



2018 Lancaster National Speedway

4-Cylinder Division Rulebook

TO ALL COMPETITORS/PARTICIPANTS

IMPORTANT, PLEASE READ: All rules within are at the discretion of the Race Director and Technical Officials. Any stock 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 clear within the rules "DO NOT ASSUME IT IS LEGAL". You must call the Head 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.

Engine

- A) Only three (3) or Four (4) cylinder in-line engines will be permitted.
- B) All engine components must remain unaltered and OEM for the year, make and model of the car being used in competition.
- C) All valve-train components must remain unaltered and OEM including but not limited to; crankshaft, connecting rods, valves, valve sizes and the bore and stroke.
- D) Aftermarket and/or racing-type cylinder heads will not be permitted.
- E) High performance and/or sports car engines of any type will not be permitted.
- F) Turbo charged and/or super charged and/or rotary engines and/or engines utilizing a variable cam-timing system will not be permitted.
- G) The maximum compression for any stock engine must not exceed 9.5:1 for any year make or model.
- H) In the event that a dual overhead cam four-cylinder engine is utilized for competition, it may be required to add additional weight as specified by the Lancaster National Speedway Officials based on the competitive nature of events. The amount of weight will be determined by Lancaster National Speedway Officials.

Electronics and Ignition System

- A) All ignition components must be unaltered, OEM and match the year, make and model of the car in competition. Only 12-volt ignition systems will be permitted.
- B) Ignition boxes and/or performance chips and/or any ignition enhancing devices will not be permitted.
- C) Traction control of any type **will not be permitted**.
- D) Only one twelve (12) volt battery, securely mounted with both terminals covered will be permitted. If battery is moved from OEM location, the battery must be mounted in a Marine-type case.
- E) Only stock OEM starters in the OEM location will be permitted.

F) Only one aftermarket tachometer, oil pressure and water temperature gauge(s) will be permitted.

G) The vehicle computer (ECU) must be mounted in a visible location providing ease of inspection.

Exhaust System

A) The exhaust manifold must remain unaltered and OEM for the year, make and model of the car in competition.

B) Removal of the catalytic converter, muffler, air conditioning compressor and/or smog pump will be permitted.

C) Track rules may require a muffler.

Engine Compartment

A) The engine and radiator must be OEM and mounted in the stock OEM location for the year, make and model of the car in competition. An overflow container, a minimum capacity of one (1) gallon, will be required. Anti-freeze will not be permitted.

B) Solid engine mounts and/or safety chains will be permitted.

C) Accumulators and/or accusumps will not be permitted.

D) Reinforcing will not be permitted with the exception of the front strut bar.

E) The front radiator protection bar must not be reinforced and/or connected to the roll cage and/or frame.

Transmission and Driveline

A) The transmission and/or transaxle must remain OEM and unaltered for the year, make and model of the car in competition.

B) All forward and reverse gears must be operational.

C) The flywheel, flexplate, clutch and/or torque converter and/or assembly must remain unaltered and OEM of the year, make and model of the car in competition.

D) Mini-type clutches and/or couplers will not be permitted.

E) Transmission coolers in the driver compartment will not be permitted.

F) Torque dividing final drive systems will not be permitted.

G) Locked differentials of any type will not be permitted.

H) A minimum one (1) inch inspection hole must be located in the bell housing.

Chassis/Frame

A) All chassis and frames must remain unaltered and OEM. Any front wheel or rear two(2) wheel drive, compact car frame will be permitted.

B) A maximum wheelbase of 106-inches will be permitted.

C) The magnetic steel floor pan must remain unaltered and OEM. Any work that is done in the form of patches must be completed with magnetic steel.

Weight

- A) **Weight may be added solely for the purpose of meeting specified total and left side weight.**
- B) The minimum post-race weight requirement will be 2,100 lbs. after the completion of any event with driver in the car and no additional fluids and/or ballast added.
- C) 54% left-side weight with driver.
- D) The maximum difference between left and right side total weight per side will be 50 lbs.
- E) Additional weight may be added to any car, per the decision of Lancaster National Speedway Officials based on the competitive nature of any situation.
- F) **All weight mounted must have a minimum of two (2) ½" bolts through weight.**

