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2018 Open Stock Rules

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1. COMPETING MODELS:

- a. Open to any passenger car from 1960-present date.
- b. No jeeps, corvettes, convertibles, citations, vegas, corvairs, falcons, gremlins, monza types, 4-WDs, sports cars, compact cars, or trucks of any kind.
- c. Vehicles not covered under these exclusions do not mean they are pure stock material.
- d. Consult tech inspector as to the legality of the vehicle before building.
- e. Some models may not be included in the above exclusions.
- f. To avoid disappointment and expense, please check with us before you build a car.

2. TRACK COMMUNICATION:

RACEceivers and AMB transponders are mandatory

3. BODY SPECIFICATIONS:

a. BODY:

1. Any type stock car body permitted.
2. Must be full body, aluminum or steel.
3. Soft plastic nose and tail pieces permitted.
4. No fiberglass or hard plastic.
5. Interior steel or aluminum permitted; highly recommend 16-gauge steel on drivers side floor.
6. Interior must be closed to form safe firewall, front and rear.

b. SPOILERS:

1. Rear spoiler 75" wide x 6 inches of measure material with no more than 3 supports (see illustration for support) and must be attached solid to the deck. The spoiler cannot be wider than the deck at the rear. All dimensions will be measured from the deck. Tolerance for the hinge only.
2. Maximum spoiler angle will be 90 deg to the deck. If a support is used on the rear of the spoiler it must be mounted below the top of the spoiler material a minimum of 1/2 inch to not count as spoiler material.

c. ROOFS:

Steel, aluminum or fiberglass permitted.

4. CHASSIS SPECIFICATIONS:

- a. NO FRONT WHEEL DRIVE CHASSIS.
- b. Must have stock car front stub; box tube may be used from stock stub to rear. No round tube chassis permitted (offset tube chassis must weigh 3200 lbs).
- c. **STEERING:**
 1. Steering quickeners are allowed.
 2. Quick release highly recommended.
- d. **RADIATOR:**

1. Only one (1) per car.
 2. Must remain in front of the engine in stock location between frame rails.
 3. 25 lb. psi cap. Recommended.
 4. It is recommended to double clamp all hose connections.
- e. **ENGINE LOCATION:**
1. Must remain in stock location in chassis, left and right.
 2. Engine set back: will be at its maximum and verified when the center of the center of the number one spark plug hole, on all make engines (furthest cylinder forward) is in line with the center of the top ball joint.
 3. Any car with engine set back past the number 1 spark plug rule must weigh 3200 lbs.
- f. **TRANSMISSION:**
1. Standard transmissions must have external style clutch of any kind.
 2. Racing transmissions permitted; see weight classification below.
 3. All cars must have reverse gear.
 4. Automatic transmission, cockpit coolers must have safety shield installed.
- g. **DRIVE SHAFT:**
- All cars must have a suitable drive shaft sling behind transmission, under front U-Joint, in case of failure, to prevent drive shaft from digging into track or bouncing out or up into a car.
- h. **REAR END:**
1. No quick change style allowed.
 2. No gold trac or limited slip rear ends of any kind, must be locked.
- i. **SUSPENSION AND SPRINGS:**
1. No coil over cars, no pull rods, J-bars, torque links or 3-link cars.
 2. Conventional coil springs, leaf springs, or torsion bars only.
 3. No carbon fiber.
- j. **SHOCKS:**
1. Steel or Aluminum.
 2. No shocks adjustable from cock pit.
 3. No air shocks, coil over, load-levelers, etc.
 4. No air bags.
- k. **BRAKES:**
- Operable and effective four-wheel hydraulic brakes mandatory at all times.
- l. **BUMPERS:**
1. Optional tubular bumper permitted.
 2. Stock bumpers front and rear must have ends rolled into body metal to eliminate hook ends on bumpers.
 3. All bumpers must be securely fastened and neat in appearance.

