



#### SPORTSMAN DIVISION RULES- 2-17-2023

**CAR ELIGIBILITY:** Any 1957 or newer American-made non-convertible passenger car with wheelbase over 108-inches (Ford and Chrysler over 104-inches) allowed. El Camino, Rancho bodies allowed.

**WHEELBASE & TREAD WIDTH:** Wheelbase must be within 1-inch of stock. Maximum tread width 63-inches (64-inches for Ford, Chrysler front stub, or full size GM stub with a minimum wheelbase of 112 inches), measured center to center of tires at spindle height (front and rear).

**GROUND CLEARANCE:** Minimum ground clearance 4<sup>3</sup>/<sub>4</sub>" at any point including spoilers, scoops, and mufflers, except front cross-member, which is 2<sup>3</sup>/<sub>4</sub>" (with driver).

**CHASSIS:** GM chassis must retain original wheelbase. Ford/Chrysler may use GM Metric frame. Complete stock steel frame or unit-body must be retained to a point 6" behind center of rear axle. Replacement with square tubing allowed rear of that point. Front stub and rest of frame must match. Minimum ground clearance 4<sup>3</sup>/<sub>4</sub>" except cross-member which is 2<sup>3</sup>/<sub>4</sub>" (with driver).

**MID-SIZE GM METRIC CHASSIS:** Lower right A-frame may be 1" longer than stock. S-10 ball joints allowed. Coleman steel hubs or full size GM spindles allowed. Steering center link modifications (to improve bump-steer) allowed. Any stock production rear end allowed, provided that lower control arm/shock mounts remain in the stock position for the chassis. Aftermarket or S-10 axle required on right side of metric rear ends.

**ROLL CAGE:** All cars must have a well-constructed, properly welded and gusseted 6 point roll cage made of minimum 1<sup>3</sup>/<sub>4</sub>" .090 wall tubing or equivalent. Roll cage must have four uprights properly welded to frame. Right side of roll cage may not be located inboard more than right rails of front and rear stubs. Main roll hoop must be behind driver and be reinforced with a full X or diagonal bar configuration. Cage must be reinforced from left to right with bars under the dash, along floorboards, and behind driver in main roll hoop. At least two bars must extend from main roll cage rearward to frame kick-up or beyond. A minimum of four equally spaced horizontal bars required in driver's door, three in passenger side door. Door bars must be connected with a minimum of two equally spaced vertical studs. Two angular bars must connect bottom door bar to frame rail. All welds in cage and door structure must be gusseted. Driver's foot protection bar required. Left side door bar deflector plates of at least 1/8" steel required. Front hoop must connect to front roll cage uprights. Unit-body roll cage construction: contact competition director for guidelines.

**INTERIOR:** Complete steel firewall required. Driver's compartment must have steel floor. Passenger side interior can be tinned over from top of drive shaft tunnel to 6" below passenger window.

**SPINDLES, HUBS, STEERING:** Stock unaltered passenger car spindles, hubs, and steering units required. Coleman steel hubs allowed. No lowered spindles. Heim joints allowed on outer tie rod ends. Fabricated center links allowed. Steering column must use 2 U-joints.

**SUSPENSION:** Any stock appearing, Non-Progressive, steel spring that fits in original mount in original position allowed. One steel non-adjustable, non-re-buildable shock, with a welded bearing (on at least one end), with a maximum MSRP \$125, allowed per wheel. QA-1 series 50, 51, 5Q, and 62 allowed (Max MSRP \$145). All internal components must remain as manufactured by QA-1. Spring spacers, adjustable spring spacer units allowed where shock mounts through spring (front). One screw type (screw jack) adjuster per spring allowed front and rear. Rear spring perch and rear upper shock mounts may be fabricated but must remain in stock location. Spring buckets may protrude through floor pan. Rear control arms must be stock length for that year and model chassis and remain in stock location. All other components must remain stock and in stock location, except where otherwise stated. Lower A-frames may have bushings replaced with steel insert type. Rear Control link rubber bushings may be replaced with non-metallic stock replacement parts. Tubular upper A-frames with bolt-in ball joint allowed. No mono ball, heim joints, or clevis' permitted on suspension components. One stock appearing (non-spline type) passenger car front stabilizer (sway) bar mounted in stock position on frame allowed. Frame mounted stabilizer (sway) bar adjusters allowed. 1" shock extenders in front and 2" in rear allowed. Screw-in ball joints allowed. No lift bars, traction devices, or rebound limiting devices (other than shocks) allowed.

