

FOUR-CYLINDER Mini Stock RULES

This class is intended to be an entry level class. It is primarily for new or less experienced racers to get into our sport while having fun and gaining experience before moving up to a faster class. Please remember that these rules are to allow building and racing a safe and fun but inexpensive car. If you feel the need to modify your car or to go faster than these rules allow, please move up to a different class. Think cheap and fun!

DESCRIPTION OF CAR

Any stock four-cylinder, four or more passenger car or regular or extended-cab truck allowed. No twin carb, turbo, 4x4 or rotary engine vehicles allowed. Cars must be 10 years or older. Vehicles to remain stock-appearing. No alterations or modifications will be allowed unless specifically mentioned in the following rules.

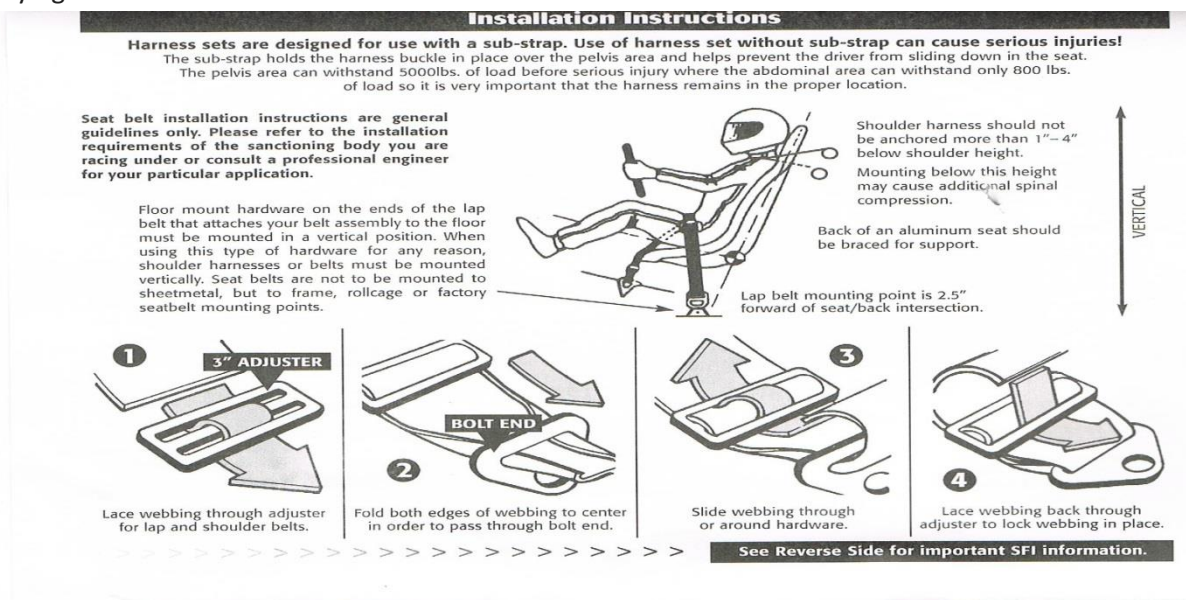
BODY

1. All flammable materials, chrome trim, pot metal and glass to be removed.
2. Firewall to remain stock and have all holes covered or filled.
3. No body panels may be removed except for driver's door panel. This may be removed for door bar installation. Driver's "B" pillar may be removed to allow easier exit from car.
4. Fenders may not be radiused.
5. Missing body panels must be replaced by the next race weekend.
6. Bumpers must be strapped to metal body or frame with securely attached minimum 1/8" thick 2" wide steel.
7. Doors must be welded or bolted shut.
8. Stock latching of hood and trunk lid must be removed and replaced with hood pins (reinforced with large diameter washers).
9. One door mirror allowed (not to protrude past door). One rear-view mirror allowed inside car.
10. All cars must have either a factory glass or Lexan windshield.

No plexi-glass allowed. Must have a vertical bar in center of windshield to deflect hood upwards in case of accident. Must be min 1/8" thick 1" wide steel. Two bars required if using stock windshield. If factory glass windshield is used driver must wear either approved eye protection or a helmet with full face shield.

