Southwest Stock Car Association Sportsman Division Rules 2021

Note: Rules changes are bolded.

DISCLAIMER

The rules and/or regulations set forth herein are designed to provide for the orderly conduct of racing events and to establish minimum requirements for such events. These rules shall govern the conditions of all events, and by participating in these events, participants are deemed to have complied with all of these rules. NO EXPRESSED OR IMPLIED WARRANTY OF SAFETY SHALL RESULT FROM PUBLICATION OF OR COMPLIANCE WITH, THESE RULES AND/OR REGULATIONS. They are intended as a guide for the conduct of the sport and are in no way a guarantee against injury or death to a participant, spectator, or official. The Race Director shall be empowered to permit minor deviations from any of the specifications herein or to impose any further restrictions that in his opinion do not alter the minimum acceptable requirements. NO EXPRESSED OR IMPLIED WARRANTY OF SAFETY SHALL RESULT FROM SUCH ALTERATIONS OF SPECIFICATIONS. Any interpretation or deviation of these rules is left to the discretion of the officials. Their decision is final.

1. CAR MODELS

1.1. North American rear wheel drive cars with front engines and full frames (excluding Mopar) allowed.

1.2. 108” minimum wheelbase (factory specifications) with not more than 1” difference (plus or minus) from side to
side.

1.3. Some cars not meeting these specifications may be allowed. Weight penalties or other adjustments may be
required.

2. ROLLCAGES

2.1. Material to be used must be .090 (minimum wall) mild steel tubing. Low carbon mild steel tubing recommended. Other materials are subject to prior approval. No iron pipe allowed. No brazing or soldering allowed.

2.2. Must be frame mounted in at least six (6) places (four upright pipes and two braces towards the rear). No front cage mounts allowed. Rear cage mounts may be on the outside of frame only, not beyond the outside edge of the frame (side).

2.3. All cars are required to have a 4-point or main structure of roll cage. The bottom of the roll cage must remain centered on the driveline plus or minus 1.5”. Minimum length of left side door bars is 42”. Main cage structure and door bars minimum 1.66” o.d. Total height of roll cage to be 39” (minimum) from bottom of frame. Halo to be no less than 1” lower at any point. Width of halo to be no less than 32” outside to outside of tubing. Dash bar required, along with an X-type member across and behind driver. Right side bars (instead of door bars) must be no further in toward driveline than an imaginary line connecting the front clip to the rear clip (at kick outs). Halo must be further braced to right sidebars. One piece of tubing must run diagonally or perpendicular between halo in top of cage. Four curved horizontal door bars on driver’s side with minimum of eight inches to edge of seat from inside of door bars required. Door bars must be tied together with vertical bars and welded to the frame in at least two additional places. Minimum height of door bars 22.5” from bottom of frame. A so-called “Petty Bar” must run from center of cage (rear) to upper right front halo on any halos over 40” wide. On cars that do not have right side door bars out to the body (66” perimeter cage) there must be one bar (1.50 o.d., .090 thickness, minimum) not less than the length of the frame rail and a minimum of 12” above the frame, running front to rear with a minimum of two horizontal braces, off the right side bars with a minimum of 66” outside to outside from the drivers side door bars and a minimum of two additional

braces tying the main bar back into the frame. No brace bars forward of cage may be higher than stock hood height.
2.4. A forward brace off the left front upright for foot protection is mandatory. A piece of plate steel of at least 1/16" thickness should be welded to the outside of the door and foot bars on the driver's side.
2.5. Any bracing not attached to original frame is subject to approval of officials.

3. FRAMES, SUSPENSIONS ANS ENGINE LOCATIONS

3.1. FRAMES
3.1.1. Suspension and running gear must be stock OEM for the year and make of chassis. Police cars, taxis, etc. must conform to regular passenger car specifications. This includes rotors, brakes, spindles, control arms, trailing arms, steering components, etc., unless otherwise specified.
3.1.2. Factory production, complete 1973 or newer parallel American passenger car frames only. No Jeep, Bronco, pick-up truck, four-wheel drive or similarly designed frames allowed. Allowable frames include 1973 - 1977 G.M. 112" (e.g. Chevelle), 1978 - up G.M. 108" (e.g. Malibu), 1978 - up G.M. 114" (Impala), Ford Crown Victoria 114" (80's and 90's), Mopar 110" (e.g. Aspen) or 108"
(e.g. Dart).
3.1.3. Johnson Chassis frames are permitted. This can be a front clip, rear clip and/or center section.
3.1.4. Johnson Chassis frame components must retain Johnson Chassis RFI tag.
3.1.5. Minimum wheelbase 108" (factory specifications), with not more than 1" difference side to side.
3.1.6. 112" & 114" chassis may be shortened to 108".
3.1.7. Driver must inform officials which frame he is using.
3.1.8. Maximum tread width (measured outside of one wheel to outside opposite wheel at spindle height)
78 inches.
3.1.9. No Camaro frames or parts.
3.1.10. Frames can have one tubing brace from right front clip to right rear clip, parallel to side rail. No part
of roll cage or suspension can be attached to this brace. Frame rails can be symmetrically cross- braced or X-braced using tubing only. All bracing must be no lower than the bottom of the frame rails. Frames must support the roll cage on both sides. Cars with sub-frames must join the front and rear clips. However, both clips must remain and must maintain their OEM measurements, mounts and pick-up points. Frames must be full and complete on both sides to the front of the suspension and steering components.
3.1.11. Minimum frame height of 4", measured at the frame rails. Metric chassis minimum 6" frame height. No lifts permitted.
3.1.12. Rear of frame may not be altered (Coil for coil and leaf for leaf must remain)
3.1.13. Stock rear frame arch (kick-up) must remain and maintain its original arch, mounts and pick-up points.
3.1.14. Stock rear cross member (at rear end housing) must remain in original location on frame and utilize original pick-up points.
3.1.15. The rear of the frame behind the rear axle may be reinforced or replaced for bumper support.
3.1.16. Leaf spring cars that replace the rear of the frame must remain stock width at rear spring hanger mounting points.
3.1.17. Cars with rear leaf springs must use original pivot points with stock rubbers on front of springs.
3.1.18. Lowering blocks are okay.
3.1.19. Jacking bolts are allowed. On rear leaf frames, jacking bolts can be at rear of leaf only.

