

# 2019 LATE MODEL (sportsman) RULES

### **ALLOWABLE MODELS**

Any year, make and model (North American) steel or fiberglass bodied cars with front engine.

No front or four wheel drive vehicles allowed.

No station wagons, trucks, convertibles.

No Mustangs, Camaro, Challengers, or similarly designed cars.

Must be a minimum 108 inch wheelbase (factory specifications).

Maximum one inch difference (+ or -) from side to side.

### **ENGINES**

# **BUILT ENGINES ONLY**

Built engine with a 2 bbl carburetor will be 2950lb at full fuel.

Built engine with a 2 bbl carburetor and 1:1 will be 3000lb at full fuel

For 2019 the LEFT SIDE for a built engine will be 57%. (Before race at full fuel) ZERO tolerance This change will be closely monitored and may be adjusted if necessary in the interest of competition parity.

Must run stock cast iron engine.

GM 350 cu. in Chev / Ford 351 cu. in WINDSOR only / MOPAR 360 or 318 cu. in.

BORE/STROKE: 350 CHEV - 4.000"/3.485"

351 FORD - 4.000"/3.500" 360 MOPAR - 4.000/3.578"

Maximum .060 overbore permitted.

Maximum 365 cu.in.

All engine blocks shall be stock, OEM production cast iron blocks only. No more than .060 bore is Allowed. **Any block with missing casting numbers will AUTOMATICALLY be considered illegal.** 

Engines must have factory production firing orders (described in distributor section)

# **CRATE ENGINE**

GM Crate Engine #19258602

The only approved crate engine will be a Petty Raceway, Scotia Speedworld, Speedway 660 or Riverside Speedway Superseries seald engines.

### **CRATE ENGINE CARBURETION**

Holley 650 cfm 4150 HP #80541-1. This unit is to be installed "BOX STOCK". The carburetor will bolt directly to the intake using a maximum .065" gasket only. No spacer plate will be allowed. It must pass specific Petty Raceway gauge tests (go/no go) as well as any other inspections.

A 2-barrel Holley #4412 will be allowed for this engine. It must be mounted on a 1" max straight hole adapter. No tapered adapters. It must pass Petty Raceway gauge tests.

CRATE ENGINE REBUILD: MUST CONTACT PETTY RACEWAY

### **CAMSHAFT**

Hydraulic lifters (no mushroom type) and a hydraulic lifter camshaft with maximum valve lift as follows:

- GM Intake .390, Exhaust .410 (measured at the valve)
- FORD Intake .445. Exhaust .453 (measured at the valve)
- MOPAR Intake .410, Exhaust .410 (measured at the valve)

Lifter outside diameters are not to exceed:

- GM 0.845
- Ford 0.875
- MOPAR 0.904

Cars with non-conforming lifters will run a 50lb penalty. This will be the responsibility of the team and WHEN lifters are checked, the car must weight 3050lbs. All newly built engines are to have conforming lifters installed.

No solid anti-pump or Rhoads lifters.

No mushroom, roller cams or rev kits allowed.

TRW lifters with C-clips are o.k.

Standard push rods only, not heavy-duty type, which are .125" longer.

Valves must not have over zero lash clearance.

### PISTONS/RODS

Stock cast or forged (dished or flat top) pistons (or equivalent replacement).

Four eyebrow piston only.

For tech weighing purposes the piston, rings, rod, end cap, rod bolts and bearings will be weighed as a whole. This complete unit cannot weigh less than 1350g.

FORD with minimum combustion chamber volume of 69cc., a flat top piston may be used.

FORD with minimum combustion chamber volume 60cc., a dished piston with a .120" cup must be used. No other pistons allowed.

Pistons cannot come above block. Deck height .005" recommended.

All rods must be of steel or cast and be stock length for engine used. OEM factory production rods only. Stock rods (No 6" GM rods) and wrist pins only.

No floating pins.

Aftermarket rod bolts and nuts are allowed.

# **INTAKE (Built Motors Only)**

Aluminum intakes will be allowed with the following numbers:

Chevrolet – Edelbrock Performer RPM # 7101

Chevrolet – Edelbrock Performer EPS 2701

Ford - Edelbrock Performer RPM # 7181

**Mopar - Edelbrock Performer RPM # 7176** 

### **HEADS**

All cylinder heads must be stock cast iron, OEM strong type with readable numbers, and specifications as follows:

**GM Cylinder Heads** 

Maximum intake diameter 1.94", maximum exhaust diameter 1.50".

