



## 2014 SOS Pure Stock Rules

### **GENERAL RULES:**

Age requirement is 14 years of age and up. Ages 14 -17 must have a notarized release form signed by their legal guardian/parent and birth certificate on file.

### **Weight Rule Cars:**

3400 pounds

### **BODY AND FRAME:**

Chassis must be an American made passenger car only. Metric framed GM or Ford cars are allowed. Nova chassis are allowed. Station Wagons must be metric framed only with enclosed rear compartment, Elcaminos and Rancheros ok. No other makes or models will be accepted. Frame must remain unaltered in wheelbase and width as defined by OEM original specifications. No Camaros, Firebirds, Cadillacs, Town Cars, Mustangs or Corvette Chassis allowed. No commercial vehicles, convertibles or sports cars. Vehicle must retain stock body pieces, floor pan, and stock firewalls. Any rusted pieces must be replaced with 20 gauge steel. Trunk area floor pan required; may be removed outside of frame rails, behind the wheel houses. If you're not sure about the being legal, ask before building.

1. Fenders may be cut for tire clearance. Cutting will not exceed 7 inches of the tire circumference.
2. Front inside fender wells may be removed.
3. Body sheet metal must be in place at the beginning of each race event and kept in an acceptable appearance throughout the season.
4. Doors must be welded or bolted shut.
5. All glass, fiberglass, plastic and trim must be completely removed from the car.
6. Car must remain stock appearing. Five Star Race Bodies or Performance bodies, the steel stock replacement for the hoods, decks, fenders and doors. No aluminum or composite body parts allowed.
7. Hood and trunk must be secured with hood pins at all times. No holes allowed in hood except for hood pin holes.
8. All openings in car that could present a safety hazard to car occupant must be sealed with 20 gauge steel.
9. Stock OEM bumpers are required for the same year, make and model of car. The Five Star Race Bodies front and rear bumpers may be used. Bumper loops are also required in front and rear to protect the radiator and fuel cell. The tubing must be a minimum .095 x 1 ½ O.D. with a maximum height of 6 inches tall and not wider than the frame.
10. Body may not be altered from its OEM appearance and must remain in stock location. No roof raking.
11. One nerf bar is allowed on each side of the race car. Each nerf bar will not exceed 1½" outside dimension, and may be of square or round steel tubing. Forward end of nerf bar will be rounded and closed, with no sharp edges, and will be rounded, or bent, in toward body sheet metal @ a 90 deg angle. Neither nerf bar will extend past the front edge of the

front door or extend past the front edge of the rear wheel opening. No part of any nerf bar will extend out past the outer line of the tires.

### **ENGINE:**

1. Any straight or V-6 cylinder or V-8 engine with a maximum 361 cubic inch engine: must remain in stock location. Stock motor mounts are required, may use OEM stock steel replacement motor mounts, which must be bolted into stock location. Flat top or dish pistons only, 2 or 4 valve relief, must be cast, no forged pistons. Rods must 5.7 only. Stock OEM or OEM replacement cranks, no lightening holes or knife edging allowed.
2. Cylinder heads must be stock of year, make and model. (305 ON 305, 350 ON 350, ECT.) No closed or partially closed chambered heads. No Vortec heads. Maximum 1.94 intake valves and 1.50 exhaust valve and minimum 72cc heads. Heads may be flat milled for surfacing reasons only. No angle milling. **Guide plates may be used. Studs may be pinned or may also use screw in studs not to exceed 3/8"**. Casting # must remain in heads. No interior deburring or grinding allowed.
3. Cast iron intake manifolds only. No bowtie, marine, or high-rise intakes. No aluminum intakes (even if OEM for year, make and model came with an aluminum intake). No deburring or grinding allowed. No internal modifications of any intake permitted.
4. Carburetor: A 500 cfm Holly 4412 only. This will be teched with go-no-go gauge. Removal of the choke flap is the only modification allowed. Ram air or forced induction NOT allowed. An adapter/spacer will be allowed under the carburetor, maximum 1" thickness.
5. Any brand, style or size air cleaner is allowed, but must fit under the hood. No type of RAM air or forced air induction will be allowed.
6. After-market valve cover with breather tubes may be used.
7. **Camshaft and lifters** Camshaft and lifters must be OEM hydraulic style only; Roller lifters of any type are not permitted. Camshaft lobes must not exceed 300. Maximum valve lift allowed is .450", measured at the valve. Mechanical lifter may be used by tech, for testing purposes. Engine must have accessible vacuum port! Engine must hold minimum of 15" vacuum at 1000 engine RPM. (.300 with 1.5 rocker arms equal .450 at the valve) 1.6 rocker arms not allowed.
8. Exhaust manifolds must be stock cast iron only. No corvette style (2.5" port exhaust) stock manifolds. No porting, polishing, acid treatment or coatings. Exhaust pipes must extend past driver's compartment.
9. Maximum engine cranking compression is 160 psi. For testing, with one or all spark plugs removed from the engine, the engine rotating assembly will be "spun" by the starter, for five "hits" on the cylinder being tested, and the resulting compression gauge reading recorded for that engine.
10. Oil pans must have a 1" inspection plug. The plug should be located on the left hand side approximately 2" down from the pan rail and in line with a connecting rod assembly that is convenient to look at when the pan is installed in the car.
11. A serpentine belt system may be used for water pump and power steering.

