



## **Thunder Valley Speedway (TVS) 2019 Sportsman Rules**

NOTE: No equipment shall be considered as having been approved by reason of having passed through inspection unobserved. The technical director shall determine as to whether any type of construction, design, or interpretation of any rule shall be accepted.

AME Enterprises/TVS reserves the right to update, modify, add, or delete rules at any time in the interest of providing parity to all competitors. Additional requirements may be made via official entry registration, technical bulletin, or meeting announcement, which automatically amends specifications within. All changes will be posted.

Consequences for not following all technical specifications as listed below will be at the discretion of the race officials. Infraction of rules pertaining to engines, chassis design, and safety considerations may result in disqualification and possibly from future events, at the discretion of track officials.

### **CAR MODELS**

North American rear wheel drive cars with front engines and full frames (excluding Mopar) allowed. • No Mustangs, Barracudas, Challengers, or similarly designed cars allowed.

108" minimum wheel base (factory specifications) with not more than 1" difference (plus or minus) from side to side.

Johnson front and rear clips, mid sections and cages are allowed.

Any metric chassis, Camaro front clip, or OEM aftermarket 2x4 or 2x3 front clip are allowed (see weight rule) must have stock locations for all bolt on parts and crossmembers.

Fabricated rear clips and kick ups allowed.

Perimeter chassis only,

### **ROLL CAGES**

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.

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).

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 drive line plus or minus 1.5". Minimum length of left side door bars is 42". Main cage structure and door bars minimum 1.66" outside diameter.

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 centre 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 driver's 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.

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. Any bracing not attached to original frame is subject to approval of officials.

## **FRAMES, SUSPENSIONS AND ENGINE LOCATION**

Frames can be fabricated to accommodate OEM or aftermarket clips. Must maintain a minimum of 108" wheelbase. After market upper control arms allowed but must use stock (OEM) ball joints.

Four-link or three-link rear suspension configurations allowed.

Any three or four point hook up may be used. Lower arms must not exceed 30" from mounting holes on rear end to mounted holes on frame. Solid one piece bars only. Upper arms must not exceed 30" and must be solid. Rubber biscuits allowed at one end of trailing arms. Panhard bar must be a one piece solid bar. Heim joints allowed.

Maximum tread width (measured outside of one wheel to outside opposite wheel at spindle height) 78 inches.

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. Minimum frame height of 4" (Standard frame) or 6" (Metric Frame), measured at the frame rails.

Jacking bolts are allowed. All coil springs must be at least 4 1/2 inches outside diameter. Rear coil spring pockets can be reinforced or extended to allow for a longer spring. No coil-over shocks allowed. No coil over springs allowed. Any sway bar must be factory stock OEM. Front sway bar may have adjustable links. Stock front cross member must remain with the following alterations (all notches must be boxed in). No 3-piece sway bars.

No rack and pinion steering – conventional steering only. Steering column must have a collapsible link and padded steering wheel.

No excessive lightening or drilling. Front and rear suspension and steering components must be uncut OEM for that frame. No fabricated spindles. Spindle savers are allowed. Bottom 'A' Frames cannot be altered drilled or moved and must be stock OEM for frame used. Stock upper 'A' Frames may be hulled for screw jack clearance only. Metric chassis may use either a 0.5" OEM offset shaft or a maximum 3.25" OEM bolt (grade 8 bolt or better with OEM thread) on upper "A" frames only. Steel bushings are allowed in stock upper "A" frames. NO reinforcing. NO cutting, notching and/or re-welding of control arm sides. No straight-rail chassis.

Hex tube arms and heim end joints permitted. All suspension and steering components must be stock length and mounted in stock location unless otherwise indicated (e. g. shock mounts may be moved). Camber on left front wheel will not be more than 2.5 degrees (+/-), right front not more than 6 degrees (+/-). Bushings: All suspension bushings will be rubber, steel or neoprene only.

Engine Location - 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. Maximum 2" setback beyond 84% allowed on Ford and Mopar, except Mopar with G.M. chassis. Minimum crankshaft height will be the frame height plus seven inches

## **ALUMINUM**

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.

