

# 2020 Super Stock Technical Rules

Questions? Contact:

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All American Speedway reserves the right to alter or amend these rules and regulations in the interest of safety, cost control and / or fair competition. Any changes will be posted as an "addendum" to the rules.

It is the responsibility of each competitor to read and understand the contents of this rule book. In the event of a disagreement or dispute regarding the interpretation or application of the rules written herein, the decision of the speedway manager shall prevail.

Illegal components may be confiscated by All American Speedway and become property of the speedway.

All deficient safety issues must be corrected before the car is allowed to compete. All non-safety rules infractions will be addressed by the All American Speedway technical staff and, if deemed to have a performance advantage, may require the competitor to repair before being allowed to compete, or, if deemed acceptable, may require a weight penalty be added for that nights event and the repair to be made before the next event can be participated in.

# 1.0 Driver eligibility

- **1.1** Drivers in this division must be at least 14 years old. A NASCAR DIV III license is required for this division. All drivers, passengers, owners and crew members must hold a current NASCAR member license in good standing.
- **1.2** Any driver competing for rookie of the year points or who has competed in fewer than 5 races must display an obvious yellow stripe on the rear bumper of his or her vehicle while competing.
- **1.3** Team driving is allowed and may be used to accumulate points for the registered team. Only 1 pay out and 1 trophy will be awarded based on this system. Each team must choose and register one primary driver by NASCAR license number who will be assigned to the car for the whole season regardless of who drives the car. All records, announcements, scoring, points, payouts, penalties, fines and special awards will be made to that primary registered driver's name and NASCAR registration number. Any driver who competes with out a NASCAR license will not be awarded points. Prize earnings will only be reported to the primary driver's tax ID or Social Security number for tax purposes. Up to 3 people may be registered as team drivers. Each must have a NASCAR license to qualify for points.
- **1.4** Co-Drivers and passengers; A super stock racing with a passenger must display a bright orange ribbon or flag at least 12" long affixed to the left rear car for safety identification. At the time of pit registration a super stock division driver will be responsible for informing the pit registration personnel of the identity of their passenger. Likewise at the time of pit registration the super stock passenger is required to inform the pit registration personnel of his or her intent to participate as a passenger and register as such.
- Both the driver and passenger are responsible for knowing and obeying the rules, regulations and policies of All American Speedway. Failure of either the driver or the passenger to abide by the AAS rules and regulations regarding passenger safety, equipment and / or identification shall result in a combination of disqualification, fine, loss of points, loss of money or suspension that will apply to the registered driver.

### 2.0 Competing models

**2.1** Open to any rear wheel drive American made passenger cars with a wheelbase of 108" or more. Includes El Caminos, Rancheros and station wagons. No all-wheel drive, convertibles, T-tops, pickup trucks, vans, SUVs, limos, or Jeeps.



**2.2** All vehicle dimensions and appearance must remain stock for year, make and model used. GM to GM Ford to Ford, Mopar to Mopar etc.

