

## Michigan Sport Modified Rules

### 2020 - Merritt Speedway

Merritt Speedway management is pleased to introduce the 'Michigan Sport Modified' division in 2017! The following rules are closely mirrored to Mt. Pleasant Speedway. The rules and/or regulations set forth herein are designed to provide for the orderly conduct of racing events and to establish minimum acceptable requirements for such events. These rules shall govern the condition of all events, and, by participating in these events, all participants are deemed to have complied with these rules. NO EXPRESS OR IMPLIED WARRANTY OF SAFETY SHALL RESULT FROM PUBLICATIONS OF OR COMPLIANCE WITH THESE RULES AND/OR REGULATIONS. They are intended as a guide for the conduct of the sport and are in no way a guarantee against injury to or death of a participant, spectator, or official. The race director and owner or his representatives shall be empowered to permit minor deviation from any of the specifications herein or impose any further restrictions that in his opinion do not alter the minimum acceptable requirements. NO EXPRESSED OR IMPLIED WARRANTY OF SAFETY SHALL RESULT FROM SUCH ALTERATION OF SPECIFICATIONS. Any interpretation of or deviation from these rules is left to the discretion of the officials.

Merritt Speedway does not allow Claims of any kind. This is intended to be an economical class. Rules will be strictly enforced, absolutely no exceptions!

### Safety Equipment

1. Rules apply at all times the car is on the track.
2. Snell-rated SA2005 or SA2010 helmet required.
3. SFI approved full fire suit required. Fire retardant gloves, shoes and neck brace recommended. Head and neck restraint highly recommended. Recommended: Fire retardant head sock and underwear and collapsible steering shaft.
4. Minimum three inch (two inch with head restraint system) wide SFI approved five-point safety belt assembly required. Must be mounted securely to the main roll cage. Safety belts no more than two years old.
5. Kill switch required within easy reach of the driver and must clearly be marked "OFF" AND "ON".

### Frame

1. 1964 or newer OEM perimeter American rear-wheel drive passenger car frame only. No sport car frames.
2. Frame must be full and complete, cannot be widened or narrowed and must be able to support the roll cage on both sides. Exceptions are; weight jack in original center line of spring tower allowed, frame may be cut a maximum of 36" forward from center of rear end housing, horns may be removed in front of steering box and notched maximum 1"

at bottom for tie rod clearance, front cross-member may be notched and boxed for radiator and/or steering clearance, maximum 7" wide opening in side of spring tower for spring removal.

3. Maximum 2" wide by 4" all frame stiffener may be welded directly to outside of left side frame rail.
4. Minimum wheelbase 108", maximum 112", both sides.
5. Maximum overall width shall not exceed 78" from outside of tire to outside of tire.
6. No part of the frame can be lower than four inches from ground except front cross-member

### **Roll Cage**

1. Must consist of continuous hoops, minimum 1.50 inch O.D. tubing, with minimum wall thickness of 0.095 inch for main cage, frame-mounted in at least six places.  
Recommended: low carbon or mild steel.
2. Must consist of a configuration of front, rear and top hoops connected by tubing on side or side hoops.
3. Driver's head must not protrude outside the cage with helmet on.
4. Roll cage must be securely supported and braced with minimum one cross bar in top halo.
5. Foot protection bar required.
6. Main cage no further forward than rear of engine. All bars forward of cage must be lower than hood.

### **Door Bars**

1. All driver side door bars and uprights must be minimum 1.5 inch O.D. with 0.083-inch wall thickness. Minimum three driver side door bars, parallel to ground and perpendicular to driver, and welded to front and rear of roll cage.
2. Passenger side must have at least one cross door bar, horizontal or angled, minimum 1.25 inch O.D. with 0.083-inch wall thickness, and one top door bar, minimum, 1.5 inch O.D. with 0.083-inch wall thickness.

## Body

1. NO rear spoilers.
2. Nose dimension restrictions;
3. Dominator and MD3 modified plastic nose pieces allowed. Nose must be mounted in an approved manner and can extend no higher than front top of hood. Nose piece must remain inside confines of front bumper and be no lower than two inches below frame horns. Cooling holes allowed.
4. Tip of nose can be no more than 36" from the center of front hub.
5. Fabricated aluminum nose panels must be flat. Maximum 2.250-inch side fins allowed on aluminum nose.
6. All bodies must be kept in good repair, with no sharp edges, subject to the discretion of Merritt Speedway officials.

