



## 2018 Lancaster National Speedway

### Street Stock 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 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. No allowance for fuel before or after the race. 8.5 to 1 compression option engine must weigh 3200 lbs minimum after race. No allowance for fuel before or after the race.**
- C) Track width - maximum 73" measured at edge of wheel for 110" wheelbase and maximum 71" for 108" wheelbase.

#### 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) 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.
- G) Rear hoops allowed. Must run parallel to rear frame. Maximum of two (2) vertical supports permitted with tech approval. Rear of main hoop to be no less than 25 inches from center of rear axle.
- H) Front Hoops allowed with tech approval.
- I) All Ballasts must have a minimum of two (2), 1/2 inch bolts/rod minimum to secure weight and must be bolted to the frame or frame structure.

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 car No. must be legible 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.

### **Body**

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

B) Head lights and tail lights must be removed.

C) All glass must be completely removed.

D) Full Lexan windshield with two (2) supports in 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 trunk latches must be removed and replaced with hood pins.

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

J) Any holes in firewall must be filled.

K) All doors must be welded or bolted shut.

L) One nerf bar per side 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.

N) Stock appearing **STEEL or ALUMINUM** only aftermarket body panels allowed at Tech Directors discretion. Must use Stock Steel roof.

O) No cock pitting.

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

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

R) Roof height must not be below 49" inches.

R-1) Original roof may be replaced with aftermarket fiberglass roof. If fiberglass is used a roll bar must be mounted above driver's head either from front to back of halo, or side-to-side.

S) 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.

T) NO batteries in driver compartment.

U) Fiberglass Hoods allowed. Must be flush (sealed) to windshield.

V) Firewall is to be stock and in stock location. If firewall was removed, it must be replaced and must be in stock location, flat side to side and not 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. This will be **CLOSELY MONITORED BY THE TECH OFFICIALS.**

W) Stock transmission tunnel. NO Cock pitting.

### **Gas Tank and Installation**

- A) Fuel cells are mandatory.
- B) Fuel cells must be mounted inside 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 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.

### **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) Drive shaft MUST be painted white.
- 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) 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. 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. Offset upper control arm shafts may be used.
- C) Racing springs permitted. Jacking Bolts are allowed in front and rear.
- D) 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 \$140.00 per shock.
- E) 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.
- F) Upper and lower rear trailing arms may be reinforced between the bushings.

- G) 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.
- H) Stock rubber, Urethane and steel bushings only allowed. NO mono ball, Heim or offset bushings allowed.
- I) No additions to suspension permitted.
- J) Minimum of six (6)-inch frame height WITH DRIVER.
- K) Only one stock type shock absorber per wheel permitted in stock location.
- L) 3 piece stock replacement spindles allowed.

### **Engine**

- A) Engine must be in stock location. Crankshaft centerline must be fourteen (14) inches minimum from ground.
- B) No intermixing of manufacturer's allowed.
- C) Engine and transmission combination must be within chassis.
- D) All components must be factory installed and stock for 2-barrel engine.
- E) Only stock ignition permitted, car must have working self-starter. No battery in driver's compartment.
- F) No coating or thermal wrap permitted.
- G) Stock firing order for engine must be used.
- H) Crank shaft dampers: Unaltered stock dampers and fluid dampers allowed. No aluminum damper's allowed. Rocker studs and guide plates allowed.
- I) 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.
- J) Stock OEM type I beam 5.7 rods only. No H beam. Scat rods stock OEM replacement allowed.
- K) 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.

### **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
- 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. bb. Chrysler – Mopar Part #P4529295, #P5249572, casting #8015. Weiland-part#8015. NOTE: On the Chrysler Weiland, Part#8015 and Chrysler part#P4529295 casting #8015 manifolds, it is permissible to weld a maximum of ½ inch from the bolt on the flange surface up into the intake port to match the W-2 port design. Ports may be welded only. Grinding or polishing is not permitted. cc. Ford N351 – Must use Ford Performer intake manifold, part number M-9424-C358.

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 stock unaltered carburetor mandatory. 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.

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 \$200 retail price. Roller rockers permitted with maximum \$200 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 ration 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 exhaust 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. 1.250, 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 any place in the port or bowl area.

J) 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) Max 1 5/8 inch tubes. Max 3 inch straight collector only. Right side will remain independent from left side. Only headers Allowed: Headman - #68600, Dynamax and Blackjack - #85121, Flow Tech - #11104FL and Schoenfeld - #649-185.