#### 3.0 General body rules

- **3.1** Body must be complete and reasonably stock appearing for the type of vehicle being run. All glass, door handles, trim etc. must be removed. All interior, seats, carpet, headliner, door panels, dash and other flammable items must be removed.
- **3.2** Stock front and rear bumpers or fabricated tube bumpers under a front nose or rear tail piece must be used. Any reinforcement or alterations of stock bumpers must meet approval of AAS technical staff. Bumpers must be securely bolted or welded and have a minimum  $\frac{1}{4}$ " safety chain attached to the frame in a manner that prevents the bumper from coming off. Exposed front and rear bumpers will have a minimum of 3" x  $\frac{1}{8}$ " flat strap on each end of the bumper to the fender. Front and rear bumpers must be 18" (+ or 1") measured from the ground at the bumper centerline at ride height.
- **3.3** Stock OEM front and rear firewall and floor pan must remain intact. All holes will be covered and completely sealed with sheet metal. Previous super stock "A" or street stocks that already have the right side floor raised may continue to run that configuration per AAS technical staff inspection and approval. Existing super stock "B" or bombers may not alter from stock OEM floor pan nor will any new construction cars be allowed to alter the stock floor pan and firewall. Any cars competing with a passenger must have fully in tact stock OEM un-altered floor pan and firewall.
- **3.4** Interior sheet metal and inner structure may be removed from doors, quarters, roof, hood and deck lids. Rear trunk sheet metal may be removed up to the rear firewall.
- **3.5** Roof, hood and rear trunk lid must be OEM stock steel panels. (No fiberglass or fabricated panels) Door skins only may be replaced with fabricated minimum .040 steel or aluminum sheet panels. Must meet Tech official's approval and be stock appearing .Doors or door skins will be welded, bolted or riveted in such a way as to permanently secure them to the car. Hood and deck lid must be secured with hood pins on all 4 corners. A hood scoop or cowl scoop may be added.
- **3.6** Stock nose and tail piece may be replaced with aftermarket plastic nose and tail. Must match body style and approximate year of car. No late model type noses will be allowed. May use current "muscle car" style nose pieces. Non-conforming bodies must be approved by AAS tech staff and may be required to carry an additional weight penalty at the discretion of AAS tech staff to compete for that night's event.
- **3.7** Front inner fender panels may be removed. Rear half of rear inner fender panels may be removed.
- **3.8** Front windshield must be replaced with 1/8" polycarbonate (not Plexiglas). Must be full size and entirely cover stock windshield opening and be riveted or bolted around the entire perimeter. 3 vertical steel straps  $1" \times 1/8"$  shall be mounted on the inside center portion of the front windshield. A rear polycarbonate (not glass or Plexiglas) window is allowed. Driver and passenger side windows must remain open.
- **3.9** Rear spoilers shall be a maximum of 6" in height measured from the deck lid where it mounts. Must be no wider than the width of the rear quarter panels and extend no further back than the rear most part of the body (not the bumper). If the top of the spoiler is higher than the bottom of the rear window it must be made of clear polycarbonate. No side panels or forward braces.

#### 4.0 Appearance

- **4.1** Race cars must be painted and maintained in an attractive professional manner and reasonably identified for year make and model being run. All American Speedway reserves the right to require repair of badly damaged body panels for either safety or cosmetic reasons. All race vehicles must run a hood at all times. **Exception**; A vehicle that is damaged during an event may remove damaged body parts for safety and continue to compete in that nights event but must repair or replace damaged pieces before the next event.
- **4.2** Car numbers shall be non-reflective, high contrast, easily distinguishable decals or painted a minimum 18 inch high on the roof and R & L doors. Placement shall be on each door and on the roof easily readable from the grandstand and scoring tower.
- **4.3** All American Speedway reserves the right to approve all commercial or editorial messages placed on competing cars. Cars with unapproved or inappropriate messages will not be allowed to compete if the competitor refuses to comply. **2 of 9**



## 5.0 Vehicle Weight

- **5.1** Vehicles shall be weighed prior to qualifying and the main events and must meet prescribed minimum weight to compete. All cars shall weigh a minimum of **3400** pounds including fuel, driver, passenger and all safety gear. Rear coil spring cars shall weigh a minimum weight of **3350** pounds.
- **5.2** Left side weight percentage, including fuel, driver and passenger (if applicable), shall not exceed **53.0%** of total weight of car. In the event a car is raced without a passenger, the car must still conform to total minimum weight and maximum left side weight percentage.
- **5.3** All weight must be bolted securely with at least 5 lb. solid blocks. Must use minimum ½" bolts with large flat washers to prevent pull through. Weight must be securely mounted to the frame or vehicle structure. No loose weights or weights mounted inside the driver's compartment. Must be lead or steel (no cement, etc.) All weight must be painted white and clearly marked with the car number. Any lead or weight that falls from a vehicle or becomes dislodged due to improper mounting procedures is subject to a fine being imposed on that car. No weight blocks may hang below the frame rails.