3.2. SUSPENSION
3.2.1. GM Metric chassis may use a Port City aftermarket upper control arm part # 100-060820LH and 100-060800RH, complete with ball joint # 109-K6136, with steel bushings or a 9” front upper control Arm Part # 100-06-0900 LH and 100=06=0900 RH. Mounts must not be moved or reconfigured. No offset shaft is allowed with aftermarket upper control arm.
3.2.2. No fiberglass or plastic leaf springs allowed.
3.2.3. All coil springs must be at least 4 1/2 inches outside diameter.
3.2.4. Rear coil spring pockets can be reinforced or extended to allow for a longer spring.
3.2.5. Rear OEM trailing arms and front of leaf springs must remain in stock position on frame.
3.2.6. No coil-over shocks allowed. No homemade coil over allowed anywhere on racecar.
3.2.7. Stock front cross member must remain with the following alterations (all notches must be boxed in): General Motors/Mopar
3.2.8. 108” wheelbase – (G.M.) notch may be cut for fuel pump and exhaust front flange bolts. (Mopar) notches may be cut for manifolds. 112” wheelbase - no notching is required to obtain the 84% rule.
3.2.9. Ford 114” wheelbase - notch may be cut under oil pan for oil pump clearance only.
3.2.10. Front and rear suspension and steering components must be uncut OEM for that frame. Stock spindles or aftermarket that match stock spindle measurements must match frame. No fabricated spindles. Spindle savers are allowed.
3.2.11. Bottom ‘A’ Frames cannot be altered drilled or moved and must be stock OEM for frame used.
3.2.11.1.1. Stock GM with no alterations or Johnson Chassis lower control arm with no alterations
3.2.12. Upper ‘A’ Frames must be stock OEM for frame used.
3.2.12.1.1. GM metric chassis are permitted aftermarket control arms as long as they are:
3.2.12.1.1.1. Stock mid-size GM Metric equivalent
3.2.12.1.1.2. 8.5 inches + or - 0.5 inches left side
3.2.12.1.1.3. 8 inches + or - 0.5 inches right side
3.2.12.1.1.4. Steel arm construction
3.2.12.1.1.5. Steel cross shaft
3.2.12.1.1.6. Bushing material is steel.
3.2.12.1.2. BallJoints
3.2.12.1.2.1. Only stock large and small bolt pattern ball joints permitted.
3.2.12.1.2.2. Re-buildable ball joints permitted as long as they measure the same as stock.
3.2.12.1.2.3. Maximum offset is 1.5 inches.
3.2.12.1.3. Any sway bar must be factory stock OEM. Maximum diameter of 1 3/8 inches.
3.2.12.1.4. Stock sway bars must be secured at OEM original frame location.
3.2.12.1.5. Pedestal sway bar mounting allowed.
3.2.12.1.6. No threaded adjusters allowed at frame mounting.
3.2.12.1.7. The outboard ends of the sway bar must be mounted to the lower control arms in the original OEM position (above the control arm).
3.2.12.1.8. Spacers and/or adjustable links may be used between the sway bar ends and the lower control arms.
3.2.12.1.9. No drop limiters or ANY other added components to the front suspension.
3.2.13. NO reinforcing. NO cutting, notching and/or re-welding of control arm sides.
3.2.14. No lift bars, panhard bars or snubber bars, trailing arms may have rubber bushings on each end only. All suspension and steering components must be stock length and mounted in stock location unless otherwise indicated (e. g. shock mounts may be moved).
3.2.15. Either an adjustable center link or a heim joint on the tie rod end is permitted. Not both.
3.2.16. Camber on left front wheel will not be more than 4.0 degrees (+/-), right front not more than 6

degrees (no tolerance) at ride height.

3.3. ENGINE LOCATION
3.3.1. All motors must be centered between frame rails. The distance from the back of the block to the center of the rear axle housing cannot be less than 84% of the wheelbase.
3.3.2. Maximum 2” setback beyond 84% allowed on Ford and Mopar, except Mopar with G.M. chassis.
3.3.3. Minimum crankshaft height will be the frame height plus seven inches.
4. BUSHINGS
4.1. All suspension bushings will be rubber or polyurethane, except upper control arms, which must be steel.

5. ALUMINUM
5.1. No aluminum or exotic metal wheels, hubs, hats, rotors, calipers, "A" frames, spindles, or any other suspension or rear end parts are allowed. No aluminum drive shafts, brackets, flywheels, or harmonic balancers.