## **SEAT**

Aluminum racing seats are Mandatory. No fiberglass seats. Seat bottom and back must be bolted to frame and cage. Seat belts should be fastened to the roll cage at shoulder height. (Full containment recommended) On kit-bodied cars, the seat must be positioned so that the backrest is no more than 70% of the wheelbase (factory specification) from the front spindle (measured from the back of the bottom of seat).

Back of the seat near shoulder height area to centre of rear housing no less than 25". Minimum 8" required between driver's door bars and seat. The bottom of the seat and all seat mounts and frames must be above the bottom of the frame.

## **SHOCKS**

One steel body shock per wheel only for a total of four shocks per car. No reservoir type shocks. No shocks for coil-overs. ID Numbers and manufacturer must be readable and trackable. No five-digit (split valve) shocks allowed. No remote or rebuildable shocks. Maximum \$150.00 per shock.

## **RADIATOR**

One radiator only and it must be mounted in front location. No rear mounted radiators. If a minimum four blade steel fan (that is operating and has all blades full and complete) is used, an additional electric fan is okay. No antifreeze or other cooling agents permitted. Water only. Radiator overflow must exit within the engine compartment (overflow can) or onto the right lower corner of the windshield. Hood must cover radiator without modification.

## **DISTRIBUTOR AND IGNITION**

- 1) Battery operated ignitions only. No mags.
- 2) Car must be self-starting and Ignition "OFF" switch must be mounted near the centerline of the car and clearly labeled "Ignition Off" in such a manner that the engine can be turned off from either side of the car in the event of an emergency.
- 3) Stock single-point distributor and stock type coil allowed. No dual points.
- 4) OEM electronic ignition may be used and require stock type ignition modules.  
MSD boxes are allowed, part no. 6ALN must be wired into the system with the original plug supplied with the unit. Max 5800rpm chip. NO REV LIMITER SELECTOR SWITCH ALLOWED. Must be mounted out of the drivers reach while belted in.
- 5) Vacuum advances may be removed.
- 6) Starter must be in stock position and functional.
- 7) Battery must be anchored securely and separated from driver's compartment by a firewall. One 12 volt battery only. Battery disconnect switch is mandatory. Must be accessible to safety crew.
- 8) Instruments – Oil pressure and heat gauges mandatory.

## **BRAKES**

Brakes must be operating on all four wheels and must lock up for inspection. OEM style only, two pistons maximum. Disc brakes will be allowed on rear wheels.

Pedals can be hung from top or bottom only. Master cylinder must be located under hood in stock location (On firewall, left side of engine, above frame). Two master cylinders allowed

Caliper brackets must be mounted in a fixed position. Brake ducts okay on front only. One adjustment proportioning valve or one bias valve is allowed.

No drilled rotors.

## **TRANSMISSIONS**

Only OEM stock production three speed or four speed (steel or aluminium) transmission will be allowed. No variable ratio transmissions allowed. No five-speed transmissions allowed. Transmission must have all forward gears working and one gear reverse, plus a neutral. Ratios for all gears must be OEM for transmission used. All vehicles must start without being pushed or pulled (at discretion of officials).

Bell Housing Clutch and Flywheel:

Must have scatter-proof bell housing (race approved) or scatter shield (steel). Bell housing should have an inspection plate. If there is no inspection plate you will be required to remove bell housing for clutch inspection. Stock Steel OEM type units only. No turned, drilled, (for lightning purposes) aluminum or special fly wheel parts permitted. No triple disk clutches allowed. No couplers. No flex plate. No automatic flywheel.

