



## **2024 4-Cylinder STOCK Rules**

***General:** These rules and regulations are designed to govern driver and crew member conduct during GSS racing events. By participating in these events, all drivers are required to comply with these rules. While GSS makes no claim of guaranteed safety, these rules are enforced as a guide for the conduct of the sport. GSS is in the entertainment business. Drivers, Owners, Crew and GSS Staff cooperate to provide this exciting level of entertainment. All rules, race scheduling and structure, are designed and implemented to support a balance between competition and entertainment value. Drivers and crew are required to conduct themselves as professionals at all times. GSS may change any rule at any time in an effort to reduce the cost of racing, maintain equal competition, or improve safety.*

**ALL EQUIPMENT IS SUBJECT TO THE APPROVAL OF GSS OFFICIALS. NO EQUIPMENT WILL BE CONSIDERED AS HAVING BEEN APPROVED BY REASON OF HAVING PASSED THRU INSPECTION UNNOTICED. EFFORTS TO TAKE ADVANTAGE OF "LOOPHOLES" IN THESE RULES WILL NOT BE TOLERATED. ALL RACE CARS WILL BE SUBJECT TO INSPECTION BY TRACK OFFICIALS AT ANYTIME.**

# 2024 4-Cylinder Stock Specifications

## **1. SAFETY EQUIPMENT**

**1A. SEATS** - Approved aluminum driver's seat required.

Seat must be fastened to frame/roll cage with minimum 3/8" grade 5 bolts and oversized washers and located to give adequate distance from driver's arm to door bars. Shoulder and head supports on right and left sides of seat are highly recommended. Leg containment supports are highly recommended. Full containment seats recommended. (No Carbon Fiber). Seat may not protrude outside 4 point upright or top cage halo.

**1B. SAFETY BELTS-***Belts must be dated within 3 years of event date or newer.*

A minimum five-point harness system is mandatory. Competitors using the HANS device may use a standard three-inch (3") or the Schroth style or equivalent two inch (2") wide shoulder strap. Belts must be anchored to roll cage or frame using grade 5 bolts 1/2" min diameter required. Shoulder harness must not be anchored lower than 2-inches below drivers shoulder height. 6-point belts (double crotch strap) are recommended. No Cam Lock safety belts permitted.

**1C. DRIVING COMPARTMENT** – Cockpit must be completely sealed off from engine compartment and fuel cell. Roll bar padding required around driver; *Recommended: Fire retardant padding.* A securely mounted operational 2-1/2 pound minimum fire extinguisher with gauge visible for inspection purpose is mandatory. Extinguisher must be mounted in a quick release bracket. Fire suppression systems are recommended. Driver-side window net required, minimum 16 inch by 18 inch. Ribbon style recommended, and must be mounted to roll cage so latch is at top front of window. Clearly labeled push-pull or toggle type kill switch accessible from either side of car is required. A gas pedal toe bar (kick-up) is highly recommended. No driver-adjustable devices allowed while car is in competition. No carbon fiber interior components will be allowed, likewise, no carbon fiber or titanium components allowed anywhere on car.

**1D. DRIVER'S ATTIRE-**Complete SFI- approved fire retardant driving suit and gloves required. Eye protection and a **Snell SA-2015** or newer helmet required. Snell "M" or D.O.T helmets not allowed. Head and Neck restraints (HANS Type), fireproof shoes, are recommended. In all matters pertaining to safety, car owners, drivers and crewmembers must review and educate themselves in all safety standards. It is the responsibility of the car owners, drivers and crewmembers to install, wear and maintain all safety equipment as specified by manufacturer's instructions