6. SEAT
6.1. Aluminum racing seats are required. No fiberglass seats. Seat bottom and back must be bolted to frame and cage.
6.2. Seatbelts should be fastened to the roll cage at shoulder height, permanufacture’sinstructions.
6.3.On kit bodied cars, the seat must be positioned so that the backrest is no more than %70 of the wheel base (factory specifications) from the front spindle (measured from the back of the bottom of seat)
6.4 Back of the seat near shoulder height are to center of rear housing no less than 25”.
6.5. On stock bodied cars, the seat may not be back beyond the door pillar (center post) Back of seat must be bolted to the “X” brace or cross brace of the rear hoop of the roll cage.
6.6. Minimum 8” required between drivers door bars and seat. The bottom of the seat and all seat mounts and frames
must be above the bottom of the frame.

7. SHOCKS
7.1. One shock per wheel only, for a total of four shocks per car.
7.2. AFCO shocks only with the following numbers: 1078, 1275FB, 1276FB, 1277FB, 1278FB, 14775FB, 1475FB, 1477FB and 1478FB. Numbers must be readable.
7.3. No five-digit (split valve) shocks allowed.

8. RADIATOR
8.1. Oneradiatoronlyanditmustbemountedinstocklocation.
8.2. A working, metal or plastic, mechanical or electric fan is permitted.
8.3. No antifreeze or other cooling agents permitted. Water only.
8.4. Radiator overflow must exit within the engine compartment (overflow can) or onto the right lower corner of the
windshield.
8.5. Hoodmustcoverradiatorwithoutmodification.

9. ELECTRICAL
9.1. Batteries must be securely installed.
9.2. Those installed inside drivers’ compartment must have protective covering (ie: Marine case)

9.3. Starting systems must be operating.
9.4. A “kill switch” must be installed in the centre of the dash. This “kill switch” when turned to off position must shut the engine off.

10. BRAKES
10.1.Brakes must be operating on all four wheels and must lock up for inspection. Rotors and calipers must match frame.
10.2.Coleman two-piece hub and rotor are permitted with stock calipers and spindles. 10.3.Rear brakes may be drum or disc type. OEM aluminum drums O.K.
10.3.1. Rear disc brakes are permitted. Option 1 is a once piece steel rotor with a minimum diameter of 11⁄2 inches and a 1-inch thickness. No drilling or lightning of rotor. Option 2 is an Allstar rotor and hat system, Part # ALL42019.
Only stock GM cast steel calipers with a single steel piston on no greater than 2 1⁄2 diameter permitted. May be mounted forward or rear of the axle housing.
No aluminum parts. Must be all steel.
All parts must be the same size and configuration on both sides.
Fords are permitted ford rotors and calipers, as long as they don’t exceed the GM specifications. 11 1⁄2 inches minimum and 11 3⁄4 inch maximum diameter by 3⁄4 inch minimum and 1-inch maximum thick rotor. Single piston caliper with a maximum 2 1⁄2 inch diameter. Must be all steel, no aluminum.
10.4.One proportioning valve is permitted. It can be either be installed between front to back brakes or left to right on the front brakes.
10.5.Top or floor mounted pedals may be used.
10.6.Master cylinder (only one, two-line with single push rod) must be located under hood in stock location (On firewall, left side of engine, above frame). Must be a true two-line system, one line for the front brakes and one line for the rear brakes.
10.7.Caliper brackets must be mounted in a fixed position. Brake ducts okay on front only. 10.8.One adjustment-proportioning valve or one bias valve is allowed.
10.8.1. On rear disc brake cars, the bias valve must be to the rear brakes before the line splits into two lines, one to each rear brake.
10.9.All chassis may use the Raybestos Brutestop 727 series drilled rotor. Manufacturer part number BR5064R or BR5064L only. Part numbers must be readable on the hub.
10.10. All chassis may use US Brake/AFCO part # 9850-6500-AE rotor. The part number must remain readable on the edge of the rotor.
10.11. One brake cooling fan, maximum of 3” pointed at the front caliper/rotor per side is permitted. One flexible 3” duct may be used with the fan. No other undercar fans are permitted.

11. TRANSMISSION
11.1.Only OEM stock production three speed or four speed (steel cased) manual transmission will be allowed.
11.2.No variable ratio transmissions allowed. No five-speed transmissions allowed.
11.3.Transmission must have all forward gears working and one gear reverse, plus a neutral. Ratios for all gears must
be OEM for transmission used.
11.4.All vehicles must start without being pushed or pulled.

12. ENGINES
12.1.GENERAL MOTORS: 350 cu. in. Chev. with 4.000” bore and 3.480” stroke. 12.2.FORD: 351cu. in. Windsor with 4.000” bore and 3.500” stroke. 12.3.MOPAR 360 cu. in. with 4.000” bore and 3.578” stroke.
12.3.1. MOPAR360cu.in.permittedinGMmetricchassis.
12.4..060 overbore permitted, maximum 365 cubic inches. No Stroker engines. 12.5.Hydraulic lifter camshaft with maximum valve lift as follows:
12.5.1. G.M. Intake .390, exhaust .410.
12.5.2. FORD-intake.445,exhaust.453.
12.5.3. MOPAR-intake.410,exhaust.410.
12.5.4. Valve lift is determined by multiplying the actual camshaft lift by the maximum allowable rocker arm
ratio.
12.5.5. Stock size hydraulic lifters (no mushroom type) only.
12.5.6. TRW lifters with C-clips are okay. No solid, anti-pump or Rhoads lifters.
12.5.7. No mushroom,roller cams or rev kits allowed.
12.5.8. Valves must not have over zero lash clearance. .
12.5.9.

