**PENN CAN SPEEDWAY**

**MODIFIED RULES**

**2021 SEASON**

**NO MIRRORS AT ANY TIME ON CAR**

**FRAME:**

* All cars must have a drive shaft cover. All cars with open drive shafts, must have a tunnel, made from a minimum of 1/8” thick steel with extends from 2” under front edge of seat to the back of the transmission covering the shaft and “U” joint, and output flange on top and both sides. It must extend completely down to the floor boards. It must be held in place with a minimum of four 3/8” diameter bolts at bottom connected to a substantial cross-member. This drive shaft cover must be a solid unit with no cut-a ways for lightening purposes.

**BODY**

* No mirrors or reflecting devices permitted.
* Inspectors reserve the right to request body or sheet metal to be replaced and painted if it has any sharp edges or is not looking presentable to the sport.
* No oil cooler may be mounted external to the bodywork. All oil cooler piping shall be routed under the bodywork, as safely away from the driver as practical.
* A) Oil coolers may be no further forward then the centerline of the rear axle. The cooler must be horizontal and flush with the cut out in the deck.
* B) Oil coolers with a duct covering them on both sides and the rear may be mounted further forward than the center line of the rear axle.
* C) Oil cooler may be mounted under the hood ahead of the motor.
* Maximum rear spoiler height, regardless of ride height, may not exceed 50”. This height will be randomly measured during an event. Cars not in compliance will be excluded. It is suggested that manufacturers do not make tall cars that can only pass tech at low ride heights. The following racecar driver must be able to see through for clear view of track ahead.
* All cars must have a full steel windscreen (rock guard) of substantial material with a maximum individual hole opening of 2” by 1”by 1 1/16” (no chicken wire or aluminum). Screen must cover entire windshield area left to right across the cage and from top of cage down to hood or cowl. Clear lexan or safety glass windshields may be used for additional protection if they are in the driver’s line of sight. They must be shatterproof and mounted behind the screen enabling driver to wipe them clean. Any additional windshield must not obstruct the emergency exit of the driver.

**BODY STYLE AND DIMENSIONS**

* **ALL MEASUREMENTS MAY BE TAKEN WITH OR WITHOUT DRIVER OR WITH OR WITHOUT FUEL.**
* **TOLERANCE PERMITTED ON ALL BODY DIMENSIONS IS MAXIMUM ½” (ONE-HALF INCH). THIS IS A TOLERANCE. NOT A DIMENSION TO BE ADDED TO THE BODY DIMENSIONS.**

**BODY MATERIAL**

* Only aluminum or steel will be permitted for all inner and outer body panels.
* A maximum of 4” vertical plastic material extending below the metal body panel is permitted. The plastic thickness shall be between .090” and 1.25” and an overlap of 2” to secure to the doors/door extensions will be permitted. Doors/door extensions must still have a minimum of six inches of ground clearance including plastic material.
* The overall dimension of the doors and door extensions must meet the specifications.
* The roof must be fiberglass only.
* Hood, hood scoop, windshield cowl, right rear inside tire clearance cover and front spoiler may be constructed of either fiberglass or aluminum.
* Only **CLEAR** lexan will be permitted for the rear spoiler and the rear wing windows. NO STICKERS OR WRITING WILL BE ALLOWED ON THEM.

**ROOF**

* The roof must be centered from side to side on roll cage and also be centered on frame (No offset bodies). Leaning edge of roof must be fastened in a stationary position a minimum of 33” and a maximum of 48” on front of rear axle centerline. The roof must be securely fastened at the back and on both ends.
* Length of roof: maximum 60”, minimum 48”. Width of roof: maximum 52”, minimum 48” It must display a turtleback style and shape with at least ¾” belly front to rear and ¾’ side to side. The roof contour must fit PCS’s roof template patterns left to right and front to back (NO FLAT ROOFS). Front lip may not be more than ½”. Side edges may be no longer 11/8” break.
* The roof cannot change shape or location while racing.
* Overall height (top of highest point): minimum 52”, maximum 61”, measured from the ground. Maximum roof angle is 5 degrees.
* The roof must be one piece fiberglass only and be a single ply, be contour inside and out. No carbon fiber. Roll bars must be exposed. No vertical metal used to mount roofs will be permitted covering the roll bars. The roof must weigh a minimum of ten pounds.

**FRONT DOOR PANELS**

* Door posts must be flat aluminum sheet metal ONLY. They must go in a straight direct line from the roof to the doors. From a side view they must be seen as a 2” dimension. They must be no wider than 2”. They maybe bead rolled or have a lip for re-enforcement, but they can’t exceed a 3/8” maximum thickness at that area. The material thickness used may be a minimum of .050” to a maximum of .090”. Only a one-piece construction will be accepted. There will be no tolerance on these measurements. Door-posts must detach securely to the metal roof support and doors. They may be bolted with a minimum of (2) 3/16” bolts to the door bracket for the ease of fabrication.
* No lexan vent windows or excessive sheet metal will be permitted in the vent corner where the post meets the door panel.

