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2012 358 MODIFIED RULES

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2012 358 MODIFIED RULES

1. TRACK COMMUNICATION:

RACEceivers and AMB transponders are mandatory

2. BODY SPECIFICATIONS:

a. BODIES:

- i. Cutlass Supreme, Grand Prix, Probe, Cavalier, Sunbird, Lumina, Grand Am, Daytona, Thunderbird (but not limited to), no fan or ground effect cars, no exotic bodies, front wheels and tires must be fully exposed.
- ii. Maximum roof width 52", minimum 48". Roof must be centered on roll cage. No offset bodies – must be centered on frame.
- iii. Length of roof maximum 60", minimum 48". No flat roofs.
- iv. Overall height (top of highest point) maximum 61", minimum 52" from ground.
- v. All roofs must be single ply one-piece fiberglass; leading edge must be minimum 33" in front of rear axle centerline and maximum 48".
- vi. Rear deck/spoiler must not exceed 50" from ground to the tip of the deck/spoiler/trunk (with driver).

b. WINDOW OPENINGS:

- i. Side minimum 12" vertical front and 14" vertical rear by 30" wide.
 - ii. Front window opening 8" vertical measured from lowest point of roof or roll cage to highest point on hood (including hood scoop).
- c. Maximum body width anywhere 68", minimum 44".
 - d. Side door panel maximum 70" in front of center of rear axle; door must be straight up and down within that measurement. Variations for molding will be acceptable. Front door extensions will be allowed up to 20" minimum behind front axle centerline. All extensions and rear quarter panels must have a max lip rounded or 90 of 1 1/2" top and bottom, facing inside only.
 - e. Rear quarter panels must match. Two-inch (2") fender flares are legal as long as a 68" maximum body width is maintained. Rear quarter panels can extend back to 48" maximum (measured from center at rear axle to rear and car including spoiler).
 - f. No covered window openings, except for mandatory front screen, (no aluminum) maximum 1" x 1" openings recommended. Screen must be suitable.
 - g. Rear trunk lid must be fully enclosed from quarter panel to quarter panel.
 - h. Front hood, nose and front spoiler can be no wider than 36" and may not extend anymore than 20" in front of axle centerline, also they may have 2" max lips up or down on side following contour of body. Hood must have complete signs.
 - i. Hood scoop cannot start anymore than 25" forward of center of carburetor, hood scoop cannot be wider than hood.
 - j. Minimum ground clearance 2 1/2".
 - k. Body and inner panels must be aluminum or steel. (Roof must be fiberglass only.)

3. ROLL CAGE:

- a. Round steel rollover bars are mandatory.
- b. Front and rear roll bars must be connected at tip (cage type).

- c. Proper bracing and triangulation on front and rear roll bars is recommended.
- d. A minimum of one diagonal bar across the top of the roll cage is recommended.
- e. Roll bars at 1 ½” diameter by .120” wall will be the minimum size allowed and roll bars at 1 ¾” minimum, .095” wall are recommended.

4. CHASSIS:

- a. Only homemade box (2x4) frames permitted. The fourth side must be vertical. No holes may be cut in frame rails to lighten. Steel frame rails only. All frame rails must be .120” wall thickness only. At the discretion of the officials, it may be necessary to drill a 3/16” hole in frame for inspection of thickness.
- b. Chassis width shall be as follows: front 24” minimum, 35” maximum; rear 26” minimum, 35” maximum. All measurements shall be taken from outside of frame rails. These measurements shall be taken at both top and bottom of frame at its longest length. Clips, subframes, etc. will be considered part of frame. Minimum length of 2x4 frame rails must start maximum at 14” in front of rear axle centerline and extend to front of radiator. All kick-up material must be same specs as roll cage or frame material.
- c. Minimum frame width must be 26” measured at rear roll bar (top and bottom). Left and right frame rail must measure equal distance from drive train centerline.
- d. Minimum wheelbase of 106”, maximum of 110”.
- e. Rubrails and rear bumpers must be minimum 1 ½” OD x .095” wall. All bracing on both must also be minimum 1 ½” OD x .095” wall; minimum wall thickness must be .120” with no solid or ballast added. **ALL CARS MUST START THE RACE WITH ALL BUMPERS AND SIDE RAILS IN PLACE.**
- f. Front bumpers must be a minimum of 1 ¼” diameter x .095” wall. No “V” shapes.
- g. **ALL BUMPERS MUST HAVE ROUNDED ENDS WITH NO SHARP EDGES.**
- h. All roll cages, bumpers, and rubrails must be round steel tubing only.
- i. Rear end or chassis must not be offset anymore than 4” from center at the inside tire width, measured from the inside of the left rear tire to the inside of the right rear tire, at axle height, front end the same.
- j. Conventional open or closed quick-change rear end **ONLY**. Modified-type front spindles with steel bearing shafts recommended. **OPEN TUBE REAR END, STEEL OR ALUMINUM, IS ILLEGAL.** No limited slip differentials, locked rear ends only.
- k. No independent suspensions, front or rear. No “A” frames or ball joints utilized for steering axis. (King pin only.) All brackets on front axle must be bolted or welded.
- l. Engine must be centered in chassis and placed in an upright position. Engine set back minimum 32” for small block and maximum 42”. Measured from the center of front axle to front face of block. No rear engine cars.
- m. Fuel Cell **ONLY**. Fuel cell height 12” minimum from ground to bottom of tank. Fuel cell 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 cell must retain foam inside. Fuel lines must siphon from top only. Fuel tank vent line must have an in-line, one-way valve for the prevention of fuel spillage. No auxiliary tanks. Recommended that fuel cells meet FIA/SPEC/FT-3 Specification. Integral ball check valve highly recommended for filler neck and vent tube.
- n. Only two universal joints per driveline.

