

# 2012 MINI STOCK RULES

**CHANGES MAY BE MADE IF THERE IS A FURTHER NEED FOR BETTER BALANCE OF COMPETITION BETWEEN ALL TYPES OF CARS.**

## CHASSIS

### 1. BODY

- A. Body classifications are limited to Canadian, American or foreign subcompact automobiles.  
**JDM (Japanese Domestic Market) and vehicles not produced for the North American market are not eligible. No right hand drive vehicles.**
- B. They must meet Canadian/American factory published specifications for the year, make and model of car.
- C. Cars are to be 103 inch wheelbase or less. Wheelbase must be painted on drivers' door, 2" high.
- D. Cars must have a steel roof.
- E. All holes in the flooring **and fire walls** will be sealed with minimum 20-gauge steel.
- F. Cars must have the stock hood and trunk lids securely fastened and easily removable by Safety Personnel. Inner bracing may be removed.
- G. Trunk must have the complete floor.
- H. Glass must be removed from the car except the windshield.
- I. No door handles or chrome is to be left on to constitute a safety hazard. All decorative chrome must be secured or removed.
- J. No gutting of the inner fenders.
- K. Must have bumpers front and rear. Bumpers must be mounted in stock location and be of the same basic design as stock factory bumper. No crash bar style bumpers allowed.
- L. Bumpers must have rounded ends so that they cannot be torn off or hooked. Must be strapped to the body.
- M. Cars must have accessible tow hooks, front and rear of car and be behind bumpers so as to be safe from impact.
- N. No sports cars or two passenger cars. No convertibles or four wheel drives.
- O. Body swaps are allowed but must be make to make and all parts and donor pieces must comply with 1. (A) (B) (C) (D).**

### 2. INTERIOR

- A. All flammable material must be removed from the drivers' compartment.
- B. After market gauges are allowed.
- C. Front doors may be cut out to accommodate the roll cage. Door skins must be of the original thickness and material.
- D. Cars must have firewalls isolating driver from the engine and fuel.
- E. Transmission and/or fuel lines in the drivers' compartment must be mechanically protected inside a metal conduit that is secured to the contour of the floor pan in a secure manner. The conduit must pass through front and rear firewalls and be secured. Line housed inside conduit must be of one continuous piece. No splicing or connections inside conduit. Recommended steel or braided fuel line.
- F. Car must maintain stock metal interior. No interior sheet metal gutting.

### 3. EXTERIOR

- A. The original silhouette must be maintained top to bottom, front to rear.
- B. Cars are to appear as factory stock with one exception, the drivers' door window may be widened to allow easier exit for the driver.
- C. Spoilers must have radiused corners, maximum 6 inches high from the deck lid.

### 4. WINDSHIELD

- A. A full windshield is required.
- B. Four strong tabs outside if glass windshield. If using Lexan a minimum of 3/16 inch rivets at maximum six inch spacing.
- C. Sealed to cowl at least is mandatory.

### 5. WEIGHT

- A. Weight/engine size must be painted on hood.
- B. Cars scaled with driver after race.
- C. Carbureted cars to weigh one lb. per cubic centimeter (engine size).
- D. SOHC fuel injected cars to weigh one lb. per cubic centimeter (engine size).
- E. **DOHC engines add 75 lbs. to total weight (carbureted or fuel injected).**
- F. Left side rule is 55% with driver belted in.
- G. **Cars that have factory shock towers removed add 25 lbs. to total weight. Weight (25 lbs.) must be mounted**

**forward of the front fire wall and be removable to be weighed by Tech.**

- H. **Cars that have sheet metal from trunk or rear inner fenders removed (gutted) add 25 lbs. to total weight. Weight (25 lbs.) must be mounted behind rear axle and be removable to be weighed by Tech.**
- I. Lead ballast is allowed and must be securely fastened above the bottom of the frame with a minimum of two, ½ inch bolts. Ballast must be painted white and have the car number on it.

## **6. FRAME AND SUSPENSIONS**

- A. Suspension and steering is to be factory stock. All part numbers must remain intact. Alteration or removal of part numbers will make that part illegal and the car subject to disqualification. **No racing style joints (i.e. Heim joints) allowed.**
- B. Lowering and/or changing of springs is allowed.
- C. **Jacking bolts or threaded sleeves over shock or strut tube allowed.**
- D. Stock sway bars in original mounting position.
- E. May have adjustable links between sway bar and suspension.
- F. McPherson strut type cars, the tops of the front strut towers may be moved to facilitate caster/camber adjustments.

