

# 2024 Lancaster Motorplex

## Street Stock Division

### Rulebook

**COMPETITORS/PARTICIPANTS - IMPORTANT. PLEASE READ:** All rules within, are at the discretion of the Race Director and Technical Officials. Any stock part or aftermarket part must remain stock and unaltered for that part unless stated within the rule. Removal of ID or Part numbers makes the part illegal. If something is not covered or not clear within the rules "DO NOT ASSUME IT IS LEGAL" you must call the Tech Official and an amendment may be made, if necessary. This is in an attempt to keep the competition even and the cost to race low.

#### **Competing Models**

A) *Open to any North American 108-inch minimum wheelbase car. NO Mustangs, Camaros, Firebirds, or similar-type cars.*

**B) All cars must weigh 3300 lbs. minimum WITH driver after race, 3300 lbs. with crate motors. No allowance for fuel before or after the race. No more than 53% Left side weight with driver after race. 7" wheels get a 25# weight break.**

#### **Frame**

A) A single "X" is allowed with Transmission Mount. No other bracing or reinforcing allowed. (Max tubing 1 3/4 "x .095")

B) All mounts must be in stock location and unaltered for that make and model of car.

C) The frame must be completely stock for that year, make and model.

D) No sectioning, channeling, or chopping allowed.

E) Radiator support may be fabricated with tech approval and must be in stock location.

F) Six (6) Point roll cage minimum required. Must have a minimum of three (3) bars on the driver's side door, and two (2) Bars on the right-side door. The roll bar must be located directly behind the driver and reach as close as possible to the roof and left side of the car. Driver's side anti intrusion plate is mandatory.

G) Rear hoops allowed. Must run parallel to rear frame. A maximum of two (2) vertical supports permitted with tech approval. The rear of main hoop to be no less than 25 inches from the center of rear axle.

H) Front Hoops allowed with tech approval.

**I) All Ballasts must have a minimum of two (2), ½ inch bolts/rod minimum to secure weight and must be bolted to the frame or frame structure. This will be teched closely this year!**

J) All weight must not be lower than frame at the point of mounting and must be inside of frame rails. No weight inside Driver's compartment. No weight is to be mounted below the fuel cell.

K) **All weight MUST be painted white and have car NUMBER on it.** Must be legible and on all ballast.

L) Rear frame rails with rotted or rusted out rails may be replaced with 2 x3 .120 wall steel tube after rear end. Stock spring pockets and stock spring panel must stay intact.

M) Rear cross member holding the rear spring perches must remain stock and in stock location.

## **Body**

A) The interior of the car must be completely stripped.

B) Headlights and taillights must be removed.

C) All glass must be completely removed.

D) A full Lexan windshield with two (2) supports in the center of windshield must be used.

E) Front and rear wheel wells may be removed.

F) Hood and trunk may have webbing removed but must be hinged or pinned.

G) No cutting, chopping, channeling, or shortening allowed.

H) Stock hood and truck latches must be removed and replaced with hood pins, minimum of 4 hood pins holding hood to car.

I) Hood may not be bubbled or bowed up to allow air cleaner clearance.

J) Any holes in the firewall must be filled.

