

Mid Missouri Modified Midget Racing Association

STOCK Class Rules

--2021--

Stock class rules apply to ALL STOCK Classes with the exception of the following additions in these specific classes:

Stock "Wing" Class:

- 10 sq. ft. wing (Rule #13)
- Drivers must be 12 years of age
- 750 lb. minimum weight

Stock "Non-Wing" Class:

- NO WINGS
- Drivers must be 12 years of age
- 750 lb. minimum weight

Stock "Restrictor" Class:

- 10 sq. ft. wing (Rule #13)
- Drivers must be 9 years of age or older
- 725 lb. minimum weight
- Carburetors or Fuel Injection – ODUM Intake Adapters are allowed
- ¾" Restrictor Plate (**KING PLATE Only**)



GENERAL:

- a.) 600cc stock engine (Rule #17)
- b.) No cockpit adjustments. Any adjustment reachable by driver MUST be disabled, except for carbs.
- c.) HOOSIER "NMMA" or "ASCS2" Spec. RR tire, Grooved & Siped O.K. (Rule #10)
Tire Prep/Dope is NOT allowed
- d.) Fuel Bladders NOT Required, but **STRONGLY RECOMMENDED!**
- e.) HOOSIER Tires at all 4 wheel positions!

1. Roll cage. Roll cages shall be at least 1 inch diameter x .062" wall thickness. .065" wall thickness allowed on tubing 1 1/8 inch diameter or larger. Roll cage shall be made of chromoly steel or equivalent material. The front section of the cage shall be no further back than the steering wheel. Roll cage shall have sufficient fore and aft bracing and strength to support the weight of the car & driver in case of an upset. Cage shall have gussets at the intersecting bars to the uprights. Bends must have at least 3 inch radius. No square or pointed corners allowed. Roll cage must be a minimum of 3" above the drivers helmet. It is mandatory to install a cross brace behind the seat to support the shoulder harness.

2. Bumpers And Nerfs. Car must have bumpers extending beyond the front and rear tires. Nothing may extend beyond a tangent line from the outside edge of the tires to the bumpers. Nothing may extend beyond the outside edge of the tires or wheels, whichever is the widest. No sharp corners or design as to hook or damage. All cars must be equipped with nerfing bars. Nerfing bars must extend to inside edge of tires, but not more than 1 inch beyond the outside of the rear tires.

3. Safety. Seat belts must be securely attached to the car and used at all times. Metal to metal latches only. 5 point seat belts, shoulder harness and sub strap are required. Belt dates must not be over three years old. (Example: Oct 16 may be used in 2017, 2018 and 2019.) Arm restraints are mandatory and must be adequately adjusted to keep the drivers hands below the top of the roll cage. Helmets must be full head coverage competition type with one of the three latest SNELL approvals (2005, 2010, 2015) or FIA 8860 or SFI 24.1 for Youth Helmets. Nomex head socks recommended. All drivers will wear a name brand flame-retardant uniform. Neck braces and/or cage nets with a SFI 3.2-1 rating or higher or Total Head containment seats are mandatory. SFI gloves are mandatory for safety. Flame retardant undergarments (long underwear, long sleeve shirt, socks and head sock) and shoes are strongly recommended.

4. Electrics and Electronics. On and off switches must be on dash, top of the cowl or on steering wheel. On/off switch must be connected and functional. No radio communication is allowed with the car or the driver.

5. Battery. All wet cell batteries mounted in the cockpit must be covered and vented outside the cockpit area.

6. Fuel. "Stock" Class cars may run gasoline, ethanol or methanol. **No performance enhancing additives are allowed!**

7. Suspension.

Tread: Maximum 65 inches outside to outside of rear tires. Minimum 32 inches, center to center of tires.

Wheelbase; Maximum 70 inches. Minimum 50 inches, center of front axle to center of rear axle.

Steering; Front wheels must be connected by a solid or tubular tie rod. Rear wheel drive only.