## **ENGINES**

GM crate or built engines must be identified prior to pre-race technical inspection

**Sealed Chevrolet 602 GM Crate engine** #19258602 (formerly #88958602) is permitted.

- Must be stock specs as per GM with no modifications. 0 tolerance on all stock specs. Block numbers 10243880 or 14093638
- 602 GM Crate engine with factory seals (Crate Part # 88958602, 19258602) Must be sealed by GM and must pull a min of 18" vacuum +.
- 602 GM crate engines (Crate Part # 88958602, 19258602) that are freshened, missing seals and meeting ALL stock GM crate specs and pulling 18" vacuum +. All crate engines must meet original specifications as per G.M. Performance this includes all valve angles and compression.
- Built Engines and 602 GM Crate Part # 88958602, 19258602 opened or freshened, missing seals, meeting all stock GM crate specs, other than cam duration ,and pulling less than 18" vacuum must use a Holley 500 R4412 only and have maximum .390" / .410" camshaft lift. These two engine combos must use an MSD or similar RPM control ignition box (max 5800rpm), chip or inputs will be tagged before race. Car must also have a functional tell-tale or recall tachometer installed prior to race day.
- No Vortec (Chev) or Magnum (Dodge) heads permitted on the built engine package.
- All engine packages must be a max 9.1 to 1 Compression ratio as calculated by our track whistler. All vacuum tests will be at 900 RPM using track tech tools and RPM gauge only.

### **Built Engine option**

- GENERAL MOTORS: 350 cu. in. Chev. with 4.000" bore and 3.480" stroke.
- FORD: 351cu. in. Windsor with 4.000" bore and 3.500" stroke
- MOPAR 360 cu. in. with 4.000" bore and 3.578" stroke. MOPAR 360 cu. in. permitted in GM metric chassis. .060 overbore permitted, maximum 365 cubic inches. No Stroker engines.
- Hydraulic lifter camshaft with maximum valve lift as follows: Camshaft Lift (int / exh measured @ valve) .435" / .460" FORD - intake .445, exhaust .453. MOPAR - intake .410, exhaust .410.
- Valve lift is determined by multiplying the actual camshaft lift by the maximum allowable rocker arm ratio.
- Stock size hydraulic lifters (no mushroom type) only.
- TRW lifters with C-clips are okay. No solid, anti-pump or Rhoads lifters. No mushroom, roller cams or rev kits allowed.
- Valves must not have over zero lash clearance. Max compression ratio 9.1 to 1
- 18" of vacuum (-/+ 1/2" allowance) @ 950 RPM. Timing adjustment will be tagged by an official pre-race.

## **PISTONS**

Stock cast or forged (dished or flat top) pistons only (or equivalent replacement).

Four valve relief pistons are mandatory on G.M. The piston, rings, rod, end cap, rod bolts and bearings will weigh a minimum of 1350 grams as a unit. Pistons cannot come above block. Deck height of .005" recommended. Stock rods (No 6" GM rods) and pressed wrist pins only. No floating pins. After market rod bolts and nuts are allowed.

## **HEADS**

All cylinder heads must be cast iron, OEM (numbers readable) open chambered smog heads with specifications as follows:

No aluminum heads.

No Magnum or Vortec heads on built engines.

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. GM Crate 602 Vortec head cast iron 12558062 only as an option.

FORD heads - Maximum intake diameter 1.84", maximum exhaust diameter 1.55". With minimum Combustion Chamber volume of 69 cc., and maximum intake runner volume of 125 cc., a flat top piston must be used. With minimum combustion chamber volume of 60 cc., and maximum intake runner volume of 140 cc., a dished piston with .120" cup must be used. Minimum combined deck clearance plus head gasket thickness .080" for all heads.

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.)

Note: Any extra deck clearance or head gasket thickness can be applied to the combustion chamber using one-thousandth equals' .206cc's.

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. Stock replacement stainless valves permitted. No swirl polished valves. No titanium valves. Valve stem length, diameter, and keeper group location must be stock. Stock steel retainers must be used. No angel milling, port matching, polishing or blueprinting is allowed. 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) Jam nuts are permitted. No poly locks. Screw-in studs and guide plates are permitted. No additional valve springs allowed.

## **INTAKE**

Stock cast iron or aluminum GM 12366573 or Performance Products 52028 only.

## **CRANKSHAFT**

Only standard steel or cast production design. No lightweight Cranks

Stroke may not be increased or decreased.

No lightening or knife edging.

No aluminum harmonic balancer, harmonic balancer must be stock for OEM engine

## **EXHAUST**

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

Collector must be 3" diameter and be secured to the exhaust pipe (3.5" max. diameter). Collector is to remain stock length. A "Y" pipe collector is required to adapt into a single exhaust pipe.

