

**AMERICAN MUSCLE CAR AUTO RACING (AMCAR)**  
**2014 RULES**  
**Effective 7/17/2014**

**DEFINITIONS:**

OEM = original stock part produced by manufacturer or replacement part produced to identical stock manufacturer specifications.

**1) RULES AND APPLICATION**

- a) These rules and regulations are designed to promote competition and safety for all who compete. Even though thought and effort has been given to require as safe a car as possible through these rules, it is incumbent on each driver, pit crew person, spectator, track employee, and track official to use prudent judgment and personal restraint in the name of fair competition and safety. These rules in no way ensure safety or prevention of injury to any person participating in or spectating.
- b) Officials welcome your suggestions and recommendations to improve the racing and safety of racing. Please convey your suggestions and recommendations to the Technical Director or the General Manager.
- c) Refer to the General Rules, Track Regulations, Car Registration, and the Rules Disclaimer for additional information and guidance.
- d) Officials reserve the right to interpret and apply the rules and procedures. When a rules interpretation is necessary the primary consideration will be the spirit and intent of the written rule. The interpretation by Management is binding and final.

**2) TECHNICAL INSPECTIONS**

- a) Every competing vehicle, regardless of class, is subject to a safety and technical inspection by the Technical Director at any time.
- b) Every race car competing is required to pass a safety inspection by the Technical Director before the car is allowed to compete.
- c) As a general rule, the top five finishers of each feature race will be inspected. Additional cars may also be inspected at the same time if the Technical Director so decides.
- d) If a car is found to be not in compliance with the rules, it may be disqualified and no points or money will be awarded for the race event night.
- e) Anyone refusing to be inspected by the Technical Director will be disqualified. They will forfeit all winnings and points for the race event. They will be inspected the next time that the car returns to the track.
- f) All competitors must conform to all technical inspection tools, scales and gauges used by Technical Director.
- g) The decision of the Technical Director is final and binding in all matters of interpretation and application of these rules and regulations.

**3) SAFETY EQUIPMENT**

- a) Every driver is required to wear an approved driver's suit (fire suit) anytime they are on the track and in the race car practicing, testing, or competing in a race.
- b) Racing gloves and shoes are mandatory.
- c) Every driver is required to wear an approved full face safety helmet. The driver's helmet must have at least a Snell 95 or SA 2005 rating. Date must be within last five years. (May be re-certified by manufacturer).
- d) Hutchons, Hans, D-Cell, DefnDer or similar SFI approved helmet restraint is required.
- e) Every race car must have a fully charged fire extinguisher or fire suppression system with a functioning gauge.
  - a. All fire extinguishers and mounting brackets must be metal.
  - b. Manual fire extinguishers must be within reach of the driver.
  - c. If used, Remote mount fire extinguisher must have triggering system within easy reach of driver and at least one nozzle in driver's compartment, fuel cell area, and engine area. This system is strongly recommended.
- f) Each Race Team is required to have at least one 10-lb. fire extinguisher in their pit. The fire extinguisher must have the car number painted or stamped on the body of the fire extinguisher.

- g) Driver restraint system must be quick release racing type, with minimum 3 inch wide lap belts, 2 x 3 inch wide shoulder belts, plus submarine belt. Belts must not be older than 5 years, subject to condition. Must be securely mounted to the roll cage. Must be SFI approved and date tag must be intact.
- h) Driver's side quick release or push button window net required. Mounted to cage, not to body. Maximum of 5 years old, subject to condition. Must be SFI approved and date tag must be intact.
- i) The roll cage in the drivers' area must be padded.
- j) Driver seat head braces strongly recommended.
- k) One Rear view mirror is permitted. Also, one 5" max round, driver's side(spot) mirror is allowed. Spot mirror must be located along on the window pillar and be entirely within the boundaries of the body.
- l) Ballast weight is not allowed in the driver's compartment.

#### **4) SEAT**

- a) Aluminum racing seats are required and must be securely mounted to the roll cage with a minimum of (4) 3/8 bolts, 2 of which must be near midpoint of drivers back.
- b) No driver adjustable seat mounts.