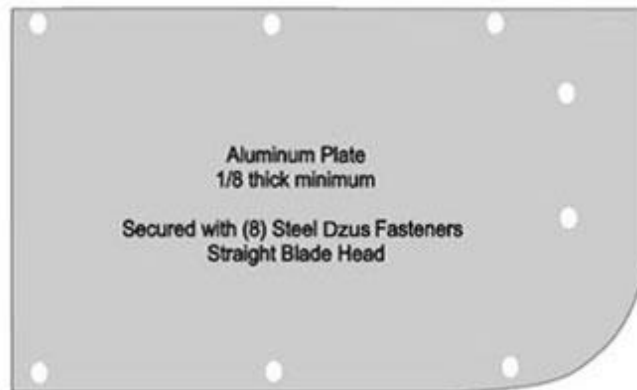
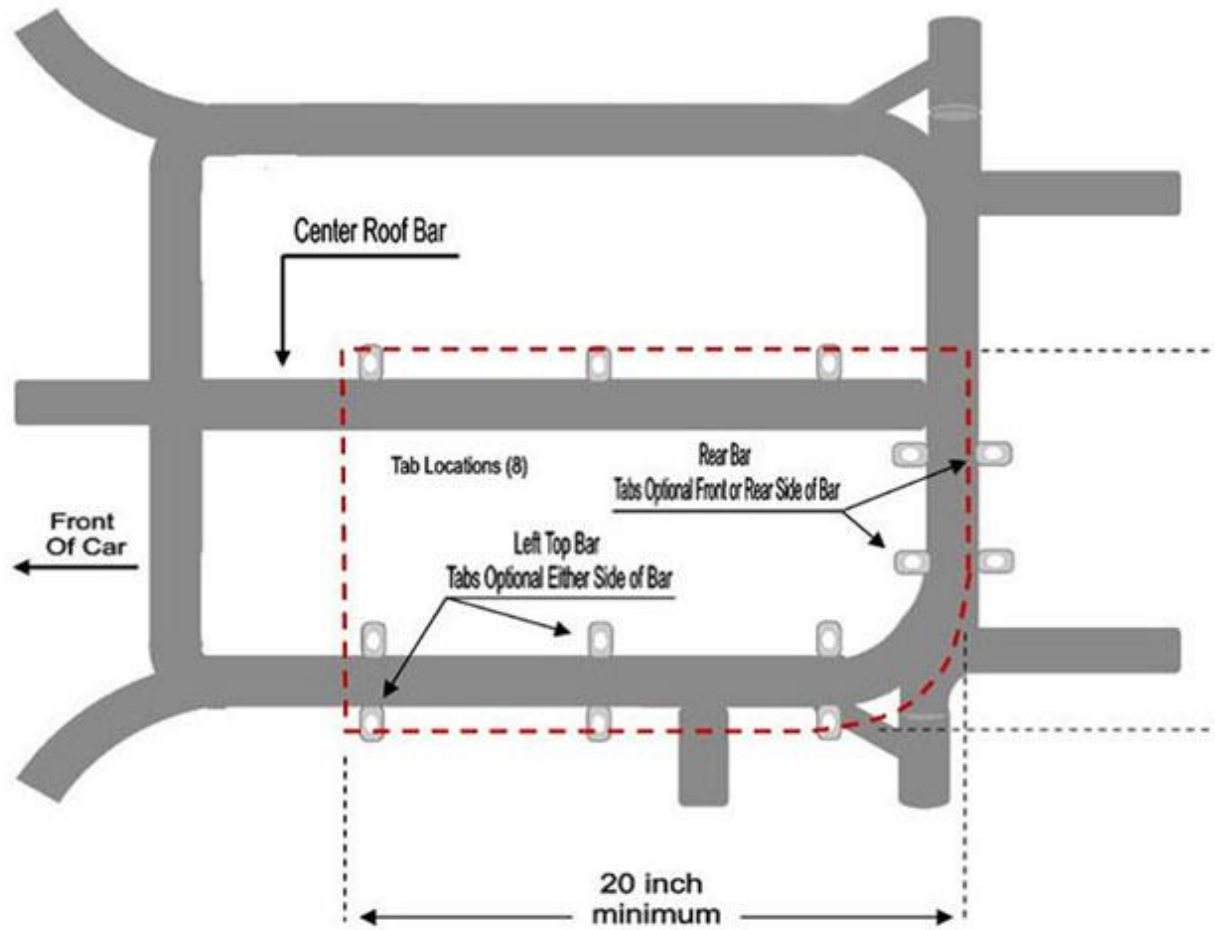
K) All doors must be welded or bolted shut.

L) One nerf bar per side is allowed between front and rear wheels. Maximum 1 ½ inch x .120 wall. All edges must be rounded, and all mounted bolts must be counter sunk.

M) Aftermarket tail and nose pieces allowed, must be stock appearing and match year and make of car.