**BRAKES:** Four-wheel brakes required at all times. Floor mounted pedals allowed. The Howe stock replacement caliper is the only non-OEM brake caliper allowed. No "made for racing" components (other than brake pads) allowed. Directional vane rotors allowed. Maximum rotor diameter 11 3/4" maximum rotor width 1 1/4. Maximum MSRP \$105. One OEM brake bias adjuster allowed. Wheel fans and electric fans allowed. Rear disk brakes (no aluminum components) allowed. One master cylinder only.

**FUEL & FUEL CELL --** Fuel cell required. Fuel cell must be located behind rear end, between frame rails as far from rear bumper as possible. If trunk floor is removed, it is required to install two 2" square tube cross members to the rear frame rails: one in front of and one behind the fuel cell. Mounting must use 1" square tubing. Minimum 11-gauge container around fuel cell required. Bottom of fuel cell must be at least 10 inches from ground. ASA bar required and must extend below bumper and be triangulated back to main frame. All vents must be valved. Filler tube extensions not allowed. Inlet cannot be on right side of cell. Outlet must be on top. All fuel cells and associated protection bars will be vigorously inspected. Steel fuel lines must be located outside driver's compartment. Fuel: Gasoline only.

**WEIGHT:** Minimum total weight: GM 602 Crate motor 3000#, all non-crate motors 3125# including driver at all times, minimum 52% front axle and minimum 42% right side. Add 50# for crankshafts weighing less than 44 lbs. All weights must be properly anchored above bottom of frame rail, outside driver's compartment and painted white and lettered with car number. Add 25# for hydraulic roller lifters used in open motors (non crate).

**WHEELS & TIRES:** Aftermarket made for racing, steel wheels, 8-inch maximum width required. No Wide five rims allowed. No bleeders allowed. **Hoosier D800** is the only legal tire and will be available at the track. For qualifying and feature events all tires must have no more than 5/32" of tread and show wear (approximately 20-30 laps on right side tires). A tire registration and tire bank will be established. Teams will register 6 tires in their bank on the first race and add 1/2 tire to their bank for each completed race night thereafter.

**RADIATOR:** Any metal radiator that does not alter the exterior appearance of car allowed. Fan protection (20 gauge minimum thickness) required. Overflow tank located under hood required.

**BATTERY:** Batteries must be securely mounted ahead of rear axle and away from fuel container and lines. All batteries in driving compartment must be in an approved sealed battery box. Maximum 12 volt system.

**DRIVESHAFT:** Minimum diameter 2½" steel drive shaft required. Drive shaft must be painted a bright reflective color. Safety hoop required on front half of drive shaft. Driver must be protected from drive shaft entering into driving compartment. No energy absorbing, or carbon fiber drive-shafts allowed.

**ENGINE LOCATION:** GM engines: located so that center of the furthest forward spark plug is in line with or ahead of the upper ball joint's centerline, all others allowed a 2-inch set back. Minimum crankshaft centerline height 10 ½" (front and back). Max offset (right to left) 3".

**ENGINE:** Maximum of two valves per cylinder. No aluminum blocks or heads. Maximum displacement 362cid (Chrysler products 373cid). All engines must meet following specifications regardless of manufacturer: Stock or stock replacement cast iron unaltered heads (no porting, polishing, acid dipping, or gasket matching allowed) required. The only stock replacement heads allowed are World Products SR I052 #4266B and #4267B, PBM Thunder head 167270 with 170cc intake runner, or Dart Iron Eagle SS #10024266 & 10024267, straight plug with 165cc intake runner. Maximum 2.02-inch intake and 1.6-inch exhaust valves required. Valve spring retainers are the only titanium parts allowed. Flat top pistons required. A minimum of zero deck height required. Maximum 10.8 to one compression ratio. Magnetic steel connecting rods only. Honda journal rods not permitted. No Bowtie, Vortec or 18-degree heads allowed on GM products. Production type steel crankshaft with normal configuration counter weights required. Minimum crankshaft weight 44lbs. A ¾"NPT inspection hole in oil pan required. Inspection hole must be located in line with second or third rod journal of crankshaft, on either side of pan and above oil level. Hole in windage tray in line with inspection hole required. OEM mechanical fuel pump, in stock location, required. No electric water pumps allowed.

