

2026 Mini Stock/4Cylinder Rules

Section 1. General

Southwest Mini Stock shall hereafter be referred to as SMS

Throughout the rules and descriptions. Any interpretation or deviation of these rules is left to the discretion of SMS board and tech official group. Their decision is final.

1. General Rules

- All SMS vehicles are subject to inspection at any time.
- Approval of an SMS vehicle by the inspectors shall mean only that the Vehicle is approved for participation.
- If these rules don't specifically say what you can do, you can't do it!! Always contact technical inspectors when rules or parts are in question.
- All rules are subject to change by the tech board. It is the responsibility of the competitor to obtain, and become familiar with the current general rules

Pertaining to the division in which he/she chooses to participate in. Any item not covered in the Southwest Mini Stock rules section must be stock or approved in writing by SMS technical officials.

All participants are deemed to have obtained, read and understood a copy of the current rules,

You are responsible for knowing the rules. SMS reserves the right in the Interest of competition to make changes as needed.

1. Competing Models: 1972 thru present mass produced 4 cylinder passenger cars, 2 or 4 door models allowed. NO convertibles, NO 2 door sports cars, NO CRX, eclipse, RSX, miata, etc. NO mini vans. No rear, mid, or opposed engines allowed. NO AWD, AWD conversions, or 4x4 models permitted. Preapproval of any questionable make/model required.

2. Ex mini sports with OE frame will be allowed upon approval of SMS with additional restrictions and requirements.

3. Overall weights: All racecars will weight a minimum of 2300 lbs with a 55% maximum left side weight. All weight rules are general specification. Weights and percentages may be adjusted on a per race basis to balance the lap times if needed for competition purposes. All weight and percentage rules are measured before the race and adjustments may be made at that time. Car with driver will be checked post feature to ensure compliance.

4. Weight Standards: All cars will have to weigh 1LB per CC (min. 2300 LBS). Ford 2.5 and ex mini sports will weigh a MINIMUM of 2550 lbs. Percentage overages within the first .1% will be allowed, 55.01.09%)

5. Communications: Mirrors and two-way radio communication are NOT allowed. All cars will be required to monitor the radio frequency used by MVR. This will allow for quicker line-ups and restarts. Driver can receive MVR transmissions. 454.0000. Raceceiver or Scanner will need to be used during all on track activity.

6. Appearance: All bodies must be neat appearing; tech will have final judgment. All body panels and edges must be smooth to help reduce unnecessary tire cuts. All panels must meet 4" minimum height. (this includes nose, side skirts, and tail pieces) Bodies are allowed to be gutted and small modifications may be done to meet chassis and tire installation.

7. Transponders: All cars will be required to use an AMB style transponder. Transponder may be direct wire or rechargeable. Transponder must be mounted with a clear view to the ground.

8. Identification: All OE production vehicles must have VIN number to verify Make and Model of vehicle and to verify powertrain as delivered from manufacturer. NO engine series swaps. Must use engine and transmission as delivered OE (ie: Honda K or H series swaps into a D series or GM cast 4 cylinder to eco-tec).

Section 2.

1. Inner panels: Stock firewall and floor-pan must be intact. Floor-pan may be fabricated but it MUST cover entire floor area between the front and rear firewalls. Firewalls MUST remain in stock locations. Bodies from any manufacturer can be used. Bodies may be fabricated.

2. Bodies: Bodies must be stock appearing for make and model. Doors, fenders, quarters, and trunk-lid may be steel or aluminum but MUST be stock in appearance and size. Hoods must be stock, aftermarket steel. Tail section of car must be closed and no cut-outs or openings are permitted. Aftermarket noses and tails pieces are allowed.

3. Aftermarket Bodies: Cars may use aftermarket bodies. Dirt late model noses will not be permitted

4. Spoilers: MUST be placed aft of trunk lid or aft of rear window base. May be constructed of lexan, steel, or aluminum. Stock spoilers allowed.