N) NO side window deflectors or Lexan allowed from A post to door.

O) Stock appearing **STEEL or ALUMINUM** only aftermarket body panels allowed at Tech Directors discretion. Roofs may be steel or fiberglass. If you are using a fiberglass roof you must install a minimum of 1/8" aluminum or steel intrusion plate in the roll cage halo. The following picture is a suggested way to install the plate. This plate is highly recommended if you are running a steel roof also.



P) NO COCK PITTING OF CARS

Q) No part of the body may extend below the frame.

R) Doors, inner panels, fenders, and roof may remove webbing and trunk floor may be removed.

S) The roof height must not be below 49" inches.

T) Rear spoilers allowed with no vertical or horizontal bracing. Only bracing is to be mounting point. Maximum size 5" x 60" mounted in the center of the rear trunk.

U) Fiberglass Hoods allowed. Must maintain stock dimensions of a stock steel hood.

V) Firewall must remain stock and in stock location. If the firewall was removed, it must be replaced and must be in stock location, flat side to side and no foot box. Stock shape with 18-gauge steel sheet metal. Must be even with farthest point of windshield. Stock Master Cylinder must be in stock location and must be reinforced to eliminate flex in firewall. The front firewall may be no further back than the rear of oval frame hole, must be vertical and 24-26 inches tall.

W) The transmission tunnel shape may be altered and made wider to accommodate lines that need to run from front to rear. Maximum 8" tall and must be similar to OEM tunnel in design.

X) The stock floor pan may be replaced with a minimum of 18ga magnetic steel bent similar to the original configuration. No part of the passenger side floor pan may be higher than the top of the frame rail. The passenger side floor pan may come straight across from a maximum height of the top of the frame rail to the transmission tunnel. The floor must be sealed to the bottom of the door on both sides of the car. The rear seat area must seal to the rear firewall.

### ***Gas Tank and Installation***

A) Fuel cells are mandatory.

B) Fuel cells must be mounted inside the center of trunk. No offset permitted. Bottom of the cell must not be lower than the center of the rear axle. Fuel cell must be securely strapped down with metal straps only. No holes in the trunk lid allowed. One (1) Fuel cell only.

C) The fuel line must exit from the top or side of the fuel cell. No fuel lines in the driver's compartment. No electric fuel pumps.

D) A complete firewall must seal the trunk area from the driver's compartment. Minimum 20-gauge steel.

E) Fuel cell must be secured with four (4) over the top and two (2) in each direction metal straps.

F) Fuel cell rollover flapper valves are mandatory. I.E. Speedway Motors part # 458315

### **Miscellaneous**

A) All cars may have stock steering column. Removable steering wheel permitted subject to inspection by Tech. Cars may also use a  $\frac{3}{4}$ " steering shaft. Must have two (2) universal in shaft or slip shaft.

B) All cars must have two (2) drive shaft hoops. Minimum  $\frac{1}{4}$ " steel. One (1) front and one (1) rear.

- C) The drive shaft **MUST** be painted white. 2 ½" minimum diameter driveshaft and must remain stock length for year and make of car. **The driveshaft must be steel.**
- D) Electric fans allowed. (Must be one or the other, mechanical, or electric)
- E) No traction control devices allowed.
- F) No MSD type ignitions.
- G) One Way Radio System is MANDATORY.
- H) All cars must be equipped with a one-way radio or scanner to monitor the Race Director's instructions. **This is mandatory.**
- I) No two (2) way communication permitted, including but not limited to, two (2) way radios, cell phones, etc.
- J) The frequency is 454.000 and it is the driver's responsibility to maintain the device. Failure to do so may include a black flag or disqualification during race conditions.