## Driver Compartment

1. Must have minimum three windshield bars in front of driver. Lexan or aluminum cowl panel in front of driver can be no wider than cockpit and no farther back than steering wheel.
2. Minimum 0.125-inch aluminum, or 0.060-inch steel, complete floor pan required.
3. Aluminum high-back seat only and must be bolted in, using minimum 0.375 inch bolts, next to left side frame rail and ahead of rear tires. Bottom of seat can be no lower than bottom of frame rail.
4. Driver must be sealed off from track, driveline, engine, fuel cell, canisters and pumps.
5. Oil coolers must not protrude above interior.
6. Accumulators cannot be mounted between driver and left-side door bars.
7. No driver-adjustable devices allowed while car is in competition except brake adjuster.
8. No mirrors of any kind.

## Front Suspension

1. All components must be steel, unaltered OEM, in OEM location, and replaceable by OEM parts. Exceptions are: tube-type upper A-frames with or without aluminum or steel cross shaft, and mounts can be moved; stamped steel OEM replacement lower A-frames; rubber, nylon or steel lower A-frame bushings, no offset or bearing type; welded or bolted shock mount on lower A-frame; OEM or OEM replacement rebuild able ball joints allowed.
2. Lower A-frames must be right and left, and of same design. Lower A-frame mounts and bolt holes on frame must be within OEM specifications.
3. Sway bar must be unaltered OEM.

## Steering

1. No rack and pinion.
2. All components must be steel, unaltered OEM, in OEM location. Exceptions are: outer tie rod end and adjustment sleeve may be replaced by a minimum 0.625-inch steel rod end and steel tube; spindles can be ground for brake caliper clearance only; unaltered, OEM or OEM replacement Pinto spindles; both on spindle savers allowed; steel steering shafts and knuckles only; driver compartment steering may be modified, must be kept on left side.
3. Spindles must be right and left, and of same design.
4. Quick release required. Steering quickener and steering wheel may be aluminum.
5. Idler arm, pitman arm and center link must match frame.

## Shocks

1. One steel, nonadjustable, unaltered shock per wheel.
2. All shocks must completely collapse at any time.
3. One additional shock allowed in pull-bar area.
4. No internal OR external bumpers or stops. No threaded body, front coil-over, air or remoted reservoir shocks. Front half may be shielded.

NOTE: In the interest of competition, Merritt Speedway can claim shocks from any competitor, at any time, should it feel it necessary to keep a level playing field.

## Springs

1. One steel, non-progressive coil spring per wheel only.
2. One additional spring allowed on pull bar, may be progressive.
3. All coil springs must be at least 4.5 inches O.D. No torsion bars, air bags or inner liners allowed.
4. Steel or composite leaf spring allowed.

## Rear Suspension

1. No independent rear suspension.
2. All components must be steel. All trailing arms/link bars must be steel.
3. Rear of frame may be altered to accept leaf or coil springs.
4. Steel coil-over eliminators, or steel or aluminum coil-over kits allowed. Must conform to shock and spring rules.

5. One mechanical traction pull bar allowed.
6. No brake or sway bars.
7. Lift bar/torque arms for sixth coil use only, not to be used as a traction device.
8. Rubber bumpers allowed on pull bar or panhard bar only. No suspension stops of any kind allowed. Exception is: solid safety chains securely mounted frame to axle housing only (cannot be mounted to any floating device), no springs or rubbers allowed.

## **Rear End**

1. Any steel approved OEM passenger car or truck non-cambered rear end (housing and carrier) allowed.
2. Safety hubs (floater) allowed.
3. All components must be steel, except lowering blocks, axle and U-joint caps and drive flange.
4. One inch inspection hole required in housing.
5. Steel axles only
6. One piece drive flange only.
7. No torque dividing differentials.
8. No scalloped ring gears.
9. Quick change rear ends with steel axle tubes allowed.

## **Bumpers**

(See Diagram)

1. Steel bumpers must be on front and rear and welded, or securely mounted with minimum 0.375 inch bolts.
2. Rear bumper must be capped, constructed of solid square, or minimum 1.25 inch O.D. tubing with 0.065 wall thickness (similar to diagram), maximum six inches beyond rear deck, no wider than five inches outside of rear frame rails. If wider than five inches outside rear frame rails must be bent forward 90 degrees, or constructed in a loop design.
3. Must have at least one upright, minimum 1.25 inch with 0.065 wall thickness, from bumper to fuel cell guard.
4. Two-bar front bumper must be minimum 1.25 inch O.D. tubing with minimum 0.065 wall thickness (maximum 0.095 inch) mounted frame-end to frame-end, no wider than width of material outside frame horns and with bottom loop parallel to ground.
5. Top bar must be directly above bottom bar, minimum 6.5 inches apart, measured center to center.