**CAMSHAFT & IGNITION:** Hydraulic cam/lifters only. Lifters must pass minimum 100/1000 leak-down test. Absolute maximum lift at valve: GM-.490 inch, Ford/Mopar-.520 inch. Roller tip rocker arms allowed, but must retain original pivot type (ball & socket). No solid lifters allowed. Stock type (HEI) ignition components only. Firing order may not be altered. No MSD boxes, dual-point distributors, computer controlled or crank fired ignition systems allowed. Hydraulic roller lifters allowed, see weight rule. Roller lifter subject to intake being removed. Racer is responsible for reassembly.

**CARBURETOR:** Stock unaltered 500 CFM Stock Holley 4412 2 bbl., (aluminum body allowed) or Dorton 003-0, or 1 3/8" Rochester allowed on all cars. Metering block three (3) holes per side MAX. No alterations except removal of choke "Butterfly" allowed. 1 1/2" maximum adapter/spacer plate (gasket included) allowed. Carb adapter plate may not be tapered, beveled or grooved. Double return springs and air cleaner required to act as flame arrestor. No air induction boxes or ram air units allowed. No shelving around air cleaner allowed. Steel or steel braided fuel lines required, metal fuel filter required.

**AIR CLEANER:** No cold air induction air boxes. Two piece 14 inch O.D. air cleaner cover required, maximum height 4" and must be open for the full 360 degrees.

**INTAKE & EXHAUST MANIFOLDS:** Completely stock passenger car 2-bbl. cast iron intake or Edelbrock Performer-2101 or RPM-7101 intake manifold required. No grinding, polishing or altering allowed. No Bow-Tie manifolds. Completely stock cast iron exhaust manifolds required. No grinding, polishing or altering allowed. Center dump and log style manifolds allowed. Max exhaust manifold inside diameter 2-1/16-inches. No cast iron header style exhaust manifolds allowed.

**REAR END:** Rear end must be a stock passenger car unit, may be open, or locked by welding spider gears or use of spool only. Ford 9" rear end allowed in any make car provided the lower control arms and shock mounts remain in the stock position for that chassis. No limited slip, Detroit lockers or torque sensing differentials allowed. A 3/4" inspection plug required in rear cover located above oil level and be wire tied. Floating rear ends with steel hubs, straight spline drive plates, and solid axles allowed. No cambered rear ends allowed. Solid steel axles of same diameter required. No wrap up axles allowed. No lead can be mounted on or in rear end housing. Axle tubes must be the same on both sides of differential.

**CRATE ENGINES:** GM Crate motor (P/N 88959602 or 19318602) allowed with Holly 650 carburetor (P/N 80541-1). GM specifications and inspection procedures will be followed. Crate engines are allowed to run a non-stepped, non 180 degree, header with a max 1 5/8" diameter and max 3" collector, maximum MSGR \$250. **All crate motors must use the MSD Soft Touch Rev Control system mounted under the hood with the 6400 (602 Crate) rpm chip.** New crate motors with proper ownership paperwork are not required an oil inspection plug. Inspection plug required on other crate motors, Contact tech staff for installation and rebuild/repair regulations. Crate Motors allowed same height carb spacer as the open motor, all other carb spacers restrictions apply.

**CRATE MOTOR COMPLIANCE:** Any GM crate motor deemed illegal, seals, cam, heads to be subject to a \$1000 fine and loss of racing privilege for one calendar year.

**TRANSMISSION:** Stock automatic transmission with operating 11-inch minimum diameter torque converter allowed. Torque converter post-race inspection will occasionally be required. Option 1: install drain plug in torque converter. Option 2: remove torque converter for detailed inspection. All forward and reverse gears must operate. Transmission overflow bottle required, No rubber transmission lines, transmission cooler not allowed in driver compartment. A stock manual three or four speed steel OEM or M21 transmission allowed. All gears must operate. No straight cut gears, gun drilled main shafts, or lightening of or removing of gears or body allowed.