**2. CAR ELIGIBILITY:** Four cylinder, front wheel drive 2 or 4 door sedans, hardtops, or coupes compact cars only with model year **2015** and older, and a maximum wheelbase of 106". Uni-body style cars are permitted. Wheelbase must be within 1/2-inch of stock each side with a maximum rear toe of 1/4". No Honda CRX, convertibles, T-tops, two seat, sports cars. No full-size cars allowed; No SUVs, cross-overs, or vans permitted. No all-wheel drive allowed. No all wheel steering allowed. No rear engine allowed. No mid- engine allowed. All doors must be welded, chained, or bolted shut. Hood and trunk must be secured with two or more hood pins. Hood inner supports may be removed. All glass (head, tail, and marker lights) except windshield must be removed. You may replace the windshield with Lexan. Lexan windshields require bracing; 2 braces minimum are recommended. Plastic, trim, and items that could break, burn, or fall off, must be removed in and outside the car. Skirts, hood scoops front air dam and a 5" max height rear spoiler blade may be installed. You may relocate the battery. If in driver's compartment, must be covered with a marine case or similar; battery must have steel to steel tie downs. If battery is located in the engine compartment, the positive battery post must be covered to help prevent shorting out to any metal components. Anything that can be unbolted (hinges, brackets, etc) may be removed. After market nose pieces are allowed "Rub rails" allowed between front and rear wheel wells. Ends must be chamfered and capped (no sharp edges). A professional appearing paint job in an attractive color required. All lettering must be professional and in good taste. Numbers: 18-inches on both sides, and roof, readable from the right side.

**3. ROLL CAGE:** Minimum required: four point cage around the driver, of 1 3/4" diameter .090" wall, mild steel tubing. No exhaust tubing or water pipe. Roll bar/cage must be sufficiently welded to floor/rocker box, or welded to sandwich plate bolted to floor. Top of roll bar/cage must be reinforced to the rear with two bars, either to spring towers or rear frame. Spring towers may be connected side to side, at both front and rear suspension. Main roll bar behind driver must contain a diagonal bar. Three (3) door bars, driver side and passenger side minimum required. Mandatory is a driver side steel deflector plate, 1/8" minimum thickness. Recommended to have 5 side to side bars top of main hoop, bottom of main hoop about 4" above floor middle of main hoop directly behind seat top front of cage by windshield, and at front of cage at dash height. The cage must protect the driver. Safety padding required around driver (door bars and roll cage bars) you may skin door panels for installing roll cage.

**4. ENGINE GENERAL SPECIFICATIONS:** Stock engine for make, model, and year. 4 cylinder in-line SOHC or DOHC engines only. All engine components must be unaltered OEM for year, make and model of car used, Factory V.I.N. # must remain intact on the left front corner of the dash and must match. Must use OEM crank, rods, valve sizes, stroke, etc. No aftermarket high performance parts. No high performance or sport car engines of any kind. No turbo charged, super charged, rotary engines. No unapproved alterations allowed to any engine or will result in disqualification. Engine Block must be standard production OEM block, No aftermarket blocks and engine must have all identification numbers Fuel injection is only allowed on cars that came factory equipped as such. Dry sump oiling systems are not allowed. No accumulators/accusumps. You may remove unnecessary parts and wiring (A/C compressors, smog pumps, etc.) Engines may not cross MFG lines. All stock cast iron or steel parts must be OEM. All insulation under hood must be removed. No plastic lines to oil pressure gauges – steel braided preferred. Engine horsepower as determined by manufacture. No unapproved alterations allowed to any engine or will result in disqualification.

**4A. ENGINE LOCATION:** Engine location may not be altered, No motor set back or offset, engine must remain in original position. May use solid engine mounts.

**4B. COOLING SYSTEM:** Shroud above fan mandatory, if running a mechanical fan. Electric fans allowed on back side of radiator only. Radiator over-flow required. Radiator must remain in stock location. Antifreeze is strictly prohibited and failure to comply will result in a \$100 fine.

**4C. AIR CLEANER:** All cars must be equipped with an air cleaner during competition. May not protrude through the hood. Stock style air boxes are permitted. Stock K&N or equivalent air filter replacements allowed. Cowl or Ram air induction is not allowed. No devices for directing the flow of air into the air cleaner are permitted.