11. All cars must have a driver's window net. Window net must be mounted so that it falls down when opened.

12. Quarter windows of tin or Lexan allowed for sponsors. No other windows allowed except on trucks which must use a rear window.
13. Must use racing seat. Must be securely attached to the roll cage from the lower left door bar to a bar in the center of the vehicle.
14. Driver's door may have top 4 inches (maximum) folded in to allow easier entry and exit. Top door bar must be at top of door opening if door is modified.
15. Seatbelts must be attached to cage with maximum size bolt that fits seatbelt mounts without modifying seatbelt mounts. Grade 8 or better.



16. No brazing allowed on car-parts must be bolted or welded only.
17. No plastic fire extinguisher mounts.

18. Optional spoiler on front and rear bumper, not to protrude past widest point of fender.
19. Rub rails optional. Rub rails with a maximum size of 1" x 1" 1/8" square tubing may be installed at the widest point of the body, touching the body during its entire length, wheel well to wheel well. It must be painted the same colour as the background it touches and be as inconspicuous as possible. Mounted with minimum 3 3/8" carriage bolts, with one bolt in centre of bar and one at each end, not mounted through to the roll cage. Ends must be cut and capped at 45° angle (to prevent hooking of other cars).

ROLL CAGE

1. Four point roll cage only mandatory. Cage may not be attached to the car in more than four places (i.e. door bars may not be welded to body).
2. Cage must be minimum 1 15/32" OD, .095 wall steel pipe. No exhaust pipe or galvanized pipe allowed.
3. One single bar allowed between front shock towers to keep towers from collapsing. May not attach to either firewall or rad support. Front hoop allowed but must not protrude outside of body. Bars must be tied into frame or front clip by radiator with 2 down bars maximum. Cage size pipe or smaller only allowed.
4. Must have minimum four door bars on left side (extending into driver's door) and two door bars on the right side. Top bar to be no more than 4" below top of door. Must have at least two rows of vertical bars between driver's door bars. One vertical bar between passenger door bars. Anti-intrusion plate recommended on driver's door bars.
5. Posts to be welded securely to frame or to minimum 4" square 3/16" steel plate fastened to floor with a minimum of four 1/2" grade 8 bolts. Must have steel plate under floor with bolts going through top plate, floor and bottom plate. If welding cage to frame, gusseting or reinforcement allowed to strengthen mounting area. Contact tech crew.
6. Bars that could come in contact with driver must have approved padding on them.
7. Roll cage must be passed by tech crew.
8. Gusseting of cage recommended.
9. Must use racing seat. Must be securely attached to the roll cage from the lower left door bar to a bar in the center of the vehicle. Must be bolted down with min. of 4 x 5/16 bolts on the bottom and 2 x 5/16 bolts across the top below the shoulder belt opening. All seats will have headrests.
10. Optional. May run two down bars from rear of the roll cage to the floor on top of the rear axle

SUSPENSION

1. Absolutely no modifications allowed to suspension. Wheel alignment may be adjusted within limits of stock parts with no modifications, except as noted below.
2. On all cars: Camber on right front wheel may be adjusted by stock vehicle adjustment procedure or by lengthening the control arm bolts to add shims, re-drilling or slotting mounting holes to adjust the mounting location of the strut and/or control arm. No other modifications may be done to allow adjustment.
3. On front wheel drive cars: The right front strut tower may be modified for camber purposes only and may be braced to firewall or left front strut tower. Modified upper control arm optional.
4. Skid plate on RF lower control arm is recommended. Must be minimum 8" long, 3" wide and ¼" thick with turned up ends. It must be mounted so it will contact the track before the rim or suspension.
5. May pre-load stock sway bar.
6. Springs may be cut and springs spacers allowed. (No aftermarket shocks or springs allowed)

TIRES AND WHEELS

1. All cars must use either 13", 14", 15" or 16" wheels. No rim staggering allowed-all rims must be either 13", 14", 15" or 16".
2. 50, 55, 60, 65, 70 and 75 series street legal tires allowed.
3. No aftermarket rims
4. No Z rated tires or allowed.
5. Wheels and tires not to protrude past the fenders. No Radiusing of fenders for tire fitment
6. No tires without aspect ratio on sidewall allowed (i.e. no 6.00-14" tires allowed). No studded tires allowed. Stock, DOT approved street legal tires only
7. Stock factory aluminum rims allowed.