Minimum combustion chamber volume rating of 76cc.

**FORD Cylinder Heads** 

Maximum intake diameter 1.84", maximum exhaust diameter 1.55".

Minimum combustion chamber volume rating of 69cc or 60cc depending on pistons used.

**MOPAR Cylinder Heads** 

Maximum intake diameter 1.88", maximum exhaust diameter 1.50".

Minimum combustion chamber volume rating of 68cc.

All intake and exhaust valves must retain stock dimensions.

Stock replacement stainless valves permitted (no swirl polished valves).

No undercut valves

Stock valve spring dimensions (1.275" Chev, 1.437" Ford, 1.50" MOPAR).

Steel retainers must be used.

NO angle milling, porting, port matching, polishing, acid porting and/or blueprinting will be allowed. In addition no sandblasting or coating of any kind will be allowed.

Heads may be milled for straightness only.

Stock or stock replacement rocker arms with stock ratios (GM 1.5, Ford 1.6, MOPAR 1.5).

Jam nuts are allowed.

Poly Lock rocker arm nuts will be allowed

Screw-in studs and guide plates are allowed.

# **CRANKSHAFT**

No knife edge or lightened cranks allowed. No lightening holes in rod journals. No gun drilling. No undercut counterweights. Stroke must be stock per manufacturer's specifications for the engine used. Only standard factory OEM production steel or cast crankshafts with stock strokes permitted. Must have OEM readable numbers. No aftermarket cranks. Crank journal size to remain OEM to engine, max regrind .020 rods/mains

Must have OEM readable numbers.

Stroke may not be increased or decreased.

No aluminum harmonic balancer.

Balancer must be stock OEM for engine.

# **COMPRESSION**

Maximum compression ratio of 9.0:1 is set. (9.4:1 on whistler will be deemed illegal) Compression will be determined by volume gauge and electronic sonic tester (whistler). May be subject to manual cylinder volume check

### **OIL PAN**

Any steel oil pan may be used. A 1" inspection plug must be installed in the oil pan for inspection purposes. This hole must be directly under a rod journal. If a windage tray is used, a hole must be provided in line with the hole in the oil pan. The inspection plug must be EASILY accessible. If rod, journal and counter weight are not easily accessible, pan removal will be required.

# **WATER PUMP**

Water pumps may be steel or aluminum on all models.

# **FUEL PUMP**

Mechanical fuel pump only in stock location. No belt driven or electric fuel pumps.

### **OILING**

OEM oil pump only.

No dry sumps.

If the oil filter is removed from its original position on the engine, it must be remounted in the engine compartment

#### TIMING

Stock timing chain (or equivalent replacement). No belts. No gear drives. May use double roller chain for durability

# **STARTER**

Any OEM starter. Must be 12v.

### **DISTRIBUTOR**

Only stock distributor and stock type coil allowed. GM HEI ignition system will be allowed in a non-GM engine. It must be a stock OEM replacement unit.

Must have mechanical weights. Distributor advance must have original weights and springs AND must operate as OEM.

OEM type (replacement) module only.

No dual points.

No external amplifiers.

Distributor must be wired to match the FACTORY PRODUCTION FIRING ORDER ONLY.

- GM firing order is 1-8-4-3-6-5-7-2
- FORD firing order is 1-3-7-2-6-5-4-8.
- CHRYSLER firing order is 1-8-4-3-6-5-7-2

### **MANIFOLDS**

Stock cast iron two or four barrel intake manifolds only.

No aluminum or marine manifolds.

No porting, port matching, polishing, blueprinting, sandblasting, or coating of any intake or exhaust manifold allowed.

May run stock cast iron exhaust manifolds, with maximum outlet size 2" diameter.

### **EXHAUST**

Exhaust must be mounted in such a way as to direct gasses away from the driver's compartment and away from any areas of possible fuel spillage.

Maximum exhaust pipe diameter off manifold is 2.5" I.d. for a minimum of 48 inches.

Exhaust must exit behind driver and below the floor pan in front of rear wheels. At that point teams may be allowed to turn the exhaust outlet down and inside the body or have the option to extend the exhaust out the right door. If this option is chosen, it MUST be installed as follows: End of exhaust may not extend beyond the distance of 2 inches within the inside of the door panel. Remainder of necessary distance will be accomplished with use of flush mount exhaust insert which must extend a minimum of 6 inches inward surrounding exhaust exit pipe as well as attached to outer door panel. Bottom of exhaust pipe outlet may not be higher than 10" from ground. No sharp edges permitted.