## **Suspension**

- A) No modifying of the suspension allowed (strictly stock). MOUNTS MUST BE IN STOCK LOCATION, including rear spring pockets. The front upper control arm mounting area will be checked with a tram bar.
- B) Suspension parts must remain stock and unaltered for that make and model of car.
- C) Lower control arms must mount in their stock location and must maintain stock dimensions.
- D) Racing springs permitted. Jacking Bolts are allowed in front and rear.
- E) Racing shocks allowed, re-buildable are okay. Stock appearing NO external adjustable shocks, no external nitrogen or air filled. No sealed hyper screw, hyper screw, or Schrader Valve. Front shocks may be mounted outboard to allow jack bolts. Shocks must not exceed \$160.00 per shock.
- F) Speedway Motors 3-piece spindle is allowed, (part number 34501). No modifications are allowed to spindle.
- G) Aftermarket upper A- frame permitted. Upper control arms may be tubular magnetic steel only. Must use stock mount, non-adjustable. Bolt or screw in ball joint only. No Heim ends. Offset upper control arm shafts may be used.  
Adjustable and "mono" ball joints are not permitted. Ball joints must be stock appearing, heavy-duty magnetic steel construction. Any ball joint size will be allowed.
- H) Upper and lower rear trailing arms may be reinforced between the bushings.
- I) Optional Aftermarket trailing arm allowed: complete with bushings is Speedway Motors part #916-34057 only and the trailing arm without bushing is Speedway Motors part #916-34055.
- J) Stock rubber, Urethane and steel bushings only allowed. NO mono ball, Heim or offset bushings allowed.
- K) No additions to suspension permitted.
- L) Minimum of six (6)-inch frame height WITH DRIVER, including nose of car.
- M) Only one stock type shock absorber per wheel permitted in stock location, no suspension stops of any kind allowed.
- N) Track width: 108" wheelbase car 71 ½" 110" and up 73 ½". Will be measured at spindle height and at the tire bead surface. (Where tire and rim meet)

## Engine

- A) Engine must be in stock location. Crankshaft centerline must be fourteen (14) inches minimum from ground.
- B) No intermixing of manufacturers allowed.
- C) 12-volt battery only.
- D) Engine and transmission combination must be within chassis.
- E) All components must be factory installed and stock for a 2-barrel engine.
- F) Only stock ignition permitted, car must have working self-starter. No battery in driver's compartment.
- G) Stock firing order for engine must be used.
- H) Crank shaft dampers: Unaltered stock dampers and fluid dampers allowed. No aluminum dampers allowed. Rocker studs and guide plates allowed.
- I) Aftermarket racing pans are allowed with kick out, no power pans allowed. Pan must be steel only. Max \$450 retail price. Must follow rule J of this section.
- J) One (1) 1 ¼"-inch inspection plugs required in oil pan. The inspection plug must be located 9 ½" from the rear of block to center of plug, and 1 ¼" down from the top of the pan rail. This includes ALL crate motors. Failure to have the inspection plug will require the removal of the oil pan for inspection. **No exceptions allowed.**
- K) Stock OEM type I beam 5.7 rods only. No H beam. Scat rods stock OEM replacement allowed. Rods must weigh a minimum of 585 grams. Must have the forge mark on the rod.
- L) Crankshaft, stock cast only. Minimum weight 49-52lbs. Scat 9000 stock OEM replacement allowed. Only normal balancing allowed. NO under cutting, cross drilling, or Knife edging allowed.
- M) Lifter Valley oil screens are legal.

## Engine Option: 9.5 to 1

- A) Maximum engine displacement as follows:
  - AA. GENERAL MOTORS                      350cu. inches
  - BB. FORD    351cu. inches
  - CC MOPAR, AMERICAN MOTORS 360cu. inches
- B) Stock stroke and bore with maximum .065-inch absolute overbore allowed in each cylinder. No aluminum Blocks.
- C) Only two-barrel engines allowed. Maximum compression: 9.5 to 1 ratio. Pistons must be flattop OEM style cast type with 2 or 4 valve reliefs. No lightweight racing pistons allowed. Pistons must weigh a minimum of 420 grams. No coating of the pistons.
- D) No air boxes allowed. Listed below are the only eligible intake manifolds. Manifolds must remain strictly as manufactured, absolutely no modifications of any kind permitted. The manifold is identified by the term "performer" to the rear of carburetor and the term Edelbrock 2101 to the front of the carburetor. Only intakes with these terms are permitted in competition. Approved Manufacturer's identification in the form of cast-in part numbers must remain unaltered on the manifold. Manifolds must not be painted,