#### 6.0 Chassis

- **6.1** No altering, customizing, or reinforcing of stock frames including all front and rear suspension mounting points, spring pockets, leaf spring or trailing arm mounts, shock mounts or sway bar mounts. Frames may not be cut, clearanced, notched, widened, lengthened or shortened from stock. Unibody cars may install sub frame connecters front to rear. All cars may "x" the frame under the main floorboard.
- **6.2** Ride height shall be no lower than 4 inches measured from the ground to the bottom of the frame behind the front wheels and the lowest point ahead of the rear wheels. Measurements will be made at the tech pad in the scale area with driver and passenger (if applicable) in the car, ready to race.
- **6.3** Front camber; Maximum left front camber allowed is 3.0 degrees negative. Maximum right front camber allowed is 5.0 degrees positive as measured by the official AAS go / no go gauge with driver and passenger in the car.
- **6.4** Wheelbase on all cars may not be altered and must match factory specs for year, make and model of car being ran + or  $-\frac{1}{2}$  inch to allow for caster. No exceptions. Minimum 108".
- **6.5** All race cars shall be equipped with front and rear tow hooks sturdy enough to support the weight of that end of the car. All hooks shall be easily accessible to the tow truck operator.

### 7.0 Suspension and Steering

- **7.1** All steering and suspension components, spindles, lower control arms, idler arm, center link, pitman arm, steering box, tie rod ends and sleeves must be unaltered replacement OEM stock pieces. No cutting, welding, altering or modification of steering or suspension components. GM to GM, Ford to Ford, Mopar to Mopar. All lower control arms must be equal length right to left. May use replacement steel or urethane replacement bushings. May use aftermarket tubular steel upper control arms. No aluminum shafts. Must fit stock OEM unaltered upper control arm mounting towers. No altering of mounting towers allowed. Must comply with camber rule. (6.3) May use aftermarket upper and lower ball joints.
- **7.2** Only OEM type coil springs of magnetic steel with a minimum diameter of 5" may be used. All rated or racing springs must directly replace OEM springs. Adjustable front spring cups are allowed. No weight jacks. Rear spring buckets on 4 link cars may be raised to allow for lowering of vehicle but may not be adjustable. 4 link cars may use adjustable lower swedge tube and heim trailing arms. Rear upper arms must be OEM stock non-adjustable.

Aftermarket magnetic steel rear multi leaf springs and. Adjustable lowering blocks on leaf springs are allowed. OEM style rear leaf shackles allowed. Multi-hole adjustments ok. No slider boxes.

- **7.3** Must use stock OEM solid sway bar mounted in stock OEM location on the frame and attached to the lower control arms in the stock manner (bar on top of the arm, bolts and spacers or stock link pins, no chains etc.)
- **7.4** Only stock mount, steel body, non-rebuildable, non-adjustable shocks allowed. No bump stops allowed. No heim ends allowed. One per wheel mounted in the factory stock OEM location. **Exception**; on 4 link cars rear lower shock mounts may be relocated 2" down and 2" over from stock



- **7.5** Stock steering shaft and column may be replaced with at least ¾" .120 DOM seamless tubing with aftermarket steering joints, quick disconnect and a made for racing steering wheel (Highly recommended). A steering wheel center pad is required.
- **7.6** Maximum track width for all cars will be 78 inches measured from outside sidewall to outside sidewall in the front at spindle height.

### 8.0 Brakes

- **8.1** Must have working brakes on all 4 wheels. 4 wheel disc or disc / drum allowed. Front rotors / rear drums must be magnetic steel OEM style replacement only. May use aftermarket style rear rotors and hubs for floater type rear ends. Must use magnetic steel OEM factory calipers front and rear. No aftermarket calipers. May use aftermarket rear caliper brackets and mounts. May use braided steel brake lines. (Highly recommended)
- **8.2** Aftermarket racing brake pads are allowed.
- **8.3** Aftermarket adjustable in line proportioning valve is allowed.
- **8.4** Master cylinder; Stock OEM style steel dual reservoir master cylinder is allowed, mounted in the stock location on the firewall. Cars with aftermarket brake pedals, dual master cylinders and brake bias adjusters will be given a 50 lb. weight penalty.