**5. ELECTRICAL SYSTEM:** All ignition systems must be 12 volts. Battery must be securely mounted in stock location or inside of car. All cars must have an ignition disconnect switch that is both accessible to driver and safety crew. No high performance or aftermarket ignition systems permitted. Battery cables must have grommets on box to prevent chaffing. ECM or PCM computer must be same for vehicle used.

**5B. COMPUTER:** A stock unmodified computer required. Tech staff may swap any competitors computers with a known stock computer at any time. PCM's & ECM's may be impounded for inspection at any time, for off-site inspection and will be returned if found in compliance with stock specifications.

## **6. DRIVETRAIN**

**6A. TRANSMISSION:** Must use OEM, unaltered transmission that came stock in year, make and model of car used. All forward and reverse gears must be operational. Flywheel, flexplate, clutch assembly and torque converter must be unaltered, OEM for year, make and model of car used. 1" diameter inspection hole in bell housing (accessible from top) to inspect clutch and flywheel required. No transmission coolers in driver compartment. No mini clutches, couplers, torque dividing final drives, or locked differentials. All cars equipped with a limited slip or traction sensing differentials are subject to additional weight and percentage requirements. No specialty transmissions allowed.

**6B. REAREND:** Only OEM passenger car rear axles or rear strut suspensions permitted. Rear axle must match the make and model of chassis being used. No interchanging of components. All suspension must maintain OEM specifications and settings. Camber max is 1.5", Rear Steer is 1/2" per side and both will be measured with the driver seated in the car in as-raced position. All components must be stock and unmodified.

**6C.** All plugs (drain, inspection, etc.), must be safety wired where possible.

**7. FUEL TANK:** Stock fuel tank located in front of rear wheels can be left there but must be secured with metal straps. All other fuel tanks or fuel cells must be mounted in the trunk area between the rear wheels as far forward as possible, mounted on top of floor pan, and protected from rear collision. Tanks must be fastened with steel straps, bolts, and oversized washers. A complete steel firewall must be between the tank and the driver's compartment. If car came as a hatchback style, and fuel cell is in rear trunk area, a firewall will have to be built into car. Fuel cells are recommended with 8 gallon capacity maximum.

**7A. FUEL:** Gasoline only, maximum 93 octane. No E85. No performance additives.

**8. EXHAUST SYSTEM: Mufflers are Mandatory** and are not to be tampered with or hollowed out. Any car without mufflers will not race. Exhaust must exit behind the driver under the car and meet 100 decibels Maximum. No car expelling flame, smoke or backfiring allowed. First few inches of exhaust must be OEM stock out of manifold and finished with Maximum 2 1/2" O.D No flex pipe; No dual exhaust. Cast iron exhaust manifold or OEM header only allowed, header must have been offered from manufacturer as a production build. Coatings on exhaust pipes are not allowed.

**9. SUSPENSION:** Must remain stock for make, model, and year. Stock struts only. Slotting of strut mounts is allowed in order to meet camber rule. Any factory appearing or factory replacement spring that fits in stock location is allowed, racing springs will add a 100# penalty. Spring rubber inserts or anything that acts as an insert between the springs coils are not allowed. Bump rubbers on strut shafts are allowed but must allow suspension travel of no less than 1-1/2 inches with driver in car at any corner where they are used. Dust boots on struts must be removed for inspection of struts and bump rubbers. Suspension must have travel in both up and down directions from ride height as sitting in tech. Ride attitude must be maintained. The only optional exceptions are as follows: You may run camber on the front and rear wheels, but total camber must not exceed 1-1/2 inch on any tire when measuring the difference between the top of the rim and the bottom of the rim with straight edge. Maximum rear toe is 1/4". Except for exhaust components, Minimum ground clearance 4" (with driver) for all mechanical parts and hardware, 5" for any body part.

**10. STEERING WHEEL:** Stock, manual or power units only. No aftermarket components. Fabricated steering column must use 2 U-joints. Removable steering wheel allowed. Collapsible steering column recommended.