coated, or have any kind of insulating material attached in any way. Only one standard flat gasket, a maximum of .075 inch, may be used between the cylinder head and the intake manifold. A track supplied intake manifold must fit engine complete with stock gaskets. Track reserves the right to exchange any intake manifold with any competitor at any time either from competitor to competitor or from track to competitor. Failure to comply will result in immediate disqualification. All part numbers are current design manifolds with the same part number are not permitted. AA. Chevrolet - #2101 manufactured in 1986 to present.

E) The only approved carburetor adapter plate is an unaltered Moroso aluminum adapter part number 64966. One paper gasket on each side of adapter plate with maximum thickness of .065 inches permitted.

F) 7448 Holley 350 carburetor mandatory. No aluminum allowed in carbs at all. 7448SA is not allowed. No Adjustable air bleeds in any part of the carburetor. Complete carburetor must be manufactured by Holly including the metering plate. Choke Plate may be removed. Screws holding throttle plates (butterflies) to throttle shaft cannot be shortened. Must stick out past end of shaft minimum .060”.

G) Hydraulic camshaft permitted with maximum .450 lift. Unaltered OEM hydraulic lifters permitted. Maximum cam lobe lift of .300 for General Motors and .294 for Ford and Chrysler. Stud mounted roller rockers permitted. No shaft mounting permitted. Maximum \$400 retail price. Roller rockers permitted with maximum \$400 list price. Violation will result in permanent confiscation in addition to other penalties.

H) Only OEM Rocker ratio permitted with a maximum of 1.50 to 1 ratio for all General Motors engines and 1.60 to 1 ratio for Ford and Chrysler.

I) Cylinder heads must be stock cast iron production only limited to two valves per cylinder. Intake valve 11/32 stem all the way to the head. No undercut with a head diameter of 1.940 intake valve 11/32 stem all the way to the head. No undercut, with a head diameter of 1.500 except for Ford and Mopar that can run head diameter of 1.600 on exhaust only. No titanium valves, springs, or retainers. Valve springs both intake and exhaust may not measure any larger O.D. 1.260, only steel springs permitted. Valve springs must maintain diameter top to bottom. No port matching or flow work is permitted. No grinding, polishing, acid dipping or filling will be permitted in any place in the port or bowl area.

J) A valve job will consist of only 3 angles to the seat, no radius cutting. A maximum of three (3) angle valve jobs are permitted. All cutting in reference to the valve job must be centered off the centerline of the valve guide. No radius cuts permitted. Upon completion of the valve job, the bowl must remain unaltered with the same shape and surface finish as supplied from the O.E.M. manufacturer. Surfaces and/or edges where the seat cutter has touched must not be blended, radiused or polished. No hand grinding, polishing or acid dipping permitted on any part of the head. All valves must be identical in appearance and constructed as an O.E.M. type valve. No air directional devices permitted on any valve surface.

K) Chevrolet intake ports or runners are to be no larger than 161cc. Chevrolet exhaust ports or runners are to be no larger than 65cc.

L) No angle cutting of the head to block muting surface.

**M) After market pulley systems allowed. Maximum retail price of \$400. This will be checked.**

N) No center bolt valve cover heads.

O) Stock valves with maximum 1.94 intake and 1.5 exhaust except for 1.6 exhaust for Ford and Mopar Engine.

P) The head bolt holes cannot be offset or drilled for the purpose of moving the head in any direction.

## **Crate Engine Option**

(The goal of the crate motor program is to continue to reduce the cost of the motors and facilitate equitable competition. All rules are subject to change without notice.)