### 9.0 Roll cage

- **9.1** Roll cage shall be a minimum of a 6 point cage (8 point recommended). Must have at least 4 horizontal door bars on right (and left side if running a passenger) with a minimum of 2 vertical spreaders between each door bar. Top of door bar should be even with the top of the door skin and evenly spaced to the bottom. Must have 2 horizontal spreader bars running right to left, 1 between the front uprights at dash height and at least 1 between the rear uprights at shoulder height. 2 diagonal down bars running from the top of the main cage down to the rear frame are required. Main roll cage must be securely welded to the main frame. For uni-body cars, the cage may attach to the floor pan with minimum 4" x 4" x 3/16" steel plates at base of each leg of the roll cage. Roof halo shall have a center spreader bar running front to back.
- **9.2** Main driver / passenger compartment roll cage shall be constructed of at least 1  $\frac{1}{2}$ " (1  $\frac{3}{4}$ " strongly recommended) .090 mild or low carbon steel tubing. Seamless recommended. Additional front and rear roll cage must be at least 1  $\frac{1}{2}$ " .090 steel tubing.
- **9.3** Rear frame sections maybe be replaced with  $2 \times 3$  box steel tubing from the centerline of the rear end housing to the rear bumper mounting cross member. A rear fuel cell protector bar is recommended. The rear leaf spring mounts must be relocated in approximately the factory stock location.
- **9.4** A complete front hoop tied to the main cage is strongly recommended. Front radiator hoop may not extend more than 6" forward past the radiator no wider than the front frame rails and have one center bar only.
- **9.5** All roll cage bars are required to be padded at any point of possible contact with driver or passenger.
- **9.6** Driver and passenger door bars must be plated with minimum 1/8 inch steel or ¼ inch aluminum plate covering at least 2/3's of the door bar area for driver / passenger protection.
- **9.7** All roll cage joints shall be welded completely 360 degrees around all tubes and must be good professional quality welds that meet AAS technical staff approval. All American Speedway retains the right to require repair of any welds deemed unsatisfactory or unsafe. Additional welded gussets are recommended at all critical roll cage attachment points.

# 10.0 Wheels and Tires

- **10.1** American racer (JFTXD / JFTX4) AR970 8" grooved racing tires are the only tires allowed to be run. You must run your main event on the tires you qualify on. All American Speedway Officials will mark tires prior to qualifying. Damaged tires may only be replaced upon inspection and approval by AAS officials.
- **10.2** Only 8" steel racing wheels allowed. May run offset wheels as long as track width and left side weight requirements are met.
- **10.3** Minimum  $\frac{1}{2}$ " wheel studs and lug nuts will be required. (5/8" is recommended) Wheel studs must be long enough that threads must show past the lug nut when tightened.



- 10.4 Maximum 1" wheel spacers will be allowed.
- **11.0 Engine** For the purpose of merging the Super Stock A and B classes, there will be 3 engine packages allowed. All engines must me mounted in the stock location for type of car being run. No set back or offset mounting of motors. May use aftermarket solid motor mounts.
- **11.1 GM602 crate motor.** (PN 88958602). Must be run as delivered from Chevrolet. Must be an approved All American Speedway, Ukiah Speedway, Madera Raceway certified GM sealed crate motor. Must meet all GM Performance Parts yellow book specifications. Must run the GM factory supplied HEI distributor as delivered. Must run a MSD 8727CT rev control module mounted in the engine compartment with visual access to AAS technical staff. Maximum RPM setting will be 6200. May use any 4bbl. carb. No spacer. Must run the stock harmonic balancer as delivered.

