

2024 MIDGET CLASS RULES



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1. General

A self-propelled land machine with four wheels that contact with the road surface. The two front wheels are utilized for steering, while the two rear wheels provide propulsion. Cars must adhere to "Upright" type configuration.

The drive shaft shall be positioned between the driver's legs.

The engine/transmission must be stationed in front of the driver, securely bolted together without the use of any offset mechanism.

- a) The minimum wheelbase shall be 65 inches, the maximum 76 inches, measured from the center of the front wheel hub to the center of the rear axle hub.
- b) Maximum car width shall be no more than 65 inches measured from the outside tire edge to the opposite outside tire edge.
- c) Minimum car weight shall be 1180 pounds with driver post-race.
- d) Seat shall be securely bolted to the chassis minimum of 4 grade bolts or better No quick fasteners allowed.
- e) Seat shall be constructed of metal of at least .090" thickness.
- f) Seat shall provide adequate lateral support to left and right, as well as back. Head rests shall be part of the seat.
- g) Padded steering wheel centers are recommended.
- h) Steering wheel quick releases shall be of metal construction
- i) Car must be equipped with belly pans to extend from front of engine to rear and must be lined with oil absorbing dipper
- j) Tire treatment allowed.
- k) Right rear tire rules
- l) Cars must be under own power before turn 1. (Cars not able to be under power by turn 1 will be disqualified for that race).
- m) Non-Ford Focus cars may compete but will not be eligible for track records or year- end awards.

2. Chassis

Frame

The frame to be constructed of no less than 1 ½" X .120 wall mild steel tubing of grade 1020 or better for the main frame rails and roll cage loop. If 4130 chromoly is selected 1 ¼" X .095 is acceptable for the roll cage.

Roll Cage

- a) Roll cage shall have front-to-rear or side-to side continuous loops with cage welded to the frame rails and gusseted at the corners.
- b) Triangulation of the roll cage shall be such as to prevent possible side collapse.
- c) Any part of the roll cage or frame shall have adequate size grade eight (8) fasteners to prevent separation.
- d) All welds shall be inspected yearly.
- e) Roll cage shall extend a minimum of two [2] inches above driver's helmet.

Nerf Bars

- a) Nerf bars shall be installed to prevent a competitor's tire from entering the space between your front and rear tires [on either left or right side) and causing tire roll up flips.
- b) Nerf Bars shall be continuous loops and shall not have any sharp or exposed tubing edges so as to not damage competitor's tires.
- c) Nerf bars shall extend no farther than the outside edge of the rear tires and shall start no further than six (6) inches from the outside of the rear tire.

Bumpers

- a) Front bumper shall be made of continuous steel tubing loops no wider than the frame rails and shall have a predominant horizontal bar.
- b) Rear bumper shall be made of continuous steel tubing loops no wider than the frame rails and shall have a predominant vertical bar.

Suspensions

- a) All four corners of the chassis shall be suspended from some type of moveable suspension (i.e. coil over shocks, torsion bars, leaf spring, etc.). (No independent suspension).
- b) All four corners of the chassis shall be damped by some type of shock absorber. Any brand or type allowed.
- c) All suspension parts, steering and chassis components shall be fastened with appropriately sized grade five (5) bolts or better with positive locking nuts.

Steering

- a) Steering box and rack shall be factory production or aftermarket race car unit only.
- b) Steering box may be mounted in any location as deemed by the car builder as long as the steering system is engineered to prevent lock up.
- c) No more than one (1) inch of free play allowed.

- d) Kingpins shall have positive pin retainers.
- e) All steering systems are subject to inspection by Technical Inspectors.

Brakes

- a) Two (2) front brakes and one (1) rear brakes are required.
- b) One inboard brake on quick changes.
- c) Brake pedal shall be firm upon application of pressure.
- d) Brake system shall be hydraulic operation with use of DOT 3 or better brake fluid.
- e) All brake systems are subject to inspection by Technical Officers subsequent to any racing event. Any car failing a brake inspection will not be allowed to compete until the system meets minimum safety standards.
- f) All brake lines must be steel, stainless or rubber flex. No plastic lines are allowed.