#### **5) WINDOWS**

- a) Must have front and rear windshield made of Lexan.
- b) The windshield must be braced with 2 inside vertical braces to support the window. These braces should be near the center of the windshield.
- c) Door windows are not allowed except for air ducts which must not fully enclose window opening.
- d) Quarter windows not to exceed 12" from the top of the door at the A pillar.

#### **6) INTERIOR**

- a) Firewall must be minimum 20 gauge sheet metal.
- b) Floor must be 1/8" plate steel under driver's seat measuring 18" x 30" minimum. Remainder of floor must be sealed with aluminum or steel sheet metal.
- c) Passenger side and rear deck area may be covered using metal only, steel or aluminum. No plastic allowed.
- d) Drivers door bars must be covered with 1/8 inch steel plate.

#### **7) EXTERIOR CONDITION**

- a) Any damaged body parts are subject to approval by the Technical Director prior to a race event.
- b) Race damage may prevent a car from returning to the race even if it is in running condition. The Technical Director has the option and authority to determine if the car is safe and may return to the race or if it may enter another race without being repaired.

#### **8) BODY AND FRAME**

- a) Approved AMCAR fiberglass muscle car body. (Camaro, Mustang and Challenger). Must carry the appropriate manufacturer decaling to clearly identify make and model. (ex, manufacturer emblems, headlights, etc).
- b) Minimum roof height is 48" measured 10" back from top center of windshield.
- c) Minimum rear deck height is 35" measured at top rear corners.
- d) Frame must be OEM 1978-1987 GM 108.1" metric frame or approved aftermarket AMCAR metric frame.
  - a. If OEM frame is used:
    - i. refer to Roll Cage section for approved roll cage.
    - ii. Must remain factory stock unless otherwise stated in rules.
    - iii. Cross member must remain in stock location. Front lip of cross member may be removed. Bottom of cross member must remain unaltered.
- e) Minimum wheelbase is 108" plus or minus 1/2 inch as measured by making pitman arm & idler arm centered then measuring from center of front spindle to center of rear axle.
- f) A Lexan rear spoiler is permitted
  - a. Maximum of 5 inches tall by 42 inches wide
  - b. Centered at the furthest rear point of deck lid

- c. Must be firmly mounted
- d. Adjustable braces permitted

#### **9) ROLL CAGE**

- a) Must use authorized AMCAR roll cage
- b) Cage must be mounted to frame rails.
- c) May only have two primary and two secondary connection points, both front and rear
- d) Cage must be mounted with minimum of 23 inches from center of axle to back of cage measured where rear main hoop meets frame.
- e) Rear main hoop uprights must remain perpendicular to frame.

#### **10) ENGINE LOCATION**

- a) The engine must be no farther back than the #1 spark plug even with center of upper ball joint.
- b) Cross member may be notched for fuel pump clearance.
- c) Minimum of 12" from ground to crank height centerline.
- d) Engine must be centered between the frame rails.

#### **11) FRONT SUSPENSION**

- a) OEM Metric Lower A-Arms or approved aftermarket A-arms from AMCAR.
- b) OEM Metric spindle required
- c) Tubular Steel Upper A-arms allowed. A-arms can be any length, non-adjustable only. Steel or Aluminum cross shafts may be used with no offset.
- d) No splined sway bars.
- e) Tie rods may use heim joints at spindle. Must be OEM Metric at centerlink/draglink
- f) Front weight jacks or jack bolts permitted.
- g) Coleman or equivalent front steel hub and drum assembly permitted
- h) Maximum track width of 76" allowed as measured from outside bulge of right tire to outside bulge of left tire at ground level. No tolerance.

