



***SPRINT CAR SERIES***



# Pit Stop USA Spec Sprint Series

# TECHNICAL RULES

Updated 12-11-18

**THIS BOOK IS EFFECTIVE January 1, 2019  
SUPERCEDES ALL PREVIOUS RULES**

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***\*\*Must be 14 years or older to compete\*\****

## **RULE BOOK DISCLAIMER:**

The rules and/or regulations set forth herein are designed to provide for the orderly conduct of racing events and to establish minimum acceptable requirements for such events. These rules shall govern the condition of all events, and by participating in these events, all participants are deemed to have complied with these rules. **NO EXPRESS OR IMPLIED WARRANTY OF SAFETY SHALL RESULT FROM PUBLICATION OF OR COMPLIANCE WITH THESE RULES AND/OR REGULATIONS.** They are intended as a guide for the conduct of the sport and are in no way a guarantee against injury or death to a participant, spectator or official. The race director shall be empowered to permit minor deviations from any of the specifications herein or impose any further restrictions that in his opinion do not alter the minimum acceptable requirements. **NO EXPRESSED WARRANTY OF SAFETY SHALL RESULT FROM SUCH ALTERATION OF SPECIFICATIONS.** Any interpretation or deviation of these rules is left to the discretion of the officials. Their decision is final. Referee's decision is final.

Sprint car racing is a very emotional sport; therefore, good sportsmanship is the cornerstone on any competitive racing program. This must include respect for all participants - drivers, owners, pit crews, and officials. For our part we will try to be consistent with our rules no matter what or who is involved. We will treat all participants with respect and expect similar treatment in return. A racer's Pit area is his castle - therefore please stay out of other racer's pit area.

## **EIRI**

(Except in rare instances) Decisions of officials are final and binding without exception. Any rule changes or clarifications during the course of the year will be amended and will be considered as an official part of these rules.

Track promoters reserve the right to add or cancel events deemed as unnecessary in the interest of time.

## **2014 STATE RULES ALLOWS NO LIQUID DUMPING FACILITIES AT THE FAIRGROUNDS**

Each race car that enters the fairgrounds pit area **MUST** have an empty container(s) approved by the management of the SPEEDWAY that will hold at least 2 gallons of used oil (fluids) for collecting anything that may be drained out of the race car or tow vehicle at each event. These containers must be removed with the race car after every race and disposed of at an approved facility at the owner's expense. **NO TIRES are to be left behind. Competitors found to have left tires behind will be fined \$100.**

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## SECTION 1

### CHASSIS

- A. Open to any sprint car chassis 1984 to present.
- B. Minimum Cage structure to be no less than 1 3/8" O.D. with .095 minimum wall thickness. Cage
- C. MUST extend 2" above driver's helmet. A halo bar will be required if driver's helmet sits too high.
- D. NO TITANIUM. NO EXCEPTIONS.
- E. Motor, body, seat and fuel tank must be mounted to the centerline of the chassis.
- F. Chassis should be provided with a minimum of 6 mounting points to securely mount the seat as specified by seat and chassis Manufactory.
- G. Wheelbase minimum of 82". Wheelbase maximum of 96".
- H. Hollow or drilled bolts, fasteners or Heim joints are prohibited.