Wheels/Tires

- a) Wheels shall be metal. 8" Fronts; 8"-10" LR; 12" RR maximum
- b) Wheel diameter shall be a maximum of thirteen (13) inches
- c) Wheels shall be fastened to the hubs with a minimum of three (3) lug nuts each or have a "Knocker nut" type fastening type of device on spindles/axle assemblies.
- d) No wheel bleeders or must be disabled.
- e) No direct mount wheels on right front
- f) Tires: 23.5 X 12 – 13, 32 compound
9.8 X 22 – 13, 28 compound
20.0 X 8 – 13, 28 compound

3. Drive Trains

- a) Cars shall be equipped with blow-proof bell housing. NHRA approved trans- blanket, or 180 degree of steel shielding, .125" wall thickness, or 5052 aluminum .250" wall thickness, to cover the top of the bell housing.
- b) Drive shaft shall be "looped" with adequate material to prevent injury to the driver's legs if the universal joint fails.
- c) Drive shaft construction must be approved by the Technical Officer.
- d) Drive lines shall be fully enclosed in the driver's compartment.
- e) It is recommended that all axles be magnafluxed once a year.
- f) All vehicles shall be able to achieve neutral gear position.
- g) Quick-change rear ends only

4. Bodies

Hoods

- a) Hoods shall be securely fastened to the chassis/roll cage.
- b) If carburetion protrudes through the hood, adequate clearances for the linkages shall be maintained.
- c) Rear view mirrors are not allowed.
- d) No wing type devices outside body. Tech. discretion.

Firewall

- a) All cars shall have an adequate firewall of at least .030" material between the engine and the driver.
- b) All excess holes in the firewall shall be plugged.

Side Panels

Side panels are mandatory to prevent debris (i.e. mud, rocks, etc.) from entering the driver's compartment.

Tails

Tails and/or tail tanks shall be securely fastened.

Appearance

- a) Cars may be painted with the owner's chosen colors. No primer or unpainted cars allowed to run more than two events.
- b) All cars shall be legibly lettered and numbered. No spray can numbers allowed except in emergency situations.
- c) Numbers shall be on both sides of the body and shall be a minimum of ten [10] inches.
- d) Car numbers shall be between 0 and 99. #1 reserved for the previous year's point leader.
- e) No more than one (1) car may have the same number. Letter suffixes are permitted for personal signature. Letter suffixes may be used on an emergency one (1) race basis only, for cars with the same number.
- f) All slogans and symbols shall be in good taste to enhance our professionalism and their display will be approved by the Race Director.
- g) Rookie drivers shall "fly" an orange ribbon from the rear of the roll cage for their entire first year. Experienced drivers, new to the class, shall fly a white ribbon for one event only.

5. Fuel System

Fuel

- a) Fuel shall be Alcohol.
- b) No oxidizing additives may be added (i.e. Nitro methane, Nitrous Oxide, Hydrazine, etc.).

Fuel Pumps

- a) Fuel pumps may be either electrical or mechanical.
- b) Electrical fuel pumps shall energize and disable with the ignition switch and shall have an oil pressure kill switch.

Fuel Lines

- a) All fuel lines shall be rubber push-lock or stainless. No squeeze clamps. Screw- drive clamps only.
- b) All fuel lines shall be securely fastened to prevent any entanglement from any moving item in their vicinity.
- c) Fuel tank shut off is recommended.

Fuel Tanks

- a) Bladders are mandatory.
- b) Fuel bladders shall have a tip-over valve to prevent spills during rollovers.

6. Electrical Systems

Batteries/Ignition

- a) Cars shall have a battery, in full charge condition, for self-starting.
- b) Batteries shall be securely fastened to the frame and shall be fully covered to prevent acid leaks.
- c) No acid filled batteries shall be permitted in the driver's compartment.
- d) Distributor/Ignition modifications and add-on after market ignition components are permitted. Magnetos are prohibited.

Wiring

- a) No bare, unfastened, or unused wire is allowed.
- b) All wires shall be of the proper gauge to handle the electrical capacity needed by the vehicle without overheating.