4. Bumper rules will be strictly enforced and at the discretion of the tech inspector and Mercer Raceway Park.

m. **FUEL TANK:**

1. **FUEL CELL MANDATORY!!**

2. Recommend fully encased in a steel container with a minimum thickness of 20-gauge.
3. An optional aluminum container may be used with a minimum thickness of .060".
4. Fuel cell must retain foam inside.
5. Fuel lines must siphon from top only.
6. Fuel tank vent line must have an in-line one-way valve for the prevention of fuel spillage.
7. No auxiliary tanks.
8. Recommended fuel cells meet FIA/SPEC/FT-3 Specification.
9. Integral ball check valve highly recommended for filler neck and vent tube.
10. Maximum 22 U.S. gallons must be located in the trunk area only. Must be square or rectangular in shape only.
11. No access holes for filler neck.
12. All fuel lines and fittings must be leak proof.
13. Gussets must be used where supports attach to the main frame rails.
14. Two (2) skid rails must be installed under the fuel cell, running front to rear the entire width of the fuel cell with minimum 1/8" x 2" material.
15. Cell must be securely strapped down by at least two 1/8" x 1" steel straps to existing supports by use of at least 5/16 grade 5(3 line) bolts.
16. Technical inspector can reject any fuel cell mounting he deems unsafe.

5. TIRES:

- a. Any compound
- b. Maximum tread width 14" flat surface.
- c. Siping and Grooving permitted.

6. ENGINES:

a. **602 GM CRATE ENGINE RULES; 2600 lbs**

1. All GM seal bolts must be present.
2. All engines must be as manufactured within and outside the bolts (including valve springs).
3. Max. 1" carburetor spacer permitted (no tolerance) and 2 gaskets .070 max. each.
4. Any carburetor up to 750 CFM with max. 1 11/16" throttle bore.
5. No aerosol carbs permitted.

b. **SPEC. 358 ENGINE RULES:**

1. NON-PORTED STOCK OEM BLOCK AND HEADS ONLY!
2. NO 400 BLOCKS.
3. ENGINES MUST REMAIN STOCK AS MANUFACTURED WITH THE FOLLOWING EXCEPTIONS:

- a. Only North American passenger car V-8 manufactured engines allowed with a maximum displacement of 358 cu. in. plus 3 cu. in. wear allowance.
 - b. The engine block and all internal parts must meet stock specifications for its make.
 - c. No Bow-Tie or performance blocks allowed.
- c. All engines must maintain stock bore and stroke combinations. Example:
- 1. Chevy 350 cu. in., 4" bore x 3.480" stroke.
 - 2. Chrysler 360 cu. in. 4" bore x 3.578" stroke.
 - 3. Chrysler 340 cu. in. 4.040" bore x 3.313" stroke.
 - 4. Ford cu. in. 4" bore x 3.5" stroke.
- d. ONLY THE FOLLOWING ENGINES AND OVERBORES LISTED BELOW WILL BE ACCEPTED:
- 1. Chevy 350 cu. in. up to .060" (max.)
 - 2. Ford 351 cu. in. up to .060" (max.)
 - 3. Chrysler 360 cu. in. up to .010" (max.)
 - 4. Chrys. 340 cu. in. up to .060" (max.).
- e. **PISTONS:**
- 1. 3-ring domed or flat top aluminum pistons only (any make).
 - 2. ALL ENGINE PARTS MUST HAVE CASTING OR PART NUMBERS ON THEM FOR IDENTIFICATION.
- f. **CYLINDER HEADS:**
- 1. **Special Note:**
 - a. Sand blasting, bead blasting, acid-etching, porting, polishing, and welding are prohibited.
 - b. No relieving or unshrouding of valves in the combustion chamber.
 - c. The Ford GT 40, Chevy bow-tie, Ford performance, and GM Angle Plug heads will not be allowed.
 - d. CHEVY VORTEC PN#12558060 AS AN ASSEMBLED HEAD AND PN# 12529093 CASTING WILL BE THE ONLY ACCEPTABLE VORTEC HEAD.
 - e. BOW-TIE VORTEC HEADS NOT PERMITTED.
 - f. WORLD PRODUCT Chevy Part Numbers 4265, 4266, 4267 will be allowed.
 - g. WORLD PRODUCT Ford Part Number 5303 will be allowed.
 - h. Chrysler W-2 is allowed.
 - 2. **Special Notes:**
 - a. Valve head sizes optional providing they maintain stock OEM positioning in valve guides (distance apart and angles).
 - b. Valve guide liners will be allowed.
 - c. Any angle valve job will be permitted as long as it is done on a machine that cuts concentric to the valve guide center.