**11. BRAKES:** Car must have functional hydraulic brakes on all four wheels. No aftermarket brake proportioning valves. No slotted or drilled rotors Stock components only, (no aftermarket) No wheel fans or electric blower motors allowed.

**12. WHEELS:** 7-inch wide maximum steel racing wheels allowed and mandatory on right front. Stock cast aluminum wheels with a factory max of 7" wide allowed except on right front. (No magnesium wheels allowed) Wheel size allowed is 13", 14" or 15" however, wheels must be same size per axle. One valve stem per wheel maximum. The use of any bleeder valve prohibited. You may run aftermarket heavy-duty wheels, minimum numerical backspace of 3-1/2". Wheels of 3-1/2" backspacing will not be allowed to use wheel spacers. All other wheels will be allowed to use wheel spacers up to 1/4" thick one per wheel only. 1-inch hex style steel lug nuts only and must show a minimum of two (2) threads through the nut, aluminum lug nuts are not allowed.

**13. TIRES: Stock passenger car radial DOT tires only.**

**No Racing slicks, Race tires, or Performance Street Tires allowed.**

13" tires max width P215, 70, 65, & 60 series allowed.

14" tires max width P215, 70, 65, & 60 series allowed.

15" tires max width P215, 70, 65, & 60 series allowed.

**Tires must not exceed \$105 MSRP. Management may claim any tire for \$75.**

**13A. All tire brands and products must be T or H rated and meet approval from management. Minimum durometer reading is 60. Minimum UTQG rating 380.**

**13B.** Wheels and Tires must be same diameter per axle.

**13C.** Tires may not extend out from body of car by no more than 2".

**13D.** Chemical treatment of tires (softening) is not permitted and if found guilty will result in the disqualification from the event and loss of prize money and points. Drivers guilty of altering and/or chemical treatment of tires may also be suspended. If a driver is found altering and/or chemical treatment of tires on the last night of competition, he/she will be disqualified for that night of points and prize money and deducted of all points from the previous night of competition.

**14. WEIGHTS**

**14A.** Cubic centimeters Minimum weight Engine horsepower as determined by manufacture.

**Add additional 100 lbs. for "Racing Springs"**

0 to 1599 2250 lbs.

1600 to 1799 2300 lbs.

1800 to 1999 2350 lbs.

2000 to 2299 2400 lbs.

2300 to 2400 2450 lbs.

2400 to 2500 2500 lbs.

Add 25 lbs. for engines over 120HP (subject to adjustment by management)

Add 50 lbs. for engines over 130HP (subject to adjustment by management)

Add 75 lbs. for engines over 140HP (subject to adjustment by management)

Add 100 lbs. for engines over 150HP (subject to adjustment by management)

Add 125 lbs. for engines over 160HP (subject to adjustment by management)

Add 150 lbs. for engines over 170HP (subject to adjustment by management)

Add 175 lbs. for engines over 180HP (subject to adjustment by management)

Add 200 lbs. for engines over 190HP (subject to adjustment by management)

Any engines over 200HP will need to be adjusted by management accordingly.

**14B.** Weight reductions or additions may be implemented in an effort to maintain equal competition.

**14C.** All weights include driver and are minimums after the race. No right side minimums, Total Weight Only, No Fuel allowance.

**14D.** All ballast weight must be properly anchored with minimum of ½" grade 5 bolts with oversized washers and be painted white, and have car number on it. **Ballast weight must be securely fastened outside driver's compartment to roll cage or rear seat floor board (equally distributed left to right).**

**14E.** Any loss of ballast weight from any car will result in a **\$100 fine.**

**14F.** No tungsten, lead shot, ball bearing type, or liquid type allowed. No moving weight or weight moving devices allowed. All weight must be in solid blocks.

**15. ELECTRONICS**

**15A. ELECTRONICS:** No Data Logging gauges or Data recording/acquisition equipment are allowed. No computer or video analysis equipment of any kind allowed.