# 11.2 AAS Super Stock B motor package

- **11.3** Maximum 360 C.I. displacement. Max Bore 4.060 Must be OEM GM, FORD or Mopar V8 cast iron production block only. No bowtie or special production or aftermarket blocks allowed.
- **11.4** Block is to remain stock. May be machined to restore or repair warped or damaged surfaces only. Additional internal grinding and smoothing is allowed to enhance oil return only. No lightening or excess removal of block material is allowed.
- 11.5 Only stock OEM main caps are allowed. No main cap or head studs are allowed.
- **11.6** Oil pump shall be a stock style wet sump only. An aftermarket circle track deep sump steel oil pan is allowed. Moroso oil pan inspection plug part #23970 **must** be installed in right side of pan to allow for inspection.
- **11.7** Flat top or dished pistons only. Magnetic steel wrist pins only. May use floating pins. A maximum compression ratio of 11.0:1 will be allowed. Will be teched and sealed by AAS staff.
- **11.8** Stock OEM connecting rods only, (GM=5.7") after-market rod bolts are permitted.
- **11.9** Stock OEM crankshaft only. No aftermarket cranks allowed. Shall be stock stroke for size of motor being used. (3.48 for GM). No stroked or de-stroked cranks allowed. Minimum crankshaft weight allowed is 50 pounds with timing gear installed. The rod and main journals may be reground undersize for repair only but may not be offset ground as to change the stock stroke. No undercutting, grinding, knife edging or lightening of counter weights or any other part of the crankshaft is permitted. Balancing is permitted.
- **11.10** Stock OEM style factory or aftermarket production cylinder head castings will be permitted. **No** high performance or specialty performance cylinder head castings. Only stock style replacement castings will be allowed. (No angle plug heads) No bowtie, GM performance, Ford Motorsports or Mopar Performance heads allowed. Factory stock GM Vortec heads are allowed for this motor package (1.94"/1.50" valves only). All head castings shall be "as cast" and not be tampered with in any way. No porting, polishing, match porting, gasket matching, grinding, acid etching, sanding, or heavy wire brushing shall be allowed on any part of intake or exhaust runners or combustion chambers above or below the valves. Penalty for head rule violation shall be a \$1000 fine and loss of all season points.
- **11.11** Stainless steel valves may be used. No titanium valves. Valve seat angles shall be stock, No back cutting or bowl blending of valve pockets. Valve springs shall be stock diameter with stock size magnetic steel retainers and keepers. No titanium or aluminum retainers or beehive springs.
  - **11.12** Screw in studs may be used, Poly locks may be used, no stud girdles allowed.
- **11.13** Only stock type stamped steel rocker arms allowed. No roller or roller tip rockers allowed. Must be stock ratio for type of head being used. (1.5 for GM)
- **11.14** Cam shall be a hydraulic lifter cam only. May have a maximum lift of .500 measured at the valve and .333 measured at the lifter/pushrod. Hydraulic lifters must be stock OEM diameter for engine being used (GM.842/ Ford.875/ Mopar.904)
- **11.15** Only steel timing chain and gear set will be allowed. No gear drives or belt drive. Timing chain and gear set may have cam timing adjustability. Double roller timing chain set is allowed.
- **11.16** Only stock OEM style GM HEI or stock electronic ignition distributor allowed. **No** dual point distributors, magnetos, MSD or aftermarket performance distributors allowed. After market ignition module and coil are allowed.
- **11.17** One gauge legal Holley 4412 2 bbl. carburetor allowed. Choke plate and air horn may be removed.



No other carburetor modifications allowed. No narrowing of throttle shafts or grinding of butterfly screws allowed. Metering block and boosters may be modified, only as necessary to run E-85 fuel. All air entering the engine must pass through the carburetor ventures.

- **11.18** A 1 inch carb spacer **or** adapter is allowed. May be aluminum or phenolic. A maximum of 1.125" between manifold mounting surface and bottom of carb base plate (including gaskets) is allowed. 2 carburetor return springs are required on throttle linkage.
- **11.19** No fuel injection, nitrous oxide, super charger, turbo charger, ram air or any type of boost enhancing device is allowed.
- **11.20** An air cleaner is required. K&N style poly air cleaner assembly is allowed. A maximum 17 x 4 round air filter may be used. A K&N air filter is allowed.
- **11.21** Intake manifold shall be a stock unaltered cast iron dual plane low rise style (no bowtie or marine) or an out of the box as cast aluminum Edelbrock performer manifold part #2101 or #2701 for GM, #2181 for Ford, or #2176 for Mopar. Rf intake bolt and Rf carb. stud must be drilled for tech inspection safety wire seals. (.093 hole)