If dual exhaust goes into one it must remain as one from the point of joining until it exits.

Pipes must be tight (welded or clamped) at all joints and securely fastened.

Exhaust pipes cannot protrude out past rub rail.

Manifold must have OEM readable numbers.

No porting or port matching on manifold.

Headers will be allowed but must meet the following criteria: Headers must have primary tubes no larger than 1-5/8" for the full length of the tube (flange to collector). No step tubes allowed. Collector will be 3" in diameter and be secured to exhaust pipe NOT to exceed 3.5" in diameter. Collector is to remain stock length. There will be a "two-into-one" collector followed by a" turn down" pipe to allow exhaust gases to exit under car ahead of rear axle. These headers are to be of the conventional crossover design only. Examples of this style header are manufactured by companies such as Howe and Schoenfeld. **No 180 degree or stepped headers allowed. NO Tri-Y headers.** 

Shorty Headers as used in Halifax: will be allowed but must meet the following criteria: 1-5/8" maximum tubes, maximum 3 1/4" outboard and 10" from top of head flange to outlet flange. Maximum 2 1/2" outlet flange. First four inches of exhaust pipe can be used to reduce to 2" o.d. Minimum 24" of 2" o.d. pipe must be in the first 28" of exhaust pipe on both sides into 2 1/2" and same as cast iron exhaust from there to exit. Mild steel headers only. No chrome or coated headers allowed. No EQUAL length shorty headers.

# **TRANSMISSION**

Only Stock production OEM 3 speed or 4 speed (steel-cased) manual transmissions allowed. Transmission must have all forward gears working (OEM ratios for all gears), plus one reverse gear and must be able to be shifted by driver in seated position.

No variable ratio transmission allowed.

No 5-speed transmission.

No AUTOMATIC transmissions will be permitted.

#### REAR END

Any passenger car rear end may be used.

No floating axles

Aftermarket axles are permitted (NO gun drilled axles)

Axles must be steel and a magnet must stick to them

Rear end and all suspension parts must be stock type in original location.

No quick change rear ends.

No Detroit Lockers.

NO spool style differential cases will be allowed. Only steel mini spool in OEM differential case is approved.

GM Rear end housing may be reinforced. Preferred method would be a bolt on setup but a welded brace may also be used. Note: This brace is NOT mandatory.

Locked rear ends are allowed.

Mini locker (piece of pipe joining the two axles) O.K.

# **GEAR RATIO**

Maximum gear ratio is 5.50 with a 1:1 transmission.

To find ratio (3 speed) multiply rear end gear ratio by transmission ratio in second gear to come to max of 5.50 A 50lb penalty will be assessed to the 1:1 final drive option

### **CLUTCH AND FLYWHEEL**

Clutch and pressure plate must be stock production OEM. This includes weight, size and physical appearance. No solid clutch discs allowed.

Aftermarket high performance types are not allowed.

All cars must have a one inch hole in the bottom of the bell housing to allow for clutch inspection.

Clutch disc (only single disc permitted) must be a minimum 10" diameter.

Any stock type steel flywheel may be used. No lightening of flywheels permitted. (i.e. drilling) A flywheel shield or a 1/4 inch thick steel scatter shield positioned between the floor and bell housing, covering the top part of the bell housing, 180 degrees around, is required on all cars with manual transmissions.

No aluminum flywheels.

### **ROLL CAGE**

Main cage and door bars must be no less than 1.50" mild steel tubing, continuous hoops not less than 1.50" outside and have a wall thickness of at least .095'.

Any newly constructed car MUST use 1.75" steel tubing.

Must be frame mounted (no cage mounts can be added) in at least six (6) places (four upright pipes and two braces toward the rear).

Top HALO must be a minimum of 32" wide from outside to outside.

There must be a minimum of three (3) inches clearance between roll cage and drivers helmet. There must be a cross brace or "X" brace in the rear hoop from side to side to allow for shoulder belt and seat installation.

Must be one forward brace off left front upright, to the frame, for feet protection.

There should be two bars running from side to side, attached to the roll cage or bottom door bars for seat installation. These two bars will have the seat mounted to them directly and should not be attached to the frame or the body of the car.

All welds must be a minimum of three (3) pipes on the inside of the driver's door (tied together and welded to the frame in at least two additional places) and two pipes on the inside of the passenger's door between the front roll bar and the rear roll bar.

