

# **IV. SST Super Stocks**

Revised – January 2025

General Note:

**As a creative way to build fan recognition, teams are encouraged to design their paint scheme as racing heroes of yesterday (i.e. Allison, Petty, Earnhardt, Wallace, etc.). Boldly display your major sponsor across the rear quarter panel in similar fashion to the 'Big Boys'. Participate in the promotion of this division, and let's build it back up, with a team effort. Continued growth in our very competitive division of stock cars will require professionalism on the racetrack and in the pit area. Please assist young teams with this development. Race hard and have fun!**

## **A. COMPETING MODELS**

- 1.) Open to all 1968-1989 style two-door North American made steel-bodied passenger cars with 120-108-inch wheelbase minimum. No pony or sports cars, Camaros, Firebirds, or Mustangs. Rear wheel drive bodies only. Panels may be reproduced to configure to OEM body style.
  - a.) Aluminum body with Steel Roof and Steel Interior may be allowed with the following weight disadvantages: 55% left side weight maximum
  - b.) All steel body and interior 56% left side weight maximum
- 2.) The car body and overall appearance should retain all stock dimensions. Altered body lines could be a significant reason for disqualification. The body may not be lower than the frame. No Late Model or front wheel drive body styles. Side skirts between the wheels may be lower than the frame rail.
- 3.) All glass, except windshield, must be removed. The glass windshield must have four, 3-inch tabs (2 on top, 2 on the bottom) and two inner center braces. Windshield may be replaced with Lexan (Polycarbonate, NOT Plexi-glass). Must be full windshield. No rear window allowed, passenger side window may not exceed 25% closure of opening, C' pillar window may be filled.
- 4.) Doors must be welded or securely fastened front and back. Door skins, front fenders and rear quarters may be fabricated but must maintain acceptable factory body lines. 1" maximum outer door bar allowed tight to the body.
- 5.) One 5" x 60" max rear spoiler, stock or aftermarket mounted on the back trailing edge of the trunk lid or tailpiece. No additional air enhancement devices over the top of the vehicle allowed. Front valance on nose piece or below bumper is acceptable at the tech inspector's discretion. 2" minimum gap to track. Measured with driver during tech inspection.
- 6.) The interior of the car must be completely stripped. Driver must sit in relative stock position; pedals must be in stock location. Floors under driver must be minimum 18-gauge steel. Passenger side floor

may be raised for clearance of exhaust. Maximum height is no higher than factory hump. No tunneling of cockpit. Interior steel 20 gauge minimum welded or riveted. No self-tapping screws.

- 7.) Trunk floor is to be cut from frame rail to frame rail, back to the spring pockets to accommodate the fuel cell.
- 8.) The front firewall may be fabricated but must be in original location with all holes covered with no less than 20-gauge steel. The rear firewall must be completely closed off from the trunk compartment with 18-gauge steel which must be riveted or welded. No metal screws, no aluminum sheet in firewall construction allowed.
- 9.) The rear of hood and windshield cowl area must be sealed off from engine compartment to keep hot fluids and flame from entering driver compartment.
- 10.) All body webbing and front inner fender panels recommended to be removed.
- 11.) Front and rear bumpers must be in their original location. No bracing outside of the bumper covers. Tube type bumpers must be covered with stock type approved bumper cover.
- 12.) Frame must remain stock from front of steering box (front steer) to rear kick-up over rear axle. Factory frame may be X braced and boxed. 2 x 3 x .120 wall tube may be used to repair rear clips from the center line of rear axle back only. Transmission cross-member support may be fabricated. Lower A-arm mounts must not be modified. Washers may be welded to support egg shaped holes. Chrysler uni-body cars are allowed at the discretion of the WCIS Officials. Front and rear frame sections must be tied together with 2" x 3" x .120 Wall tubing in a secure manner. Stock floor pans of uni-body cars must remain intact.
- 13.) Frame must not be cut out for fuel pump clearances. Long chassis, frames may be cut down to obtain the minimum wheelbase of 108 inches.

## **B. BUILT ENGINES**

- 1.) Stock, unaltered engines and transmission combination must be within chassis as a factory item, including all engine accessories except air filters, pulleys, valve covers and oil pan.
- 2.) No 6-cylinder engines are allowed. All engines must be standard production pre-1987 heads and blocks and have stock external and internal measurements, except for maximum 0.060 overbore
- 3.) Engine cannot be in excess of 360 cubic inches plus 0.060 overbore. Engine must match make and model of car used. GM: 350 cubic inches up to 0.060 overbore. Ford: 351 cubic inches up to 0.060 overbore. Chrysler: 360 cubic inches up to 0.060 overbore.
- 4.) Only stock production OEM crankshafts will be permitted or Scat 9-35034805700 Stock stroke only. No lightening of crankshaft will be permitted. No cutting or trimming of counterweights. Normal balancing only. No external modifications are allowed.

