



Mini Stock Rules for 2016
(Also reference ECMS General Rules and regulations)

RULE BOOK DISCLAIMER: 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. It is at the tracks discretion to partially inspect or perform a total inspection of the motor and/or chassis components after consecutive wins. 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 his/her opinion does not alter the minimum acceptable requirements. Any interpretation or deviation of these rules is left to the discretion of the officials, their decision is final.

If not specified in Rules, all parts must remain O.E.M for year, make and model.

1. Drivers

Minimum Age for Mini Stock Drivers is Fourteen (14 Years Old), with ECMS officials approval. Drivers must have parent's consent form filled out. These rules are for everyone. Drivers will be able to participate in other ECMS classes.

2. COMPETING MODELS

- a. Any 1964 and later with a maximum wheelbase of 103" permitted
- b. Steel bodied car.
- c. Front and rear wheel drive permitted.
- d. No 2 seats allowed.
- e. No station wagons, no convertibles.

3. BODIES

- a. Bodies must be of the same make as the original chassis, and remain stock appearing at all times.
- b. After market body parts okay but must be stock appearing
- c. Recommend factory steel roof, if altered or after market, possible weight penalty, may vary per car depending on finished product.
- d. All hoods must seal to cowl panel or windshield.
- e. Hoods and trunks must close in original position; with at least 2 positive fasteners each.
- f. Front and Rear firewalls must be complete and sealed, 22 gauge metal.
- g. Must have factory floor pan, no modifications except for roll cage.
- h. Bumpers must remain in stock location.
- i. Stock trunk area, altered for fuel cell only.

- j. After market or custom dash okay.
- k. Head lights, tail light and door handles removed must be covered.
- l. Rear Spoiler, 5" tall max. 54" wide max or width of trunk lid if less.
- m. Roll cage must be 1 ½" x .090 round steel min.
- n. Min 4 bars drivers side – 3 on right.
- o. 1/8" steel plate must be welded to the left side door bars.
- p. All roll bars within drivers reach must have padding on them.
- q. OEM steering parts, steering column must have collapsible sleeve.
- r. Steering quickner okay.
- s. Quick release steering wheel okay.
- t. All bars in driver's area must have acceptable roll bar padding.
- u. O.E.M. steering box mandatory. Steering column must have collapsible sleeve. v. Steering quickner permitted.
- w. Quick release steering wheel optional.
- x. All pedals must remain in stock locations, no aftermarket pedals.
- y. May reinforce bumpers with light tubing, internal braces behind bumpers only.

4. WEIGHT

- a. Minimum weight is 2250 lbs. or one pound per cc after race. Actual cc's and weight must be posted on the hood.
- b. Maximum left side weight is 56% of the total weight of your racecar.
- c. No Fuel, oil, or other fluids or dislodged parts of any kind may be added to the racecar before post race inspection.
- d. All weights will be checked with the driver in the seat, helmet on the head, both hands on the wheel, feet on the pedals, and the driver in the upright position.
- e. All added weight must be in block form.
- f. No tolerance allowed for any reason.

5. Engine Specifications

All engines must be absolutely stock from carburetor to oil pan, with the exceptions stated within the ECMS Rule Book. 4 cylinder engines only. No Rotary engines, no four wheel drive cars. No double overhead cam engines. GM 151 allowed in all GM cars. Stock O.E.M. blocks only, no aftermarket blocks. Must have manual for proof of eligibility, mandatory. You may interchange engines within your manufacturer line.

6. Engine Location

- a. Stock O.E.M. location only.
- b. Stock O.E.M. or solid motor mounts permitted.

7. Blocks

- a. Must be stock O.E.M. production only, no aftermarket blocks.
- b. No block is to be coated inside at all.
- c. Blocks cannot be offset bored, and must maintain O.E.M. type bearings in the main journals.
- d. Engine balancing permitted, must be done in a standard production manner.
- e. Maximum overbore is .065, Toyota 3TC engine may be bored to 89MM.