It is mandatory that 1/8" plate be welded between driver's door bars and door skin. No brazing or soldering.

No square tubing.

# FRAMES AND SUSPENSION

For 2017 an aftermarket (i.e. PRP) solid upper control arm mount will be allowed. It must match the angle and bolt location of the OEM mounts on both left and right frame rails. Control arm bolt spacing is 6 7/8". The front mounting hole must be 1/2-3/4" higher than the rear mounting hole as per the OEM mount. Control arm upper mounts must be installed to original OEM position and angle.

The suspension and running gear must be stock OEM for year and make of chassis. Police cars, taxis, etc. must conform to regular passenger car specifications. This includes rotors, brakes, spindles, control arms, trailing arms, steering components, etc. **Ball joints must be stock appearing** 

# and be OEM type. No monoball types,

Factory production, complete, 1973 or newer parallel American passenger frames only. No Jeep, Bronco, pick-up truck, 4WD, or similarly designed frames allowed. Allowable frames include: 1973-1978 GM 112" (i.e. Chevelle), 1978-up GM 108" (i.e. Malibu), 1978-up GM 114" (i.e. Impala), Ford Crown Victoria 114" (80's and 90's) Mopar 110" (i.e. Aspen) or 108" (i.e. Dart) MOPAR and FORD may use GM metric chassis. Johnson Chassis (Chev and Ford) 108" allowed. Minimum wheelbase 108" (factory specifications).

112" and 114" Chevrolet frames may be shortened to 108". Similar to the Ford 114" frame, if frame is shortened it may only be cut at the front of the frame rails at the junction of the front clip. Any frames not cut properly will not be allowed to compete. If in doubt contact the Speedway before construction. Ride height may be NO lower than 6" measured with driver in car.

Ford Crown Victoria frame may be shortened. Frame may ONLY be shortened at the front of the frame rails. The distance between weld where rail goes into rear clip section to the perpendicular rail section in front clip may be no less than 541/2". Cut rails

MUST be butted together and welded with proper plating on sides of rails. No other frame modifications are allowed. Pickup points must remain as per stock frame. Ride height may be NO lower than 6" measured with driver in car. Wheelbase MUST be 108".

Rear of the frame may not be altered (coil for coil and leaf for leaf must remain).

The rear of the frame behind the axle may be reinforced or replaced for bumper support.

Stock rear frame arch (kick-up) must remain and maintain its original arch, mounts and pick-up points.

Leaf spring cars that replace the rear of the frame must maintain stock width at rear spring hanger mounting points.

Aftermarket rear control arms have been approved for metric chassis cars. They will be subject to a strict adherence policy and will be inspected by template as to correct dimensions.

Rubber or urethane bushings may be used in rear trailing arms.

Any sway bar must be factory stock OEM. Front sway bar may have adjustable links. Stock sway bars must in original mounting brackets and be bolted to frame in original OEM position under frame rails. The outboard ends of the sway must be mounted to the lower control arms in the original OEM position. Spacers and/or adjustable links may be used between the sway bar ends and the lower control arms. No threaded adjusters allowed at frame mounting.

# No droop limiters or ANY other added components to the front suspension.

Any tubing added between the frame rails and attached to the frame rails in front of the rear housing may not extend behind the rear housing. (i.e. no underslung chassis)

No part of frame or added tubing may be below 4" (6"with 108"frame) measured with driver in car Frames may not be widened or narrowed and must support the roll cage on both sides. Cars with sub-frames must join the front and rear clips. However, both clips must remain and must maintain their OEM measurements, mounts, and pick up points. Frames must be full and complete on both sides to the front of the suspension and steering components. An OEM chassis may notch the outside of the frame rail to allow for front coil spring access.

Tubing may be placed between the front and rear kickouts to strengthen the right front. Cage may not be attached to this piece.

Stock front cross member with following alteration:

GM (108 inch wheelbase) - notch may be cut for fuel pump. Notch must be boxed in and may not exceed 2 inches deep and 2 inches back into cross member.

Mopar - notches may be cut for manifolds.

GM (111 inch wheelbase) - no notching is required to obtain the 84% rule.

FORD (114 inch wheelbase) - notch may be cut under oil pan for oil pump clearance. Notch must not exceed 8 inches wide, 2 inches back from front of cross member and 2 inches down from top of cross member. Notch must be boxed in.

No excessive drilling or lightening.