BRAKES

1. All brakes must be in working order
2. No aftermarket brake bias allowed
3. All brakes must remain stock to make and model of car

ENGINE

1. Stock four-cylinder engine only. Maximum 2.2L engine size. No larger than 165 HP. Engine must be stock for that year and model of vehicle. No modifications to engine allowed other than removal of emissions equipment. If in the event that eco-tech motor is employed and wins 3 main events, weight will be required to be added.
2. No twin carb, turbo or rotary engines allowed.
3. Air cleaner is mandatory but type is optional. Air cleaner must not draw air from outside engine compartment.
4. Stock fuel injection allowed with no modifications whatsoever.
5. Dual cam, 16 valve engines will be restricted to 2.0L engine size.
6. In order to automatically shut off the electric fuel pump in case of an accident, rollover, etc., all cars with electric fuel pumps must use a Ford inertia switch wired into the fuel pump circuit and mounted to securely within reach of the driver while belted in . See diagram below.
7. Maximum 94 octane pump gas only.
8. Engine mounts must be stock, but may have upper and lower sections welded, bolted or chained together (to prevent mounts from breaking in the event of a crash).

9. OBD2 Connector, if the car came from factory with it, must not be removed. If it is not there then automatically illegal. (All cars 1996 and newer are OBD@ compliant).

FUEL SYSTEM

1. a) On carbureted cars with mechanical fuel pumps: stock fuel tank must be removed and replaced with an approved fuel cell or boat tank. The tank must be mounted in the trunk of the car as far forward as possible, preferably over the rear axle. Plastic tanks or fuel cell must be encased in a metal box.

b) EFI and carbureted vehicles with electric pump must be plumbed with high pressure lines and is subject to tech crew approval. Stock fuel tank must have a skid plate under it. Must be a minimum 1/8" metal, the same size as the tank with sides open to allow spilled fuel to escape. Skid plate must be attached securely and will be subject to tech crew approval. Fuel filler must be inside trunk compartment. Tank must be completely isolated from the driver.
2. Must have minimum 4" hole under tank to allow any spillage to escape.
3. Must have screw type cap.
4. Tank must be securely attached to car with steel strapping 1" by 1/16", at tech crew's discretion.
5. Must have fuel tank vent pipe extending below bottom of tank and on left side or an approved roll-over check valve.
6. Carbureted vehicles must have no more than 6 inches of rubber fuel line in any one place allowed with a maximum of 18" of rubber fuel line in the vehicle.

Note: The tech crew will not tolerate improperly mounted fuel tanks. These rules are for everyone's safety.

EXHAUST SYSTEM

1. Stock size exhaust pipe only. Mufflers optional.
2. Exhaust must exit behind driver and be pointed away from the fuel tank vent.
3. Stock exhaust manifold only for that model.
4. Catalytic converter may be removed.
5. Max 2" OD exhaust pipe.

COOLING SYSTEM

1. Cooling system must be stock with no modifications other than removal of thermostat.
2. Any OEM radiator allowed as long as it fits under the hood of the car without excessive modifications.
3. No antifreeze allowed.
4. May use electric fan or stock fan and shroud. Vehicles without shrouds may have a shroud added. All vehicles must have a shield to cover the top of the fan.
5. Must have minimum ½ gal overflow container mounted in engine compartment.

TRANSMISSION

1. Transmission must remain stock for that model.
2. Must have all working forward and reverse gears.
3. Must use stock flywheel, clutch, torque converter, etc. for that model.
4. Aftermarket transmission coolers allowed. Rubber hoses to cooler must be double clamped and no longer than 6" in one spot. Coolers must be isolated from driver.

REAR END

1. Stock rear end only for that vehicle model.
2. No posi, welding of spider gears, etc. allowed.

ELECTRICAL SYSTEM

1. Battery must be securely fastened to the roll cage and completely isolated from the driver.
2. It must be either in a plastic boat box or metal box and secured with steel hold-downs. Battery must be covered and must have plastic or rubber over the terminals. Installation must be passed by tech crew.
3. All switches must be clearly labelled and be located where safety personnel and driver (while strapped in) can easily reach them.
4. Alternators must be used and working.

Items not specifically covered in the rules are to remain stock. Any "grey areas" in the rules are to be referred to the tech crew. If you have any doubts-ask the tech crew first!!

Any equipment that the tech crew considers exotic or not in the intent of the rules will be considered illegal