8. Crankshafts

- a. Must be stock O.E.M. cast or steel, no aftermarket such as Scat, Lunati, etc. allowed.
- b. Stock O.E.M. stroke must be maintained, no strokers allowed.
- c. No O.D. turning, weight polishing allowed. You may polish #4 rod journal and #5 main journal only.
- d. Stud Girdle Kit for Main Bearings Only.

9. Connecting Rods

- a. Stock O.E.M. rods iron or steel, stock O.E.M. rods may be polished. Aftermarket rods permitted untouched out of the box except for balancing.
- b. Must be O.E.M. configuration and sizes and locations.
- c. Center to center size must be stock O.E.M. for the particular engine used.
- d. Bob weight removal for balancing. When balancing the rods, one of the four must remain untouched.
- e. Any rod bolt permitted.
- f. Stock O.E.M. length rod for engine used only.
- g. Free floating wrist pins permitted, no light weight wrist pins allowed.
- h. Fords are allowed to use the 5.7 rods.
- i. no light weight billet rods

10. Pistons

- a. Any flat top piston permitted, must be full skirted.
- b. Three rings with all rings in place.
- c. Gas Porting Allowed.
- d. Wrist Pin must retain O.E.M. Diameter. Deck is .010 Out.
- e. Toyota 3TC Engines are allowed a Stock 235 +\-.005 Style Dome Pistons. The Flat Part of the Toyota Piston cannot be Above the Deck. (4.25.07)

11. Piston Rings

Any stock O.E.M. style permitted.

12. Bearings

All engine bearings must be stock O.E.M. type sleeve bearing, no roller bearings allowed.

13. Fasteners

Stock O.E.M. or any H.D. bolts, nuts, washers permitted. Head Studs, Main Bearing Studs allowed.

14. Gaskets

Stock O.E.M. or any brand permitted. No "O"-ring type allowed in any form as a gasket.

15. Cylinder Heads

- a. Stock O.E.M. heads, no aftermarket heads allowed.
- b. Angle milling permitted.
- c. Two valves per cylinder only, O.E.M. swirl polished type valves only.
- d. Stainless Steel O.E.M. configuration Valves permitted. No Titanium Valves. Valves may be Back Cut 30 Degree Maximum. Valve Stems may not be Canted in Heads.
- e. No interior de-burring, polishing, extrude honing or acid porting allowed. Ports must be stock as cast.
- f. Lifter Bore May be machined for Solid Adjusters.
- g. Valve Sizes: Intake Exhaust GM Iron Duke 1.720 1.500 Ford 2300 1.740 1.500 Nissan L20B 1.660 1.384 Toyota 20R 1.693 1.418 Toyota 3TC 1.620 1.420.

16. Valve Train

- a. Part numbers and casting numbers cannot be altered or removed.
- b. A maximum of three (3) angle valve jobs are permitted. When cutting the valve seat angles, no stone or grinding marks are permitted above the bottom of the valve guide. All cutting in reference to the valve job and bowl area must be centered off the centerline of the valve guide. Radius Cuts will be permitted 1" below Valve Seat . Upon completion of the valve job, the bowl area under the valve seat down to the bottom of the valve guide must still be the same configuration as far as the shape and finish as it was from the manufacturer. Surfaces and/or edges where the cutter or stone has touched must not be polished. Hand grinding or polishing will not be permitted on any part of the head. Valves must be located and oriented in the stock manner.
- c. No 7mm valves on ford engine

17. Camshafts

- a. Stock O.E.M. or any aftermarket hydraulic or solid cam permitted, camshaft must be steel.
- b. Degreeing the cam is permitted.
- c. Stock O.E.M. or double roller timing chain and gears with Hex adjustment permitted.
- d. Anti-pump up hydraulic lifters permitted.
- e. No lightweight push rods allowed.
- f. No Rev-kits, stud girdles, offset rocker arms, pivot rockers arms, roller lifters, lightweight lifters, coated lifters, mushroom lifters, oversized lifters.
- g. Lifter Bore may be machined to allow for solid adjusters.
- h. No Rhoads lifters allowed.
- i. Oil return screens permitted.
- j. Lifter valley baffles are permitted.
- k. Lifters must be stock sizes for engine use.

l. Roller rocker arms allowed on GM engine only.

m. Any valve spring permitted.