Headers are to be conventional crossover design only. Example: Schoenfeld 135 headers.

No 180-degree headers permitted. No stepped headers permitted Mild steel headers only. No stainless, chrome, or coated (inside or outside) headers permitted.

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.

May have a stock OEM cast iron exhaust manifold with a maximum 2" diameter outlet. Two-inch exhaust pipe off manifold can go to 2 1/2" i.d. and must remain 2 1/2" 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. Mufflers are permitted (straight through only), must be removable for inspection.

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.

Exhaust must exit behind driver on passenger's side 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. No angle cuts or balance tubes are permitted.

Pipe wrap recommended.

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.

Must use conventional headers similar or identical to part number listed here. No stepped or tri-Y headers permitted. No headers with altered tube sizes

## **REAR END**

- Any passenger car rear end may be used. Locked rear ends are allowed.
- 9" Ford allowed (recommended); GM(7.5 and 8.5) with bolt on bearing locks (C-Clip eliminators) or spot welded clips are mandatory.
- No gun drilled axles. Rear end and all suspension parts must be stock type and in original location. Only upper control arms may be re-drilled.
- Rear OEM/Aftermarket trailing arms must remain in stock position on frame and rear end housing No slotted or elongated mounting holes.
- Only one mounting hole allowed at each mounting location.

- No quick-change rear ends.
- No Detroit Lockers.
- No aluminum carriers or spools.
- Rear end must measure the same between each brake and the drive pinion.
- Pick up points on rear ends must measure same as stock.
- No reinforcing of any kind on housing.
- Final rear axle ratio must be 5:80

## **CARBURETOR**

- One R4412-500 C.F.M. Holley factory stock produced two-barrel carburetor only.
- No modifications except jets, power valve and removal of choke parts.
- Mandatory two throttle return springs in opposite directions.
- Carburetor hats allowed.
- Air cleaners are mandatory.
- An accelerator toe bar mandatory.
- Air filters boxes are permitted.
- No boost venture below the throttle plate.
- No ram air systems.
- A quick-change jet kit (part #3425 float bowl) may be used.
- The vacuum port @ the base of the carb may plug by taping the hole and replacing it with a threaded plug.
- No Keith Dorton performance carburetors.
- Holley factory stock measurements are as follows:
  - Metering block must have the following ID# stamped on it. Factory stock #5924 or #5925. The #10570 will appear on replacement or service metering blocks.
  - Metering block power valve channel restriction ports (2 holes behind the power valve) maximum .0635"
  - Metering block idle feed restriction ports (2 holes) maximum: .035"
  - Metering block main passage to discharge nozzle (2 holes) maximum: .141"
  - Main body high speed air bleeds (2 holes) maximum: .028"
  - Main body idle speed air bleeds (2 holes) maximum .074"
  - Butterfly (throttle plate) thickness: .0398" - .0438"
  - Hole in butterfly: .090"-.096"
  - Butterfly must have stamped on it ID#215
  - Throttle shaft diameter .368"-.369"
  - Throttle shaft thickness at flat of shaft: .152"
  - Venturi bore diameter: 1.373"-1.377"
  - Boost venturi inner bore diameter .377"-.383"
  - Boost venturi outer diameter .610"-.630"
  - Throttle bore diameter 1.6855"-1.6865" all air entering the engine for combustion purposes must enter through the air horn of the carburetor

## **INTAKE MANIFOLD**

Steel or aluminum after-market intakes permitted. No tunnel rams.

## **FUEL CELL**

94 Octane fuels only. Random or deliberate fuel colour testing may be conducted.

An approved Fuel cell (mandatory) must have rear hoop protection bars, min. 1 3/4" x .095" tubing, no lower than 2" below bottom of rear axle tubes.

- 1) Fuel cell must have a one-way check valve in the vent line.
- 2) No vented gas caps permitted. Gas cap must have an appropriate attaching line to prevent its loss.
- 3) Neoprene or steel gas line must be securely fastened under the floor. No copper lines permitted.
- 4) Metal fuel filters only.
- 5) Ground strap attached to filler neck to chassis is mandatory.
- 6) Must have 2 x1/8 safety straps underneath cell.