No Camaro frames or parts (Frames subject to inspection)

Wheelbase shall not have more than 1" difference from side to side. No front clips or tube type frames allowed.

Front and rear suspension and steering components must be uncut OEM for that frame. Stock spindles must match frame. No fabricated spindles.

Lower control arms cannot be altered, drilled or moved and must be stock OEM for frame used Rubber or urethane bushings may be used in front lower control arms.

Aftermarket professionally built upper control arms may be used. They must be adjustable tubular type only. Left front: 8.5" +/- half inch. Right Front: 8" +/- half inch. Port City part #100-060820lh and #100-060800rh will be allowed. After market control arm will be allowed as long as they are: Stock mid size GM metric, steel arm construction and steel cross shaft.

Front end Camber angle will be inspected. The camber specifications will be as follows:

LF wheel maximum camber will be 4.0 degrees positive or negative (+/- 0.5 degree)

RF wheel maximum camber will be 6.0 degrees positive or negative (+/- 0.5 degree)

Ball joints must be OEM type, top mounted to the control arm and must be stock length. Rebuildable and low friction are OK as long as they meet stock lengths as diameters may vary.

Stock upper control arms may be hulled for screw jack clearance only. No cutting, notching, and/or re-welding of control arm sides. May be reinforced for strength only.

No coil-over shocks allowed either front or rear. No homemade coil-over allowed anywhere on race car.

Any coil spring must be at least 4-1/2 inches outside diameter.

Rear coil spring pockets can be reinforced or extended to allow for a longer spring.

Rear OEM / Aftermarket trailing arms and front of leaf springs must remain in stock position

on frame and rear end housing. No slotted, elongated, or redrilled mounting holes.

NO pinion angle modifications allowed.

Cars with rear leaf springs must use original pivot points with stock rubbers on front of springs.

Maximum tread width 68" center to center front and rear.

Lowering blocks o.k.

No fiberglass or plastic leaf springs allowed.

No lift bars, panhard bars or snubber bars.

Jacking bolts are allowed. On leaf spring, jacking bolt can be at rear of spring only.

All suspension parts must be stock length.

Stock rear cross member (at rear end housing) must remain in original location on frame and be utilized.

No Jeep, Bronco, pick-up truck (etc) or four wheel drive frames allowed.

One shock per wheel only; a total of four shocks per car. Hiem joints (welded on) will be allowed. All shock numbers MUST be readable. Shocks will be deemed illegal if numbers are unreadable. No performance shocks except as follows: AFCO shocks only with the following numbers: 1274FB, 1275FB, 1276FB, 1277FB, and 1278FB. In addition the 10 series AFCO will be allowed with the following numbers: 1073, 1074, 1075, 1076, 1078,1093, 1094, 1095. Numbers must be readable. No five digit (split valve) shocks allowed. They must be as produced by AFCO and have numbers clearly visible on the shock body for identification. No cutting, welding, slashing, grinding or shortening of any kind allowed.

No weight penalty for AFCO shocks.

All suspension and steering components must be stock length and mounted in stock location unless otherwise indicated (e.g. shock mounts may be moved). Shock mounts are to be limited to one upper and one lower location.

The distance between the rear of the motor (bellhousing flange) and the center of the rear axle tube can be no less than 84% of the wheelbase of the car.

Maximum 2" setback beyond 84% allowed on Ford and MOPAR. (except MOPAR and FORD with G.M. chassis).

All motors must be centered between the frame rails.

Minimum crankshaft height will be the frame height plus 7 inches

### Driver must inform officials which frame is being used

A spindle saver may be used between the lower ball joint stud and the outer tie rod end stud. This bracket is to lessen the probability of steering arm distortion on contact.

It may be fabricated and will be subject to inspection

Ride Height: No lower than 6" (108") and 4" (112-114") with the driver IN car.

Ground clearance will be the same on both sides. Inspection height gauges must pass under frame with no contact. **NO LIFTS WILL BE ALLOWED.** 

### CARBURETOR

Holley 4412, 500 CFM only.

Carburetor must remain AS PRODUCED except choke flap can be removed.

Serial numbers must be readable.

Jets and power valves may be normally interchanged.

No material may be otherwise added to or removed from the carburetor. Venturi area must

not be altered in any manner. Casting ring must not be removed

# Carburetor must pass Petty Raceway NO-GO gauge tests

There must be two return springs on separate brackets.

A throttle stop must be devised that will prevent the throttle linkage from going past the point of return.

Carb Spacer: Holes must be parallel to top (carb side) and bottom (intake side). No re-working of adapter of any kind.