- 5.) OEM production type rods and crank. OEM Production Block only.
- 6.) Stock production OEM cast iron heads only. Heads must have stock internal and external measurements. No porting, polishing, grinding, filling or blending of any kind. No undercutting of valves allowed. Stock valve stem diameter only, max. valve size 2.02 intake and 1.6 exhaust. No center bolt style heads, no bowtie or angle plug heads allowed. Heat riser port may be blocked.
- 7.) Compression -
  - a.) Maximum compression ratio no greater than 10.0:1 (Vehicle minimum weight is 3200 lbs.).
  - b.) Compression will be checked with the whistler.
  - c.) Minimum weights are with driver in car, after the race, and with no added fuel.
- 8.) Solid magnetic steel forged OEM rods or sportsman rods only. No billet rods. Sportsman rods must have forging mark or identification marks on side of rod beam. Must be true sportsman rod. Call for list of acceptable rods if not certain. Only acceptable length is 5.7 inches.
- 9.) Hydraulic cam shaft only. No roller cams, roller lifters, or solid tappets allowed. Cams lift is not restricted. Lifter must remain stock diameter for make and model of block. No mushroom lifters.
- 10.) Roller rocker and girdles allowed. Chevy 1.5, Ford 1.6. No shaft rocker arms.
- 11.) An inspection plug is optional on the left side of the oil pan. The inspection hole must be a minimum of 1 ¼" I.D. It must be 9 ½ inches from the rear block face to the center line of the inspection hole and 1 ¼ inches from oil pan rail. There will not be any obstruction of view from the inspection hole to the crank and rods. If there is some reason that the tech inspector cannot see what we want to see Oil pan will be removed.
- 12.) No coating of any engine components.
- 13.) Mounting of Engine - steel or rubber mounts acceptable. Rubber mounted engines must be chained down for safety. The engine must be in a general stock location with a minimum crank / center height of fifteen (15) inches to the ground. Front spark plugs must be located within 1" of centerline of upper ball joints.
- 14.) No cutting modifications of frame for fuel pump clearances.
- 15.) IGNITION - Only OEM type ignition allowed. No dual points allowed. Coil must remain in stock location and be stock appearing. Rev limiters permitted. All components are subject to inspection, confiscation, and trade at any time throughout the event to maintain legality.
- 16.) IMPORTANT - No cross breeding or interchanging of engine parts. All components must have been available on a two-barrel, small block motor from the factory. No special-order components.

## C. CARBURETOR/INTAKE

- 1.) Unaltered Holley #4412 500 CFM (no HP, or HP components) carburetor must be used, choke plate may be removed. Carburetor must retain stock unaltered choke housing. Choke plate, shaft and screws may be removed. One and three-eighths (1 3/8) inch venturi size maximum allowed and up to one and eleven-sixteenths (1 11/16) inches throttle plate with no adapter plate. Venturi booster cluster must have stock unaltered inserts (No big block or marine boosters allowed). Throttle shaft and butterfly mounting bolts unaltered. Metallic fuel filters only. Steel, aluminum, or industrial braided hose must be used. No rubber unprotected hose allowed. Recommended AN fittings and fuel delivery accessories.
- 2.) Adapter Plate and Gaskets: Only one solid spacer made of aluminum or phenolic plastic of a maximum height of one (1) inch permitted. Only one .075 maximum gasket per side. NO wedge-shaped mounting surfaces, both top and bottom surfaces must be parallel. Spacer must have two (2) holes maximum size 1.750 straight bore and match the base of carburetor. No air flow modifications. Air filter must be run at all times. Offset air cleaners must be secured from spinning on motor and interfering with carburetor throttle linkage (*Revised 7/1/2019*).
- 3.) Edelbrock Performer 2101 is the only intake manifold permitted. 2101 must retain internal and external measurements. Intake must be today's production style. No truck or marine manifolds allowed. No alterations or modifications to manifolds allowed. No coating allowed on or in manifold with the exception of paint only on exterior surface.
- 4.) Air cleaner must fit under hood with minimum lift or deflection of hood.

#### **D. FUEL**

- 1.) Must be purchased at track or same brand to eliminate altering or mixing of additives. No cutting fuel with other brands. Be sure tank is clean of outside fuels to ensure legality when in final tech.
- 2.) WCIS Tech has final decision based on residue, smell, and visual discolorations of fuel.
- 3.) Sunoco 110 track fuel only.