5. Windows: Lexan Quarter, and rear windows allowed but not required. Door windows are not permitted.

6. Rub rails: Exterior rub rails are allowed only between the front and rear tire and MUST stay in contact with the body their entire length. Steel rails MUST be secured to the cage in two places. Plastic rails may be riveted to body with a minimum rivet spacing of twelve inches.

Section 3. Chassis

1. Tubing: Stock chassis may be tubed in front of strut towers, but must remain unaltered from strut or shock location to rocker panel. Chassis may be fabricated with tube beyond rear strut or shock towers. Tubing can be used to connect front and rear sub frames must be identical side to side. Piping is allowed to pass through either firewall. Caster/Camber plates are permitted and the top of the strut tower may be slotted for adjustment.

2. Roll Cage: Main cage must be constructed using a minimum pipe size of 1.5" X .095. Frame tubing must be minimum 2"x2"x.125. Main cage is defined as "any area between the factory firewalls". Drivers door bars must be plated (18 gauge minimum) or covered (.250 minimum) to reduce the risk of driver injury. Mandatory 3 down bars in front of driver windshield.

3. Strut Towers: Strut towers must remain in factory locations, no movement of any factory placed suspension or chassis mounting points is permitted. No modification of stock sub frames allowed, i.e. cannot be cut open, tubed inside and resealed. Engine cross member must be stock OEM and unaltered.

4. Removed Strut Towers: Cars that have tubing from firewall forward and removed strut towers will be subject to a 250LB weight penalty. Penalty may be increased if SMS deems necessary to even field.

5. Fuel Cell: Fuel Cell must be enclosed in a steel container. Fuel cell must have a rear crash bar in case of accident. Fuel cell must have fire wall mounted in between the cell and driver.

6. Lead: Lead weight may be added to achieve percentages and overall weight required by the SMS. All lead must be painted a solid color and have the car number painted or decaled onto the lead. Any cars losing a piece of lead during a race will face immediate disqualification.

Section 4. Suspension

1. Disclaimer: The rules within this section are made with GRAY AREAS in mind. We expect teams to take advantage of these gray areas but NOT violate the rules specifically written. Suspension mounting points MUST remain STOCK! Control Arms, Spindles, ETC MUST remain STOCK! Items not specifically covered MAY be fabricated and altered for handling & performance enhancement

2. Shocks: OEM or stock replacement shocks and struts only, Bilsteins Allowed. No racing adjustable (rebound/compression) shocks/struts allowed. No performance or threaded body shocks/struts allowed. Raceland Coilover Kits , height adjustable only are allowed, no damping adjustment provisions are permitted. Maximum 1 shock/strut per wheel, 4 total per car. Coil-over sleeve kits allowed. Weight jacks and adjustable spring cups are legal. Adjustable strut plates are allowed.

3. Ride Height: All cars must meet a 5" inch suspension ride height. Ride height will be measured at factory floorboard next to unibody

4. Springs: Racing springs allowed. Any Diameter, any height is permitted.

5. Tread Width: Maximum tread width 72 inches measured from outside bead to outside bead. Bead is defined as the outside lip of the wheel used.

6. Sway Bars: Any size sway bars can be used, front or rear. Sway bar does not need to be factory for make and model used.

7. Bolt-Ons: All suspension parts (a-frames, spindles, hubs, etc) must be unaltered OEM. Mustang may use QA1 K-Member.

8. Brakes: Four wheel brakes must be in working order. Brakes must be OEM or OEM replacement type. No exotic, aftermarket or racing brakes allowed. Cars can be converted to rear disk brakes using factory materials, factory materials can be used from ANY make and model. Aftermarket brake pedal assemblies are permitted.

9. Control Arms: Rear control arms may be fabricated from heim joints

and radius rods. RWD may have a ¼" adjustment plus or minus stock length.

Section 5. Wheels and Tires

1. Wheels: 7 or 8 inch wide wheels with any production offset may be used. No mixing of rim diameter or width on car. Spacers may be used. NO homemade or altered wheels will be allowed. Racing wheels allowed. 1 inch lug nuts are highly recommended on all four wheels.