- d. There will be no hand grinding, sanding, blending or de-burring where a cutter or stone leaves off.
- e. The amount of metal you will be able to remove in the bowl areas on both intake and exhaust will be governed by the same method used by Mercer Raceway Park inspectors.

3. **Method of checking will be as follows:**

- a. On the exhaust side the header will have to be removed and then the inspector will place a tool in the port which will consist of a .531" diameter ball bearing welded to a flexible shaft.
- b. With the valve fully opened the ball will be placed against the valve stem and moved to a full circle (360*) around the valve stem, if the ball drops down towards the valve seat in any position around the full circle of the valve stem, it will be deemed illegal.
- c. On the intake side the carburetor will have to be removed and in some cases the intake manifold for the same type of procedure, only the ball size will be .787".

NOTE:

- 1. These methods of checking the head will hold true with a hot or cold engine.
- 2. Valve material must be 1 piece solid steel or stainless steel.
- 3. No titanium or Sodium-filled valve allowed.
- 4. The only titanium allowed in these engines will be the valve spring retainers.
- 5. Any Carbon Fiber parts used in these engines will be illegal.
- 6. Valve stem maximum and minimum diameter plus or minus .005" must be, Chevy 11/32" Ford 11/32" Chrysler 3/8".
- 7. Neck down or race flo valves permitted provided they pass the ball check listed above.
- 8. Milling or angle milling of the cylinder head to any amount will be allowed.
- 9. Any amount of valve seats per cylinder head will be allowed to be installed for the purpose of repairing a head.
- 10. No epoxy or coating of heads allowed.
- 11. Anyone found to be illegal in any way in the cylinder head area will result in complete disqualification, losing all moneys and points for the night.
- 12. No protest or appeals will be given on cylinder head infraction.
- 13. Official's decision will be final.

g. **CRANKSHAFT:**

- 1. Any steel or cast iron allowed providing it maintains stock stroke as manufactured for the engine block used.
- 2. No light weight cut down, or narrowed crankshafts.
- 3. No holes drilled through crank pin or any areas not done so by manufacturer.
- 4. No knife-edging.

h. **RODS:**

- 1. OEM stock production or after-market solid steel are allowed.
- 2. No titanium or aluminum or light weight rods.

i. **VIBRATION DAMPENERS:**

No aluminum dampeners.

j. **CAMSHAFT:**

1. Any make hydraulic or flat tappet allowed (no roller cams, no mushroom lifters allowed).
2. No lash caps, or roller gear driven cams allowed.
3. Shaft rockers are not permitted.
4. Engines with stock OEM shaft rockers are legal.
5. Lifters must maintain stock OEM diameters.
6. Lifter bores must remain in stock OEM positions and angles, but may be rebushed for wear.
7. Roller Rocker Arms in any ratio and stud girdles are permitted.

k. **INTAKE MANIFOLD:**

1. Any cast Iron OEM manifolds, or cast iron Mercurser intakes permitted.
2. All Mercurser intakes must be marked with Mercurser logo to be legal.
3. **OPTIONAL ALUMINUM INTAKE MANIFOLDS:**
Edlebrook pn# 2901 standard head (Victor Jr 2v). pn# 2912 Vortec Head (Victor Jr 2v). pn# 5001 (Torker II). pn# 2101 (Performer). pn# 2116 Vortec Head (Performer). pn# 2913 Chevy Vortec (Super Victor). pn# 2925 Chevy (Super Victor). pn# 2924 Ford (Super Victor). Welland pn# 7547-1 (Exceleator).
4. No porting of polishing of any kind on spec. 358 intake manifolds.

l. **CARBURETOR:**

1. Up to 750 CFM Holley with max. 1 11/16" throttle bore (down leg boosters are permitted)
2. GM Quadrajet. Max. 1" spacer allowed with any manifold.
3. 2 gaskets permitted. Max .070 per gasket.
4. No areosol carbs permitted.

m. **IGNITION:**

1. No Magnetos.
2. No use of any mechanical or electrical adjustments from cockpit.

n. **LUBRICATION SYSTEM:**

1. No dry sump system allowed.
2. No external oil pumps allowed.
3. No Accu-sumps allowed.
4. The use of oil coolers will be permitted, providing they are mounted under the hood only.

o. **WATER PUMP:**

No electric pumps permitted.