#### **E. CRATE ENGINE OPTION**

- 1.) Crate Engine Option adapted from HIS/ LNS / ASA-GM rebuild Rules (all rules are subject to change without notice) -
  - a.) Unaltered and sealed GM crate engine P/N 88958602 or P/N 19258602.
  - b.) Track Officials reserve the right to impound, inspect, disassemble, replace, and/or have an independent engine builder inspect and test any competitors crate engine at any time, at the expense of the engine owner.



- c.) Any team found to have altered and/or tampered and/or removed any engine seal(s) may be subject to IMMEDIATE disqualification from the event, loss of all points and monies, suspension and/or other penalties issued from Track Management and Track Officials. Any seals that in the judgment of the track Manager and/or Track Officials that have been tampered with and/or altered will result in engine being declared ineligible for competition. Track Officials may impound the ineligible engine for further inspection and/or return it to an authorized Crate Engine Dealer, at the expense of the team, for engine re-certification. If, at the conclusion of testing, the engine been declared altered, modified or tampered with, the confiscation of the engine, an indefinite suspension and/or additional fines and penalties as deemed appropriate by the Track Manager and Track Officials.
- d.) Must use the same carburetor and adapter plate rules as the custom built engines (see built engine rules).
- e.) Rev module #MSD 8728 must be used and set at a max 6300 RPM.
- f.) Crate engines WILL be subjected to the same engine tech as non-crate engines, therefore now becoming unsealed. This includes that a site plug as stated in the rule book must be installed in the oil pan. Wyoming County International Speedway/ BullRing Promotions Group will NOT at any time cover the cost to reseal a crate engine. This responsibility is placed solely on the race team to reseal any crate engine.

## **F. STARTER**

- 1.) The car must have a self-starter in working order at the beginning of events. Vehicles may be push started due to component failure. Multiple attempts to fire vehicles may result in DNF or DNS. Starter must mount in OEM location and may be aftermarket replacement.
- 2.) One Battery measuring 13.5 volts will be permitted. It must be securely anchored and mounted inside outside the driver's compartment but not behind the rear axle.

## **G. RADIATOR**

- 1.) Must be copper, brass, and aluminum stock type. Mounted in stock location.
- 2.) No antifreeze (fines will be issued - \$50 first infraction), water only.
- 3.) Cool/lubricant additive may be used for lubrication and temperature control. (See General Rules)

## **H. TRANSMISSION**

- 1.) Stock production, 2 speed or 3 speed automatic transmissions are allowed. No high performance of special-order transmission is allowed. No modifying of transmission in any manner is allowed. All gears must be in working order.
- 2.) Torque converter must be stock type in working order. No Vega or similar small torque converters are allowed.
- 3.) Stock OEM unaltered 3 or 4 speed manual transmissions allowed only. All gears must be in working order. No lightweight gears or shafts. Steel bell housing must be OEM style (no reverse mount starters).
- 4.) Stock diameter steel flywheel and clutch components only (10 ½" min).

## **I. WHEELS AND TIRES**

- 1.) Steel safety/racing wheels only. Must have a maximum width of eight inches x 15" diameter.
- 2.) No bead lock rims are allowed. Safety 1" lug nuts are mandatory. Studs may be improved size.
- 3.) American Racer EC-31 is the official series/track tire. Tires may be purchased new from WCIS/TTI or used from fellow WCIS Competitors.
- 4.) Minimum durometer is determined by the average of all tested tires of the specific event. No tire may durometer less than 5 points below the test average, or 52 pts. Testing may be done at any time to ensure equality.
- 5.) Maximum width 78" measured outside to outside of tires.
- 6.) Tires may not be altered in any way. No tire treatments. Tires may be impounded and tested internally or externally at any time. Tires will be subject to adhesion test, visual and sniff test at the discretion of track officials. Tech officials have final decision to destroy or confiscate any tire in question. Bar code numbers may be tracked to ensure authenticity.

## **J. SUSPENSION**

- 1.) All suspension components must be in original mount location except upper control arm frame mount. Lower front control arms must be in original position. No offset or bearing type bushings in control arms. Racing springs may be used; however, they must be of the same design as the original equipment and must mount in original spring mounting bracket position and location (min 5" diameter), only four springs are allowed per car and must be stock in appearance. Coil springs may be cut. Adjustable spring spacers are allowed. Must be safety wired in place.
- 2.) No externally adjustable shocks. Front may be in stock mounting holes or externally mounted as close to stock location as possible. Rear shocks must be located one per side and in relative factory

location. Shocks must be steel body and may be rod end style. Each shock value must not exceed \$150 racer net.