#### **12) REAR SUSPENSION**

- a) The stock OEM metric GM 10-bolt, 7.5" rear end is permitted. Trailing arm brackets must be in stock location and have a maximum distance of 4.75" from centerline of axle tube to center of trailing arm mounting hole. No other modifications of any type allowed.
- b) No cambered rear ends. No bending, twisting or rotating of axle tubes, perches, or mounts. No cutting, welding or grinding on rear end allowed.
- c) As an option, the Ford 9" inch rear end is permitted. If this option is utilized, then the following rules apply:
  - a. Must be all steel. No aluminum except for drive flanges and caps,
  - b. Steel mini spool or steel full spool (8lbs min) permitted. No lockers or ratchets of any kind allowed.
  - c. Must bolt in place of OEM metric GM 10 bolt utilizing all 4 trailing arm brackets in identical stock location and have a maximum distance of 4.75" from centerline of axle tube to center of trailing arm mounting hole. No other modifications of any type allowed.
- d) Differentials may be open or locked. When locked, they must be welded securely or locked with a mini-spool, or full spool. No aluminum spools or ratchet (Detroit Locker) type units allowed. The Auburn Gear L/S differentials are legal.
- e) The Auburn Gear differentials are permitted for the GM 7.50," 10-bolt rear ends. The part numbers are; AUB 542057 and AUB 542058 for the 26-spline; AUB 542041, and AUB 542040 for the 28-spline. The Lock-Right differential by PowerTrax and the OEM posi-tract units (for 7.5" Chevy) with no modifications is also permitted.
- f) Axle-saver bearings, c-clip eliminators, heavy-duty c-clips, and heavy duty after market axles are allowed and recommended.
- g) No gun-drilled axles allowed.
- h) Adjustable upper control arms are permitted. Monoball permitted.
- i) No rear sway bars.
- j) Rear weight jacks or jack bolts permitted.
- k) Lower rear control arm must be OEM Metric or approved aftermarket from AMCAR.

- l) Maximum of 76" allowed as measured from outside bulge of right tire to outside bulge of left tire at ground level. No tolerance.

### 13) SPRINGS

- a) Racing springs allowed
- b) All springs must be at least 5-inch OD
- c) Front spring rate must be minimum 500 lbs.

### 14) STEERING

- a) Any OEM or OEM replacement parts may be used. Does not need to be metric.
- b) Steering box must remain in factory metric location.
- c) After market power steering pumps and quick steers are allowed.
- d) Rack and Pinion steering is not approved.
- e) Any steering wheel is allowed
- f) Steering wheel quick disconnects are allowed and encouraged.

### 15) BRAKES

- a) Any cast iron or steel, metric, single piston brake caliper. Publicly published retail price may not exceed \$95.00. Must be readily available at retail to all competitors.
- b) Aftermarket master cylinders and brake bias adjusters allowed.
- c) No Accubrake or Accubrake-type devices permitted.
- d) Dual master cylinders are permitted. The balance bar for proportioning the brake master cylinders is permitted at the brake pedal mounting point inside the car. Adjustments are permitted from inside the car while in competition.
- e) Shut off valves or devices to disable one, or more, brakes are not permitted.
- f) No cross drilling, gas slotting, or any other machining to enhance rotor cooling or braking performance.
- g) No lightweight components allowed.

### 16) SHOCKS

- a) Must use authorized AMCAR shock.
- b) No modifications, adjustments or alterations of shock permitted. Violation will result in \$500 fine, disqualification and one race suspension.
- c) Rear shocks must be in stock location with ½ inch variance, left to right.
- d) No bump stops permitted.
- e) One shock per wheel.
- f) Track will claim and replace shocks for top three finishers and one random finisher each race.

### 17) WHEELS

- a) The maximum wheel width is 8 inches measured between inside tire bead surfaces.
- b) Racing wheels are required.
- c) At least 1/2-inch OD wheel studs and one-inch OD lug nuts are required.
- d) Each wheel is required to have all lugs and lug nuts.
- e) Steel wheels only. Aluminum wheels or adapters are NOT approved.
- f) Only 2", 3" or 4" wheel offset is allowed. Bead locks are not allowed.
- g) Maximum of half inch wheel spacer per wheel allowed.
- h) Air pressure relief valves are not allowed.
- i) Minimum Weight for each wheel is nineteen (19) pounds.

### 18) TIRES

- a) The only tires allowed:
  - a. HOOSIER F75 37130 Factory plated with HMP branding.
  - b. HOOSIER F75 37139 Factory plated with HMP branding.
  - c. HOOSIER F75 37140 Factory plated with HMP branding.
- b) Only HMP branded tires are permitted to be on any car on any race day.
- c) No camber cutting, shaving, grooving, altering, chemical coating, treating, or soaking is allowed.
- d) Tires may be confiscated or impounded.

- e) Vehicles must start Qualifying, Heats and Features on the same set of tires. The only exception is replacement of a damaged tire at the discretion of the Tech Director.