All suspension bolts except wheel nuts must be secured by some type of locking device.

8. **Shocks.** Any shock absorber legal, except **No Cockpit Adjustable Shocks.**

9. **Brakes.** Brakes will be of sufficient strength so as to slide the wheels while the car is in motion at any given time.

10. **Tires And Wheels.** **Tires at all 4 wheel positions must be HOOSIER.** Any wheel size and tire size combination may be used, but tires may not exceed 22 1/2 inches in height. Wheels must be held on with 3 or more standard lug nuts or knock-off hubs. Right rear tire must be a minimum 50 durometer compound **HOOSIER** tire **PLATED "NMMA" or "ASCS2"**. **Tires may be grooved and siped. (Tire prep/dope is NOT allowed).** Tire durometer check should be done at least 15 minutes after the races to allow for cool down (**A 2 point variance in Durometer is allowed, i.e. 48 is legal.**)

11. **Bodies.** All cars must have complete bodies with tail section in place. There must be a metal firewall between driver and engine, made of 24 gauge steel or .0625" aluminum. No rear view mirrors. The only part of the car allowed to be dismantled for driver to enter or exit is a quick release steering wheel hub. The minimum opening on the right side of the car will be 10" from the bottom of the roll cage to the top of the mud guard or sissy bar and 14" minimum width (**a 1" tolerance in either direction is allowed.**) Floor pan must extend from the front of the seat to a place forward of the driver's feet on top of cross members and lower frame rails. All mechanically operated devices must be mounted below the driver's shoulders for safety. All fuel tanks must be equipped with a one-way check valve designed to prevent the spillage of fuel from the fuel tank vent in the event of a rollover. **Body Panels may not extend more than 1" beyond the rear cage downtubes.**

12. **Transmission.** Any car equipped with a shifting mechanism must have this device mounted in the driver's compartment. Shift levers may be mounted outside the driver's compartment on opposite side of car from the chain drive. Chain guards will be made of .090 inch thick aluminum or equivalent and will run on top of chain from the front of the front sprocket to the center of the rear axle. Driver must not be able to touch the chain or sprockets while sitting in the cockpit.

13. **Wings.** Cars must run a 10 square foot **maximum** Top Wing with a one piece center section (**no multi stage airfoil wings allowed.**) Airfoil must be parallel with roll cage side to side. Sideboard, left side, maximum 24" tall x 48" long. Sideboard, right side, maximum 18" tall x 48" long. No part of the wing may extend beyond the width of the tires as driven (including but not limited to the center section, sideboards, or bracing). Wing position no farther back than the rear of the roll cage behind driver's head (roll cage may not be altered to change this point). Measurements for the wing placement will be taken from the back edge of the center section of the wing, not the sideboards. No mechanical, electrical or hydraulic adjustments are allowed in the cockpit area.

Nose Wings are allowed. If a nose wing is used, the center section may not exceed 18" x 24" with sideboards no larger than 9" tall x 21" long (**no multi stage airfoil wings allowed.**)

14. **Numbers.** All cars must have legible numbers on both sides of car and the nose. Minimum height of numbers is 8" on the nose or nose wing, 10" on each side of the tail and 12" on the wing. **NON WING** cars to have the Car Number, 6" tall, at the top of the Right Side A Panel, easily visible in a CONTRASTING color. This number needs to be visible to the Score Tower to aid in lineups & scoring. A "Go Kart" style number plate zip tied to the roll cage is acceptable.

15. **License.** No license is required to enter a night's event (Minimum age requirements must be met, Rule #1).

16. **Ballast.** Any material used for ballast must be firmly attached as a part of the car's structure. No loose ballast allowed (including fuel).