N) Maximum three inch pipes and must not touch.

O) After market pulley systems allowed. Maximum retail price of \$230.

P) No vortex Style- center bolt valve cover heads.

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

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

### **Engine Option: 8.5 to 1**

A) Maximum engine displacement as follows:

aa. GENERAL MOTORS	350 cu. inches
bb. FORD	351 cu. inches

cc. MOPAR, AMERICAN MOTORS

360 cu. inches

- B) Stock stroke and bore with maximum .065 inch overbore allowed in each cylinder. No tolerance. No aluminum blocks.
- C) Only two-barrel engines allowed. Maximum compression: 8.5 to 1 ratio. Pistons must be flattop or dish OEM style cast type with 2 or 4 valve reliefs. No lightweight racing pistons allowed.
- D) Cast iron intakes only, no chemical or physical alterations of intake allowed. No port matching.
- E) Stock exhaust manifolds only. Maximum 2 1/8 inch outlet. No high performance style allowed. No LT1.
- F) Stock unaltered OEM 2bbl. Carburetor with a maximum 1 3/8 Venturi size and no spacer plate or 7448 Holley 350 Stock unaltered carburetor with an unaltered Moroso 64966 spacer plate. No adjustable air bleeds in any part of the carburetor. Complete carburetor must be manufactured by Holley including the metering plate. Choke plate may be removed.
- G) Hydraulic camshaft permitted with maximum .390 intake and .410 exhaust lift. Unaltered OEM hydraulic lifters permitted. Maximum cam lobe lift of .260 for General Motors and .243 for Ford and Chrysler.
- H) Only OEM rocker ratio permitted with a maximum of 1.50 to 1 ration for all General Motor 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 exhaust 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. 1.250, 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 any place in the port or bowl area.
- J) Valve job will consist of only three 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 valve must be identical in appearance and constructed as an O.E.M. type valve. No air directional devices permitted on any valve surface.
- K) No angle cutting of the head to block muting surface.
- L) No vortex Style- center bolt valve cover heads.
- M) Stock valves with maximum 1.94 intake and 1.5 exhaust except for 1.6 exhaust for Ford and Mopar Engine.
- N) 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 engine being declared ineligible for competition. Track Officials may impound the ineligible engine for further inspection and/or return it to and 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 #MSD 8728 must be used and set at a max 6300 RPM.

F) Crate engines WILL be subjected to the same engine tech as non-crate engines, therefore now becoming unsealed. This includes that a site plug as stated in the Rulebook must be installed in the oil pan. Lancaster National Speedway 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) Solid gas pedal required. (No Cables) Two (2) return springs required.

B) Carburetor must be stock and unaltered, NO Epoxy, Safety wire is okay.

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.

E) Air filter top and bottom may be aluminum or steel. No air foil 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.

### **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.

F) No Aluminum Drive Shaft.

### **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.

C) Must be 7.5 metric rear end only.

### **Radiator**

A) Aluminum radiators, single pass or double pass, are 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) Two (2) separate straight pipes extended to exit behind the driver, with one H-style pipe allowed.
- C) No X-style pipes allowed.
- D) Mufflers are optional.
- E) No inverting of manifolds.

### **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.

### **Wheels**

- A) Seven (7) inch maximum width for all wheels. No plastic, aluminum or mag wheels allowed.
- 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 three (3) and a random car must stop on back stretch on cool down lap to be checked before coming to victory lane. Drivers must stay in racing groove and cannot go in grass or up high before being checked. Deliberately doing so is automatic grounds for disqualification.
- D) Tire must not be altered in any way.
- E) Bleeder valves will NOT be permitted.

### **Fuel**

- A) Regular and standard motor vehicle pump gasoline, maximum 93 octane with no additives or mixing.

### **Mandatory Safety**

- A) One (1) or two (2) piece fire suit with shoes and gloves.
- B) 2010 Snell or newer FULL-FACED helmet. Tech approved. \*\*May change due to new standards\*\* an amendment will be released as soon as possible once the proper information is obtained.
- C) Fire extinguisher must be mounted within reach of driver and safety crew.
- D) Power switch clearly marked on and off within reach of driver and safety crew.



E) Fuel shutoff clearly marked on and off within reach of driver and safety crew.

F) Five (5) point safety harness labeled within five (5) years. Tech approved.

G) Window net must be securely installed.

H) Anti-spill must be installed in vent of fuel cell.