12.6.PISTONS
12.6.1. Stock cast or forged (dished or flattop) pistons only (or equivalent replacement).
12.6.2. Four valve relief pistons are mandatory on G.M.
12.6.3. The piston, rings, rod, endcap, rod bolts and bearings will weigh a minimum of 1350 grams as a unit.
12.6.4. Pistons cannot come above block. Deck height of .005” recommended.
12.6.5. Stock rods (No 6" GM rods) and pressed wrist pins only. No floating pins. After market rod bolts and
nuts are allowed.

12.7.HEADS
12.7.1. All cylinder heads must be cast iron, OEM (numbers readable) open chambered smog heads (NO VORTEC heads), with specifications as follows:
12.7.1.1.1. GM heads - Maximum intake diameter 1.94", maximum exhaust diameter 1.5". Minimum Combustion Chamber volume 76cc. Minimum combined deck clearance plus head gasket thickness .050”. Maximum intake runner volume 160 cc. Maximum exhaust runner volume 60 cc.
12.7.1.1.2. FORD heads - Maximum intake diameter 1.84", maximum exhaust diameter 1.55". With minimum Combustion Chamber volume of 69cc., and maximum intake runner volume of 125cc., a flat top piston must be used. With minimum combustion chamber volume of 60 cc., and maximum intake runner volume of 140cc., a dished piston with .120” cup must be used. Minimum combined deck clearance plus head gasket thickness .080” for all heads.
12.7.1.1.3. MOPAR heads - Maximum intake diameter 1.88", maximum exhaust diameter 1.6". Minimum Combustion Chamber volume 68 cc. Minimum combined deck clearance plus head gasket thickness, with a flat top piston .120”. Maximum intake runner volume 162 cc. Maximum exhaust runner volume 72 cc. The following heads are approved: 3169974, 3671587, 3751357, 3751857, 3769596, 4027596, and 4448308. (Note: 4448308 maximum 162 cc. intake runners and 62 cc. exhaust runners is allowed. A 50 lb. weight penalty will apply subject to review by officials.)
12.7.2. Note: Any extra deck clearance or head gasket thickness can be applied to the combustion chamber using one-thousandth equals.206cc’s.

12.7.3. All cylinder heads must have stock intake and exhaust valves and stock valve spring dimensions (1.275" G.M.; 1.437" Ford; 1.5" Mopar).
12.7.3.1.1. Stock replacement stainless valves permitted. No swirl polished valves. No titanium valves. Valve stem length, diameter, and keeper group location must be stock.
12.7.3.1.2. Stock steel retainers must be used.
12.7.3.1.3. No angel milling, port matching, polishing or blueprinting is allowed.
12.7.3.1.4. Heads may be milled for straightness only. Stock rocker arms (or equivalent replacement) with stock ratios only (GM 1.5, Ford 1.6, Mopar 1.5)
12.7.3.1.5. Jam nuts are permitted.
12.7.3.1.6. Screw-in studs and guide plates are permitted. No additional valve springs allowed.

12.8.CRANKSHAFT
12.8.1. Only Standard steel or cast production design. .
12.8.2.Stroke may not be increased or decreased.
12.8.3..No lightening or knife edging.
12.8.4. No aluminum harmonic balancer, harmonic balancer must be stock for OEM engine.

12.9.MANIFOLDS
12.9.1. Cast iron OEM intake manifolds only. No aluminum or marine manifolds. No porting, polishing, or blueprinting.
12.9.2. No fabricated intakes. Intake manifold must bolt to head with no modifications to head or manifold.
12.9.3. Must have stock cast iron exhaust manifold, with maximum outlet size 2” diameter, Headers, or a “Block Hugger” header described in “Exhaust”.

12.10 OIL PAN
12.10.1. Any steel oil pan may be used. A one-inch hole with steel plug is recommended.

WATER PUMP
12.11.1. Stock water pump or aluminum water pump permitted.

FUEL PUMP
12.12.1. Mechanical fuel pumps only in stock location.
12.12.2. No belt driven fuel pumps permitted.
12.12.3.No electric fuel pumps permitted.

OILING
12.13.1.OEM oil pump only.
12.13.2. No dry sumps.
12.13.3. If the oil filter is removed from its original location, it must be remounted in the engine compartment.

TIMING
12.14.1. Stock timing chain (or equivalent replacement). No belts.

STARTER
12.15.1. Stock OEM starter for engine in use, aftermarket and small starters permitted.

DISTRIBUTOR

12.16.1. Only stock distributor, stock module, and stock type coil allowed. 12.16.2.No dual points.
12.16.3. No external amplifiers, except OEM Ford and Chrysler.

COMPRESSION

12.17.1. Maximum compression ratio of 9.0:1 is set. (Checked by whistler). 12.17.2. Whistler reading of 9.2:1 will be deemed illegal.

ASPIRATION

12.18.1. One two-barrel carburetor only; Holley 4412, 500 CFM maximum.
12.18.2. Carburetor must remain AS PRODUCED except choke flap can be removed
12.18.3. Serial numbers must be readable.
12.18.4. Carb must pass GO/NO-GO test using track teach instruments.
12.18.5. Jets and power valves may be normally interchanged.
12.18.6.No material may be otherwise added to or removed from the carburetor. Throttle shaft can be spot welded to linkage.
12.18.7. No air passages below the venturi in carburetor.
12.18.8. PVC valve can come out of valve covers only.
12.18.9.Stock metal air filter housing only. Breather cover must be stock type, steel or aluminum (e.g. Moroso
o.k.). No scoops or fresh air boxes. Carburetor must draw air through filter only. No cowl induction.
12.18.10. Must have two throttle return springs on separate brackets.
12.18.11. A Longacre (part 32732) throttle stop must be used. Other manufactures of similar throttle stops may be used subject to pre-approval of Teach Official. Contact Lawrence Hopper for approval..
12.18.12. A four-barrel to two-barrel adapter, maximum 1 1/8" thick may be used
12.18.12.1.1 A 1 inch straight through, no tapering, no steps, no oval, straight through aluminum spacer is permitted.
12.18.13 General Motors and Mopar may have two stock type gaskets, one thick and one thin.
12.18.14. Carburetors on Fords will fit on stock two-barrel intake, a 1" spacer is allowed in place of EGR plate.
12.18.15.No fuel injection. No electric fuel pumps No belt driven fuel pumps allowed
12.18.16. No aftermarket filters or fuel enhancing units permitted. Basic replacement in-line filter O.K.
12.18.17. No turbos.
12.18.18. No magnetos.