General Motors and MOPAR are allowed two stock type gaskets, one thin and one thick.

On Ford, the carburetor will fit on stock two barrel intake, a 1" spacer is allowed.

No fuel injection, No electric fuel pumps, No belt driven fuel pumps.

No turbos, No magnetos.

#### AIR CLEANER AND AIR FILTER

An approved round air cleaner element. Minimum 12 inches and maximum 14 inches diameter will be permitted. An approved air filter element - minimum 1½ inches - maximum 4 inches high, must be used in the air cleaner at all times. All air shall be filtered through element. K&N air filter elements will be permitted. Only a round metal air cleaner housing is permitted. The top and bottom of the air cleaner must be solid and must be the same diameter. No lips or expanded edges are permitted. The air filter housing must be the same diameter as the air filter element. The air cleaner housing must be centered and sit level on the carburetor. The bottom of the air cleaner housing must be lower than the top of the carburetor choke horn. No tubes, funnels or any device, which may control the flow of air, is permitted inside of the air cleaner or between the air cleaner and the carburetor. No carburetor air boxes allowed.

### **RADIATORS**

One radiator only, mounted in stock location.

Hood must cover radiator without modification.

Electric Fan - can be used as pusher or puller. OEM fan may be removed.

Fan SHROUD will be mandatory for OEM fans.

No antifreeze permitted, water is the only acceptable coolant.

Must have a cooling system overflow located in engine compartment only.

No added weight required for aluminum radiators.

# **FUEL AND TANK**

Safety approved fuel cells are recommended.

Fuel tank (other than approved cells) must be enclosed in a metal case of 18 gauge steel.

All tanks or cells must have a protective hoop at the rear. All tanks/cells must be installed

behind the rear axle and between the frame rails and fastened to the frame.

All fuel cells must meet a minimum clearance of 12 inches to any point at the bottom of the fuel cell with cars at appropriate ride heights. Fuel cell mounting may need to be adjustable to conform to this rule.

No pressure tanks allowed.

Fuel filler may be placed on rear trunk lid or drivers side rear quarter panel providing a check-valve is used at the top of the tank. **Note: If the filler is on the trunk lid you must** 

still have a functioning full width trunk lid (see rule 31.5).

All fuel lines must run under floor and must be metal.

Fuel must be pump gasoline.

No racing fuel. No Nitrous-Oxide, or nitro. No nitrous devices or plumbing allowed.

# **STEERING**

Steering box must be OEM and must remain within the original bolt pattern for the frame used.

Power steering must remain and must be operating.

No fabricated steering components.

No cutting and/or welding pitman arm, steering arm, center link, or other steering components.

No rack and pinion steering. No steering quickeners.

In cockpit steering may be modified to suit drivers taste but must be kept on left side of the cockpit and the right side of the frame.

No center steering.

Adjustable center links may be used, part numbers as follows only:

- All-Star: 5656330

- Johnson Chassis: JCI 09-02-1-13

- Howe: PN 23399

For 2019 a heim joint and adjusting sleeve will be allowed on the OUTER tie rod end only. This may require drilling the steering arm for installation. NOTE: Bump steer may be corrected by using the center links or by the heim outer tie rod. You may run one or the other but NOT BOTH.

# TIRES AND WHEELS

Petty Raceway has decided not to have a tire rule for 2019 to encourage more teams to compete. The only stipulation is the Durometer rule as below.

All tires (new and used) must not be less than a Durometer reading of 52.

# A Maximum wheel spacer on any wheel will be 1".

Wheels must not exceed 10 inches wide and 15 inches high. Steel wheels only.

Minimum half inch studs recommended.

Oversize nuts that thread all the way over the stud required.

Tires may not extend beyond the fenders more than 2".

Track tire will be Hoosier 890 – 8" treaded tire. (see tire rule at end of document)

Track reserves the right to define tire size, structure, compound with respect to availability to all competitors for all events.

### **ALUMINUM**

No aluminum or exotic metal; wheels, hubs, hats, rotors, calipers, pads, shoes, control arms, spindles, or any other suspension or rear end parts are allowed.

No aluminum drive shafts, harmonic balancer, or firewalls.

### **BUSHINGS**

All suspension bushings will be rubber with the exception of the front lower control arm bushings and the rear trailing arm bushings, which may be rubber or urethane. NO SOLID BUSHINGS.