Fuel Cells and Fuel

- A) The fuel system must be complete, unaltered and OEM for the year, make and model of the car in competition.
- B) Only standard pump gasoline will be permitted for competition with a maximum of 100 octane. Performance additives will not be permitted.
- C) The gas tank/fuel cell may be mounted ahead of the rear axle with a minimum 1/8inch shield mounted under it.
- D) If the gas tank/fuel cell is mounted behind the rear axle, the gas tank/fuel cell must be replaced with a maximum eight (8) gallon fuel cell relocated to the trunk area of the car. The cell must be mounted with two (2) solid magnetic steel straps around the entire cell two (2) inches wide and .125-inch thick. A magnetic steel or fuel cell cover must be between the driver and the fuel cell.
- E) A fuel cell vent, including cap vent, must have a check valve. If the fuel cell does not have an aircraft-type positive seal filler neck, then a flapper, spring and/or ball type filler roll-over valve is mandatory. External electric fuel pump wired to the ignition switch with aftermarket fuel cell will be permitted.
- F) Cool cans will not be permitted.
- G) Fuel lines that pass through the driver compartment must be magnetic steel.

Body

- A) Any front or rear two (2) wheel drive, compact car will be permitted for competition. Station wagons, and/or convertibles and/or two seat sports cars will not be permitted.
- B) The body must remain unaltered and OEM in appearance.
- C) The inner fenders must remain unaltered and OEM. Removing of the inner fenders will not be permitted.
- D) The hood and trunk lid / hatchback must be positively and securely fastened.
- E) All doors must be positively and securely fastened.
- F) All glass, exterior lights, chrome and/or plastic trim and hood insulation must be removed. A stock windshield may be permitted. Windshields may be replaced with lexan with a minimum three (3) braces in the middle of the windshield.
- G) The dashboard may be removed.

H) Front and rear bumpers must be positively and securely fastened. Welded, chained and/or cabled to the frame will be permitted. **The front bumper of the car should remain attached throughout the duration of any race. If the front bumper becomes dislodged, it may be the decision of the race director to disqualify the competitor from competition.**

I) A front and rear tow hook easily accessible will be required.

J) The OEM bumper covers must remain on the vehicle, but may be altered to allow for tow hook.

K) A maximum seven (7) inch sun visor will be permitted.

L) The opera windows may be closed and/or sealed.

Suspension

A) All components and mounts must remain unaltered and OEM and must match the year, make and model of car in competition.

B) Weight jacks, modifications, racing components, aftermarket or homemade traction devices will not be permitted.

C) The car must remain in alignment from front-to-rear and must track straight.

D) A maximum of five (5) degrees of camber will be permitted on any wheel.

E) Center mounted steering will not be permitted.

F) A quick release, aftermarket steering wheel will be permitted. The steering column must remain OEM and unaltered.

G) Aftermarket remote reservoir power steering will not be permitted.

H) All shocks and struts must remain unaltered and OEM in the OEM location. I.) Spring rubbers will be permitted.

J) **A maximum of two full coil(s) may be removed from any spring. Coils may be counted and referenced from stock OEM production springs from the year, make and model of the vehicle.**

Brakes

A) All brake components must be unaltered, OEM, magnetic steel and operative on all four wheels.

B) Disc and/or drum brakes will be permitted and they must match the year, make and model of the vehicle in competition.

C) Only OEM Master Cylinders in OEM location will be permitted.

D) Brake shut off and/or valve bias adjuster(s) will not be permitted.

E) Only magnetic steel brake lines will be permitted.

Wheels and Tires

A) **Only OEM DOT 13, 14, 15 or 16-inch passenger tires will be permitted. Racing, mud, and/or snow tires will not be permitted. A minimum tread wear rating of 100 must be on all four (4) tires. In addition, the "Hoosier 850" 14, 15 or 16 will be permitted for competition.**

B) Alterations of any type including re-caps, softening, chemical alteration, conditioning, siping, shaving and/or grooving WILL NOT be permitted.

- C) All wheels must be OEM steel or aluminum wheels with a maximum width of seven (7) inches and a standard bead.
- D) All four (4) tires and wheels must be of the same series, size and offset.
- E) Spacers – Allowed on all four corners of car, but must be NO MORE than 5/8" per wheel
- F) All tires must remain inside of the body.
- G) Wheel reinforcement is strongly recommended.
- H) One (1) inch Outside Diameter magnetic steel lug nuts on steel wheels are required.
- I) One (1) inch Outside Diameter magnetic steel lug nuts on steel wheels are required.
- J) Wheels on all four (4) corners of the car must match and be made of the same material

Personal Safety Equipment

General

A) It is the sole responsibility of each competitor for the effectiveness and proper installation, per the manufacturer's specifications to be adequate for competition at every event. Each competitor is expected to investigate and educate themselves for continuing improvement regarding their own personal safety equipment.