#### **19) RIDE HEIGHT**

- a) Minimum ground clearance for the frame rails is 5" without the driver.
- b) Minimum ground clearance for cross member, body and everything else is 3" without the driver.

#### **20) WEIGHT**

- a) The minimum weight of the car with the driver in the seat is 2,700 pounds after race. Maximum left side weight is 54%. Maximum rear weight is 47.5%.
- b) Topping off of fuel for weight allowance is not permitted.
- c) Any ballast weight used must be securely bolted with 1- 1/2" bolt per 50 lbs.
- d) All ballast weight used must be painted white or silver with car number in contrasting color.
- e) No ballast weights in the driver's area.
- f) Any ballast weights or other parts, body pieces, etc. that fall off during race will not be allowed to be used after race to make weight in tech.
- g) Any weight outside frame rail must be enclosed in steel tubing with .125 minimum thickness welded to frame rail.

#### **21) TRANSMISSION**

- a) Option 1: Saginaw 3 speed with 7.25 clutch
  - a. No straight cut gears
  - b. No drop out gears
  - c. Starter must be in factory location. No reverse mount bellhousings.
  - d. No lightweight or machined flexplates. Flexplate must be SFI.
- b) Option 2: Brinn, Bert or Falcon
  - a. Aluminum case only
  - b. Add 75lbs.

#### **22) FUEL CELL**

- a) A maximum 22-gallon fuel cell is required.
- b) The fuel cell must be enclosed in a 22 gauge magnetic steel container. .
- c) The fuel cell must have minimum of 8 inch ground clearance and centered between left and right rear frame extensions.
- d) The fuel cell must have a roll over safety valve.
- e) The fuel cell vent must exit the car at the left rear near the stop light location. The exit line must protrude at least 2-inches outside of the body.
- f) Rear fuel cell protection bars are required.
- g) The fuel lines that run into or through the drivers' compartment must be enclosed in steel tubing or must be braided steel lines.

#### **23) FUEL**

- a) Pump gas or racing fuel allowed.
- b) Alcohol, nitrous-oxide, oxygen bearing fuel or additives are not allowed.
- c) Fuel cooling devices are not allowed. (Cool Cans etc...)

#### **24) ELECTRICAL**

- a) A maximum of one 12 volt battery allowed.
- b) An alternator or generator is optional.
- c) A master electrical cut-off switch is required to be mounted on the dash between the steering column and the driver's door. When switch is in off position, all electrical power is off.
- d) Heavy duty starter and ignition switches are required, and must be mounted within easy reach of the driver and emergency crews.
- e) Battery must be securely mounted outside driver's compartment.

#### **25) IGNITION**

- a) OEM style HEI ignitions system is required.

- b) Pick up coils and weights may be locked.
- c) Coil must be mounted in cap.
- d) HEI soft touch Rev Limiter with plug in chip is mandatory on all cars using crate engines. Rev Limiter must be mounted in plain view on right side of dash and not accessible from driver's seat.
- e) RPM chip will be furnished by track.

## 26) CARBURETOR

- a) BOX STOCK Holley 500cfm two barrel carburetor, part # 0-4412CT. No Alterations of any kind from any rebuilder.
- b) May change jet sizes and power valve sizes only.
- c) Only Holley carburetor replacement parts are permitted for use and any replacements must be original part replacements available from Holley.
- d) Alteration, physical changes, machining, re-shaping, coating or tampering with any part of the original parts, internal or external is prohibited.
- e) A 1" inch maximum carburetor spacer plate is allowed. No drilling is allowed of the spacer plate. There must be two holes in the spacer plate and they must be same diameter top to bottom. (no tapered or stepped hole spacers, no cutting of center section).
- f) Only two gaskets with a maximum thickness of .065 inch each are allowed.
- g) The Tech Director reserves the right to impound, confiscate and/or trade out any carburetor at any time. Failure to comply will result in immediate disqualification and \$500 fine.

## 27) COOLING SYSTEM

- a) Aluminum radiators are allowed and must be of stock appearance and mounted in the general stock location.
- b) No electric water pumps allowed.
- c) Electric fans are allowed.
- d) No clutch fans allowed.
- e) Cooling systems must have a minimum one (1) quart overflow catch tank. It is mandatory that the hose leaving the catch tank terminate at the base of the windshield on the right side, pointing up to be in the drivers view.
- f) The use of anti-freeze is not allowed. The use of water wetter is allowed.