# **BODIES**

# For 2019 the GEN 6 Five Star new gen body will be approved for competition.

Approved Body Configuration (ABC) Bodies will be allowed for 2012.

FiveStar bodies are recommended. Aftermarket bodies MUST conform to "Five Star" dimensions and angles and must meet template within 1.0"tolerance. (Weight penalties and/or rear spoiler removal/modification could apply to non-conforming bodies)

All vertical measurements will be taken with driver in the car.

No station wagons, trucks, panels, vans, convertibles.

Rear deck lid must not be riveted to body. Must be hinged or made easily removable. NOTE: Rear deck lid must have a minimum opening of 48" wide by 12"deep. This will allow access to fuel cell for safety and inspection

All interior upholstery must be removed.

No cut-down doors. Safety retainers required on hoods and trunk lids.

Body must be straight on frame and retain its stock appearance, dimensions and angles.

Body must be 4" off the ground at all points.

Rear window brace mandatory. Window will not be permitted to "sag" under speed.

Passenger side window must remain completely open except for 8" from front window pillar for vent installation or clear lexan.

Rear deck spoiler (FiveStar type) allowed. Max length of 60" and max height of 5".

Rear deck height may be a maximum of 34.5" (+/- 1.0") off the ground. Rear deck area must be supported by adjustable braces to allow for conformity of rear deck measurement. Allowance will be

made for those cars with higher than normal HALO. That is if the HALO is forcing the roof to be 1.0" too tall, then we will allow for 1.0" higher deck.

Full front windshield required. Must be Lexan or approved safety glass.

All window pillars should be in place. Painted roll bars are not an accepted substitute for window pillars.

Must have steel floor plan and firewalls between the driver, engine and trunk compartments.

Aftermarket rubber nose cones must match the body.

No wings, or ground effects anywhere inside or outside the car.

The interior of the car cannot be arranged in such a way as to look like a spoiler.

No holes allowed in hoods. No cowl induction.

Any radiator air ducting must not extend ahead of the front bumper or behind the radiator and must be at least 4" off the ground.

A single exterior rub rail may be used on each side of the car, from behind the front wheel parallel to the ground, to ahead of the rear wheel, break for the rear wheel opening, and continue toward the rear of the car and fasten to the side of the rear bumper.

Square tubing or round pipe only. Maximum 1.0" outside diameter.

Exposed bolt heads must be carriage type only. No sharp edges.

Rub rails must fit tight with the side of the car and blend with car colors.

Numbers and lettering must be over rub rails.

All cars in competition must have a complete paint job. Primer is not considered paint.

No body modifications allowed.

All cars must begin each race meet with complete body (hood, doors, fenders, trunk, lid, etc.) unless damaged in practice and/or O.K.'d by Pit Steward.

#### **BUMPERS**

Bumpers must be used both front and rear.

The centers of both bumpers must be the same height from the ground and measure between 16" and 18" from the ground.

Bumpers must be constructed of max 2" tubing. A single bumper tube only at front and rear.

Bumpers cannot be reinforced from behind.

Bumpers must not have any sharp edges exposed.

Rear bumper and brace bars must be sufficient to protect fuel cell or tank.

TOW HOOK/LOOP must be installed in both front and rear of car to allow for recovery vehicles to quickly lift cars and move them to the pit area. Recommended installation would be a steel cable attached to the bumpers and accessible through a hole/slot in the bumper covers. Alternately a bracket attached to the frame rails or cage and accessible when the hood and/or trunk lid are opened (keep in mind this is where we need the hinged hood and trunk if possible.

### **ELECTRICAL**

Batteries must be securely installed.

Those installed inside drivers compartment must have a protective covering (e.g. marine case). Starting system must be operating.

Ignition system kill switch must be marked on and off and be accessible from outside the car.

No Tachometer will be allowed during competition

# **BRAKES**

Brakes must be operating on all four wheels and must lock up all four wheels during inspection. Caliper brackets must be mounted in fixed position. Calipers must be OEM for frame manufacturer. No drilled rotors.

One Brake Bias Valve will be allowed.

Floor mounted brake pedal and single master cylinder assembly will be allowed. Only valves allowed in brake hydraulic system will be the proportioning valve as well as residual check valves that may be needed due to cylinder position.

