

# Lancaster Motorplex

## 2024 Pro Late Model Rules

To all Competitors/Participants

All rules within are at the discretion of the Race Director and Technical Officials. Any stock or aftermarket part must stock and unaltered for that part unless stated within these rules. Removal of ID or part numbers makes the part illegal. If something is not clear within the rules, DO NOT ASSUME its LEGAL.

These rules are based on and will be following the 2024 CRA Pro Late model rulebook, with exception to weight for the motor combinations.

**All Crate motors must be sealed by a S.E.A.L. approved from the crate engine re-builders list. 2024 Engines for Lancaster Motorplex will be crate only from the approved list, in an attempt to align ourselves with outside series.**

### Engines:

1. Unaltered GM # 88958604
2. GM # 88958604 / 88869604 with the following updates only, GM Cam #24502586, 1.6 rocker arms, Comp Cam valve springs #941-16, Champ oil pan # CP106LTRB and Balancer.
3. Ford # M06007-D347-SR with 1.5 rockers.
4. McGunegill Ford # 425LM with 1.5 rockers.

Crate engines may be refreshed but must retain all manufacturers' specifications unless specified. No reground cams.

Maximum compression on all engines 10.0. **Seals on all engines must remain in place and be unaltered.**

### Carburetor/Spacer/ Air Cleaner:

1. Holly 650 HP 4150-80541 four-barrel with no alterations allowed.
2. Body of carburetor - no polishing, grinding, or drilling of holes permitted. No paint or any other type of coating other than from the carburetor manufacturer is allowed inside or outside of the carburetor. Any attempt to pull outside air other than down through venturis is not permitted. A minimum of two return springs is required. Throttle stops are recommended.
3. All engines may run a 1" thick four (4) hole spacer only with a paper gasket on either side. No tapered or open spacers allowed.

4. No heat shields or any other type of hot air deflection device or airflow deflection device allowed in engine compartment.

### Engine Placement:

1. Measured from the center of #1 spark plug hole to the center of the top ball joint with in ¼" tolerance is 4" inches.
2. Engine must be in center of frame with 1" tolerance.
3. Center of crankshaft to ground clearance 10".

### Exhaust:

1. Any type of single flange steel tubular header will be permitted, No INCONEL permitted. The exhaust system must exit behind the driver. If exhaust exits through the door, installation must include an exhaust flange that is mounted flush to the door and no more than ½ gap around pipe.
2. A muffler must be used and installed in a configuration that will suppress exhaust noise to a maximum of 99db's at 100 feet.

### Cooling System:

1. All cars must have a catch can or hose to exit at windshield.
2. Water must only be used in the cooling system. Any additive to water, i.e., Water Wetter, must first be approved by a Speedway Official.
3. The duct work between the nose and the radiator may be no wider than 29" and may not be carbon fiber. The standard opening for the grill screen area, as approved for manufacturer's production, must be maintained at all times. Only ABC manufacturer's standard mesh screen may be used for the radiator opening in the nose.
4. Tape may not be used anywhere on the car to control the flow of air or seal/secure seams between body panels except front grill screen and front brake ducts (unless approved for repairs).
5. Titanium is not allowed for use in any way on the race car unless noted.
6. No cool down units, pumps, exotic fans allowed. If you have to ask it is not legal.

### Transmission/Clutch:

1. Must have transmission with at least two forward and one reverse working gear. Jerico type transmissions permitted.
2. No Rankin or direct drive type, quick-change or automatic transmissions permitted.
3. Multiple disc clutches with steel floaters and pressure plates permitted, minimum 5 ½" in diameter. Solid magnetic steel clutches and pressure plates only. Clutches must be positive engagement design. Slider or slipper clutch designs are not permitted. No carbon

fiber clutches. Clutches found not to meet this definition will be deemed illegal.

4. Clutch housing assembly or cover may be made of steel or aluminum.
5. Transmission linkage must enter transmission from the side.
6. Transmission gear ratios between 1:01-1 and 1:18-1 will not be permitted. The only high gear ratio permitted is 1:00-1.

### Spindles:

1. Aftermarket, homemade and ¾-ton steel spindles permitted. (Exception: approved Coleman Spindle)

### Brakes/ Brake Cooling:

1. Front and rear disc brakes are mandatory. Brake fluid circulators permitted. Liquid or gascooling not permitted.
2. Only cast steel rotors will be permitted.
3. No carbon fiber, fiberglass or titanium brake parts allowed.
4. All air intakes must be routed either from the nose of vehicle or air box only. Two hoses per brake, with a maximum 3" flexible hose to the brake.