## 28) EXHAUST

- a) Only stock chassis type, or "up and over" (crossover) headers with a maximum 3" collectors are legal.
- b) Maximum header tube diameter 1 3/4" O.D.
- c) No 180-degree headers, stainless steel, ceramic coatings, or merge collectors are allowed.
- d) Any type of muffler is allowed.
- e) Exhaust must not exceed 96db's at 100 feet.
- f) Exhaust equalizer "H" pipes are permitted.
- g) 2 into 1 systems are permitted
- h) All exhaust system must exit past the driver's compartment. The minimum exhaust system ground clearance is 3 inches.
- i) Stepped headers allowed.

**NOTE: Howe Enterprises Iron Lung Headers are not allowed. No Tri-Y header systems allowed**

## 29) DRIVE SHAFT

- a) All drive shafts must be painted white and have the car number on it.
- b) No drive shafts smaller than 2.00 inches in diameter permitted.
- c) Stock type steel drive shafts only. No lightweight, aluminum, chrome moly or carbon fiber, drive shafts permitted.
- d) Two drive shaft loops must be installed. Front drive shaft loop must be within 12" of front universal joint. The loops must be made of a minimum 2" x 3/16" flat bar steel, or 1" round, .095" steel tube. Loops must go completely around the drive shaft. Chain, wire or other installations will not be allowed.

### 30) ENGINE

#### A. Option 1- GM 350 cu. inch crate engine part # 88958602 & 19258602

- a) Intake, Block, Main Caps, Cylinder Heads, Valves, Valve Springs, Camshaft, Crankshaft, Connecting Rods, and Pistons must remain original GM parts as specified for specific crate engine. No aftermarket substitutions and no modifications that reduce weight are permitted.
- b) All bolts, oil pump, gaskets, bearings, piston rings, timing chain, timing gears, and rocker arms may be aftermarket.
- c) All components must remain within tolerances, specifications and guidelines as published by GM for specific crate engine as determined by the Technical Director. No alterations, no grinding, no porting, no polishing, no coating, etc. is permitted. **(See Penalty)**.
- d) Oil coolers recommended
- e) Use of or installation of an open or closed loop vacuum system, to evacuate air from the engine is prohibited.
- f) Technical director reserves the right to impound any engine after an event for inspection. Any engine found not in compliance may be cause for immediate disqualification. **(See Penalty)**

#### B. Option 2

- a) Stock small block cast iron engines smaller than 400 CID are allowed. The 400 CID small block engine is NOT allowed.
- b) The block may be over bored no more than 0.060-inches.
- c) The maximum displacement for a GM engine is 360 CID.
- d) The maximum displacement for a Ford engine is 364 CID.
- e) The maximum displacement for a Chrysler Products engine is 364 CID.
- f) Chevrolet Bowtie blocks or any Chevrolet block which will accept the small journal crankshaft without modifying the block is not allowed.

#### (B1) HEADS

- a) Only stock cast iron, straight plug heads for the size and brand of engine are allowed. (350 Heads on 350 only and 305 Heads on 305 etc.)
- b) The heads may NOT be polished, ported, nor port matched to the intake manifold.
- c) Angle milling of the head is not allowed.
- d) The heads must have stock type valves and single valve springs.
- e) Titanium parts are not allowed.
- f) Vortec™, Bowtie™, SVO™ or W2™ or any other aftermarket performance heads are NOT allowed.
- g) Angle plug heads are not allowed.
- h) Only open chamber heads with 1.94-inch intake valves and 1.50-inch exhaust valves are allowed.
- i) The minimum combustion chamber size for GM, Ford and Chrysler head is 68 CC, measured at race conditions and temperatures.
- j) Ford and Chrysler heads must be stock for the engine being used.
- k) Modification or removal of the casting or head numbers is cause for immediate disqualification.
- l) Steel stamped rockers only. No roller or roller tip rockers allowed. No stud girdles allowed. Screw in studs and guide plates are allowed. Rocker arm ratio must be stock for engine & heads being used.

#### (B2) INTAKE MANIFOLD

- a) Only a stock OEM cast iron 4-barrel un-modified intake manifold is allowed.
- b) Marine performance and aluminum intakes are not allowed except Edelbrock part #2101 is permitted.
- c) The ports and runners may NOT be polished nor matched to the heads.