## **7. ENGINES**

### **CARBURETED ENGINES**

- A. Four cylinder engines.
- B. Must be same manufacturer as the body, i.e. Toyota-to-Toyota, Honda to Honda.
- C. Maximum displacement 2300 cubic centimeters.
- D. **DOHC allowed (see weight section).**
- E. Maximum .040 inch overbore.
- F. Balancing of engines and lightening of flywheel is allowed.
- G. Power to electric pumps must be interrupted when the ignition is turned off. A Hobbs type switch is required.
- H. Any reground camshaft allowed.
- I. **11.0 to 1 max. compression ratio.**
- J. No stroking, de-stroking or de-tuning of engines allowed.
- K. No mixing of 2.3 and 2.5 Ford engine parts.

### **HEADS, CARBURETOR AND INTAKE MANIFOLD**

- A. Cylinder head may be surface machined any amount. No porting, polishing or altering allowed.
- B. Stock single carburetor.
- C. Optional carburetors in place of O.E.M. are the Holley 5200 or equivalent and the Holley 350cfm.
- D. A 1-¼ inch spacer/adaptor maximum. Bolt on assembly only.
- E. Stock O.E.M. single plane manifold. No fuel injection air plenum manifolds. No grinding of intake manifold allowed.
- F. No turbo chargers. No superchargers.
- G. Air filter with metal lid is mandatory.
- H. One air duct allowed.

**NOTE: IF AN EXISTING CARBURETED CAR, THAT WAS ORIGINALLY FUEL INJECTED, WISHES TO RETROFIT BACK TO THE STOCK FUEL INJECTION SYSTEM IT WILL BE REQUIRED TO CONFORM TO ALL FUEL INJECTION RULES.**

### **FUEL INJECTED ENGINES**

- A. Four cylinder SOHC or DOHC engines.
- B. Maximum displacement 2300 cubic centimeters.
- C. Maximum .040 inch overbore.
- D. **Must be same manufacturer as the body (i.e. Toyota to Toyota, Honda to Honda).**
- E. **Engine must remain stock (i.e. Stock internals, stock cam/s, stock cam pulleys). Untouched factory engines or stock rebuilds only.**
- F. **Fuel injection system is to remain stock. Intake manifold, throttle body, mass air flow sensor, injectors, wiring harness and all other components related to fuel injection system must be stock for engine used.**
- G. **Stock computer for engine used must be used. Chips, removal of factory rev limiter and retunes of factory ECU allowed. No stand alone systems (i.e. Mega Squirt, Motec).**
- H. Power to electric fuel pumps must be interrupted when the ignition is turned off. A Hobbs type switch is required.
- I. **Aftermarket air cleaner and intake tube allowed. Must use factory mass air sensor.**
- J. One air duct allowed.

## 8. EXHAUST

- A. Must have a muffler(s), maximum 95db measured at Tower and in the pits.
- B. Exhaust systems must exit from under the car body.
- C. Headers allowed. No ceramic or any other type of coating allowed.**
- D. Catalytic converters may be removed.

## 9. DRIVETRAIN

- A. Transmission must be stock.
- B. Automatic transmissions must use a reverse gear lock out.
- C. Cars with automatic transmissions must be equipped with a minimum 1 litre catch can mounted so as to be easily accessible.
- D. A scatter shield or approved device required. Minimum ¼ inch thick steel or approved blanket, i.e. metal reinforced conveyor belt at least.
- E. Drive shafts must have at least one U shaped retaining bracket installed near the front of the drive shaft. If the car has a two-piece drive shaft, it will need two hoops.
- F. Drive train and body must be the same brand.
- G. No locked differentials. No limited slips.
- H. **Must have stock clutch.**