### Ignition:

1. One Crane/Fast Ignition part # 6000-6701 or JMS- Daytona sensors part #6000-6701K only as produced and mounted on right side of car dials pointed out the passenger side on original plate. MSD 6427 6CT ignition box is also allowed. The mag positive & negative shall be a maximum length of 62 inches. Must remain uncut or spliced and on top of dash in clear view. Lancaster Motorplex officials reserve the right to swap boxes at any time.
2. The Nelson Specialties/ SRL harness or Quick Car part number #50-2053 spec wiring harness is mandatory in 2024. All wiring must be sealed. No unplugged wiring.
3. One battery permitted. Maximum 16 volt and mounted securely outside of driver's compartment.
4. NO Traction Control Devices of any kind.
5. Chip Rule. 6300rpm for Ford, 6500rpm for Chevy

### Wheels/Tires:

1. Only 10" Racing steel wheels, steel studs and steel lug nuts allowed and must have decal with correct car number.
2. No Air bleeders permitted. NO BLOWERS OR HOSES WILL BE ALLOWED TO BLOW AIR ON TIRE OR WHEEL.
3. Hoosier Designated Tire Only. No soaking or altering of tires in any manner allowed.

4. Maximum tread width allowed is 66" (No Tolerance).

### Shocks/Springs:

1. One shock per wheel. Shocks must be only mechanical in nature and no part of suspension or shocks may utilize electricity.
2. Maximum one coil spring and one bump spring associated with each wheel.
3. Steel Coil over or bucket type springs permitted only. No titanium, air, or carbon fiber.
4. Four (4) way adjustable shocks are not permitted.
5. External canister shock absorbers are not permitted.

### Rear-ends/Drive Shaft:

1. Quick change and open tube rear ends permitted. Cars can utilize a spool or differential. Can run locked or unlocked rear ends.
2. No Independent rear suspension.
3. No fifth (5th) coil, torque arm or lift bar suspensions will be permitted. No birdcage set-ups of any kind (3 or 4 link). Trailing arms must mount to rear end in a solid fashion (heim allowed) and no part of the trailing arm mounting may freely rotate around the rear end.
4. All parts of rear suspension must be solid, one-piece construction with no moving parts, with one heim at each end. All mounts for trailing arms, third links and track bars must also be solid and may not have the ability to move. The wheelbase difference from left to right may not exceed ½ inch.
5. Steel or Aluminum drive shaft only and must be painted white or silver. No carbon fiber wrapped in aluminum.
6. Minimum one 360-degree loops, 1" x 1/8" steel.

### Fuel System/Cell:

TRACK FUEL REQUIRED. VP 110 (purple) only ~~or crate fuel allowed.~~

This will be the only fuel permitted to be used and must be unaltered. Fuel samples may be taken at any time and tested. Alcohol, nitromethane, nitrous oxide, other oxygenating agents, or other additives are not permitted.

2. Manual, block mounted stock type fuel pumps only. No electric fuel pumps.
3. No icing, Freon type chemicals or refrigerants may be used in or near the fuel system or engine compartment.
4. Fuel cell mandatory, maximum 22 gallons vented with maximum 1" vent to outside left rear of body. No "U" Shaped Fuel Cells or non- standard-shaped fuel cells. OBERG Fuel Valve # SV-0828 or SRI # FFF-FSV is Mandatory.
5. Fuel cell must have a minimum of two, made of 1" square tubing, protection braces wrapping around fuel cell from front, underneath and to back of cell and a rear protection bar of 1.75" tubing extending below the rear of frame and at least ½" below the bottom of fuel cell to cover the width of the fuel cell. Minimum ground-to-fuel cell 8".
6. Cars must have a minimum 1/8" steel plate, or similar strength aluminum plate, between fuel cell and rear end. A similar plate at the rear of the fuel cell is recommended.

## Body:

**Refer to CURRENT ABC Rulebook for all body rules and all panels must have ABCstickers. The Five Star Next Gen body has been approved for competition.**

1. Minimum/ Maximum Nose Height will be: Minimum nose, body and frame height is 4” and Maximum of 8”. (While in tech for the purposes of tech inspection)
2. At all times, the original ABC bodies “A” measurement must maintain a min. length of 11.5 inches and 20 inches is the minimum length allowed for the nose, measured from the bottom leading edge at center and up to the hood seam. Only ABC manufacturer’s standard grill screens may be used for the radiator opening in the nose.
3. No panels allowed extending to the top edge of doors. The car body must be acceptable to Speedway Officials at all times. No car will be allowed to start a race without a full body.
4. A-Pillar vent windows may only have 1 inch of straight-line deflection. The surface must be smooth and must not have bead rolls or breaks. Front nose valance may only be a single layer and only be a maximum 3/16” thick and may be only a maximum of 3”.
5. Window tint of any kind will not be allowed on windows or spoilers.

## Interior:

1. Interiors must be steel or aluminum only and shield driver from ground, engine compartment and fuel cell area. The firewall must be no less than 24-gauge metal and fully seal driver from engine compartment.
2. Car may have an installed dash panel with optional gauges. Cellphones, Watches or Bluetooth devices will not be allowed at any time, this is an automatic disqualification. No in-car timing devices during competition. No driver adjustments in car other than one brake bias adjuster allowed.
3. The ON-OFF switch must be located on dash within easy access of driver as well as access from outside left window opening. ON-Off positions must be clearly marked.
4. Quick release steering wheel is mandatory. The center top section steering post must be padded with at least 2" of padding material.
5. All roll bars surrounding the driver must be padded. Padding must be acceptable to Speedway Officials.
6. SFI rated racing seats are mandatory in 2024. Seat must attach to roll cage, not to floor.
7. SFI/FIA 5-point harness and window net required; net must release at top left corner. No older than 3 years.
8. Rear view mirror permitted inside of car only.
9. Approved SFI/FIA helmet and fire suit, shoes and gloves required any time vehicle is on racing surface. Nomex head sock is highly recommended.
10. SFI/FIA Head and neck restraint will be mandatory.