#### (B3) FUEL PUMP

- a) Mechanical fuel pumps only.
- b) Electric fuel pumps are not allowed.
- c) The mechanical fuel pump must be mounted in the stock position on the engine.

#### (B4) CRANKSHAFT

- a) Factory stock crankshafts are required.

- b) Lightening and special machining of the crank shaft is NOT allowed, including grinding and polishing.
- c) Small journal Chevrolet crankshafts are not allowed unless they were factory equipment for the engine being used.
- d) The minimum allowable crankshaft weight is 48 pounds with timing gear but without pilot bushing.
- e) The maximum rod journal undersize is .060 when compared to a stock crankshaft rod journal.
- f) No small journal crankshafts.
- g) No Honda type rotating assemblies.

**(B5) CAM SHAFT AND LIFTERS**

- a) Any flat tappet cam, Any lift is allowed.
- b) Hydraulic lifters are required, and must be stock diameter no solid lifters.
- c) Roller cams Roller lifters and rockers are NOT allowed.

**(B6) TIMING CHAIN/GEARS**

- a) Only stock type timing chain is allowed.
- b) Cam gear drives are NOT allowed.

**(B7) BALANCER**

- a) Factory stock types of engine balancers are allowed.
- b) Fluid dampers and other aftermarket balancers are allowed.

**(B8) PISTONS**

- a) Only flat top 4-valve relief pistons are allowed.
- b) Milling of the pistons is not allowed.
- c) No portion of the piston may extend above the block surface.

**(B9) RODS**

- a) Steel rods are required.
- b) The rods must be stock OEM or OEM replacement for the engine being used.
- c) Polishing and shot penning is allowed.

**(B10) OIL PAN AND OILING SYSTEM**

- a) Only wet sump oiling systems are allowed.
- b) Dry sump and other external oiling systems are NOT allowed.
- c) One inch inspection hole in the left side of oil pan adjacent to # 5 cylinder is recommended for crankshaft and rod inspection without removing oil pan.
- d) Claimer oil pans are allowed.
- e) The oil pan removal may be part of the technical inspection to ensure racing fairness.
- f) Owner – Driver responsible for labor on all teardowns.

**Penalty – Violation will result in disqualification, loss of points, loss of purse and \$1000 fine.**

**32) The following are not allowed under any circumstance:**

- a) If any of the following are found the penalty is forfeiture of all points for the season and \$1000 fine.
  - a. Carbon fiber parts
  - b. Magnesium parts
  - c. Titanium parts
  - d. Any cockpit adjustable suspension device (brake bias OK)
  - e. Any cockpit adjustable engine device
  - f. Fuel additives or oxygen bearing compounds
  - g. Nitrous
  - h. On-board timing or data gathering equipment (transponder OK)
- b) If any of the following are found the penalty is a minimum of one year suspension and \$1000 fine.
  - a. Any type of anti-locking brake system (ABS); includes electric, hydraulic, or manual systems
  - b. Any electronic device that modifies, controls, enhances, assists, limits, inhibits or otherwise alters traction for a competitive advantage (i.e. Traction Control)
  - c. Possession of chemicals that are specifically designed for treating tires for a performance advantage.



- d. The application of any kind of foreign substance or compound onto or into the tire for the purpose of enhancing tire performance (Nitrogen is OK).

**33) CAR NUMBERS (Houston Motorsports Park)**

- a) All cars must have a registered one, two or three digit number.
- b) The numbers must be a contrasting color to the car.
- c) The number placement and sizes are:
  - a. Both doors - At least 18-inches in height.
  - b. On the Roof - At least 18-inches in height and readable from the grandstands and scorer booth.
  - c. On the front and rear window - At least 6-inches in height, readable from the front and rear of the car respectively.

**34) RADIOS & TRANSPONDERS (Houston Motorsports Park)**

- a) Transponders are required.
- b) Transponder must be on and operational whenever the car is on the track. Transponder location is no further forward than 16 inches from rear axle center line. **No tolerance.**
- c) All drivers must have and listen to a scanner or Receiver tuned to Race Director's frequency during all racing sessions. **Two way radios and spotters are optional.**

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