- p. **FUEL PUMP:**
No electric pumps or glass bowl filters.
- q. **OPEN ENGINE RULES:**
 - 1. Only North American passenger car V-8 manufactured engines allowed.
 - 2. Steel blocks and heads only.
 - 3. No Aluminum blocks.
- r. **CAMSHAFTS:**
 - 1. Solid lift or Hydraulic permitted.
 - 2. Roller Cams permitted but must weight 3200 lbs.
- s. **CARBURETOR:**
 - 1. One 4 barrel permitted, (No fuel injection permitted).
 - 2. No aerosol Carbs permitted.
- t. **IGNITION:**
 - 1. No Magnetos.
 - 2. No use of any mechanical or electrical adjustments from cockpit.
- u. **LUBRICATION SYSTEM:**
 - 1. No dry sump system allowed.
 - 2. No external oil pumps allowed.
 - 3. No Accu-Sumps allowed.
 - 4. The use of oil coolers will be permitted, providing they are mounted under the hood only.
- v. **WATER PUMP:**
No electric pumps.
- w. **FUEL PUMP:**
No electric fuel pumps or glass bowl filters.

7. **WEIGHT RULES:**

Mercer legal stock cars can weigh the same as during the regular rules. Any other stock car will follow the open stock car rules and the corresponding weight.

MERCER LEGAL STOCK CAR WEIGHT RULES:

Weight is at Speedway, on Speedway scales, THE TRACK SCALES ARE OFFICIAL.

- 1. GM 602 Crate Engine: 2,800 lbs.
- 2. 358 Non Roller Engine – Option 1:
 - 2,900 lbs with STOCK flywheel, clutch and pressure plate
 - 3,000 lbs with lightweight clutch or racing transmission
- 3. 358 Roller or 360-408 CID Engine – Option 2:
 - 3,000 lbs with STOCK flywheel, clutch and pressure plate
 - 3,100 lbs with lightweight clutch or racing transmission

OPEN STOCK CAR WEIGHT RULES:

Weight is at Speedway, on Speedway scales, THE TRACK SCALES ARE OFFICIAL.

602 Crate Engine: 2600 lbs

602 Crate Engine with racing transmission: 2800 lbs.

358 Spec Engine: 2800 lbs

358 Spec Engine with racing transmission: 3000 lbs.

Open Engine: 3000 lbs.

Open Engine with roller camshaft: 3200 lbs.

Open Engine with racing transmission: 3200 lbs.

Open Engine with roller cam and racing transmission: 3200 lbs.

Cars with engine set back #1 sparkplug past center of ball joint (will use this rule for all chassis). 3200 lbs

NOTE:

1. Notify Tech Inspector if any the above apply before race events to avoid disqualification.
2. These shows are for stock cars/street stocks/pure stocks/spectator stocks and not for limited/semi late models. It is our goal to preserve the intent and integrity of these open special shows. All final decisions will be left to the tech inspector and/or promoter of Mercer Raceway Park. We reserve the right to make changes at any time in order to ensure fair competition.

8. SAFETY RULES

- a. The following rules are mandatory and will be strictly enforced.
- b. All cars are subject to inspection at anytime, and must be free from mechanical defects and be in safe racing condition.
- c. OFFICIAL'S DECISION WILL BE FINAL!

9. ROLL CAGE:

- a. Must be minimum 1 ½" outside diameter (1/8" wall thickness highly recommended), no soft metals (aluminum, etc.) allowed.
- b. The mandatory six-point cage must surround the driver w/uprights mounted on the right and left sides of the frame behind the driver, one on each side. There are several allowable variations to this basic design, which are subject to the discretion of the technical inspector. His decision is final.
- c. The four bars joining the four uprights in a horizontal plane and one (1) horizontal cross support above the driver's head must be at least two inches above helmet height of the driver when strapped in the car.
- d. The front down tubes must extend to the front of the top roll cage.
- e. There must be at least three horizontal bars on both sides of the car connecting the uprights on the driver's side of the car in the door cavity and at least one bar must be extended to the outer door skin for added driver protection. These bars must have at least one set of vertical supports between the uprights.
- f. There must be at least three horizontal bars connecting the uprights on the passenger side of the car w/vertical supports between the uprights.
- g. The right and left uprights in front of the driver must be connected with at least one horizontal bar at dash height.