- o. All suspension systems must be mechanical with no form of electrical or computer assistance. NO four-wheel steering allowed that is actuated by the steering wheel. (No cantilever suspensions or inboard shocks.)
 - i. **SPRINGS:** Any form allowed. Torsion bars, coil-overs, leaf springs, etc., provided they are made from steel. No air ride, carbon fiber or titanium.
 - ii. **SHOCKS:** Only one per wheel (no titanium). No shocks that can be adjusted from cockpit. No remote wires, lines or canister.
- p. Only one radiator allowed, and it must be centered in front of motor in a vertical position. No auxiliary cooling tanks or catch cans allowed in driver's compartment. No plastic or carbon fiber allowed.
- q. Seat and steering wheel must be centered in frame. HIGH BACK SEATS ONLY.NO FIBERGLASS SEATS.

5. TRANSMISSIONS:

Approved North American manufactured transmission only, standard, and must bolt to bell housing. No overdrive transmission allowed. Neutral and reverse gear must be in operating order. From a neutral position with motor running, a car must be able to go forward and backward. If a conventional clutch and pressure plate are used, steel bell housing must be used.

6. MUFFLER AND EXHAUST:

- a. All cars must have approved muffler exhaust system.
- b. Exhaust may not point to ground.
- c. Schoenfeld Part #112535 is the minimum requirement.
- d. Mufflers must be securely attached.
- e. Must be welded; a minimum of four one-inch welds required on each muffler.
- f. NO rivets, bolts or spot-welds.
- g. Only two mufflers will be allowed.
- h. Mounting positions from front to back will be optional, however, the exhaust must exit past the driver.
- i. Exhaust header manufacturers will be optional, but is limited to steel or stainless.
- j. NO crossover pipes connecting the two banks of cylinders.
- k. Mufflers must be inspectable.

7. BRAKES:

- a. All cars must have four hydraulic brakes in good working condition.
- b. No carbon fiber rotors or pads.
- c. Foot brake is mandatory.

8. WHEELS:

- a. Steel or aluminum wheels only.
- b. Beadlocks are allowed.
- c. Rim width to a maximum of 14" only.

9. TIRES:

Any 92" x 13" tire.

NOTE:

- i. No tire softener or any liquids will be allowed inside or outside of tires.
- ii. Heating of tires by torch, blankets or exhaust system is not allowed.
- iii. Any form of tampering with the tires such as above-mentioned will result in complete disqualification.

10. WEIGHT:

- a. 2,400 lbs. Open 358 after the race with the driver in the car.
- b. 2,300 lbs. DIRT Sportsman 358 with 2-barrel carburetor and inline 6-cylinders after the race with the driver in the car.

NOTE:

- i. All bolt-on weight must be securely fastened to frame rails or chassis tubing.
- ii. No front or rear bumper mounts or body mounted weight permitted.
- iii. No weight mounted behind driver's head.

11. MISCELLANEOUS:

- a. NO mirrors or reflecting devices.
- b. NO two-way radio or communication devices.

12. MANDATORY SAFETY RULES

- a. All cars are subject to inspection at any time and must be free from mechanical defects and be in safe racing condition.
- b. Driver's seat must be securely fastened to frame or cage 3/8" bolts minimum. It is recommended that seats mounted over drivelines have a minimum 1/8" steel plate under and up the back 4" and be as wide as seat.
- c. Driveshaft cover is mandatory. All cars with open driveshafts must have a tunnel, minimum of 1/8" thick steel from 2" under front edge of set to back of transmission covering shaft and U-joint on top and both sides down to floorboards. It must be held in place with a minimum of four 3/8" bolts at bottom to a substantial cross-member. This driveshaft cover must be a solid unit with no cutaways for lightening purposes.