**REAR WING WINDOWS (DIRT STYLE BODIES)**

* All rear wing panels and windows must resemble a current OEM body style. There upper profile may not protrude above a straight line drawn from rear up the roof to a point 3” higher than the rear deck. There must be at least a 2” indent in the profile so as not to make this panel a fast back.
* The maximum base length may not exceed 61”. Left and right must be of the same style and dimension. See example of body style in the back of book.
* All window styles must be nominally 160 square inches (suggested 10” tall x 16” long), clear smooth lexan with no bends or breaks.
* No writing or decals permitted on the wing windows.
* Rear view of the wing window must go in a straight line from top of quarter panel or bodyline to the roof, with a maximum gradual bow of 2” in the center of wing window.

**REAR WING WINDOW/SIDE VIEW/ REAR VIEW-BODY WIDTH AND GROUND CLEARANCE**

* Body width (measured anywhere along the body line, front or back): 68” maximum, 64” minimum.
* Minimum chassis ground clearance 2 ½”.
* No fan or ground effects cars permitted.
* No rubber skirts, fins, or spoilers of any description are permitted under the car.
* A 2’ max air deflector is permitted in front of radiator to facilitate cooling.

**DOOR PANELS**

* Side door panel: minimum 60”, maximum 70” in front of centerline of the rear axle. Doors, front door extensions and rear quarter panels must be flat and mounted in a vertical position. They must remain flat with no louvers, bead rolls, holes or protrusions from top to bottom. The exception being for rub rails. Doors may have a maximum of 1” long lip at a 45-degree outward angle ½” away from sheet metal for the purpose of reinforcement. This will be allowed at the top and bottom of the panels. All outside sheet metal, door panels, door extensions, air dams, front nose & hood fins must be same shape, size and angle on both sides of the car.
* Doors must match each other from side to side (Must be symmetrical).
* Bead rolls around the outside perimeter of these panels and the wing windows will be allowed. Bead roll edges must face toward center of chassis.
* Front door extensions will be permitted up to 20” behind the front axle centerline.
* Front door height must be a maximum of 38” and a minimum of 30” from the ground measured at 60” from rear axle centerline.
* Ground clearance on the bottom of the doors must be a minimum of 6”and a maximum of 12” from the ground.
* All doors and rear quarter panels may have a maximum lip of 1 1/2” rounded at 90 degrees and facing inward only, on the top and the bottom.
* At the top of the door and rear quarter panels, a lip angled out at a maximum of 45 degrees, protruding away from the door no more than ½” and no more than 1” in length before it bends inward for strength will be permitted.

**REAR QUARTER PANELS**

* Rear quarter panels must match each other. (Must be symmetrical).
* Quarter panels must be a maximum of 47” and a minimum of 40” from the ground at the rear and continue in a straight line with top of door.
* A fender flare, up to a maximum of 2” from the body may be used, but the overall body width must still be maintained at a 68” maximum.
* Rear quarter panels can extend back to 48” maximum at top and may incline down to 44” maximum at bottom measured from center of rear axle to rear of car.
* Ground clearance on rear quarter panels must be a minimum of 8” and a maximum of 16”.

**REAR SPOILER**

* The rear spoiler must be clear one piece lexan with a maximum height of 5” from the rear deck and must not have any writing or stickers on it.
* The rear spoiler must be non-adjustable (no hinges or slides).
* No metal Gurney tabs permitted. Lexan may have brake (top only) for rigidity.
* Spoiler Maximum heights from ground is not to exceed 50”.
* A maximum of four vertical supports may be used to fasten the spoiler to the rear deck. These supports may not exceed 2” in vertical height and 10” in length.

**REAR DECK**

* Must be a maximum height of 47” and minimum of 40” from the ground.
* Rear deck lid (i.e. trunk lid) must be fully enclosed from quarter panel and have a minimum height of 9” and a maximum of 14” in vertical coverage behind the fuel tank.
* Left and right rear trunk lids must be symmetrical in size and shape and show no specific bulge or extension to cover fuel filler hose or apparatus within the 9” to 14” of vertical coverage. This panel must completely cover the fuel cell, filler hose and vent lines.
* Older cars with tall gas tanks may have a step in the deck to accommodate the tank.
* The fuel tank must be completely enclosed from the bottom of this panel to the bottom of the fuel cell.
* The fuel cell must also have both sides completely covered by sheet metal in addition to the container it is enclosed in. Within these dimensions there can be no openings.
* No openings from top of fuel cell to bottom of trunk lid are permitted.