CRATE ENGINES

12.19.1. GM Crate engine # 19258602 (formerly # 88958602) is permitted. This engine package has the following competition adjustments and requirements:
12.19.2.500 Holley 2brl only
12.19.3. Fly wheel part # GM 14088650. 0r equivalent only, 86-92 Firebird and Camaro (25 LBS factory weight)
12.19.4. Stock GM distributor and HEI for the 602 GM Crate engine must be used.
12.19.5.Engines must be tagged with Scotia Speedworld, NAPA Sportsman series or a Speedway 660 seal prior to racer taking delivery. Engines sealed by another track need to be cleared by our Tech officials, prior to being allowed into competition.

13. EXHAUST

13.1.Headers are permitted but primary tubes must be no larger than 1-5/8" for the full length of the tube (flange to collector).

13.1.1. No step tubes allowed.

13.1.2 Collector must be 3" diameter and be secured to the exhaust pipe (3.5"max.diameter).

13.1.3. Collector is to remain stock length.

13.1.4. A"Y" pipe collector is required to adapt into a single exhaust pipe.

13.1.5. Headers are to be conventional crossover design only..Example:Schoenfeld135headers.

13.1.6. No180-degree headers permitted. .

13.1.7. No stepped headers permitted.

13.1.8. Miles steel headers only. No stainless, chrome, or coated (inside or outside) headers permitted.

13.2.A "Block Hugger" header, with maximum 1 5⁄8" tubes and a 2 1⁄2" 3-bolt flange, that measures no more than 10" top to bottom, with a maximum outboard measurement of 3 1⁄4", is allowed. When installed, the header exhaust flange must not be lower than the point where the block and oil pan bolt meet. Exhaust pipe off the header must be 2" o.d. exhaust tubing. The first four inches (maximum) can be used to reduce the exhaust pipe off the header to 2" o.d. maximum. The next 2 feet must be 2" o.d. after which it can go to 2 1⁄2" for the remainder of the 4 foot minimum described above. The rest of the exhaust will remain the same as the cast iron manifolds.

13.3.May have a stock OEM cast iron exhaust manifold with a maximum 2" diameter outlet.

13.4.Two-inch exhaust pipe off manifold can go to 21⁄2" i.d. And must remain 21⁄2" or less for a minimum of four feet or until it exits. After four feet, if dual exhaust goes into one, it must remain as one until it exits. Maximum inside
diameter of single tailpipe is 4 inches. Pipes must be tight at all joints (welded or clamped) and securely fastened. 13.5.Mufflers are permitted (straight through only), must be removable for inspection.

13.6.Exhaust must be mounted in such a way as to direct gases away from the driver's compartment and away from
any areas of possible fuel spillage.

13.7.Exhaust must exit behind driver under the car below the floor pan in front of rear wheels, pointing downward so opening is flush with an imaginary line along bottom of pipe. May also exit through right side door, but must not exit passed the door. No angle cuts or balance tubes are permitted. An extension exhaust pipe to route exhaust to rear bumper is permitted.

13.8.Pipe wrap recommended.

13.9.Manifolds and headers will remain as produced. No porting, polishing, acid treating, blueprinting is permitted. Any
indication of grinder marks or acid could render the car illegal. Manifolds and headers are subject to removal for inspection.

14. CLUTCH AND FLYWHEEL

14.1.One clutch disc, one pressure plate only allowed. Must be stock production OEM. This includes weight (Clutch and pressure plate minimum - Ford: 20 lb., G.M.: 19 lb., Mopar 26 lb.), size (minimum 10-inch diameter c/w stock springs) and physical appearance.

14.2.Nodular iron flywheel only and must weigh a minimum of 18 lbs. For the purpose of weight, flywheels can have material removed but not added. Total combined weight (no tolerance) for clutch and flywheel O.K (+ or - 2lbs on either piece).

14.3.Clutch linkage can be either hydraulic or mechanical. Inspection hole must be drilled in bottom of bell housing unit for inspection viewing.

14.4.A blow proof bell housing or a 1/4" thick steel scatter shield positioned between the floor and bell housing, covering the top part of the bell housing, 180 degrees around is required on all cars.

15. REAR END
15.1.Any passenger car rear end may be used.
15.2.Locked rear ends are allowed.
15.3.No floating axles. No gun drilled axles.
15.4.Rear end and all suspension parts must be stock type and in original location.
15.4.1. Onlyuppercontrolarmsmaybere-drilled.
15.4.2. Rear OEM/Aftermarket trailing arms must remain in stock position on frame and rear end housing. 15.4.3. No slotted or elongated mounting holes.
15.4.4. Only one mounting hole allowed at each mounting location.
15.5.No quick-change rear ends. No Detroit Lockers. No aluminum carriers or spools.
15.6.Pick up points on rear ends must measure same as stock.
15.7.A simple reinforcement brace may be installed under the rear end but must not be any wider than the spring
pockets on the housing. See Figure 1. (Page 17) 15.8.Mini locker (piece of pipe joining the two axles) okay.