11. No Data Acquisition equipment/wiring is allowed in the car on officially recognized race or practice days.

12. NACA Ducts in ¼ windows must only supply air to a helmet cooler, or other specific item. They may not lead to open blowing in the cockpit.

### Frames:

1. Straight rail, perimeter and OEM front clip frames permitted.
2. No chassis adjustment from inside the car except for brakes.
3. Frame and roll cage, including weight box, must be inside of left front and left rear tires.
4. No types of underbody air deflectors or panning allowed. All air for brake blowers or coolers in the engine compartment must be pulled through the nose or the radiator air box. Air may not be blown or forced onto the tire or bead; air may only be directed to the brake rotors. No reverse naca-ducts.
5. No under car panning outside of the frame rails and no further than drivers' tub front or rear at the bottom of the frame and lead cannot be used as panning or aero advantage.
5. Maximum drivers tub length is 52 ½" and the maximum width of frame is 53 ½" on any chassis and No panning of any kind may extend rearward beyond the rear edge of the driver's tub.

### Roll Cage:

1. Speedway Officials must approve roll cage designs. Round steel tubing 1 ¾" OD round tubing by .090" minimum wall thickness must be used to construct roll cage. The roll cage should be box type with a cross support in the back and a minimum 9" upright support at the left front support.
2. The left door must have four bars and must have 1/16" minimum steel plate on all door bars. Sway Bars: 1. The main body of the front sway bar must be made of steel and may be splined for attaching to the main body. Helm joints may be used for attaching the sway bar arms to the lower control arms.

### Weights

1. 604 GM crate sealed unaltered 2650lbs. 59% left side.
2. 604 GM Crate sealed with alterations and altered camshaft. 2760lbs 58% left side
3. Ford #m06007-D347-SR (CRA) 2760lbs 58% left side
4. McGunegill Ford #425LM 2760lbs 58% left side
5. 604 GM crates UNSEALED 2860lbs 58% left side.

**Weights must be labeled on the  
passenger side of car near windshield.**

## Safety

### 1: SEAT AND SHOULDER HARNESS

A: All cars shall have a full containment seat meeting current SFI 39.1 and/or 39.2 standards. **It is the responsibility of the driver, that his/her seat, headrest/head surround assembly, and all seat components are correctly installed, per the manufacturer's instructions, maintained, and properly used.** The seat must be attached to a roll cage and frame.

The back of the seat must be mounted to the roll cage. NO fiberglass or plastic seats. The driver must use a minimum three- inch quick release, five-point restraint systems. A two-inch wide crotch strap is mandatory. All safety belts must be no more than three (3) years old and have a readable identification tag. Any belts older than two years will not be allowed. The shoulder harness must be connected to the roll cage. All lap belts must be mounted behind the seat and attached to the roll cage according to manufacturer specifications. All roll bars and driver side bars or other protrusions that driver may come in contact with must be properly padded with approved race car roll bar padding. On board central fire extinguishing systems are highly recommended. Driver side net with quick release mechanism is MANDATORY. No plastic parts permitted. Boldly labeled fuel and electrical safety switches are to be in reach of Driver and safety crews.

### 2: FIRE SUIT/HELMET

A: All drivers must wear a clean one- or two-piece driver's suit with a minimum SFI 3.2A/5 quilted and/or with Nomex. Underwear, head socks, gloves, foot socks and shoes must meet SFI specifications. Drivers shall wear a full-face helmet, with at least a valid SA2020 or SA 2015 Standard Snell and/or a valid SFI 31.1, SFI 31.2 or SFI 31.1 2000 label. The driver will wear the helmet in accordance with the directions provided by the helmet manufacturer and/or supplier. If a head and neck restraint system is connected it should conform to the manufacturers mounting instructions. Head and Neck restraints with a SFI 38.1 specification are MANDATORY.

2/5/22

**5/3/2022** All cars must run a Mylaps transponder and be mounted on the RR frame rail directly under the rear end tube, mounted vertically with the bottom of the bracket mounted even with the bottom of the frame rail.

**5/8/2023** Changing of weights, Box stock GM 604 2650lbs & 59% Left, GM 604 with alterations plus altered camshaft 2760lbs & 58% left, Ford (cra) 2760lbs & 58% left.

**5/8/2023** Adding chip rule. 6300rpm for Ford, 6500 rpm for chevy

**5/8/2023** No crate or oxygenated fuel. (2 race runoff)

**5/8/2023** All cars will be weighed post-race. 1lb per lap burn off will be allowed.