## **WEIGHT**

602 crate with original seals: 2950 pounds, 18 + vacuum with 2 bbl carburetor

Crate freshened, missing factory seals - 3000 pounds, 18 + vacuum with 2 bbl carburetor

Crate freshened, missing factory seals - 3100 pounds, less than 18 vacuum with 2 bbl carburetor

Built (no Vortec or Magnum heads): 3100 pounds, vacuum N/A with 2 bbl carburetor

All cars will be weighed with driver in the driver's seat. Five gallons of fuel can be added post-race.

Maximum left side weight 55%. Maximum rear weight 45%.

Cars using a 2 x 3 front clip must add 25 pounds of ballast in front of the fire wall (Ahead of the foot box), split equally to each frame rail. This weight is part of the total weight, *not in addition to total*.

Weight penalties will not be considered for cars deemed altered beyond the scope of these rules. Instead, the car must be adjusted to conform.

No hydraulic, pneumatic, ratchet, electric, or any other kind of moveable weight devices anywhere in or on the car. Added weight must be securely fastened, painted white and have car number on it. Weight must not be below frame rails. Management maintains the right to adjust or further define the weight rule.

## **TIRES AND WHEELS**

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. Minimum half-inch studs recommended.

Tires will be Hoosier 10420 or 10425 8" treaded tires compound 890. New tires will be made available through AME; have to be purchased through track or track agent. AME Enterprises Inc. 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.

Up to a maximum of eight (8) tires can be registered prior to first race (event). This can consist of up to six (6) new or used plus two (2) additional used tires. After that, one (1) extra tire, new or used, can be registered prior to races (events) 3, 5, 7, and 9. Damaged tires can be replaced. Damaged tires must be returned to track in order to register another new or used tire. Serial Numbers must be legible on used / damaged tires for registration purposes.

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 aluminum piece.

Tires cannot be more than 2" outside the body.

No chemical treating of tires (i.e. Compound Altering / Tire Softening).

## **SAFETY**

Helmets must be Snell 2010 SA (or better) approved. Helmets must be worn at all times car is on track. Helmet must accompany vehicle at time of inspection. Full face helmets are mandatory.

SFI rated Head and Neck Restraint systems are mandatory and must accompany vehicle at time of inspection. Systems such as Hans or Hutchens are recommended.

All competitors must wear a SFI rated fire suit whenever car is on the track. If suit happens to be two piece, both the top and bottom must be worn at the same time. Fire retardant racing gloves and racing shoes are mandatory.

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. Driver's side window net (quick release, properly working top latch) is required. Safety approved fuel cells are mandatory. Batteries must be securely mounted and shielded. Loose objects and/or weights will not be allowed in driver's compartment (between front and rear hoop)

Any other weight added must be securely mounted; a minimum of two half-inch bolts used with each weight. Weights must be painted white. Car number should be on all weights. Drive shaft hoop required toward front of drive shaft. Hoop must be constructed of material sufficient to contain the drive shaft in the event of U-joint/drive shaft failure.

Drive shaft must be painted white. Roll bar padding is recommended around driver.

## **BODIES, INTERIORS and AIR DAMS**

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). All bodies should conform to "Five-Star Short Track Template" dimensions and angles, and may be required to fit templates. (No dirt style front or rear bumper covers). No custom designed bodies. No Outlaw extended quarter panels and deck lids. No high down force bodies. No Carbon fiber body parts.

Front fenders and top of windshield must be kept free for contingency decals. Aluminum, fiberglass or steel aftermarket bodies O.K. with rubber front and rear bumpers.

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.

No cut down doors. Door length and shelf width must meet Five-Star Specifications. Shelf width maximum 2" left, 3.5" right.

Body must be centered on frame and retain its stock appearance, dimensions and angles.

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 10½" and up at 90 degrees from the edge of door.