16. REAR GEAR RATIO
16.1.Maximum gear ratio is 5:83:1 final drive. Standard transmission only and must race in second gear.
16.2.To find ratio (3 speed), multiply rear end gear ratio by transmission ratio (e.g. second gear). Example: rear end gears 3.08 times transmission ratio 1.89 (3.08*1.89=5.8212), (3.08* 1.84=5.6672), (3.42*1.68=5.7456). You may run less than 5:83:1 but not more. All gears in transmission must remain same ratio as produced by
OEM.
16.3.Cars running Headers – maximum gear ratio 5:50:1 final drive.
16.4.A 1:1 final drive will be allowed as an option for 2014, with transmission in high gear.
16.4.1. This will be achieved with the existing steel cased 3 speed transmission and a final drive is not to exceed 5.50:1. The 3-speed transmission must not have a second gear ratio closer to 1:1 than 1.50:1.
16.4.2. The rear end may use a solid steel spool or a mini spool.
16.4.3. Axles must be steel.
16.4.4. No gun drilled axles allowed.
16.4.5. All drivetrain components must be steel. A 50 lb penalty will be assessed to the 1:1 final drive option.

17.FUEL AND FUEL TANKS
17.1. Safety approved fuel cells are mandatory.
17.2. Fuel cell must be totally encased in a 20-gauge (or thicker) steel can.
17.3. All tanks or cells must have a protective hoop assembly at the rear. Hoop (min. 1.75” o.d. 083 thick) will
consist of one bar hanging down from each frame rail connected together at the bottom by a horizontal bar or one continuous bar running from frame rail to frame rail in a similar manner. Hoop must be to the bottom of the cell. A top bar must run straight across (between and below) the frame rails and be attached to the two downward bars. A vertical bar will tie the top and bottom bars together halfway between the frame rails. A jacking post not more than 1 1⁄2” long may extend down from hoop provided it is not below the rear end housing.
17.4. The bottom of all tanks and cells must have a minimum of 12” ground clearance. Tanks must be installed behind the rear axle, between the frame rails, fastened to the frame.
17.5. No pressure tanks permitted.

17.6. A recessed fuel filler MUST be placed on rear deck at the base of the rear window or the driver's side
rear quarter panel.
17.6.1. A check-valve (flapper) must be used at the top of the tank as well as a check-valve installed in the
vent hose which must exit through the rear bumper cover. As the filler is outside the
body, you must still have a functioning full width trunk lid.
17.6.2. NOTE: This rule is being imposed to prevent a possible fire hazard when refueling the cars on the track or in the pits.
17.7. An Oberg fuel safety valve (Keyser Part # SV-0828) must be installed in the fuel line to carburetor, as
close to the fuel cell as possible. This is available at Performance Shops locally.
17.8. All fuel lines must be metal and run under floor.
17.9. Fuel must be unleaded pump gasoline intended for normal highway use. No additives. No nitrous oxide or
nitro. No nitrous devices or plumbing allowed. No racing fuel. No aviation fuel. Fuel could be subject to testing.

18. STEERING
18.1.Steering box must be OEM and must match frame and be mounted in original holes. No fabricated or aftermarket steering components, other than offset shaft.
18.2.Stock OEM power steering must remain and be operating.
18.3.No cutting, welding, and/or relocating pitman arm, steering arm, center link or other steering components.
18.4.No rack and pinion steering. No quickeners.
18.5.In cockpit steering may be modified to suit driver's taste but must be kept on the left side of the cockpit and the right
side of the frame. No center steering.
18.6.Steering column must have a collapsible joint or a minimum of two u-joints.

19. WEIGHT
19.1.Car must weigh a minimum of 3000 lb. pre-race, with the driver.
19.2.Cars with stock OEM exhaust manifolds can weigh a minimum of 2950 lb. pre-race, with the driver.
19.3.GM Crate engine (602) will weigh 2950 lb. pre-race, with the driver in car.
19.4.Any car weighing substantially less than others post-race will be required to fill fuel cell and be re-weighed. 19.5.Maximum rear weight 45%.
19.6.Maximum left side weight 55%.
19.7.No hydraulic, pneumatic, ratchet, electric, or any other kind of moveable weight devices anywhere in or on the car. 19.8.Added weight must be securely fastened, painted white and have car number on it.
19.9.No weight or anything else below frame rails.
19.10. Management maintains the right to adjust or further define the weight rule.

20. TIRES AND WHEELS
20.1.Tires will be Hoosier 10425 or 10420 8" treaded tires compound 890. SWSCA reserves the right to define tire size, structure, compound, allowable quantities, and chemical treatments to all competitors for all events. Tires could require further branding by officials before they are eligible for use.

20.2.Tires raced at LDMS must be purchased from Napa Sportsman Series, Petty International Raceway, Scotia Speedworld, Speedway 660 or SWSCA.
20.3.Wheels must not exceed 10 inches wide and 15 inches high. Steel wheels only. Oversize steel wheel nuts that thread all the way over the stud required. 3/8" round stock may be used to protect rim lip. No offset wheels with less than 1" of offset.
20.4.Minimum half-inch studs recommended.
20.5.Maximum overall width (front and rear) shall not exceed 78" from outside of one wheel to outside of opposite wheel
at spindle height. No wheel spacers allowed on 1.75" or less offset wheels. Wheels that are offset 2 inches or more may use a one- inch maximum spacer. Spacer must be one solid aluminium piece. Tires cannot be more than 2" outside the body.

