front fascia/bumper/fender forward of the wheel openings.

**Plan view**

Outline of vehicle as seen from directly overhead.

**Rear diffuser**

Any underbody bodywork element rear of the centerline of the rear wheels.

Preston Osborn

A handwritten signature in black ink, appearing to be 'P.O.' with a flourish.

ARA Competition Director