Rear disc brakes are permitted. Option 1 is a one piece steel rotor with a minimum diameter of 11.5" and a 1" thickness. No drilling or lightening of rotor. Option 2 is an Allstar rotor and hat system, Part#ALL42019. Only stock GM cast steel calipers with a single steel piston no greater than 2.5" diameter permitted. May be mounted forward or rear of the axle housing. No aluminum parts. Must be all steel. All parts must be the same size and configuration on both sides. Fords are permitted ford rotors and calipers as long as they do not exceed the GM

specifications. 11.75" maximum diameter by 1" thick rotor. Single piston caliper with a maximum 2.5" diameter. Must be all steel, no aluminum.

Stock and Coleman type rotors allowed. Coleman Billet Steel Sportsman Hub and Coleman Sportsman GT Series Straight Vane Rotor are the only parts allowed. They will match the OEM hub and rotor assembly dimensions. Brake rotors may be cooled by 3" ducts directed at all four rotors.

A brake cooling fan may also be used. Air may be drawn from the radiator or nose area. The other brake cooling option is a wheel mounted cooling fan. Car will be limited to ONE brake cooling option only NOT BOTH.

# **WEIGHT**

Crate 2-barrel: 2950lbs; Crate 4-barrel: 3000lbs; Built: 3000lbs

Add 50lbs for 1:1 transmissions for all motor configurations.

Maximum left side weight 55%.

Maximum rear weight 45%.

All weight percentages will be measured with driver in normal seated position.

No weight to be placed lower than the bottom of the frame rails

No hydraulic, ratchet, electric, pneumatic, or any other kind of moveable weight devices anywhere in or on the car. All weights pre race start

# **SEAT**

Aluminum racing seats are mandatory.

Recommend racing seats be fastened entirely to the roll cage (bottom and backrest) and not to the frame or floorboards.

Likewise seat belts should be to the roll cage.

The bottom of the seat must be above the bottom of the frame.

NO FIBERGLASS RACING SEATS.

### SAFETY

The use of head and/or neck restraint system is MANDATORY.

Full face helmets MANDATORY. Snell 2010 or newer approved helmets only may be used and securely fastened. No DOT or M style allowed. Helmets must accompany any vehicle at time of inspection.

Fire suits of a flame retardant nature must be worn by all competitors whenever cars on the track.

If suit happens to be a two-piece, both the top and bottom must be worn at the same time.

Fire retardant gloves and shoes are MANDATORY.

A securely fastened, quick release fire extinguisher is required within easy reach of the driver.

Fire extinguisher must be a **minimum of 2.5 lbs** and must have recharge slip dated no earlier than January first of the current year.

Drivers window net with quick release top latch is required.

Five-point racing harness is the minimum requirement. **Minimum date code on belts must be no older than 3 years.** 

Drive shaft hoops required and must be constructed of material sufficient to contain the Drive shaft in the event of U-Joint/Drive shaft failure.

No aluminum drive shafts.

Drive shaft must be painted white.

Loose objects and/or weights will not be allowed in drivers compartment (between front and rear hoop).

Any added weight must be securely mounted, a minimum of two half inch bolts used with each weight.

All weights are to be painted white with car number painted on them.

### **NUMBERS**

All cars must have their assigned numbers on both sides of the car and on the roof (readable from the grandstand) at least 20" high and 4" thick in a color that contrasts with the car color.

A 6" white number is required on the top right corner of the front windshield.

Numbers deemed difficult to score, the driver will be notified and any scoring check requests for that car may not be acknowledged.

The top of windshield must be reserved for class sponsors.

# LISTENING DEVICES

Scanners will be MANDATORY for all competitors and must be programmed with the Petty Raceway frequency of 450.1000. Radios are recommended, however scanners are still mandatory to receive communication from Petty Raceway Race Director and track officials.

Scanners will be subject to inspection.

# **MISCELLANEOUS**

No performance or aftermarket speed equipment of any kind is allowed.

### Must have tow hooks on front and rear frame.

Should have a loop in the center of each bumper (cable or chain) that can be used for each pickup.

One stock passenger car inside mirror may be used and must be mounted inside the car.

Roll bar padding is **MANDATORY** around driver.

Anything not being specified as allowed must be stock.

Stock parts are those manufactured for the normal family sedan, not taxis, police cars, muscle cars or any other special editions.

Any misrepresentation of the rules will be subject to a final decision by track officials.

Track officials may check any car at any time.

Track reserves the right to amend any rule with prior (fair) notice to competitors.

Petty Raceway reserves the right to confiscate and retain any parts or components that are deemed to be non-conforming to the rules set forth in these pages. The decision of track management will be final.

Please email wayne@pettyraceway.com with any questions.