21. SAFETY
21.1.Driver must wear a SFI fire rated driver's suit. Note: in 2022 a two-layer driver suite or a single layer driver suite and SFI underwear will be required.
21.2.Driver must wear SFI fire rated driver's gloves.
21.3.Driver must wear a SFI rated Head & Neck Restraint system.
21.4.Driver must wear SFI fire rated driving shoes.
21.5.Full-faced helmets are mandatory. Helmet must be Snell SA or SAH 2010 or newer. No DOT or M rated Helmets. Snell SA and SAH 2010 helmets will expire in October of 2021,
21.6.A "kill switch" must be installed in the centre of the dash. This "kill switch" when turned to off position must shut the engine off.
21.7.A securely fastened, quick release fire extinguisher is required within easy reach of the driver with a recharge slip dated no earlier than January first of the current year. Brackett securing fire extinguisher to car must be metal. No plastic brackets.
21.8.Fire suppression systems must meet manufacture recommendations for refill intervals.
21.9.Driver's side window net (quick release, properly working top latch) is required.
21.10. Safety approved fuel cells are mandatory.
21.11. Batteries must be securely mounted and shielded.
21.12. Loose objects and/or weights will not be allowed in driver's compartment (between front and rear hoop).
21.13. All weight added must be securely mounted; a minimum of two half-inch bolts used with each weight. Weights
must be painted white with car number on the weights.
21.14. Five-point racing harness is required. Harness must be replaced per manufacture's recommendation.
21.15. Drive shaft hoop required toward front of driveshaft. Hoop must be constructed of material sufficient to
contain the drive shaft in the event of U-joint/driveshaft failure. Drive shaft must be painted white.
21.16. Roll bar padding is recommended around driver. Padding must be SFI-45.1 rated.

22.BODIES, INTERIORS AND AIR DAMS
22.1.North American mid or full-size steel bodied sedans or kit bodies (steel, fiberglass, or aluminum). No station wagons, trucks, panels, vans, or convertibles. Bodies must be same as available from Five-Star. Bodies must be easily identified and be entirely from one model (i.e.: Monte Carlo snout, hood, roof, rear quarters, and rear bumper cover). No mixing makes and/or models.
22.2.Camaro, Challenger, Charger and Mustang bodies for the 108 chassis are permitted, must follow AR measurements.

22.3.All bodies should conform to “Five-Star Short Track Template” dimensions and angles and may be required to fit templates. Weight penalties, rear spoiler modification/removal, or other adjustments could apply to non-conforming bodies (in the opinion of officials) for their first day of competition. Compliance may be required to continue beyond the first day.
22.4.The new Gen 6 bodies is permitted.
22.5.Front fenders and top of windshield must be kept free for contingency decals.
22.6.Aluminum, fiberglass, or steel aftermarket bodies O.K. with rubber front and rear bumpers. No flared-out rear
quarters.
22.7.Trunk lid (Minimum 3 sq. ft. opening with 12” min. measure either way) must be functional. Safety retainers
required on hood and trunk lids. Trunk lid may not be dished.
22.8.No cut down doors. Door length and shelf width must meet Five-Star Specifications. Shelf width maximum 2” left,
3.5” right.
22.9.Body must be centered on frame and retain its stock appearance, dimensions, and angles.
22.10. Passenger side window must remain completely open. A vent window to accommodate an air duct can be
installed back from the bottom of the windshield pillar a maximum of 101⁄2” and up at 90 degrees from the edge of door.
22.11. Rear deck spoiler (Five-Star type) allowed. Maximum length of 60” and a maximum height of 5”, measured across the back. No boxing, no adjustable spoilers. Spoiler must be centered side to side on rear deck.
22.12. Rear deck height may be a maximum of 34.5” off the ground. No adjustable rear quarter panels.
22.13. Full front windshield required. Must be Lexan or approved safety glass. Top of front windshield must remain available for division sponsor. Lexan rear window and quarter windows allowed. Back windows must be securely braced internally to prevent significant bowing at racing speeds (see sucked down roof and rear
window rule below).
22.14. All window pillars should be in place. Painted roll bars are not an acceptable substitute. No additional
material may be added in pillar area.
22.15. Must have original grille or be meshed in.
22.16. Body must be a minimum of 4” from the ground at all points.
22.17. Must have full steel (min.032” thickness) or aluminum (min.040” thickness) interior.
22.18. Complete steel firewall (front and rear), floorboards, and area surrounding driver mandatory.
22.19. A steel plate under the driver’s feet and seat is recommended.
22.20. Aftermarket rubber nose cone must match the body. Rear bumper cover must match body. Rear bumper covers may not be trimmed, hulled, drilled, or otherwise changed or modified.
22.21. No wings or ground effects anywhere inside or outside of car.
22.22. The interior of the car cannot be arranged in such a way to look like a spoiler. Right side floor pan may be level with transmission height, angle up to bottom of the passenger side window opening, or drop back down with level of floor on driver’s side.
22.23. No holes allowed in hood or other body panels other than stock holes. No cowl induction.
22.24. Any radiator duct must not extend ahead of the front bumper or behind the radiator and must be at least 4” off the ground.
22.25. All cars in competition must have a complete paint job. Primer is not considered paint.

22.26. No body modifications allowed. No external strips allowed. Any bodies that appear to be mounted in a
manner that could put more air on the rear spoiler (sucked down rear roof and/or window) or the front area of the car could be required to make changes such as trimming or removing rear spoiler, removing hood or other adjustments to compensate for any possible advantage in the opinion of the officials.
22.27. All cars must begin each race meet with complete body unless damaged in practice and/or OK'd by Pit Steward.