## Tires/Wheels

1. The IMCA stamped Hoosier G-60, IMCA stamped tire is not required. You will be allowed to use either G60, with or without IMCA stamp. No chemical softening, conditioning, or grooving of tires. Tires may be ground, or siped within confines of thread (not past factory straight line).
2. No re-caps.
3. Aluminum, composite or steel spacers allowed.
4. 15x8 steel wheels only.
5. May use bead lock on right rear and right front only. External, steel bead lock only and it cannot make wheel any narrower than eight inches and no wider than 8.75 inches.
6. Must use only steel bolts.
7. Foam type, plastic, or metal style outer mud cover allowed on right side wheels. Inner mud cover allowed on left rear only.
8. Steel lugnuts only.

## Brakes

1. Must be steel approved OEM, operative four wheel, drum or disc.
2. Must maintain minimum OEM dimensions for hubs/rotors and calipers, cannot be lightened.
3. Bolt pattern may be changed. Larger studs allowed.
4. Rear rotors may be aftermarket 0.81-inch thickness (new). Vented solid surface rotors only, no scalloped or ceramic coated rotors.
5. One front to rear proportioning device allowed.
6. Brake lines must be visible.

## Exhaust

1. Round tube headers only.
2. All primary header tubes must enter directly into one collector at same point at end of header.
3. Collector length maximum nine inches.
4. Turn down (maximum 10 inches) allowed.
5. Mufflers mandatory.
6. All exhaust must go through mufflers, two per car, one per header.
7. Valve covers and headers may be modified for pan-evac system.

## Fuel System

1. Mechanical or belt driven fuel pump only.
2. Racing fuel cell required, maximum 32-gallon capacity, must be in minimum 20-gauge steel container.
3. Cell must be securely mounted behind rear axle, between rear tires, minimum of four inches ahead of bumper, minimum of ten inches above ground. Must mount with minimum two solid steel straps around entire cell, two inches wide and 0.125 inch thick. All cell mounts must be steel, securely welded to frame/cage.
4. Protective tubing must cover rear and extend past both sides of cell. No part of cell shall be lower than protective tubing.
5. Fuel cell vents, including cap vent, must have check valves.
6. If fuel cell does not have aircraft style positive seal filler neck/cap system, a flapper, spring or ball type filler rollover valve is required.
7. Pick-up must be on top or right side of cell.
8. One fuel filter allowed.
9. No cool cans.
10. Air cleaner top/stud cannot direct air into carburetor.
11. One naturally aspirate two or four-barrel carburetor only. One carburetor adapter/spacer allowed. No adjustable throttle bore carburetor spacers.

## Fuel

1. Gasoline or alcohol. Racing fuel and E85 allowed. NO performance-enhancing additives.
2. Upper cylinder lube allowed with alcohol only.
3. Fuel sample may be taken from any car at any time.

## Weight

1. 2450 lbs., no tolerance, after race with driver in car.
2. No weights and/or loose object in driver compartment, above interior deck or outside body.
3. Weights must be securely mounted to frame or roll cage and painted white with car number on it.
4. Must be attached with at least two 0.5 inch bolts.
5. No titanium, magnesium or carbon fiber products. Exceptions are: carbon fiber rock guard and hood scoop.
6. Solid steel fasteners only.

## **Battery/Starter**

1. One 12-volt battery only, must be securely mounted between frame rails, and positive terminal must be covered.
2. Car must have capability of starting without being pushed or pulled. Car must leave initial staging area on demand, unaided, or go to rear of that race.
3. Reverse-mount starters with OEM case transmissions only, see transmission rules for specifics.

## **Gauges/Electronics**

1. No unapproved transmitting or listening devices (exception is one-way Race Receiver radio by officials, and transponder device mounted on rear axle).
2. No electronic monitoring computer devices capable of storing or transmitting information except memory recall analog tach.
3. No electronic advance curve ignitions allowed.
4. No unapproved or additional ignition accessories allowed.
5. All wiring must be visible for inspection.
6. No magnetos or crank triggers.
7. No electronic traction control devices.
8. Cameras such as GoPro allowed, but may not be hard wired.