- h. Additional diagonal support bar on left side of chassis from top front of cage down to side. These are minimum allowable bar requirements and of course more are preferred.
- i. All junctions of two or more tubes in the cage must be gusseted for additional strength with at least 1/8" plate steel gussets.
- j. Threaded pipe, pipe fittings, lap weld pipe, soft metals like aluminum, angle or channel iron, and flush grinding of welds are not permitted.

10. SEATS:

- a. All cars must be equipped with a safe racing seat, high back type recommended.
- b. Seat must be securely fastened (bolted or welded) to the roll cage and/or frame in six spots, with a minimum of six 3/8 bolts.
- c. Four (4) on the bottom and two (2) on the seat back. **"NO FLOORBOARD INSTALLATIONS."**
- d. The seat must be positioned completely to the left of the centerline of the car (no center steering) on the driver's side.
- e. A functional padded headrest must be in line with center of driver's head if not built into seat.
- f. **NO FIBERGLASS SEATS.**

11. WINDOW SCREEN:

- a. All cars must have a steel wind screen of substantial material with a maximum opening on individual holes at 1 x 1 (minimum 16 gauge material) (no chicken wire or aluminum) and be reinforced by a minimum of three (3) steel bars connected to the roll cage on top and the dash support bar on the bottom (cold roll).
- b. Screen must cover 1/2 windshield area left to right across the cage and from top of cage down to hood or cowl.
- c. Side window net is mandatory.
- d. All crews must carry an operable fire extinguisher capable of extinguishing gas and oil fires.

12. BATTERY:

- a. Battery may be located in any position. Securely fastened to the car with at least two (2) straps securing the box to the cage or frame - NOT to floorboards.
- b. **RECOMMENDED:** A battery master shut off switch that is mounted, marked, and easily accessible to the safety crew.

13. SWITCHES:

- a. All cars must have an ignition switch, which is easily accessible within the driver's compartment. The ignition switch should be labeled ON/OFF with bright colored paint for safety crew to recognize
- b. **FUEL SHUT-OFF VALVE** (recommended) (within easy reach of driver) shall be labeled ON/OFF with a bright colored paint for the safety crew to recognize.

14. FUEL / POWER STEERING LINES:

- a. All lines and fittings running through the driver's compartment must be of approved type.
- b. Any non-steel braided line must be enclosed in steel tubing.
- c. NO plastic or glass fuel filters allowed.

15. WHEELS:

- a. Minimum five (5) oversized lug nuts, wheels must be reinforced, "Steel only".
- b. Recommend racing wheels and oversized studs. Maximum width 10",
- c. Bead lock rims permitted.
- d. No wide 5 patterns.
- e. Must be stock car type.

16. EXHAUST:

- a. Stock manifolds or headers.
- b. 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.

17. THROTTLE SPRINGS:

Minimum two (2) required.

18. FUEL:

1. Gasoline ONLY.
2. No nitrous or any other additives.

19. BALLAST WEIGHT:

1. If ballast weight is needed to make weight, it must be securely bolted.
2. No floorboard mounted weight.
3. No weight mounted behind driver's head.

20. TOW HOOKS:

1. Must be attached to the frame front and rear, extending above the bumpers for easy access.
2. Mandatory tow hooks in both the front and rear of car.
3. All vehicles must have the capability of starting without being pushed.

21. TECH INSPECTIONS:

1. After the feature, it is possible that the winner and other cars selected at random will be checked. Illegal cars will receive no money and no points.
2. *NOTE: All preceding rules are subject to change. The official(s) in charge reserve the right to make decisions and judge accordingly, with the interest of safety and in the spirit of competition for this division, without recourse. Anything not covered in these rules is up to the discretion of the official(s).*

Tech Inspector: Larry Riffe (724) 854-0814

RULE BOOK DISCLAIMER

1. 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 expressed or implied warranty of safety shall result from the publication 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 or death to a participant, spectator, or official.
2. The race director shall be empowered to permit reasonable and appropriate deviation from any of the specifications herein or impose any further restrictions that in their opinion do not alter the minimum acceptable requirements. **No expressed or implied warranty of safety shall result from such alterations of specifications.** Any interpretation or deviation of these rules is left to the discretion of the officials. Their decision is final.
3. On occasion when situations arise that are not covered by written rules, the track officials may put special rulings into effect. Once such rulings are acted upon, they may become an act of policy and will be added to the existing rules of procedures.

The Management of MERCER RACEWAY PARK