18. Intakes

a. Stock O.E.M. factory - Non hi-performance manifolds only, no fuel injection intakes permitted.

b. No porting or polishing or coating or dipping of the manifold.

c. No port matching.

d. Intake may only be modified to accept carburetor, no other modifications permitted. e. All carburetor adaptor plate modifications must not exceed stock plenum height for Intake being used.

19. Carburetors

a. Holley 2300 2 Barrel Carburetor Model Number 7448 (Part Number 80787) – 350 CFM, or Holley 2300 2-Barrel Carburetor Model Number 4412 (Part Number 80583) - 500 CFM. If you use the NEW HOLLEY 350 HP CFM Carburetor, you cannot do any modification to it at all.

b. All air leaks must be sealed.

c. A one (1") inch maximum thickness aluminum or steel spacer allowed with one gasket of .065" thickness top and bottom. No taper or bevel. Holes must be cut perpendicular to base of carburetor, and must be centered on the intake manifold. One or Two hole spacer permitted.

20. Body of Carburetor

Reshaping, polishing, grinding or drilling of additional holes will not be permitted.

21. Choke Horn

The choke horn may not be removed.

22. Boosters

Booster type may not be changed. Size or shape must not be altered. Height and location of the boosters must remain as manufactured. All boosters must maintain an outside diameter of .616 inch.

23. Venturi

Venturi area must not be altered or reshaped in any manner. Casting ring may not be removed. Alterations to allow additional air to be picked up below the opening of the venturi such as altered gaskets, base plates, and drilling holes into the carburetor will not be permitted.

24. Base Plate

Base plate must not be altered in shape or size.

25. Butterflies

Stock butterflies must not be thinned or tapered. Idle holes may be drilled in butterflies. Screw ends may be cut even with shaft, but screw heads must remain standard.

26. Throttle Shafts

Shafts must remain standard, and must not be thinned or cut in any manner.

27. Accelerator Pump

Accelerator pump discharge nozzle may not be changed.

28. Air Cleaners

- a. All cars must have a metal air cleaner.
- b. A maximum of fourteen (14") inches in diameter.
- c. Air cleaner maximum height is five (5") inches, dry paper element or K&N permitted. No element may be altered in any way or be sprayed or soaked with any chemicals on any substance.
- d. Front half of air cleaner may be shielded on the front area up to maximum of one half (1/2) the diameter, and not to exceed the height of the air cleaner.
- e. No carburetor hats, baffles, etc., top and bottom must be same diameter.
- f. No holes in top cover or bottom cover.
- g. No air ducts, tubes, funnels or anything used to induct air to the element. No modification to the top or bottom air cleaner plates.

29. Fuel

Track fuel mandatory. No additives. No cooling devices allowed.

30. Fuel Systems

- a. Fuel pumps maybe aftermarket Hi-Performance factory replacement type.
- b. Electric fuel pumps are allowed, must have roll over valve in fuel line.
- c. Fuel cell mandatory. d. Fuel cells must comply with ECMS standards.
- e. Fuel cell must be mounted in the center of the trunk and or frame rails and maintain a minimum height of 8" from the bottom of the cell or frame, whichever is lowest to the ground with driver race ready.
- f. Fuel cell must be strapped acceptable to track officials.
- g. Fuel cell must be mounted in a steel container.
- h. Must have a bar around the rear of the cell for safety.

31. Glass

- a. Front windshield must be safety glass or Lexan 1/8" minimum with 2 one-inch (1") straps, on the inside.
- b. Rear safety glass if used, must be Lexan 1/8" minimum with 2 one-inch (1") straps minimum, mounted on the inside.
- c. Quarter glass optional, must be Lexan 1/8" minimum securely mounted.
- d. No side glass.
- e. No portion of any rear view mirror may extend outside the car.
- f. Side vents with or without hose for driver cooling only.

32. Electrical Systems

- a. Battery must be in an approved enclosed box securely mounted in rear passenger area, or under the hood. Batteries in the trunk must be completely sealed.
- b. Battery may be recessed through the floorboard, but cannot be mounted lower than the frame rails.
- c. One (1) twelve- (12) volt battery only, no tractor or truck batteries allowed.