## 10. WHEELS, TIRES AND BRAKES

- A. Cars must have four stock wheel brakes in good working order.
- B. **Single, stock style, master cylinder only.**
- C. **Wilwood style brake bias adjustment allowed.**
- D. **Tires will be 13 X 7 GOODYEAR short track special, 22 or 23 inch. A400 compound only.**
- E. 13 inch steel or aluminum wheels to a maximum 7-inch rim width permitted. Any non-racing approved steel rims used on right side must be reinforced.
- F. Longer and stronger approved wheel studs may be used.
- G. No bleeders.
- H. No ABS. Cars so equipped must remove or disable the ABS control units.
- I. **Maximum track width of 73" measured outside of sidewall to outside of sidewall. Measured at center of wheel.**

## 11. SAFETY

### GENERAL

- A. Radiators must be in front of engine and must have a minimum 1 liter catch can.
- B. All cars must have a working 2-½ lb. fire extinguisher within easy reach of the driver.
- C. Doors must be welded, clamped or bolted shut securely.
- D. Mirrors must be securely mounted to cage.
- E. All body metal must be folded over and /or duct taped. No sharp edges.
- F. All cars are required to have a skid plate under the right hand front suspension, in order to prevent track damage if a wheel hub breaks.
- G. Side rub bars must be strapped to the fenders or quarter panels, within the tire lines.

### FIREWALLS

- A. All holes will be sealed with 20-gauge steel.
- B. A sealed metal trunk compartment is needed for cars without a package tray, i.e. hatchbacks, etc.

### BATTERY

- A. Battery must be securely mounted and sealed in a metal battery box with a lid. Locate outside of fuel compartment.
- B. Battery kill switch mandatory. Must be identified and on the left side of the car within easy reach of the Safety Personnel.

### FUEL CELL

- A. The stock fuel tank must be removed.
- B. Racing approved fuel cells are mandatory. Cells must be equipped with foam.
- C. Maximum capacity 6 Imperial gallons.
- D. 8 inch ground clearance minimum.
- E. Must be fully encased in metal, mounted safely within roll cage extremities. Retain with four straps, one inch x 1/8-inch steel flat bar minimum.
- F. Vent tubes from the tank must exit the car below the bottom of the trunk.
- G. All cars to run pump gasoline. No racing fuels, aviation gas or alternate fuels.
- H. A ground strap from filler neck flange to the frame is mandatory.

## **ROLL CAGE**

- A. Roll cage required, minimum eight points to chassis.
- B. Must be minimum 1 ½ x .120 inch steel tubing or 1 ¾ inch x .095 inch steel tubing.
- C. There must be a minimum of four door tubes on the driver's side parallel to the ground and at least four passenger side door tubes. Stock door with beam or solidly mounted side rub rail counts as one tube.
- D. Cage main points mount on base support/sandwich plates. Hold with four bolts and/or weld to the floor pan in a safe manner. Structural ties required.
- E. No left side cages. No offset cages. Must be centered.
- F. Main hoop must be cross-braced.
- G. A windshield bar and padded center roof bar must be installed.
- H. Front upright tubes must have dash bar.
- I. Two cage tubes will be placed from the upper rear corners of the main hoop, rearward, to frame members behind the fuel cell. J. One bar may be installed for radiator protection but must not protrude past the bumper and must be of inferior material to that of the roll cage.
- K. Main joints must be gusseted.
- L. Cages must have an ankle bar on the left and a bay bar system which links roll cage from right front frame rail to left rear shock tower.
- M. Roll cage members adjacent to the driver must be padded.
- N. Head clearance minimum 2 inches. More is better.
- O. Mandatory anti intrusion plates on driver's door bars. 1/8-inch minimum steel plate. **See cage diagram for details.**

## **SEAT, BELTS AND WINDOW NET**

- A. Cars must have a safety approved aluminum bucket seat.
- B. Seat is to be mounted securely to roll cage with a minimum of four 5/16" bolts, subject to Tech. approval.
- C. Seats will have headrests supported by roll cage.
- D. Cars must have an approved harness mounted to the roll cage.
- E. Shoulder belts must be fastened below shoulder height.
- F. Belt certification 5 years maximum.
- G. Drivers window must have an approved safety net with a quick release catch at the top. Mounted with minimum 3/8 inch diameter unthreaded steel rod, top and bottom. Window net certification 5 years maximum.

**If something has not been covered in these rules it is the car owner's responsibility to clarify all issues with Tech. It is the responsibility of each Mini Stock driver to carry specifications for his/her car (chassis and engine) to prove legality in the event of any protest.**

**The final decision of the Track Officials and their interpretation of these rules will be the final ruling.**