- 3.) The front sway bar may be standard factory production type or HOWE bar factory style. In factory location and mount (rubber may be removed or replaced with neoprene type). Stock frame mounting or similar mounting only. No adjustable mount underside mount is acceptable at lower control arm, no rear sway bar is allowed. Sway bar link to lower A-frame may be modified.
- 4.) A minimum of 6" frame ground clearance will be measured at the frame rail behind the front wheel and in front of the rear wheel.
- 5.) Steering components must be OEM type (idler arm, pitman arm, center link, inner tie rods and steering box). Outer tie rod may be a rod end to allow for bump steer pin in OEM spindles. Tubular steering link may be used to connect inner and outer tie rods. Steering box must mount in factory location on frame, but maybe reinforced.
- 6.) Reinforcement of front upper control arms allowed. Tubular front upper arms permitted; upper mounting location may be modified. Do not use horseshoe shims to adjust upper control arm. Washers must be used to ensure spacers remain intact if bolt loosens.
- 7.) Lower control arms; must be in original OEM position. Replacement aluminum, steel, or neoprene bushing allowed. No offset or bearing type bushings in control arms.
- 8.) Jacking bolts are allowed in front and rear center line of stock spring location. Adjuster cups allowed in front suspension.
- 9.) Rear suspension mounting points must be unaltered 4-link. Steel or polyurethane bushings may be used. Trailing arms may be tubular, rod end, adjustable within ½ "stock length. Chassis mount locations must remain stock to accept factory 4-link.
- 10.) Weights must be securely fastened to the frame. No weights mounted in the driver's compartment. Unless secured in steel tube and permanently welded. Bolted weights must be painted white, be lettered with an "SS" and car number. No weight is to be mounted below the frame rails, or below fuel cell. Weights must be solid bar (minimum 5 lbs.) No steel shot or lead pellets.
- 11.) 3 piece, cast iron aftermarket spindles maybe used (speedway PT#910 34501 – R/L#916 05016 – pair) all other styles must be pre-approved in written form.

## **K. REAR ENDS**

- 1.) Locked rear ends only. May run after market axles. No gun drilled axels. OEM carrier only. No ratchet or after-market carriers (see Ford Section 3). Steel Mini spool may be used. Steel full spool is allowed. No Posi rear ends.

- 2.) Gear rule: SST Requires no Gear Rule at Perry, but rules may be required at certain tracks to institute max ratio and maintain RPM Limits.
- 3.) 8.5" or 9" Ford rear end may be used in GM vehicles. All mounting locations must be stock 4 link design for factory GM mounting. Full steel spools allowed. Floating axles acceptable.
- 4.) Factory 5x4.75 or 5x5 bolt pattern only with steel hubs- No Aluminum hubs.

## **L. BRAKES**

- 1.) Stock OEM style brakes are mandatory on all four wheels and must be in 100% working order. No heavy duty or limited production parts. Single piston steel calipers only.
- 2.) After market dual master cylinders may be used, mounted as close to stock position as possible.
- 3.) OEM Cast iron disc brake components may be used. Aftermarket steel hats with .810 or 1.25 steel rotors may be used. No drilled or cooling grooves allowed. Rotors with heat / stress cracks will not be permitted to compete. Teams' responsibility to inspect weekly.

## **M. ROLL CAGE**

- 1.) The car must have a complete, full roll cage around the driver that must be welded to the frame. Tubing for main roll cages must be 1 3/4 inches outside diameter and must be made of steel. Minimum wall thickness of roll cage tubing is 0.090.
- 2.) There must be at least three horizontal and three vertical bars within the driver's door. There must be at least two horizontal and two vertical bars within any remaining doors. Gussets and door plates are recommended for added strength.
- 3.) Blewett Style extra head bar is highly recommended vertically in backside of driver's side window opening.
- 4.) All roll bars, side bars or other protrusions that drivers may come in contact with must be properly padded with approved roll bar padding or interior tin.
- 5.) Driver's side door plates are strongly recommended.

## **N. SEATS AND SHOULDER HARNESS**

- 1.) All seats must be aluminum and have head rests or high back seat. Containment seats are highly recommended. The seat must be attached to the roll cage and frame. The back of the seat must be mounted to the roll cage. Seat must be secured with a minimum of six (6) grade 5 x 3/8" bolts with flat washers.