17. **Engine Rules. (4 cycle multi-cylinder engines not exceeding 600cc with stock bore & stroke with charging unit.)**

Engines must be stock as the engine was run on the motorcycle with the charging unit. Pistons, rods, cams, etc. must be stock parts as used on the motorcycle the engine came from. No engine work (no ported heads, no lightened cranks, no lightened flywheel, no lightened pistons, no cam degreeing, no head cleanup). Valve jobs will be allowed as long as they are within manufacturer tolerances. Stock valves must be retained. Cam gears that are redrilled, slotted or altered are illegal. Internal charging system components must remain in the engine. Crank case ventilation (to atmospheric pressure only) is allowed. **Electric Water Pump & Remote External Oil Cooler Allowed.** Any exhaust will be allowed, but all cars must start each race with a muffler. All original transmission gears must remain intact and functional. Any engine sprocket (520 or 530) is allowed. Outer cosmetic changes will be allowed to mount the engine in the car (i.e. cut part of the engine off to get it to fit, relocate oil pan drain plug, etc.).

Carburetors & Airbox

Carburetors must be OEM Production Motorcycle, CV style. No Flatslides or Lectron style carburetors allowed! Carburetors may have metering rods, jets and springs changed to tune fuel curve to match the car requirements. There will be no cones in the carburetor or the carburetor boots or intake adapters. TPS sensors not required. Aftermarket Airboxes are allowed.

Fuel Injected Engines running Fuel Injection

Fuel Injected engines are allowed except current year production. Engines running Fuel Injection may run alcohol or gasoline (alcohol recommended). **Aftermarket Airboxes are allowed-Sliding Stack Injection allowed regardless of engine make!** ECU Re-Flash and Powercommander type module allowed! Oil Pickup modifications are allowed. Outer cosmetic changes to mount the engine in the car are allowed (i.e. cut part of the engine off to get it to fit, relocate oil pan drain plug, etc.). Stock appearing OEM CDI black box without external adjustments.

Mechanical Fuel Injection (Mechanical Fuel Pump and nozzles) using stock OEM Throttle Bodies is allowed. No mixing of manufacturers.

Stock ECU, PE3-IG2 and PE3-8400 Engine Control Units are permitted for use with carburetors and Stock (OEM Throttle Body) Fuel Injection. OEM Ignition and Injection Components **MUST** match engine Make! – No “Crossbreeding” between Makes is allowed (Yamaha engine with Yamaha injection, Suzuki engine with Suzuki injection, etc).

Fuel Injected Engines running Carburetors

Engines originally equipped with Fuel Injection (except current year production) are allowed with any OEM production Motorcycle CV Style Carburetors. Aftermarket Airboxes are allowed. Interchanging of Injected and Carbureted cylinder heads is allowed.

Engines may be run with **Stock ECU, PE3-IG2 and PE3-8400 Engine Control Units.**

18. Engine Claiming Rules. There will be a \$2000 "A" Main (engine only) claim or exchange on the first three finishers by the 10th finisher forward. The person being claimed has the option of taking the \$2000 or the other person's engine.

If your engine is claimed, you will retain the complete exhaust system including the exhaust nuts, the carburetors or fuel injection system and air cleaners, the coils and spark plug wires, the CDI (black box), the voltage regulator and the wiring down to where it plugs into the engine or into the connectors coming from the engine, the shift lever, the chain drive sprocket & bolt/nut, chain guard designed to protect engine from broken chain, Electric Water Pump & Remote External Oil Cooler (if present) plus all of the mounting plates and bolts etc. required to mount the engine. Aftermarket parts including: Carburetor Boots, Thermostat Housing, Water Pump Housing and Oil Pan and Pickup, to be retained provided stock is available from engine owner night of claim.

The person claiming the engine gets the engine with all covers, pan, starter, charging system, carburetor boots, water neck, head and valve cover intact. The person removing the engine will unplug all wiring and unhook all hoses at the engine. Do not cut wiring or hoses. Any driver, owner or crew who tries to damage the engine, car or parts of the opposite party while the engine is being removed for a claim will be subject to fines, suspension, or disqualification as deemed appropriate. You need to remember that when you sign in at the races each night with a “Stock” Class 600cc four cylinder engine, you are agreeing to have your engine claimed. If two people claim the same engine, the highest finisher of the two would get the engine. When requesting an engine claim, the \$2000 must be presented in cash or certified check. **Absolutely no personal or company checks** will be accepted for claiming purposes.