Seat Belt/Restraint System

- A) Each car should be equipped with an SFI 16.5 or SFI 16.1 approved seat belt restraint system until the date of the belt expiration (usually two years). Seat belts restraint systems shall be installed in accordance with the directions and application of the system supplier or manufacturer.
- B) Seat belt webbing that comes into contact with any sharp or unradiused metal edge should be protected from that edge by means of push on grip vinyl trim. Seat manufacturers supply the seat with trim protecting the webbing from abrasion or cutting under impact conditions and should be used to their specifications.
- C) It is the responsibility of the driver, not the Officials or the Promoter, to ensure that his/her seat belt restraint system and all components are SFI approved, correctly installed, maintained and properly used.

Protective Clothing

- A) Each driver will wear a fire resistant uniform meeting the SFI 3.2A/5 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.

Seats

- A) An aluminum seat built specifically for the purpose of competition in auto-racing events will be required.
- B) High-back Aluminum (stock car style) seats should be securely mounted to the frame as recommended/required by seat manufacturer and chassis manufacturer.
- C) Head rest (behind the head) should include padding. All areas surrounding the head should have padding.

- D) A right head net or support is required. Head nets must be equipped with quick release mechanisms.
- E) The seat must be mounted a minimum of 30" (inches) from the center of the rear end, measured at the bottom of the seat.

Helmets

- A) Driver will wear a full face helmet, with at least a valid SA 2015 or SA 2010 Standard Snell and/or a valid SFI 31.1, SFI 31.2 or SFI 31.1 2000 label.
- B) The driver will wear the helmet in accordance with the directions provided by the helmet manufacturer and/or supplier.
- C) If a head and neck restraint system is connected it should conform to the manufactures mounting instructions.
- D) Head and Neck restraints are strongly recommended.

Other

- A) No sharp or protruding edges in or around the cockpit which would impede the driver's rapid exit from the car.
- B) Windshield screens with a minimum of .090 inch screens must be securely fastened.
- C) An electrical engine shut off switch is required. The switch must be clearly labeled and within the reach of the driver.
- D) A fuel shut off valve is required. The valve must be clearly labeled and within reach of the driver.
- E) Flame retardant seat, roll bar, knee and steering pads or padding are recommended.

Roll Cage

- A) Unless otherwise noted all tubing utilized in the construction of the roll cage must be 1.5-inch Outside Diameter, .095-inch thick magnetic steel tubing.
- B) A six-point, full perimeter, using 1.5-inch Outside Diameter, .095-inch thick magnetic steel tubing is required.
- C) The rear hoop must have bracing that crosses in an 'X' configuration. Rear kick up supports are required.
- D) A minimum 1.25-inch outside diameter cross bar is required across the top of the halo bar.
- E) The roll cage must be securely fastened (welding is required) utilizing a minimum of .250inch plating to mount cage to the frame. Only magnetic steel will be permitted. Iron, galvanized pipe, fittings, square tubing, brazing and/or soldering will not be permitted.
- F) A minimum of three (3) door bars on the driver side and two (2) door bars on the passenger side, mounted in a horizontal manner will be required. Vertical bracing from the top-to-the-bottom of the door bars on both sides is required.
- G) A minimum of three (3) windshield bars and protective screen will be required in front of the driver.
- H) The driver compartment must be sealed completely from the track, the engine and the fuel cell. The front and rear firewalls must remain and any holes must be patched with magnetic steel.
- I) Stock mirrors are permitted and must remain in stock location. Spot mirrors and/or any other style mirror are not permitted. This rule is subject to change at any time by Lancaster National Speedway Officials.

J) Gutting of the car will not be permitted with the exception of clearance for the roll and door bars.

K) All material considered flammable including - but not limited to - the radio, airbags must be removed. The interior must remain open.

Other

A) The Vehicle Identification Number (VIN) must remain clearly visible and unaltered in a minimum of one (1) of the OEM locations. Any car missing the VIN will not be permitted to enter competition.

B) The entire car may be claimed and/or exchanged by the track operator/promoter. The claim does not include any of the following; Seat, seatbelts, any other permanently mounted safety items and/or the fuel cell and/or electronic fuel pump.