#### 11.22 Super Stock A motor package

- **11.23** Maximum 360 C.I. displacement. Max Bore 4.060 Must be OEM GM, FORD or Mopar V8 cast iron production block only. No bowtie or special production or aftermarket blocks allowed.
- **11.24** Block is to remain stock. May be machined to restore or repair warped or damaged surfaces only. Additional internal grinding and smoothing is allowed to enhance oil return only. No lightening or excess removal of block material is allowed.
  - 11.25 Aftermarket steel main caps are allowed. Aftermarket main cap or head studs are allowed.
- **11.26** Oil pump shall be a stock style wet sump only. An aftermarket circle track deep sump steel oil pan is allowed. Moroso oil pan inspection plug part #23970 **must** be installed in right side of pan to allow for inspection.
- **11.27** Flat top or dished pistons only. Magnetic steel wrist pins only. May use floating pins. A maximum compression ratio of 12.0:1 will be allowed. Will be teched and sealed by AAS staff.
- **11.28** May use aftermarket steel or cast iron I beam connecting rods, (5.7" or 6.0") after-market rod bolts are permitted.
- 11.29 Crankshaft may be cast iron or steel. Shall be stock stroke length for size of motor being used.
- (3.48 for GM) No stroked or de-stroked cranks allowed. Minimum crankshaft weight allowed is 48 pounds with timing gear installed. The rod and main journals may be reground undersize for repair only but may not be offset ground as to change the stock stroke. No undercutting, grinding, knife edging or lightening of counter weights or any other part of the crankshaft is permitted. Balancing is permitted.
- 11.30 Stock OEM style factory or aftermarket production cylinder head castings will be permitted. No high performance or specialty performance cylinder head castings. Only stock style replacement castings will be allowed. (NO angle plug heads) No bowtie, GM performance, Ford Motorsports or Mopar Performance heads allowed. GM vortec heads are allowed for this motor package. All head castings shall be "as cast" and not be tampered with in any way. Exception, GM vortec heads will be allowed to update from stock 1.94 to 2.02/1.60 valves and may blend the bowls under the valves ½". Heads may be resurfaced to correct warped surfaces only. No angle milling of heads. No porting, polishing, match porting, gasket matching, grinding, acid etching, sanding, or heavy wire brushing shall be allowed on any part of intake or exhaust runners or combustion chambers above or below the valves. Penalty for head rule violation shall be a \$1000 fine and loss of all season points.
- **11.31** Stainless steel valves may be used. No titanium valves. Valve seat angles shall be stock, no back cutting or bowl blending of valve pockets. Valve springs shall be stock diameter with stock size magnetic steel retainers only.
- 11.32 Screw in stude and guide plates may be used. Poly locks and stud girdles may be used.
- **11.33** Any 1.5 ratio aluminum or steel roller rockers will be allowed. No shaft type rockers will be allowed unless stock OEM for the type of engine being used.
- **11.34** Cam may be a solid lifter cam with a maximum lift of .510 measured at the valve (intake and exhaust) when hot. Lifters must be solid or hydraulic and must be stock OEM diameter for engine being used (GM.842/ Ford.875/ Mopar.904) No Roller lifters.



- **11.35** Only steel timing chain and gear set will be allowed. No gear drives or belt drive. Timing chain and gear set may have cam timing adjustability. Double roller timing chain set is allowed.
- **11.36** Only stock OEM style GM HEI or stock electronic ignition distributor allowed. **No** dual point distributors, magnetos, MSD or aftermarket performance distributors allowed. After market ignition module and coil are allowed.
- **11.37** One gauge legal Holley 4412 2 bbl. carburetor allowed. Choke plate and air horn may be removed. No other carburetor modifications allowed. No narrowing of throttle shafts or grinding of butterfly screws allowed. Metering block and boosters may be modified only as necessary to run E-85 fuel. All air entering the engine must pass through the carburetor ventures.
- **11.38** An AAS approved 2 hole flat restrictor plate must be run at all times on this engine. Plate shall be an AAS approved 1/8" thick flat aluminum plate with 2-1.250 holes centered under the carb. Must be mounted between the spacer and the manifold. Spacer must have straight holes. No tapered spacers allowed.
- **11.39** A 1 inch carb spacer or adapter is allowed. May be aluminum or phenolic. A maximum of 1.125" between manifold mounting surface and bottom of carb base plate, including gaskets is allowed. 2 carburetor return springs are required on throttle linkage.
- **11.40** No fuel injection, nitrous oxide, super charger, turbo charger, ram air or any type of boost enhancing device is allowed.
- **11.41** An air cleaner is required. K&N style poly air cleaner assembly is allowed. A maximum 17 x 4 round air filter may be used. A K&N air filter is allowed.
- **11.42** Intake manifold shall be an out of the box, as cast, aluminum Edelbrock performer manifold part #2101, #2701, #2116, 2716 for GM, #2181 for Ford, or #2176 for Mopar. Rf Intake bolt and Rf carb stud must be drilled for tech inspection safety wire seals. (.093 hole)
- **11.43 All other engines.** Out of town cars running a non-conforming engine must run a gauge legal Holley 2 bbl. carb. and the AAS approved 1.25 two hole restrictor plate noted in 11.38. In the interest of keeping the competition equal, AAS technical staff may add an additional weight penalty as deemed necessary depending on the specifications of engine to be run.