- 2.) You must use a minimum three-inch, quick release 5-point restraint system. A two-inch-wide crotch strap is mandatory. All safety belts must be no more than five years old, un-tattered, and have a readable identification tag.
- 3.) Shoulder harness must be connected to the roll cage according to manufacturer specifications. All lap belts must be mounted behind the seat and attached to the roll cage according to manufacturer specifications.
- 4.) All cars must have stock collapsible steering shafts or at least two (2) universals. Borgeson collapsible shaft is highly recommended. Quick release steering wheel mandatory. No plastic steering components.

#### **O. FUEL CELL**

- 1.) All cars must have a fuel cell (22 gallons maximum). Cells must contain foam inserts. Plastic cells are permitted but must be enclosed in a steel container made of a minimum 22-gauge steel.
- 2.) Fuel cell must be mounted within 2" of the chassis center line. Bottom of cell must not be lower than the horizontal center line of the rear axle. Fuel cell must be securely fastened.
- 3.) Fuel cell support must be a minimum of 1" diameter .095 material along sides and underneath.
- 4.) Fuel line may be steel, aluminum or HD braided hose. NO rubber fuel line should be used in the transfer of fuel to the carburetor. No plastic inline filters.
- 5.) Rollover fuel call check valve/ vent must be operational.

#### **P. MUFFLERS/EXHAUST**

- 1.) Stock production OEM passenger car cast iron exhaust manifolds allowed. No altering of manifolds, no grinding, no acid dipping, or enlarging allowed. 2 ½ maximum OEM center dump manifolds allowed.
- 2.) 1 5/8" street type headers allowed, without alterations. No header wrap, no step style, aluminum or stainless steel. No cross over or 160° degree headers.
- 3.) All cars must retain a maximum decibel 95 at 100 feet. Mufflers are not required.
- 4.) Three (3) inch diameter maximum exhaust pipe must exit behind/outside driver compartment. X-pipe or H-pipe may be used.

#### **Q. GENERAL** (Note - See General Safety Rules for additional parameters).

- 1.) Radiator must have an overflow can, one (1) gallon minimum. No anti-freeze permitted (\$50 fine for first offence, compounded each additional infraction).

- 2.) No oil coolers or fuel line are allowed in driver's compartment. Shutoff valve must be in reach of the driver.
- 3.) Driver side window net with a quick release mechanism is mandatory. Quick release with plastic parts not permitted.
- 4.) Steel drive shafts only. Drive shafts and universals must be similar to standard production type. Steel 360-degree retainer loops 1/4 inch thick by 2 inches wide minimum, must be positioned at the front and rear of shaft, within 12 inches of each universal joint.
- 5.) Overall car minimum weight must be maintained at all times (see engine compression for specifications). The car will be weighed with driver located in the seat. No allowance for gas/water after race. Maximum 56% left side weight (55% for aluminum body). Reduction of left side weight and/or overall weight disadvantages may be instituted individually to better equalize the competition.
- 6.) Four (4) inch rise hood scoops are allowed. No air boxes of any kind. Hoods must be tight to windshield, with minimal openings.
- 7.) WCIS racing fuel must be used, no additives. No oxygen enriched fuel. No additives. Fuel must pass test(s) of Tech inspectors. Any additional tests to challenge the WCIS Tech decisions will be at the expense of the disqualified team.
- 8.) Boldly labeled fuel and electrical safety shut off switches are to be in reach of driver and safety crew.
- 9.) Mirrors allowed. 28 square inches maximum and will be removed on an individual basis by track officials if used for the wrong reason.
- 10.) Throttle - All linkages must be solid type for safety. Two springs are mandatory. Toe strap mandatory.
- 11.) All offset air cleaners must be fastened to keep them from spinning and jamming throttle open.
- 12.) One (1) inch square tube side rail is allowed. Must be mounted tight to door skin with rounded ends.
- 13.) See General Rules for mandatory 'MyLaps' transponder
- 14.) SST/WCIS Official decisions & scales are final.

## **R. OVER COMPETITIVE RACE CARS**

- 1.) The idea behind this division is to keep chassis and engines as stock as possible in order to hold expenses down. While the above rules offer a good outline, every item cannot be covered by a written rule. If you want to run anything not covered in the rules above, ask first. The officials and management reserve the right to adjust rules to make the class more competitive (example: 50 lbs. weight disadvantage after 2 wins, 25 lbs. per additional win). A division with several winners and

strong competition will be subject to WCIS Official decisions based on weight disadvantages. Teams with different home track rules may be assessed and penalized with a disadvantage to equal out competition as the division is developed. Be patient and have fun.