- A) Unaltered and sealed GM crate engine P/N 88958602 or P/N 19258602
- B) Track Officials reserve the right to impound, inspect, replace, and/or have an independent engine builder inspect and test any competitors crate engine at any time.
- C) Any team found to have altered and/or tampered and/or removed any engine seal(s) will be subject to IMMEDIATE disqualification from the event, loss of all points and monies, suspension and/or other penalties issued from Track Management and Track Officials. Any seals that in the judgment of the track Manager and/or Track Officials that have been tampered with and/or altered will result in the engine being declared ineligible for competition. Track Officials may impound the ineligible engine for further inspection and/or return it to an authorized Crate Engine Dealer, at the expense of the team, for engine re-certification. If, at the conclusion of testing, the engine been declared altered, modified, or tampered with, the confiscation of the engine, an indefinite suspension and/or additional fines and penalties as deemed appropriate by the Track Manager and Track Officials.
- D) Must use the same carburetor and adaptor plate rules as the custom-built engines.
- E) Rev module #M) SD 8728 or 8727CT can be used and set at a max 6300 RPM. Must be mounted out of reach of the driver.

F Crate engines WILL be subjected to the same engine tech as non-crate engines, therefore now becoming unsealed. This includes that a site plugs as stated in the Rulebook must be installed in the oil pan. Lancaster Motorplex will NOT at any time cover the cost to reseal a crate engine. This responsibility is placed solely on the race team to reseal any crate engine.

## Carburetors

- A) 7448 Holley 350 carburetor mandatory. 7448SA is not allowed. No Adjustable air bleeds in any part of the carburetor. Complete carburetor must be manufactured by Holly including the metering plate. Choke Plate may be removed. Screws holding throttle plates (butterflies) to throttle shaft cannot be shortened. Must stick out past end of shaft minimum .060".
- B) Solid gas pedal required. (No Cables) **Two (2) return springs required.**
- C) Minimum 8 inch and maximum 17-inch diameter filter element.
- D) Minimum 1 ½ inch to maximum of 4-inch dry paper type only, **NO K&N AIR FILTERS**
- E) The air filter top and bottom must be aluminum or steel only. No air foils or flow devices in or built into top or bottom.
- F) Hood will not be bubbled or bowed up for air filter.
- G) Fuel regulators are allowed, only, no fuel logs or any other devices.
- H) The slightest amount of epoxy to hold booster in is allowed. ***This will be closely monitored by tech officials.***
- I) ***Carbs must pass the no/no go gauge immediately after the race while in tech.***

## Transmission

- A) Only stock type Automatic transmission with stock components permitted.
- B) All forward gears and reverse must be in working order.
- C) Stock torque converter must be used. 11-inch converter to be measured across the center outside to outside of converter.



- D) No lock up torque converters. No electronic components permitted.
- E) No Direct Drive.

### **Rear End**

- A) Only stock components may be used throughout rear axle assembly.
- B) No locked, limited slip rear end welded or posi-traction rear ends, racing axles will be allowed. Racing wheel studs are allowed.
- C) Must be 7.5" metric rear end only for 108" wheelbase cars, 8.5" metric allowed for 110" and up wheelbase cars.

### **Radiator**

- A) Aluminum radiators allowed. Single or double pass radiators allowed.
- B) No antifreeze coolant allowed. Water only.
- C) Only one radiator permitted.
- D) Electric fans allowed. (Must be one or the other, mechanical, or electric)
- E) Aluminum water pumps allowed.

### **Exhaust**

- A) No high-performance styles allowed. No LT1.
- B) Max 1 5/8-inch tubes. Max 3-inch straight collector only. The right side will remain independent from the left side. Only headers Allowed: Headman - #68600, Dynamax and Blackjack - #85121, Flow Tech - #11104FL and Schoenfeld - #649-185.
- C) Maximum three-inch pipes and must not touch.
- D) Two (2) separate straight pipes extended to exit behind the driver, with one H-style pipe allowed.
- E) No X-style pipes allowed.
- F) Mufflers are optional.
- G) No inverting of manifolds.
- H) No coating of the manifolds.
- I) Thermal wrap is allowed only next to spark plugs.