**HOOD, NOSE, AND FRONT SPOILER**

* The hood, nose and front spoiler can be no wider than 36” and no narrower than 24”.
* The nose piece must end at the front of the shock towers.
* The spoiler must be separate.
* Shock covers or deflectors may not be part of or riveted to the nose or spoiler exceeding the 36” width maximum.
* Fabric shock covers are permitted as long as they are used for the prevention of dirt getting at the shock piston and not used for any aerodynamic advantage.
* The front spoiler must not extend any more than 20” in front of the front axle centerline.
* The front spoiler must be non-adjustable (no hinges or sliders).
* The hood shall be considered from the front roll cage to on top and even with the front of the radiator.
* The nose piece shall start where hood ends and end at the shock towers.
* Both hood and nose may have 2” maximum lip up on both sides following contour of the body. Both lips must be symmetrical.
* The hood, nose and spoiler may not overlap each other’s location on the frame.
* Any part of the hood may not exceed 10 degrees nor can sheet metal have an opening or extrusions between the hood and nose.
* The hood must extend over the radiator and have complete sides.
* Front spoiler may have 2” maximum lip up or down on both sides following the contour of the spoiler, not exceeding maximum width of 36 inches.

**HOOD SCOOP**

* The hood must be fully enclosed.
* Two options of hood scoops mounted on top of the hood for the purpose of enclosing the carburetor, or ram air will be permitted providing they meet the following specifications.
* Both style scoops may be made of fiberglass.
* Ram air type scoop: Maximum length, 30” measured from the rear motor plate to front of hood scoop. Maximum width 18”. The front vertical opening of the scoop can be a maximum of 6” at the beginning of the scoop only. The overall height of this scoop must maintain a minimum of 8” of vertical vision for the driver. The measurement will be taken from a horizontal line from the highest point of the hood scoop to the lowest point of the front roll cage and/or roof. Hood scoop must be fastened to the hood and completely enclose the carburetor and air filter.
* The conventional no ram air scoop: a maximum of 25” is permitted from center of the carburetor forward to end of scoop! The width permitted is a maximum of 22”. The height must maintain a minimum of 8” of vertical vision from the top of the hood scoop to the lowest part under roof or roll cage, and completely enclose the carburetor and air filter.

**INTERIOR SHEET METAL**

* Any horizontal body support, other than the inner pods, whether in front or rear must be a maximum of 1” deep by 1” thick tubing or flat stock only.
* No inside or outside wings, spoilers, air foils, or wind deflectors are permitted.
* No double panels that create a wing effect will be permitted.
* A 1” maximum reinforced lip will be permitted on all lexan, but all specified measurements must still be maintained.
* All inner sheet metal used must completely cover areas from door to door, quarter panel to quarter panel. No holes or openings are permitted in this area.
* No vertical fins, air dams, or fairings permitted on the sides or behind the roll cage.
* Sheet metal must be a flat single plane across the inside of the car with an exception of two stiffening bead rolls or stiffening breaks for the purpose of stiffening the wing only. Bead rolls or breaks may not exceed 1/8” in height and ½ inch in width.
* No covered roll bars are permitted. Sheet metal this is one piece and part of the body panel bent around tubing (for purposes of protecting the driver or finishing off panel) is not considered an aerodynamic advantage provided it is not to excess.

**NUMBERS**

* The track or series handicapper reserves the right to issue or change a car’s number to prevent duplication and maintain proper records.
* Team cars must be clearly distinguishable from one another and use a different number or letter.
* All numbers and letters will be limited to three digits. If three digits are used, two shall be primary numbers. Numbers are required on the roof, nose, rear deck and both doors.
* All numbers and letters must be a minimum of 18” high on the roof and doors, and 8” high for the rear deck and nose. All letters and numbers must be of equal size and painted or decaled. If numbers “3”, “6”, or “9” are used, make sure that they are distinguishable.
* Nerf bars must not block visibility of number.

**DRIVER NAME (Recommended)**

* Letters of driver’s last name must be a minimum of six inches in height and be positioned under, through or above the number on both sides of the car.

**SAIL PANEL (PENN CAN SAIL PANEL cars. See drawing) Maximum dimensions follow**

* Total Height:  to be measured from the ground to the highest point. 65”
* Total Length:  to be measured from the center to the rear axle.
* A: 48” from the center line to rear of car.
* B: 12” from center line forward.
* Maximum vertical lips:
* From door up- 2”
* From door down- 2”
* Degree of angle from vertical lips (upper and lower) to rear plain of driver’s seat: 22 degrees
* Solid Sail panels must mirror size and shape side for side.