#### 12.0 Exhaust

- **12.1** OEM cast iron exhaust manifolds, block hugger headers or shorty style clipster headers may be used. No full length headers will be allowed. Maximum 1 5/8" tube with 3" collectors. Collectors may not exceed past the rear trans mounting flange of the engine block. NO stainless steel headers, merge collectors or triy headers allowed.
- **12.2** Exhaust shall "Y" into 1 single pipe before it passes through a single muffler located under the car to the rear of the passenger compartment. The muffler shall have a single exit and a turn down not to exceed 2.5 inch in diameter is mandatory. All other exhaust tubing will have a maximum 3.0" inch diameter.
- **12.3** A single muffler is mandatory and shall be sufficient enough to meet all sound requirements of the speedway at all times. Due to the challenging sound requirements at All American Speedway it is highly recommended that additional sound adjustability be built in to your exhaust system in the event your vehicle does not meet the sound levels required. All mufflers and exhaust shall be securely fastened.
- **12.4** All vehicles in this division competing, practicing or testing at All American Speedway are required to comply with the mandated maximum sound output restriction. All individual vehicles are required meet a maximum decibel output of **90 DBA** or less as measured from the viewing pad area above turn four. No exceptions. Any vehicles found to be exceeding the allowable levels will be black flagged from the race track and required to make necessary repairs before being allowed back on the race track.

## 13.0 Fuel & fuel system

**13.1** Unleaded pump gas. Sunoco race 110 leaded (purple) Sunoco E-85 Race or E-85 purchased from the pump may be used. No fuel may be blended with alcohol, ethers or other oxygenates. No propylene oxide, aniline, nitro propane or any other nitro based compounds or any performance enhancing additives of any kind may be used at any time. Penalty for altered fuel is \$1000 fine and loss of all points.



- 13.2 Only a made for racing fuel cell may be used. Must be a top feed type and have an approved roll over vent and a ground strap to the filler neck. Fill neck must be located in the trunk area. Maximum Fuel cell capacity allowed is 22 gallons. Fuel cell shall be mounted securely in the trunk compartment. Mounts for the fuel cell shall be welded directly to the vehicle frame. A minimum of  $2 1" \times 1/8"$  steel straps shall be used across the top to secure the fuel cell. The fuel cell must be enclosed in a 16 gauge steel can. The fuel cell shall be mounted behind the rear end and no lower than the rear frame rails and at least a minimum of 10" off the ground. An 1/8" steel plate or 1/4" aluminum plate as wide and tall as the fuel cell shall be attached on the rear of the fuel cell for extra puncture protection. At no time shall the fuel cell be mounted in the driver's / passenger compartment. A station wagon shall mount the fuel cell in such a way that a steel firewall can be fabricated to separate the fuel cell from the driver's compartment.
- **13.3** Fuel line may run inside the driver's compartment but is required to be inside steel tubing that is painted red and is clearly marked as "fuel" for the safety crew to see.
- **13.4** A single OEM or aftermarket mechanical fuel pump mounted in the stock mounting location is allowed. No electric fuel pumps allowed.

#### 14.0 Cooling and Electrical

- **14.1** A single automotive type car battery shall be allowed. Must be securely located behind the driver / passenger in front of the rear firewall. Battery must be housed in a completely enclosed leak proof plastic or poly box and securely bolted down with steel or aluminum straps. No nylon straps and hold downs will be allowed. Mounting battery in engine compartment or trunk area will not be permitted.
- **14.2** A master kill switch clearly marked "on" and "off" that is accessible to the driver and the safety crew is mandatory.
- **14.3** An operational starter is required. All cars must be self-starting.
- **14.4** A single radiator securely mounted in front of the motor is required. Shall have an operational fan. Electric fan is ok.
- **14.5** Antifreeze shall not be allowed. Competitors found to be using antifreeze are subject to a \$100 dollar fine. Water wetter, Pro Blend 40 below or other similar cooling system additives are allowed.
- **14.6** Aluminum water pump and aftermarket pulleys are allowed.
- **14.7** A radiator overflow line or catch tank that directs overflow water away from the racing surface is required.