### **ROLL CAGE:**

1. Roll cage must be constructed of no less than 1.5" x .095" steel tubing. Main roll cage and halo must be a minimum of 1" above drivers head. A minimum of 3 drivers door bars are required and a minimum of 2 passenger door bars are required. All roll cage welds must be complete.
2. Driver's side door plate with a minimum thickness of 1/8" thickness. Plate must extend the full length of the door.
3. Floor pan may be cut for roll cage installation clearance only.
4. X bracing under the driver (frame to frame) and sub frame connectors is permitted.
5. Windshield bars must be solid steel bars, minimum 3/8" OD. Windshield bars must extend from upper windshield flange at roof to lower windshield flange at cowl. A minimum of three vertical windshield bars are required in front of driver. The windows bars must be covered with hardware cloth.
6. Driver must be in stock OEM seating location.

### **ELECTRICAL:**

1. All cars must have an ignition switch clearly labeled.
2. The car must have a battery disconnect switch located outside the car and easily accessible to emergency personnel. If the car is equipped with a working alternator the switch must disable alternator as well.
3. Only 1 twelve volt battery is allowed. Battery and box must be securely mounted and enclosed if in driver's compartment or trunk.

### **FUEL CELL:**

1. Fuel cell must be securely mounted in trunk of car between frame rails using a minimum of 1" straps or 3/8" cable.
2. All cars must have a fuel cell with maximum capacity of 22 gallons. All fuel cells must have a roll-over valve. No plastic boat tanks.
3. You can run Super Unleaded pump gas, Aviation Gas or Race fuel with no additives.

### **TRANSMISSION:**

Any stock transmission is allowed. All torque converters must be 12 inches with no modifications. All forward gears must be in working order on all transmissions, with a neutral and working reverse. No over-drive transmissions. All standard transmissions must be OEM stock with all forward gears and reverse in working order, and a minimum 10.5 inch clutch, pressure plate, and a full size stock fly wheel. Standard transmissions must have a ¼ inch steel plate covering the bell housing 180° over the sides and top of clutch assembly or blow proof bell housing. No aluminum or light weight flywheels. No 4, 5, or 6 speed standard transmissions, no overdrives. Car must be self-starting. Transmission cooler OK but must be out of drivers compartment or shielded to protect driver. With engine at idle, and brake applied, transmission must accept shift from "neutral" gear to "reverse" gear and from "neutral" gear to "low" gear, without causing engine to stall. Race car must remain stationary during such shifting and testing.

### **DRIVESHAFT:**

1. All drive shafts must be steel and painted white with the car number on it.
2. Drive shaft must have a safety loop within 6 inches of the front u-joint. No chain loops allowed.

### **REAR-END:**

Rear-end must be stock OEM for make and model of car. Any gear ratio is allowed as long as the housing doesn't have to be altered. Rear end must be locked. Mini spools are OK. No limited slip or posi-traction.

### **BRAKES:**

Brake system must remain stock OEM to make and model. No aftermarket components of any kind. Stock pedal and stock OEM master cylinders required. Brake pedal may not be extended. Car must have a minimum of 3 wheel brakes in working order at all times. Right front shut-off valve is allowed.

For safety purposes, rear disc brakes will be an option. Rear disc brakes must have steel components only. Brake caliper must be of single piston type only.

### **STEERING:**

Steering must use stock OEM steering for make and model. May use after market steering shaft and quick release steering wheel disconnect. Quick steer is optional.

### **SUSPENSION:**

Suspension parts must remain stock for make and model. No modification to any suspension components. No adjustable or non-adjustable spring spacers. Stock appearing double pig tail racing spring allowed (steel only). Leaf spring cars may use lowering blocks. No racing shocks, this includes Afco, Pro, Bilstein, QA1, or Integra shocks that are painted over. A-Arm bushing may be replaced with stock style OEM type only.

### **TIRES:**

1. 60 series race tires will be allowed: Hoosier G-60, American Racer KK704 G-60, and Southwest Speed Dirt 60.
2. No mixing of tire brands.

### **WHEELS:**

1. Any 15X8 inch steel wheel permitted.
2. 5/8 studs and 1 inch lug nuts are recommended.
3. No bead locks, wheel spacers, adaptors or tire screws are allowed.

### **RADIATOR:**

Only one radiator is permitted in stock location. Aluminum radiator allowed.

### **FUEL PUMP:**

Fuel pump must be stock mount push rod activated. Aftermarket manual type pump is OK. (Example: Carter, AC, Holley)