23. MEASUREMENTS
23.1.All heights will be measured with driver in car. Lifts not permitted.
23.2.Minimum roll cage height to be thirty-nine inches from bottom of frame.
23.3.Minimum height of door bars to be twenty-two and a half inches from bottom of frame.
23.4.Minimum four-inch ride height (Metric chassis - six inches) measured at side frame rails.
23.5.Minimum crankshaft height to be minimum frame height plus seven inches.
23.6.Forty-eight-inch roof height (2002 or newer body 47") measured back from the windshield to the ground per Five
Star specifications.
23.7.Roof height at top edge of rear window should be no more than 1.5" lower than roof height at front (10inches back
from windshield). Top of rear quarters should not be trimmed to allow sides of roof to be lowered. Rear deck height and spoiler height could be relative to any combination of deck length, roof height, nose height and angle, front fender contour, windshield angle, door length and width.
23.8.Rear deck height may be a maximum of 34.5" off the ground. Rear deck length will conform to Five Star specifications.
23.9.Remaining measurements must conform to Five Star specifications.
23.10. Minimum ground clearance of any body component is four inches including bumper, bumper covers, and side
skirts.

24. RUB RAILS
24.1.A single exterior rub rail may be used on each side of the car, from behind the front wheel parallel to the ground, to ahead of the rear wheel, break for the rear wheel opening and continue toward the rear of the car and fasten to the rear bumper.
24.2.Square or rectangular tubing or round pipe permitted. Maximum 1" O.D. or 1/2" by 2" O.D. No exposed bolt heads. Front and rear ends will taper at 45 degrees and be closed in. Bolt heads must be countersunk. Recommend a 1⁄4" X 2" aluminum flat bar with tapered ends. No sharp edges.
24.3.Plastic rub rails permitted.
24.4.Rub rails must fit tight with side of car (bolted tightly to outside door bar within 8" of either end as well as along the
length) and blend with car colors. Numbers and lettering must be over rub rails or visible through them
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25. BUMPERS
25.1.Bumpers must be used front and rear.
25.2.The center of the front bumper must measure between 15" and 17" from the ground.
25.3.Bumpers will be constructed of maximum 2" tubing and may not have any sharp edges exposed.
25.4.Rear bumper and brace bars must be sufficient to protect fuel cell or tank.
25.5.A cable or chain of sufficient strength to lift car must be exposed in center of front and rear bumpers to allow for quick pick-up. Cars with hinged trunk lids and hoods are exempt.

26. PAINT AND NUMBERS

26.1.All cars must have their assigned numbers on both sides of the car and on the roof (readable from the grandstands) at least 20" high and 4" thick in a color that contrasts with the car color. No gray, silver, gold, metal flake or trick numbers.

26.2.A 6" white number must be on the top right front windshield.

26.3.Numbers deemed difficult to score, the driver will be notified and any scoring protests by that driver will not be
acknowledged.

26.4.Numbers can be obtained from the administration office 902- 481- 2514, Monday – Friday between the hours of
8:00am and 4:00 pm.

26.5.Front and rear snouts should be painted the same color as the car.

27. LISTENING DEVICES

27.1.Two-way radio communication is permitted. Drivers radio must have a priority channel that will change to Scotia Speedworld Race control as soon as Race Control is speaking.

27.2.Scanners or Receivers must be used if a two-way radio is not used.

27.3.Frequency will be posted on the line up board at drivers meeting.

28. MISCELLANEOUS

28.1. One inside mirror may be used and must be mounted inside car.

28.2. One left side mirror, maximum width of 4” at any given point, not to extend beyond body.

28.3. A loop of cable or chain to be used for quick pick up is required front and rear (or hinged hood and trunk lid).

28.4. Anything not specified as allowed must be stock.

28.5. No performance or aftermarket speed equipment of any kind is allowed.

28.6. Previously raced Sportsman cars with bodies of earlier vintage than Five-Star catalogue may be allowed.

28.7. No traction control or similar devices are allowed.

28.8. Stock parts are those manufactured for the normal family sedan, not taxis, police cars, muscle cars or other special editions.

28.9. Any misinterpretation of the rules will be subject to a final decision by track officials.

28.10. Track officials may check any car at any time.

28.11. Previously raced Sportsman cars with bodies of earlier vintage than Five-Star catalogue may be allowed.

29. GAUGES

29.1. Analog tachometers, water temperature and oil pressure gauges are permitted.

29.2. Tachometers must be disconnected during heats and feature races.

30.VISITING CARS

30.1.Cars from other tracks or Series will be allowed to compete at the discretion of officials.

30.2.Visiting competitors not willing to declare and prove their clutch weight meets the SWSCA requirement will be allowed a maximum final drive of 5.67:1* (see gear ratio rule). Visitors with exhaust other than those described in these rules will be allowed a maximum final drive of 5.30:1* (*subject to review in the interest of fair competition).

30.3.Visiting competitors that do not comply with body rules may be required to make adjustments prior to being allowed to enter competition.
30.4.Bodies must meet all “Five Star” rules, measurements, angles, and templates as described in the ABC body program. Standard weight panels permitted only.

Technical Questions
 Competitors can contact JP Arsenault at 902-778-1030 for any technical questions.

SWSCA Sportsman Division Rules 2021
 We endeavor to make to make the rules as explicit as we can. If it doesn’t say you are permitted to do something, then you are not permitted to do it.