**15B. CAMERA:** One camera max allowed must point out front window.

**15C. RADIOS:** 2-way-radios are not allowed.

**15D. TRANSPONDER:** Mandatory and located 150" behind front edge of car with clear view of track.

**15E. RACEceivers:** Raceceivers are mandatory for Race Director Communications

**16. CHAMPIONSHIP POINTS:** will be awarded per your finishing position. If drivers are disqualified, points do not advance, only winner's purse is past onward.

**17. TEAM DRIVING:** Not Allowed.

**18. LOCAL TRACK VISITING EXCEPTION:** Cars from local neighboring tracks that have similar but differing rules, and/or similar performance, may be allowed to participate during the season in the interest of welcoming competition. These cars may be granted temporary eligibility status for one week at the discretion of officials on a case-by-case basis for eligibility and rule book conformity.

**19. TECH INSPECTION:** All cars are subject to inspection any time before, during, or after a race; Officials reserve the right to disqualify cars, require changes, confiscate illegal parts etc. Any interference with any official(s) and his/her duties will result in an automatic disqualification, and/or possible suspension. Disqualification (except weight violation) is retroactive to ALL previous events competed in that race meet. Any driver/owner refusing to allow the track officials to inspect his car will lose points and money earned for the night. Driver must provide their own tools.

**ALL EQUIPMENT IS SUBJECT TO THE APPROVAL OF GSS OFFICIALS. NO EQUIPMENT WILL BE CONSIDERED AS HAVING BEEN APPROVED BY REASON OF HAVING PASSED THRU INSPECTION UNNOTICED. EFFORTS TO TAKE ADVANTAGE OF "LOOPHOLES" IN THESE RULES WILL NOT BE TOLERATED. ALL RACE CARS WILL BE SUBJECT TO INSPECTION BY TRACK OFFICIALS AT ANYTIME.**

**19A. TEAR DOWN CLAIM:** For a fee of \$500 any 4 Cylinder Stock driver may request to have the head, intake, or exhaust, removed for inspection. If found legal, \$350 is awarded to the one inspected with \$150 retained by the officials. If illegal, the fee is returned to the protester and the violator forfeits all money and points won that night. If components are found to be illegal they can be confiscated by officials, plus driver is subject up to a \$500 fine for reinstatement and suspension for up to one calendar year. Tech Staff reserves the right to perform any of the above mentioned with no protest fee posted.

**19B. TEAR DOWN CLAIM:** For a fee of \$250 any 4 Cylinder Stock driver may request to have the air intake, fuel injectors, coil packs, computer, be removed and inspected for compliance. If found legal, \$150 is awarded to the one inspected with \$100 retained by the officials. If illegal, the fee is returned to the protester and the violator forfeits all money and points won that night. If components are found to be illegal they can be confiscated by officials, plus driver is subject up to a \$500 fine for reinstatement and suspension for up to one calendar year. Tech Staff reserves the right to perform any of the above mentioned with no protest fee posted.

**20. WEIGHT PENALTIES: See Below**

<b>WEIGHT</b>	<b>OFFENCE</b>	<b>POINTS</b>	<b>FINE</b>
<i>1-5 LBS Light</i>	<i>ANY OFFENCE</i>	<i>-10 POINTS</i>	<i>-\$50</i>
<i>6-10 LBS Light</i>	<i>ANY OFFENCE</i>	<i>-25 POINTS</i>	<i>-\$100</i>
<i>11 LBS &amp; Over Light</i>	<i>ANY OFFENCE</i>	<i>DQ</i>	<i>DQ</i>
<i>Maximum Rear Toe 1/4"</i>	<i>ANY OFFENCE</i>	<i>DQ</i>	<i>DQ</i>

**21. DYNAMOMETER TEST:** At the request of the Tech Staff any engine can be required to be dynamometer tested to determine its compatibility with the intent of the rules. ASM will be the official dyno facility of GSS.