## **Transmission/Driveshaft**

1. Must have at least two forward gears and one reverse, plus a neutral position. With engine running and car in still position, must be able to engage car in gear and move forward, then backward.
2. OEM production type or approved aftermarket transmissions allowed – two speed, three speed, four speed and automatic. No five speed (or more) transmissions, “in and out” boxes, or quick change devices allowed.
3. Functioning shift levers must be in OEM location on all OEM production type transmissions.
4. Flexplates must be full, steel, unaltered OEM, or OEM replacement.
5. Flywheel/flexplate must bolt to engine between clutch assembly and crankshaft and all driveline components within bellhousing must rotate while car is in any gear.
6. Transmission must be one of the following designs:
7. OEM Manual: Must have a standard OEM case and working disc-type clutch or approved cone or disc-type coupler inside an explosion-proof steel bellhousing. One flywheel only, minimum 8.5-inch diameter. Diameter of clutch disc must be a minimum of 5.5 inches. Clutch assembly must be steel, except housing, which must be steel and/or aluminum. Bellhousing can have only a hole for throw-out bearing lever or hose,



must be 270 degrees around top of clutch and flywheel area. Standard or reverse mount starter allowed, must directly engage flywheel.

8. Automatic: Must remain in OEM or OEM replacement case, with a functioning OEM appearing pump. Aluminum OEM bellhousing may be replaced with aftermarket explosion-proof aluminum bellhousing. Original OEM bellhousing must have approved scatter shield constructed of minimum 0.125 inch by three-inch steel, 270 degrees around flexplate.
9. Manual: Standard Bert, Brinn and Falcon style transmissions and their respective bellhousing/starter assemblies allowed. By standard style, we mean standard. No magnesium. No ball splines. No Brinn Predator or Pro 2.0. No Bert Gen 2. No falcon roller slides or Eliminator, ETC. If you have a question about the legality of your transmission choice, please ask before you spend your hard-earned dollars.
10. Driveshaft: Steel slip-yokes only. Minimum two-inch diameter steel driveshaft and must be painted white. 360-degree driveshaft loop required and must be constructed of at least 0.25 inch by two-inch steel, or one inch tubing, mounted six inches back from front U-joint.

## **Engine Compartment**

1. Rear of engine (bellhousing flange) must be mounted at least 72 inches forward from centerline of rear axle.
2. Engine offset must be kept within two inches of centerline of front cross-member with engine level.
3. Minimum 11-inch engine height from ground to center of crankshaft.
4. Radiator must be mounted in front of engine.
5. Cooling system may be modified.
6. Overflow tubes must be directed to ground between frame rails.

## Engine Specifications

1. All cars utilizing a GM604 crate engine must clearly display on both front roof posts the word CRATE. Must be contrasting in color from body, minimum two inches tall. Markers are not acceptable.
2. Crate Engine: Must use unaltered sealed GM #88958604 or #19318604 crate engine, with the IMCA cable-lock system. Upon inspection, any different, altered or missing GM seal bolts will result in disqualification and loss of all points for the season. \$250.00 fine for any crate engine not using required pushrods, valve springs or rocker arms. \$250.00 fine for utilizing altered rev-limiter components. Crate engines must use a 6400-rpm rev limiting chip.
3. Engine: Any American make steel engine block allowed. Aftermarket and OEM performance blocks allowed. Cast iron or aluminum intake manifold only. Steel cylinder heads and oil pan only. Flat tappet cam/lifters and stud-mounted rocker arms only. Magnetic steel retainers only. No shaft, pedestal, or offset rocker arms, titanium engine components, stud girdles or mushroom lifters. Lifter diameter and configuration must match OEM passenger block. OEM firing order cannot be changed (GM: 1-8-4-3-6-5-7-2). All engines must be able to be used in conventional passenger car without alterations. Engine mounts cannot be removed or altered. Castings and fittings must not be changed. No machine work on outside of engine (no lightweight engine blocks). "Wet" sump oiling system only. Must use a 7800 RPM rev limiting chip.
4. Coil Pack Engines are not allowed.

NOTE: Merritt Speedway reserves the right to implement a new rev-limiter-chip at any time. Limiter chips that are exchanged and found to have been altered, may result in suspension.

Decisions of Merritt Speedway officials are final and binding without exception. Any rule changes or clarifications during the year will be amended at [www.merrittspeedwaymi.com](http://www.merrittspeedwaymi.com) and communicated to all drivers who fill out their registrations with valid contact info, and will be considered as an official part of these rules.