### 15.0 Drive Train

**15.1** A GM or Ford 9" type rear end may be used. May use aftermarket floating hubs and rear disc brakes. Must be mounted in the stock location for model of car being run. All rear differentials will be required to be run as "open" differentials. No limited slip or locked rear ends of any kind. No spools, lockers or welding of gears. No shimming of spider gears to create a limited slip differential.

If a rear differential is found to be locked or excessively tight, the penalty will be disqualification and a loss of points and money for that night's event.

Aftermarket magnetic steel axles, rear floating hubs, rear rotors and caliper mounts will be allowed. Must use factory OEM rear calipers (see 8.1).

- **15.2** Only a magnetic steel drive shaft may be used. Must be painted white.
- **15.3** A drive line safety loop must be installed no further than 12" back from the front u-joint. Safety loop may be constructed from 5/16" chain or  $\frac{1}{4}$ " x 2" flat strap and must completely encircle the drive shaft. The loop must be securely fastened to the vehicle in such a way as to prevent the driveline from coming loose if it should fail.
- **15.4** Automatic transmissions shall have a functioning stock type torque converter at least 10" in diameter. No lock up or electronic lock up type converters allowed. An SFI certified flex plate is mandatory. At least 1 forward gear and reverse are required to be operational. No direct drive transmissions allowed. A steel plate type scatter shield over the flywheel area of the transmission is recommended. All transmission coolers and lines must not be in or run through the driver's / passenger compartment.



- **15.5** Manual transmissions must be OEM stock type 3 or 4 speeds only. No racing type transmissions. Must have all working forward and reverse gears. No 2 speeds or first gear removed transmissions allowed. Must have a stock type steel flywheel. No lightened, drilled or aluminum flywheels. Must use a minimum 10" stock style steel pressure plate. SFI certified clutch and flywheel is highly recommended. No mini or multi disc clutches allowed. A steel bell housing is required on all manual transmissions. Stock aluminum bell housing may not be used.
- **15.6** Aftermarket hydraulic throw-out bearing, slave cylinder, pedal and clutch master cylinder may be used.

## **16.0 Safety Requirements**

- **16.1** Aluminum, made for racing seats will be required for the driver and passenger. **Absolutely no plastic or fiberglass seats of any kind will be allowed**. The seats must be securely mounted to a steel frame or brackets welded directly to the main roll cage. Seats bolted directly to the floor pan will not be allowed. Seats shall be bolted to the mounts with minimum 3/8" grade 8 bolts and large washers to prevent pull through.
- 16.2 SFI certified racing seat belts and harness are required for both driver and passenger. A minimum 3" wide strap 5 point harness with individual double shoulder belts shall be required (no "Y" type). Seat belts should include an anti-sub belt to prevent the racer from sliding forward under the lap belts. **Seat belt sets may not be more than 5 years old per the SFI tag**. Belts with missing or unreadable SFI tags will be required to be replaced. Seat belts will be securely fastened to the main roll cage with welded tabs and minimum ½" bolts. Seat belts bolted directly to the floor pan will not be allowed. Shoulder belts should be anchored 6" below the shoulder by either bolting or securing around the rear spreader bar with the proper hardware.
- **16.3** Snell approved SA2010 or newer full face auto racing helmet is required for driver and passenger. Motorcycle or sport helmets will not be allowed.
- **16.4** A head restraint or neck collar is recommended to be worn at all times. A Hahns, Hutchins, ZAMP or other SFI approved head and neck restraint is strongly recommended.
- **16.5** SFI certified racing suits are required for all drivers and passengers at all times while on the track. Driver's suits with large holes or tears will be required to be replaced. SFI rated gloves, shoes and long underwear are highly recommended.
- **16.6** No two-way radios will be permitted. Race-ceiver radios will be mandatory in all cars.
- **16.7** Transponders will be required on all cars. Transponder must be mounted 11ft. (132") back from the forward most part of the car.

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