2. Tires: DOT only tires. Max 235mm tires. NO race tires, NO snow or mud tires. Treaded 7 or 8 inch bias ply or radial. ALL TIRES MUST BE SAME SIZE!!!!

Section 6. Engine

1. Engine Identification: All cars MUST have VIN intact for verification purposes. SMS will check to verify engine series/style matches OE as delivered from manufacturer.

2. VVT: All cars with a variable valve timing system will be required to use make and model specific engines. Cylinder head and block must match. No mixing of VVT engines, heads, or models.

3. Block: Block must be stock for vehicle. 2540cc maximum displacement (Actual displacement, not advertised engine size will determine the minimum car weight) Maximum overbore .040. Compression ratio may not exceed 12.5:1. No stroking/destroking of engine. 225 psi MAX cylinder pressure.

4. Heads: Milling of head is allowed. No porting or polishing of any kind. The cylinder head must be stock for vehicle. The combustion chamber must not be modified at all. Ford 2.3/2.5 will be allowed to use Race Engineering Cast Iron replacement head.

5. Valves: Engine valves must remain stock size for the engine being used. 1mm Oversized replacement valves are allowed, must be used in conjunction with factory sized valve seats. Stainless Steel OE replacements are allowed. Valves may use narrow stem. Ford 2.3 will be allowed to use 1.89/1.59 valve combination. (Oversize valves must use .470 camshaft or smaller)

6. Crankshafts: Crankshaft MUST be OEM stock, no knife edging or weight removal allowed. No aftermarket cranks. Crankshafts may be balanced. Aftermarket pullies are allowed.

7. Camshafts: Camshafts max lift .550 at the valve(stock valves) or max of .470 for oversized valves, must be flat tappet, non-roller style valve train. Valve train must match make, model, and year of car declared. **Fords, no roller rockers, lifters, or camshafts.** Lift is measured at the outermost portion of valve retainer. VTEC will require camshaft removal for lift inspection. ALL LOBES will be checked on VTEC equipped cars.

8. Pistons and Rods: Must be stock appearing. No light weight piston or rods allowed. All replacement rods and pistons MUST have a weight equal to or greater than the stock part.

9. Carburetor: Carburetor must be stock bore; 500cfm MAX OE or Holley 4412 is allowed. Must have choke horn INTACT. NO air flow or air ram parts. Choke plate MUST be removed to allow inspection. 1" spacer or adapter between intake and carb allowed. Carbs found illegal will be confiscated

10. Fuel Injection: Fuel Injection is allowed. Stock OE fuel injectors only. Stock OE fuel rails and non adjustable regulator ONLY. OE throttle body for fuel injection. SMS Reserves the right to add air restrictor in the intake piping to level the field of competition if needed to any EFI competitors car. Cold air style from filter to throttle body allowed.

11. Air Filter: Air filter may stick above hood but will need to be covered so the filter is not exposed to open air. EFI cars must leave air filter in engine bay, filter must not extend ahead of radiator. Air filter spacer in between carb and filter is allowed up to 1"

12. Intake manifold: No porting or polishing of any kind. MUST use a stock OE intake manifold for make and engine used. Gasket matching is legal.

13. Cooling system: Any radiator may be used and MUST be mounted forward of engine.

14. Exhaust: Headers will be allowed; 2.5" maximum exhaust pipe diameter after muffler.

15. NO forced induction. NO superchargers NO turbochargers

Section 7. Transmissions

1. Transmissions: Transmission must be a stock unit for make and model; gear ratios may be swapped from other factory units. Must have 4 forward gears in working condition. 5th gear lockouts may be used but will need to be removed for transmission inspections.

2. Final Drive (FWD): All front wheel drive cars allowed to have locked front end. No Limited Slip

3. Driveshaft: Driveshaft must be steel and painted white. Shaft MUST have 1 driveshaft loop within 18 inches of the forward u-joint.