33. Ignition Systems

- a. Only factory type ignition system may be used.
- b. Standard or electronic distributor may be modified for reliability by using factory parts only.
- c. Stock type coils only. No MSD, ACCELL, MALLORY etc., internal parts, coils or boxes are allowed.
- d. No high output coils allowed, no magnetos.
- e. No multiple spark discharge boxes or systems allowed.

34. Cooling Systems

- a. Stock cooling system only in stock O.E.M. location
- b. May use any radiator, aluminum or copper. No antifreeze, use Water Wetter type products.
- c. Electric fans permitted.

35. Exhaust Systems

- a. Stock exhaust manifolds or headers permitted, one hundred eighty (180) degree headers not permitted.
- b. Exhaust pipes must run parallel to the ground past the driver's seat, and must extend to the outer edge of the car
- c. Exhaust may run through the inside of car if totally boxed, sealed and approved by tech person.
- d. Mufflers are optional, Y-pipes, H – pipes permitted.
- e. Exhaust Evacuation Systems are permitted; only quality check valves will be permitted.

36. Oiling Systems

- a. Stock system only.
- b. External oil filter permitted, must remain under the hood.
- c. External oil coolers permitted, must be plumbed with steel braided hose and AN type fittings. No rubber hose or hose clamps allowed. Cooler must be mounted between frame rails and forward of the firewall.
- d. No dry sump or Accu sump systems.
- e. Race type oil pan permitted, screen kits in oil return system permitted. Oil pan baffles preventing oil from flowing away from the oil pump pick-up permitted and recommended.
- f. No crank scrapers.
- g. Windage tray permitted.

37. CHASSIS

- a. All frames must be stock
- b. Uni-body frames may be tied together, end to end, halfway max on frame rails.
- c. Firewall and floorboard must remain intact.
- d. Front and rear hoops may be added to the cage. Front hoops cannot go past frame horns, rear hoop must remain in trunk area.
- e. All chassis components must be in place and functional.

- f. No welding of chassis or reinforcing of any kind, except for tying uni-body. No x-ing of frame, no narrowing of frame and no boxing of frame.
- g. Adjustable rear shackles are permitted; 8" max in length with holes drilled. Front eye stock location.
- h. All lead for weight must be bolted to the frame rails or inside the car with 2 grade 8 bolts, 3/8" minimum, with lock washers or double nut or poly lock nuts, must be painted white with car # on them.
- i. Weight jacks, screw jacks, etc., permitted.
- j. Adjustable coil spring spacer permitted. Rear spring seat permitted. Spring Buckets permitted.

38. Transmissions

- a. Automatic or manual permitted. All gears must be functional from driver's compartment.
- b. Automatics – manual shift kits permitted. Reverse shift patterns permitted. Internal modifications for durability only. No trick or lightweight internal parts, O.E.M. factory only. Torque converter must be stock O.E.M. size for all automatics. Must be factory O.E.M. stall speed. No stall or hollow converters. No aftermarket Hi-Pro converters. No valve or any mechanism to transfer transmission pressure allowed. Transmission mount must be O.E.M. stock replacement type and configuration. Neutral safety switch must be functional at all times. Modified transmission oil pan permitted. Transmission oil cooler size and placement is optional. Cooling lines must have no more than 12" of high-pressure rubber tubing. Stock O.E.M. flex plate only.
- c. Manual – all gears must be functional from driver's compartment. Three (3), (4) or (5) speed transmissions only, no 6 speeds. No aluminum flywheels, no aftermarket hi-pro clutch packs such as 10,000 RPM, RAM, Center Force, etc. Stock O.E.M. clutch packs only, single disc only, no carbon fiber discs. Stock O.E.M. flywheel with a minimum weight of 16 lbs. You cannot remove material from the center nor the outside of the flywheel to meet weight rule. You cannot concentrate material out of the center of the flywheel to meet weight rule. Bell housing must be modified to allow inspection of the clutch pack & flywheel. Failure to do so will keep you from competition. Blow proof bell housing is recommended.
- d. If stock unit is used the floorboard must be reinforced in the clutch area, belting may be used.
- e. No aftermarket transmissions or components, must be factory standard production only.
- f. Flywheel, pressure plate and clutch disc min. 23# no bolts

39. Drive Shaft

- a. Standard one (1) piece steel, minimum diameter 2 1/2". No aluminum.
- b. Must be painted white with car number on it.
- c. Drive shaft safety loops front and rear mandatory.