Rear deck spoiler (Five-Star type) allowed. Maximum length of 60" and a maximum height of 5", measured across the back. No boxing. Spoiler must be centered side to side on rear deck. Rear deck height may be a maximum of 34.5" off the ground.

No adjustable rear quarter panels.

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). All window pillars should be in place. Painted roll bars are not an acceptable substitute. No additional material may be added in pillar area.

Must have original grille or be meshed in. Body must be a minimum of 4" from the ground at all points.

Must have full steel (min .032" thickness) or aluminum (min.040" thickness) interior. Complete steel firewall (front and rear), floorboards, and area surrounding driver mandatory. A steel plate under the driver's feet and seat is recommended. 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. No wings or ground effects anywhere inside or outside of car.

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.

No holes allowed in hood or other body panels other than stock holes. No cowl induction.

Any radiator duct must not extend ahead of the front bumper or behind the radiator and must be at least 4" off the ground.

All cars in competition must have a complete paint job or vinyl wrap. Primer is not considered paint.

No body modifications 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.

All cars must begin each race meet with complete body unless damaged in practice and/or OK'd by Pit Steward.

## **MEASUREMENTS**

All heights will be measured with driver in the car. Minimum roll cage height to be 39" from bottom of frame. Minimum height of door bars to be 22 ½" from bottom of frame.

Minimum 6" ride height (Metric chassis), or 6"-minus-1" for Camaro clip cars, measured at side frame rails.

Minimum crankshaft height to be minimum frame height plus 7".

48" roof height (2002 or newer body 47") measured back from the windshield to the ground per Five Star specifications. 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. Rear deck height may be a maximum of 34.5" off the ground. Rear deck length will conform to Five Star specifications.

Remaining measurements must conform to Five Star specifications.

Minimum ground clearance of any body component is 4" including bumper, bumper covers, and side skirts.

### **RUB RAILS**

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. Square or rectangular tubing or round pipe only. Maximum 1" O.D. or ½" 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 ¼" X 2" aluminum flat bar with tapered ends.

No sharp edges. 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.

### **BUMPERS**

Bumpers must be used front and rear. The center of the front bumper must measure between 15" and 17" from the ground. Bumpers will be constructed of maximum 2" tubing, and shall not have any sharp edges exposed. Muffler pipe or .065 steel only.

Rear bumper and brace bars must be sufficient to protect fuel cell or tank. 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.

A minimum of 12" is mandatory for front crush zone, no bracing of the bumpers will be allowed in this area.

A minimum of 8" is mandatory for rear crush zone, no bracing will be allowed in this area.

All bumpers may be drilled for testing and only acceptable thickness will be permitted.

### **PAINT AND NUMBERS**

All cars must have their assigned numbers on both sides of the car and on the roof (readable from the passenger's side) at least 20" high and 4" thick in a color that contrasts with the car color.

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

No gray, silver, gold, metal flake or trick numbers. Numbers deemed difficult to score, the driver will be notified and any scoring protests by that driver will not be acknowledged.

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

Anyone requesting a car number can contact [jason@in-revolution](mailto:jason@in-revolution) for details.

### **LISTENING DEVICES**

Raceceiver or Scanner is Mandatory. If using a scanner, it must be mounted in a secure location outside of driver's reach. ONLY the track frequency 454.0000 Mhz. is to be programmed. Scanners will be subject to inspection for other frequencies. Raceceiver channel is 000 (the default channel)

No two-way communication permitted at TVS.

## **MISCELLANEOUS**

One inside mirror may be used and must be mounted inside car. One left side mirror, maximum width of 4" at any given point, not to extend beyond body. Anything not specified as allowed must be stock. No traction control or similar devices are allowed. Any misinterpretation of the rules will be subject to a final decision by track officials. Track officials may check any car at any time. Previously raced Sportsman cars with bodies of earlier vintage than Five-Star catalog may be allowed.

AME Enterprises Inc. reserves the right to confiscate and retain any parts or components that are deemed to be non-conforming to the rules set forth in these pages. The decision of track management will be final.

**We endeavor 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.**

Any questions regarding these rules can be directed to Brad Melendy at bradandamy47@gmail.com or (709) 414-5791.