**FRONT BUMPER**

* Must be made from round steel tubing only, with a minimum diameter of 1 1/4” by .095 wall thickness for main bumper and all bracing.
* It must consist of two rails, an upper and lower and at least 1 or 2 vertical braces equally spaced. These rails must have four sockets or supports attached to the frame.
* The four tubes that support the bumper from the four frame sockets must be horizontal. These rails must also be a minimum of 6” apart and a maximum of 12” measured from bottom to top and maintain that measurement for a minimum width of 24” or a maximum width of 30”. It must also have an 18” center measured from the ground up to the middle of the bumper.
* The front bumper may not extend more than 24” in front of front axle center centerline.
* No V-shaped bumpers, crash area must be flat and vertical for the full width of bumper.
* The bumper must have all rounded ends and no sharp edges.
* The end bracing tubes of the bumper must be angled in such a way as to prevent the bumper interlocking with another cars bumper.
* It must consist of two rails, an upper and lower, which must have four sockets and horizontal support bars attaching it to the frame. These rails must also be a minimum of 10” apart and a maximum of 16” measured from top to bottom and maintain that measurement for a minimum width of 64” or a maximum width of 86”.
* The rear bumper or any side bars cannot extend past the outside of tire sidewalls on both sides. It must also have an 18” center measured from the ground up to the middle of bumper.
* The rear bumper may not exceed 52” back of the rear axle centerline.
* No V-shaped bumpers, crash area must be flat and vertical for the full width of bumper.
* Bumper must have all rounded ends and no sharp edges.

**RUB RAILS**

* The rub rails must be made of round steel tubing, with a minimum diameter of 1 ½” by .095 wall thickness.
* All bracing must also be a minimum of 1 ½” outside diameter by .095 wall thickness.
* Maximum wall thickness must be .095” with no solid bars or ballast added inside.
* Rub rails must be outside of body panels but may not exceed the outside edge of the tires. The exception is the left rub rail only, which may extend an absolute maximum of 2” outside the left rear tire sidewall.
* Rub rail ends must be rounded with no sharp edges and bent at a gradual 90 degrees and must protrude a minimum of 6” back in past the body.
* Rub rails must be a minimum of 50” long, socket to socket.

**BUMPERS AND RUB RAILS**

* 5/16” attachment bolts with nylon nuts or PCS approved quick release solid pins are the only permitted fasteners. NO COTTER PINS!!
* All 3 rub rail sockets must be pinned or bolted.
* Front and rear rub rails must have a 360-degree sleeve 3/8” wide x .095” wall min. welded to the rub rail tube butted up against the support to prevent pins from shearing.

**FUEL TANK**

* One SFI 28.1/2 or FT3 fuel cell with a maximum of 24.5 US gallons is mandatory (used for gasoline only).
* Tank must be centered inside of the frame rails and be rectangular or square in shape on all sides for measuring capacity. The capacity will be measured as a maximum of 5660 cubic inches using the formula with all sides of the metal container measured externally in inches: Length minus ½” width minus ½” x depth minus ½” = no greater than 5660 CI.
* Tank panels may not be bowed out or bellied to increase capacity. No tolerance.
* Tanks may not be altered in any way to increase capacity. No large or long fuel lines, oversize filter housings or fuel coolers or other to increase fuel capacity.
* Cars teched before the event will have the opportunity to correct any fuel capacity infraction, time permitting. Cars found with illegal fuel capacity after an event will be disqualified and placed last in that event. All legal cars will move up in position for any applicable points and prize money.
* Fuel tank must be fully encased in a steel container with a minimum thickness of 20 gauge. An optional aluminum container may be used with a minimum thickness of .060”.
* Fuel tank must be fully foamed with just minimal cut-out for filler. Cut-out may be no more than 6” wide x 10 “ long by 7” deep.
* Fuel line must siphon from top only.
* No fuel lines bigger than #10 are permitted.
* No auxiliary tanks are permitted.
* No fuel filters with more than ½ quart capacity are permitted.
* Fuel tank vent line must have an inline one-way valve for prevention of fuel spillage.
* Only one carburetor fuel log will be permitted and is limited to a maximum outside diameter of 1”.
* SUNOCO is the exclusive race fuel of PCS and is the only race fuel permitted for use in PCS cars. SUNOCO Race Fuels decals are required to be displayed on each side of all race cars. **No other fuel company logos are permitted to be displayed anywhere on the race car or drivers uniform.**

**TIRES**

* American Racers Dirt Modified Tires Only.
* Left rear tire must be 44 compound
* Right rear tire must be 48 compound
* Tire markings from the manufacturer cannot be altered.

**MINIMUM WEIGHTS: Penn Can Speedway Modified Division**

Carr must weigh 2400 lbs. with driver

* Track scales are official and no protests are allowed.

 ALL OFFICIAL AND TECH RULINGS ARE FINAL!!

 \*\*While the above rules offer a good guideline, not everything can be covered by a written rule. If you have any questions, ASK FIRST. Any non covered part can be deemed illegal at any time. Anything not covered in these rules, is not assumed legal.