40. Rear Ends

- a. Must be stock passenger car rear end, rear ends must not be out of factory tolerance, such as camber of caster settings.
- b. May be interchanged between manufactures; Ford in a GM, GM in a Mopar etc.
- c. Detroit locker rear end permitted.
- d. No quick change units.
- e. Any ring and pinion ratio permitted.
- f. Rear end may be locked.
- g. Non-adjustable Rear Pan Hard Bars are allowed.

- h. No solid enclosed trailing arms.
- i. Zero (0) camber and toe on rear end and wheels.
- j. Bracket and arms may be altered to accept cross brand rear ends, but must retain factory spring and shock mounting location on 3rd member of chassis and body.

41. Chassis

- a. All frames must be stock.
- b. Uni-Body frames may be tied together, end to end, ½ way max on frame rails firewall and floorboard must remain intact.
- c. You may patch floor pan if it's rusted or has holes. Do not cut it out and replace whole pan, put a patch over the top – 22 gauge steel only.
- d. Front and rear hoops may be added to the cage. Front Hoop may not extend further than the frame horns, rear hoop must stay in trunk area.
- e. All chassis components must be in place and functional.
- f. No cutting of any kind to lighten the frame. No x-ing of frame. No narrowing of frame. No boxing of frame.
- g. No welding of chassis or reinforcing of any kind permitted, except for tying uni-body cars together.
- h. Adjustable rear shackles are permitted; 8" max in length with holes drilled. Front eye stock location.
- i. All lead for weight must be bolted to the frame rails or inside the car with 2 grade 8 bolts, 3/8" minimum, with lock washer's or double nut or poly lock nuts, must be painted white with car # number on them.
- j. Weight jacks, screw jacks, etc are permitted.
- k. Adjustable coil spring spacer permitted, rear spring seat permitted, spring buckets permitted.

42. Suspension

- a. Stock O.E.M. upper and lower A-frames, no aftermarket permitted.
- b. A-frames must be for chassis used, stock O.E.M ball joints, sleeves, links and sway bars only. Must be for make of chassis, e.g. no Dodge in GM, or Ford in Chevy.
- c. No aftermarket sway bars.
- d. Front sway bar may use longer bolt or ready rod on driver's side. Must have locknuts or double nutted.
- e. Stock O.E.M. or after market neoprene bushings permitted, must maintain stock O.E.M configuration.
- f. Rear sway bar must mount in Stock O.E.M. mounts, non adjustable.
- g. Non adjustable front sway bar must mount in stock O.E.M mount located on passenger side.
- h. Stock O.E.M. spindles, aftermarket not permitted.
- i. All suspensions, both front and rear must be configured as from the factory.

43. Springs

- a. Stock O.E.M. or aftermarket front and rear coil springs permitted, springs must mount in stock locations. If aftermarket spring is used must be same configuration as factory.
- b. Rubber or clamp style inserts permitted, acorn twist in style inserts not permitted

- c. Stock O.E.M. or aftermarket leaf springs permitted. Front mount must be O.E.M. and mounted in O.E.M. configuration.
- d. Adjustable Rear Shackle with holes drilled permitted, 8" long max.
- e. Leaf spring sliders and spring buckets permitted.

44. Shocks and Locations

- a. Factory O.E.M. stock locations only, shock mounts and towers must be in their original place.
- b. Stock O.E.M. or aftermarket shocks permitted, gas or oil charging permitted.
- c. No adjustable or re-buildable shocks permitted, must be solid.
- d. (1) shock per wheel only, mounted in factory location. May drop rear lower mount 2"
- e. Lemans bar permitted.
- f. Shock tower top may be modified to accept adjustable plate, must be welded to the front hoop.
- g. Adjustable struts and upper strut plates are permitted (not adjustable during race).