**CLUTCH:** Must use stock or stock replacement all steel pressure plate and clutch disk (minimum weight 15.5 lbs) and steel or cast iron flywheel (minimum weight 15.5 lbs.) Clutch disc must be minimum 10 inch diameter with stock full fiber disk. **A minimum 7.25 diameter, two disk minimum clutch allowed with 75 lbs added weight. No carbon fiber, poly, slipper or centrifugal clutches allowed All manual transmissions must run steel bell housing or a scatter shield constructed of 1/8 inch steel covering the top 180 degrees of the clutch. No reverse mount starters.**

**EXHAUST SYSTEM:** Maximum diameter 2 1/2" before collector and/or muffler, 4 1/2" maximum diameter behind muffler. Exhaust must exit left or rear (not right side) and behind driver. Effective mufflers required. Collector or muffler must not be located forward of transmission. 100-decibel limit measured from 8<sup>th</sup> row of bleachers. No car expelling flame, smoke or backfiring allowed.

**FORD & CHRYSLER EXCEPTIONS:** Ford and Chrysler will be permitted some variation to improve competitiveness. Such variation requires prior approval by director of competition. Weight adjustments may be made to retain competitive balance.

**BODY & APPEARANCE:** Body must be a North American produced, publicly offered, passenger car and have an OEM wheelbase over 106". All variances from this rule must have prior approval from the Director of Competition and management. Body can be lengthen or shortened no more than 4 inches from OEM measurement. All bodies must remain stock appearing with complete fenders, quarter panels, doors, roof, hood and trunk lid. Stock steel roof with A, B, & C posts required. Body must be mounted symmetrically on chassis. Five Star Fiberglass Metric Monte Carlo roof allowed. No truck bodies allowed (El Camino & Ranchero allowed). Bodies cannot be shortened, chopped or channeled. All doors must be securely fastened shut. Stock hood with reinforcements removed or fiberglass hood required. **Hood scoop allowed for clearance only and must be closed off front and rear.** Hood latch must be removed. All cars using aftermarket body packages (AR-Fivestar) must conform to manufacturer's template when measured at normal racing frame height. All cars must have minimum roof height 48", maximum deck height 36", minimum nose and side clearance 4 3/4" at all times with 1/2 " tolerance when measured at normal racing frame height. Minimum body ground clearance dimensions required at all times. All body dimensions are to be measured at normal racing ride heights. No multi-plane spoilers. Maximum spoiler length 5". Maximum spoiler width 60". Rear window must be clear. Spoiler must be clear and may not extend outside body by more than 1-inch. No wings or skirts allowed. No air scoops or holes in hood allowed. Filler panels painted with reflective colors required. Front and rear bumpers must appear stock. Bumper ends must be capped or connect to body. Professionally appearing and attractive grill/radiator opening required. All aftermarket nose pieces must match make (GM on GM, Ford on Ford) of body. Stock or Lexan windshields required, all other windows (if used) must be of Lexan. Sunroofs must be closed in with steel. Body must be within 2" from outside of tires. AR and 5-Star sportsman bodies must meet template.

**VINTAGE BODIES:** Management reserves right to grant additional latitude to cars running vintage or retro body styles.

**PLASTIC BODIES:** All plastic bodies (AR/FiveStar) must be mounted to manufactures dimension and fit their template adjusted for normal racing ride height. The AR Body-PN 115015 A thru M may be used on 108 to 112 inch wheel base chassis. The AR 116 inch Camaro body is approved. Fivestar North American Sportsman body allowed. No NGB or S2 bodies allowed.

**TEAR DOWN CLAIM:** For a fee of \$500 any Sportsman class driver may request to have the head, intake, exhaust, and carburetor removed for inspection. If found legal, \$300 is awarded to the one inspected with \$200 retained by the officials. If illegal, the fee is returned to the protester and the violator forfeits all money and points won that night. Officials can require valve covers, distributor, intake, carburetor, and heads be removed and inspected for compliance. If components are found to be illegal they will be confiscated and destroyed.