Starters

All cars to be self-starting.

7. Engines

Engine Displacement

- a) **2.0 Litre Ford Focus Zetec, North American Engines. No SVT.**
- b) Shall be no larger than 1988cc based on a production 84.8mm bore and 88mm stroke.
- c) Stock unmodified camshaft, crank shaft, rods and pistons only.
- d) No porting, polishing, or port matching of the cylinder heads allowed. No port modifications allowed.
- e) No oversized valves and seats as per cylinder head series.
- f) Minimum head c/c 46.
- g) Stock type head gaskets minimum .027" thickness with 85.8mm bore. Cometic head gaskets allowed.
- h) Stock heads only including valves, cams, buckets, belts and gears.
- i) Surfacing of the cylinder head deck and any cutting motion concentric to the valve stem are the ONLY approved modifications to the head.
- j) Stock cam timing using cam bar and crank pin jig.
- k) ARP rod bolts and head studs allowed.

Note: The dimension from the top of the valve cover register to the top of the piston dome at TDC shall be no less than 5.229". This will be checked with the club tech tool that will be in the possession of the Midget Class director.

Note: Stock block deck to piston dome is +.008". Stock cylinder head thickness is 5.230" = 49cc. Surfaced cylinder head 5.210" (-.020") = 46cc.

Formula for finding engine displacement shall be:

[Bore radius X Bore radius] X 3.14159 X Stroke X Number of cylinders.

Induction/Manifolds

- a) Carburetors or Injection
- b) Electronic fuel injection systems are allowed. Aftermarket Mechanical Fuel 3. No superchargers or turbo chargers of any type are allowed.
- c) Carburetor linkage shall not go over center with the butterfly in wide open throat position.
- d) A minimum of three (3) return springs are required, two (2) at the carburetor /butterfly linkage and one (1) at the foot pedal.

- e) Manifolds are open to the builder's discretion

Exhaust Systems/Mufflers

- a) Header pipe size and length are open to the builder's discretion.
- b) All cars shall have mufflers. SPL not to exceed 90 dB taken from a point in the spectator area thirty (30) feet from the center of the racetrack.
- c) Sound levels shall be monitored by Tech and it shall be the Car Owner's responsibility to maintain legal sound levels throughout the event.

Cooling Systems

- a) All liquid cooling systems shall have catch tanks to catch overflow liquids.
- b) No cooling system shall be mounted within or around the driver's compartment, to prevent hot fluid from coming in contact with the driver in case of accident. All expansion tanks and fill cans must be under the hood.

8. Driver/Fire Protection

Restraint System

- a) All cars shall have adequate five-point restraint system. Minimum three (3) inch wide lap belts and three (3) inch wide shoulder harness are mandatory. Two (2) inch allowed with use of Hans head restraint.
- b) All belts, including submarine and arm restraints shall lock together with a common quick-release lever.
- c) Lap belts, shoulder harness, and submarine belts must be securely wrapped around the roll cage. Safety checks will be conducted annually to ensure proper installation of belts and adherence to safety standards.
- d) Seat Belts must meet SFI specifications and be within three (3) years from date of manufacturer (must have label). Sprint style ie: 2" shoulder belts are allowed as long as they have an SFI rating. Note that these are still 3" belts, however the shoulder straps have been reduced to 2" by the manufacturer to facilitate the Hans device.
- e) Each car shall have 2 (two) cage nets mounted for driver head protection unless a containment seat is used. The left side net to have quick disconnect latches for quick egress for during an emergency. Nets may not be used after three years (3) from the manufacture date upon the net.

Fire Protection

- a) Driver shall wear a minimum of two layers of fire protection. (I.e. double layer suit with underwear). SFI 5 or equivalent.
- b) Driver shall wear socks, gloves, and neck collar all made of Nomex or equivalent material. Head and neck restraint may be used instead of a collar.

- c) No open face helmets allowed.
- d) All cars shall have a 5 LB. fire extinguisher with ABC rating in the pits ready at all times. On board fire systems highly recommended.