45. Sway Bars

Stock O.E.M. only for make of chassis and must mount in O.E.M. location. No aftermarket or adjustable sway bars, one piece only.

46. Steering

- a. Stock O.E.M. type for your chassis steering box or rack and pinion from one manufacturer to another is permitted.
- b. All tie rods, sleeves, idler arm, pitman arm, center drag link must be stock O.E.M. for your chassis.
- c. Steering quickener permitted.

47. Brake Systems

- a. Stock O.E.M. or heavier permitted, no truck brake systems. Must be from a passenger car off of your manufacturer's line.
- b. Four (4) wheel disk brakes permitted, no dual master cylinders.
- c. Rotors and drums must be magnetic steel.
- d. Stock O.E.M. rotor from your manufacturer's line, no aftermarket. No drilling or cross cuts on rotors permitted.
- e. Stock O.E.M. caliper from your manufacturer's line, no aftermarket. Max two (2) piston caliper.
- f. Any brake pad/shoe permitted.
- g. Brake proportioning valves permitted, must be mounted under the hood out of driver's reach.
- h. Stock O.E.M. or after market pedals and assemblies allowed.
- i. No air ducts to brakes.
- j. No shut off valves or devices.
- k. No brake boosters allowed.

48. Ground Clearances

All ground clearances are the minimums with driver and car in race trim, before and after the races at all times.

- Front spoiler – four (4) inches, all the way across.
- Center of the crankshaft – eleven (11) inches.
- Frame Height – Four (4) inches, measured at the frame rail.
- Fuel cell and or fuel cell frame – eight (8) inches from lowest point.
- Oil pan four (4) inches.

49. Tires

- a. Tires must be purchased from ECMS. (Hoosier790's)
- b. No tire treatment of any kind permitted.

50. Wheels

- a. Steel wheels only, 8" wide x 13" diameter.
- b. May vary with a minimum of three (3") inches of backspace.
- c. No pressure relief valves.
- d. Minimum of 1/2" wheel studs mandatory.
- e. One 1/2" wheel spacer per wheel permitted.

51. Track Width

Track width cannot exceed 63" front or rear. Front and rear must be within one (1) inch. Track width is measured from the center of the left tire to the center of the right tire, front and rear.

52. Safety

- a. 1 or 2 piece SFI approved driving suit constructed of at least one layer fire retardant, Nomex, Proban, etc., required.
- b. SFI approved 1 layer gloves required.
- c. Helmet required, must be Snell 95 or better. Must have visible tag.
- d. Racing shoes optional.
- e. A neck collar or head and neck restraint device/system (R3/HANS/Hutchens) is recommended and is to be used during track rentals, practice, qualifying and main events.
- f. SFI approved 3" – 5 point harness, not older than 5 years or approval of tech.
- g. (1) 2 1/2 lb fire extinguisher with a dial, must be located within reach of driver.
- h. Master kill switch required to be mounted in center of dash or floor.
- i. Ignition switch and starter button required to be mounted within driver's reach.
- j. Race Seat is Mandatory; seat cannot go past the door jamb more than 6" max.
- k. Must have SFI approved window net.
- l. A driver shall not permit any person to ride in or on any racecar at any time.
- m. No work can be done on any race car on the track without track official approval. All work to be done in the pits.

n. Quick hook-up to the front and rear of their car. Chain or eye hooks to the bumpers or under hood and truck lid.

o. All injuries must be reported to ECMS race officials on the night of the event, and will not be accepted later.

p. Competitors are solely and directly responsible for the safety of their racecars and their racing equipment. They are obligated to perform their duties whether driver or crew member in a manner that will minimize the risk of injury to themselves and to others.

q. Absolutely no crew members on the track at any time unless directed by a track official. This will be strictly enforced (let the track and safety officials do their job). It is the racers responsibility to keep your racecar legal and safe at all times. You are expected to know and understand the rules. Ignorance of the rules will not be accepted as an excuse. If your racecar does not pass pre-race safety inspection you will not be permitted to race until corrected. If a racecar passes entry inspection, it is not automatically declared legal.