NOTE:

- i. Closed drive-type cars, torque tubes, or bells that already have a 360° covering from U-joint back to seat will be accepted as is.
- ii. It is recommended that any car that has a suspension link such as a torque arm, coil-over or trailer bar in the driver's compartment have a steel cable (1/4" in diameter or more) or clamp around it limiting its range of motion should it break loose from its mount.
- iii. It is also recommended to have these parts free of sharp edges and padded.
- d. Mandatory functional padded headrest must be in line with center of driver's head.

- e. All cars must have four-wheel drive hydraulic brakes, all in good working order. Steel rotors only.
- f. Belly pan must extend from rear motor plate to rear of seat.
- g. Battery must be properly secured and must have top and terminals completely covered by rubber.
- h. rubber.
- i. Fuel lines, power steering lines, and fittings running through driver's compartment must be of approved type. (Braided lines recommended.) **NO CAST IRON FITTINGS.**
- j. Firewalls, both front and rear, are mandatory. The rear firewall must extend from top of fuel cell to belly pan. Minimum .050" thick aluminum or steel only. A minimum amount of sheet metal may be cut out for drive shaft clearance. The front firewall must isolate driver from the engine compartment.

13. ENGINE SPECIFICATIONS

- a. North American passenger car
- b. V-8 engines and inline 6-cylinders with cast iron block.
- c. NO 4- cylinder or V-6 engines allowed.
- d. Engine parts **MUST** have casting or part numbers on them for identification.

Engine:	Max cubic inch:
GM small-block	363
Chrysler small-block	365
Ford small-block	363
Any make inline 6-cylinder	360

e. BLOCKS:

Steel block only. Aftermarket blocks permitted.

f. HEADS:

NOTE: Valve angles will be checked on the motor in the car.

g. OPEN 358 CYLINDER HEADS:

- i. Any aluminum or steel head permitted, providing it maintains OEM valve angles for the maker of the engine block used (wedge type engines only).
- ii. Inline valves only.
- iii. No canted valve heads permitted.
- iv. No hemi heads permitted.
- v. No 18-degree or SB-2 type GM heads allowed.
- vi. Heads must be originally manufactured for engine block used.
- vii. No titanium valves.

Engine:	Max Valve Angle:
GM small-block	23°
Chrysler small-block	18°

Ford small-block	20°
	Note: ½° tolerance per head will be allowed for a total of 1° tolerance.

h. CRANKSHAFT:

Any steel or cast iron crankshaft is allowed. NO titanium or exotic metals.

i. RODS:

OEM stock production or aftermarket rods are allowed. No titanium or aluminum. Rod length will be optional.

j. PISTONS:

Any brand, 3-ring aluminum pistons.

k. VIBRATION DAMPENERS:

Any vibration dampener is permitted. Fluid dampeners are allowed.

l. CAMSHAFT:

Any make hydraulic, flat tappet or roller cam allowed.

m. INTAKE MANIFOLD:

One 4-barrel intake manifold permitted.

n. CARBURETOR:

- i. Engine limited to one American manufactured carburetor not to exceed 4 venturii.
- ii. No in-line venturii.
- iii. No fuel or air shall enter by any means other than stock operation of carburetor.
- iv. Fuel injection, super chargers, or mechanical turbo chargers are not legal.

o. IGNITION:

- i. Any kind of ignition mechanically driven in stock position.
- ii. No crank-trigger ignition systems.
- iii. Only one spark plug per cylinder.

p. LUBRICATION SYSTEM:

- i. Any permitted.
- ii. Oil coolers will be permitted providing they are mounted under the left wing or under the hood only.
- iii. Oil pan must have 1" plug in side of oil pan to inspect rods.

q. WATER PUMPS:

Cast iron or aluminum.

r. FUEL PUMPS:

- i. Mechanical driver only.
- ii. No electric fuel pumps are allowed.

s. FUEL:

- i. Gasoline or methanol legal.
- ii. No additives or nitrous oxide.
- iii. Speedway may conduct fuel checks during the season.

14. SEALING AND TECHING OF ENGINES:

a. SEALING PREPARATION:

- i. Drill 4 front intake manifold bolts through head with 1/8" drill size for engine seals to be installed after pump procedure.
- ii. Sealed engine may be torn down at anytime at discretion of tech inspector or Mercer Raceway Park.

b. PUMPING AND TEARDOWN PROCEDURE:

- i. Any car may be pumped at any time, hot or cold, at the discretion of tech inspector or Mercer Raceway Park.
- ii. The tech inspector will determine which cylinder or cylinders are to be pumped.

- c. Each week, the winner and two other finishers (randomly chosen with the finishing positions posted on the blackboard when the green flag waves in the feature) will be tech inspected, and any other car(s) that Mercer Raceway Park or the tech inspector requests.

Tech Inspector: Larry Riffe (724) 854-0814

15. RULE BOOK DISCLAIMER

- a. 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.
- b. 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.

- c. 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