### **Brakes**

- A) Four wheel working hydraulic brakes required. No adjustable bias, front to rear and left to right.
- B) Lightening of braking plates, brake drums and/or brake shoes by cutting or trimming metal is NOT permitted.
- C) Stock appearing safety hub allowed.
- D) Aftermarket master cylinders allowed, with a 25 lb. weight penalty. **Must declare weight on hood.**

E) OEM aftermarket calipers are allowed. **Must match make and model of car.**

## **Wheels**

- A) 7" or 8" wheels will be allowed. No interchanging. Must run 7" or 8". No plastic, aluminum or mag wheels allowed. **7" wheels will receive a 25# weight break.**
- B) Maximum one (1) inch total wheel offset side to side.
- C) Bleeder valves will not be permitted.

## **Tires**

- A) TRACK APPROVED ONLY
- B) No tire soaking, or tire treatment allowed.
- C) Durometer rule top Five (5) and a random car must stop in turn 3 on cool down lap to be checked before coming to victory lane. Drivers must stay in the racing groove and cannot go in grass or up high before being checked. Deliberately doing so are automatic grounds for disqualification.
- D) Tires must not be altered in any way.

## **Fuel**

- A) Regular and standard motor vehicle pump gasoline, **maximum 93 octane** with no additives or mixing. Will be checked visually and using specific gravity. NO E85 fuel allowed. **NO RACING FUEL WILL BE ALLOWED.**

## **Mandatory Safety**

- A) Each driver **Must** wear a fire-resistant suit with a minimum SFI 3.2A/5 (2 Layer) specification and display a valid SFI 3.2A/5 label.
- B) Each driver should also wear fire resistant accessories that effectively cover the remaining parts of the body. Shoes and gloves should meet the SFI 3.3 specification and display a valid SFI.3label.
- C) SA2015 OR SA2020 FULL-FACED helmet. Drivers must wear helmets in accordance with the directions provided by the helmet supplier and/or manufacturer. Any modification to the helmet for any purpose should not distract from its effectiveness. It is the responsibility of the driver to ensure his or her helmet is approved, correctly worn, and properly worn.
- D) Fire extinguisher must be mounted within reach of driver and safety crew.
- E) **All roll bars within reach of the driver must have fire retardant type padding.**
- E) Power switch clearly marked on and off within reach of driver and safety crew.
- F) Fuel shutoff clearly marked on and off within reach of driver and safety crew.
- G) Five (5) point safety harnesses labeled within three (3) years and meeting SFI 16.5 specifications are Mandatory. Seat belts must be installed in accordance with the directions of the seat belt supplier and/or the manufacturer. Can use 6-point type if desired.
- H) Window net must be securely installed. Must be ribbon type, no mesh type. Must meet SFI 27.1 specifications and have a valid label.

- I) Anti-spill must be installed in vent of fuel cell.
- J) Full containment seats are mandatory.
- K) Must have an SFI type headrest.
- L) Head and neck restraint systems meeting SFI 38.1 specifications are mandatory. Foam collars will NOT be allowed.

**M) NO CELL PHONES, BLUETOOTH DEVICES AND OR SMART WATCHES ARE ALLOWED IN THE CAR, IF FOUND, WILL RESULT IN IMMEDIATE DISQUALIFICATION.**

5/3/2022 All cars must run a Mylaps transponder and be mounted 18" rearward of the centerline of the rearend housing for 108" wheelbase cars, 2" forward for 110" wheelbase cars, 4" forward for 112" wheelbase cars and be mounted vertically, and the bottom of bracket be mounted even with the bottom of the frame rail.

5/9/2022 Fixed location of transponder.

9/6/2022 Added Lifter valley tray, changed wording on center bolt heads.

1/9/23 Full containment seats are mandatory.

11/6/23 8" wheels are allowed.

11/6/23 added weights for pistons and connecting rods.

11/6/23 updated cost for oil pans and roller rockers.

11/6/23 clarified steel driveshaft's only.

4/4/2024 added Speedway Motors 3-piece spindle is allowed.

8/13/2024 added Carb must pass the go/no go gauges immediately after the race.

9/13/2024 No aluminum carburetors allowed.