4. Clutch: Clutch must be functional, single disc, or puck style clutch with a stock finger type pressure plate.

5. Flywheel: Must retain stock diameter. Dodge Neon: Factory riveted clutch/flywheel assembly.

Section 8. Rear End

1. Rear Ends: No quick change units allowed.

2. Control Arms: Control arms may be reinforced, off-set bushing allowed. Fabricated heim joint arms allowed, 1/4" +/- maximum adjustment

3. Camber: No camber changes allowed to rear wheel drive solid (non-independent) rear ends.

4. Differential: Welded or open rear ends only, No limited slip, spool, or true-trac type assemblies.

Section 9. Electrical

1. Ignition: Stock ignition systems only, no magneto or MSD systems allowed. High output coils allowed if stock appearing. Aftermarket distributor may be used. Must be run from factory electronics. NO

MSD BOXES ALLOWED.

2. Starter: Any starter in working condition. Alternators are optional but recommended.

3. EFI: Fuel Injection computer must be stock OEM style computer, factory computer upgrades allowed. NO piggy back systems. Cannot be adjustable or tune able from inside of vehicle in any way. Chips

and Flashers allowed to re-tune settings. Must use the actual factory computer unit. ** NO STAND ALONE UNITS ALLOWED WITHOUT PERMISSION FROM SMS OFFICIAL.

4. Firewalls: All wires and/or fuel lines that cross through any firewall will be required to maintain a rubber grommet to prevent arcing.

Section 10. Safety

1. Racing Seat: Racing seats must be used and must be attached to the cage by a minimum of four 3/8" bolts. SMS highly recommends the use of a containment seat system. The minimum of 1 headrest must be used on the passenger side of the racing seat.
2. Restraint Systems: SMS HIGHLY SUGGESTS the use of a head and neck restraint system. Hutchins, HANS, Leatt, Neksgen, etc or neckbrace
3. Fire suits: Full 1 or 2 piece single layer minimum driving suit is required. Racing gloves and shoes are required.
4. Helmets: All drivers will be required to present a motorsports accepted racing helmet every season and after every wall impact. Any helmets deemed to be unsafe will need to be exchanged before the driver is allowed to take the track. Helmets must be SA rated with a 2015 date code or newer.
5. Steering Shaft: Aftermarket steering shaft recommended. Must have quick release steering wheel. Steering wheel can be made out of steel or aluminum.
6. Harness: Five Point racing harness required, date must be within 3 years of manufacture. Harness installation will be inspected. Drivers will not be able to race if the harnesses are installed against manufacturer suggestions or out of date.
7. Window Net: Window net required may be ribbon or mesh. Latch can be spring, buckle, or clip style
8. Battery: It is suggested that the battery not be mounted within the engine compartment. Must be secured or in a battery box.
9. Fuel Cell: Required to have a fuel cell. Fuel Cell area must be separate from driving compartment. Fuel lines are not permitted to be run through the driver's compartment. Firewall cannot be made from aluminum.
10. Fuel Pump: Electric fuel pump allowed for carburetor vehicles. Electrical on off switch must be located within reach from outside of car.

Disclaimer; These rules were created to help provide equal competition among a diverse field of cars, drivers, and teams. These rules may be revised by SMS board during the race season should it be deemed necessary. When a rule change is deemed necessary, a post alert will be sent to all. These changes will be effective one week after they are posted. Any cars found to be non-compliant may be assessed penalties which may include fines, loss of laps, loss of purse, (partial or full)

This group is on the Mohave Valley Raceway schedule but is independent and not part of the raceway. ANY AND ALL DECISIONS BY THE GROUP "BOARD" ARE FINAL. Mohave Valley Raceway will have no involvement in decisions or be involved at any time with complaints. Don't even try to talk to them you will be turned away and directed back to us.

If you have any questions or concerns please reach out to:

Steve Hartwick 928-577-7487

Jonnie Little 760-680-6237