After the claimed engine has been removed and is possessed by the new owner, it will undergo a Technical Inspection according to the Items in Sect. 19 of the Stock Class Rules AND the Engine Protest section of the General Club Rules (Sect. L.2.). If the engine fails the Tech Inspection, the original owner will be penalized as a Class B Violation. The new owner will be responsible for any reassembly necessary.

The penalties for refusing an engine claim are:

1. Loss of all Points accumulated in THAT CLASS for the season.
2. Disqualification of the DRIVER from racing in THAT CLASS at SSMC for the remainder of the point season.

19. Items Subject to Tech Inspection

- Internal Engine Components
 - Stock parts as used on the motorcycle the engine came from
- Fuel
 - No performance enhancing additives
- Bore & Stroke
 - Stock Dimensions, 600cc Max.
- Cam Shafts
 - Stock, OEM, unaltered, in proper location - Exhaust cam in front, Intake cam in back (cam make & model must match head make & model (ie. '99-'02 R6 cams in '99-'02 head))
- Cam Gears
 - Stock, OEM, unaltered bolt holes, unaltered bolts, stock cam timing
- Cam Chain Tensioner
 - Stock, OEM
- Intake & Exhaust Ports
 - Stock size & finish, NO PORTING!
- Injection System
 - OEM components matching engine Make, no “crossbreeding”
 - Matching components to include: CDI Box & Wiring Harness (Unless running PE3 components) & Throttle Bodies
 - Mechanical Fuel Injection (Mechanical Fuel Pump and nozzles) using stock OEM Throttle Bodies is allowed. No mixing of manufacturers.
- CDI/ECU – Black Box
 - Stock appearing OEM ECU, PE3-IG2 and PE3-8400 Engine Control Units are permitted
- Flywheel
 - Original stock, OEM charging system components must be intact, unaltered and in place. (If the system does not produce a charge, the presence of the Flywheel and Stator Coils is required.)
- Transmission
 - All gears intact and functional
- Carburetors & Airbox
 - OEM production Motorcycle CV Style Carburetors (No Flat Slides)
 - Aftermarket Airbox is allowed
 - No cones in carburetors or airbox

Richard Kreisel
03/05/21

- Rev. 1- Wing Sideboard Offset Removed & Right side Opening 10” x 14” - 05/08/14
- Rev. 2- Claim amount revised to \$2,000 (was \$1,500) & Durometer variance – 12/08/14
- Rev. 3- Added SFI 24.1 to Helmet – 01/15/15
- Rev. 4- Revised Nerf Bar projection & Electric Water Pump/Oil Cooler – 02/27/15
- Rev. 5- Clarified Ignition Trigger Wheel Indexing Tab – 03/13/15
- Rev. 6- Corrected Lugnuts to match other classes & Added PCR OK Restrictors – 09/10/15
- Rev. 7- Added NW side number – 05/04/16
- Rev. 8- Added Tech Inspection to the Claim Rule & Updated Helmet & Seat Belt spec. – 12/14/16
- Rev. 9- Added KING Restrictor Plate – 04/30/17
- Rev. 10- Restrictor - KING Plate Only!, Fuel Injection allowed in 2019 – 2/09/18
 - Stock Classes - Yamazuki & Sliding Stack Suzuki Injection NOT allowed!
- Rev. 11- Added Mechanical Fuel Injection Using Stock Throttle Bodies & Added PE3 Ignition - 3/29/19
 - Stock Classes - Sliding Stack Injection IS allowed on all engine makes
- Rev. 12- Clarified Cam Gears to include “Stock Cam Timing” – 03/05/21