### BODY/GENERAL APPEARANCE/AERODYNAMIC DEVICES

- A. Body/chassis must be well maintained. NO JUNK. PAINT OVER RUSTED HEADERS ETC. Must have at least one number on both sides of tail tank and on front nose piece Minimum size of number 18" tall 2" wide and contrasting color of car. Number must be legible and LARGE ENOUGH TO BE EASILY READ FROM THE SCORING BOOTH. NO EXCEPTIONS.
- B. Conventional sprint car hoods allowed. Hood must extend to the front torsion tubes or a similar location on Coil over cars. While the hood may be a multiple piece design, it must appear to be one continuous piece. Conventional side panels and tail tanks only.
- C. NO AERODYNAMIC DEVICES ALLOWED. NO WINGS, WEDGES, FOILS, MODIFIED BELLY PANS (flat only) OR UNDERSIDE MODIFICATIONS. NO EXCEPTIONS. THE OFFICIAL DECISION WILL BE FINAL. No body part may be designed to trap air or otherwise form a wind break except those to cool or protect the engine or braking system.
- D. No side foils, rudders or panels are to extend beyond rear cage support bars on any side. body pieces to extend beyond or underneath front torsion tube with the exception of the hood.
- E. No Gurney lips or turnouts are permitted on any body panels.
- F. Sunshields cannot restrict driver vision.
- G. Right side arm guard may not exceed 36" in height measured from top of bottom frame rail. The driver's right side opening must be a minimum 10 inch vertical opening at any point and a minimum 21 inch horizontal opening at any point.
- H. Driver must be able to easily escape the car. Drivers may be asked to demonstrate this capability.
- I. Firewall will be solid metal and fit between the engine and the driver. Access holes may be drilled for wiring and linkage.
- J. Floor pan must extend from the firewall to the front of the driver's seat. Constructed of steel or aluminum.
- K. No mirrors or electronic communication devices of any kind, No sign boards.
- L. A kill switch is required within easy reach of the driver and Safety Crews. It must be clearly labeled "ON" and "OFF".

## SECTION 2

### ROLL CAGE

- A. Roll bars shall be of the full cage type, mild seamed steel 1 1/2" or 1 3/4" X .120 wall minimum. 4130 Chromoly 1 1/2" or 1 3/4" X .095 wall minimum.
- B. All "T" intersection must be gusseted and welded on both sides.
- C. Cage to be above driver's helmet by 2". A halo bar will be required if driver's helmet sits too high.
- D. You may be asked to drill 1/4" hole in roll cage for inspection purposes.

E. The technical official or race committee must approve all roll cages.

## **SUSPENSION AND STEERING COMPONENTS**

- A. Any conventional torsion bar or coil-over suspension is allowed. Combining the two is allowed.
- B. Independent rear suspension is not allowed.
- C. Straight front axle only. Aluminum or Titanium front axles are not permitted
- D. One shock per wheel.
- E. Quick release steering wheel mandatory.
- F. NO COCKPIT ADJUSTABLE SUSPENSION DEVICES. NO EXCEPTIONS.
- G. Drag links must be tethered to the frame with nylon webbing of at least 1 inch width.

## **SECTION 3**

### **WEIGHT**

- A. Minimum weight 1600 lbs on all cars with the driver fully suited in the car.
- B. All added weight should be in block form or formed to frame, PAINTED WHITE, with the car number on it. Bolt on weight is permitted but must be securely installed on the cars' basic framework and must be located in the area between the bottom frame rails and axles but mounted no higher than the upper rails. No one piece weights over 20lbs.
- C. Weight cannot be added, moved, or replaced during yellow or red flag conditions.

### **WEIGHT PENALTIES**

- A. Any car weighing less than 1600 lbs after the main event will be scored last place and forfeit all prize money for that night.

## **SECTION 4**

### **ENGINE**

- A. 360 cu. in. + 2% (367.6 MAXIMUM cu. in. with NO EXCEPTIONS).
- B. Cast iron block and heads required.
- C. All engine cylinders must be machined from iron/steel alloy only. Only two valves and one spark plug permitted per cylinder.
- D. Only normally aspirated motors are permitted. No turbo, superchargers or forced induction of any description will be permitted.
- E. Dry sump oil systems OK.
- F. Engine connecting rods must be 100% steel. There must be an inspection plug in the oil pan. Either a #12AN fitting or a 1 inch pipe plug. If a car is to be inspected and there is no inspection plug in the oil pan it will be required to pull oil pan for inspection.

### **RODS**

Steel rods only

### **PISTONS**

Any

### **CAMS**

- A. Any stock or aftermarket flat tappet cam and lifter ONLY.
- B. Camshaft button is allowed.
- C. Hydraulic roller cams and lifters are NOT allowed.

## **GEAR DRIVES**

Are Allowed

## **CYLINDER HEADS**

- A. Must be OEM or aftermarket cast iron heads only.
- A. All heads must be stock valve angle for make. (Chevy = 23 degree, Ford = 20 degree, Dodge = 18 degree)
- B. Grinding, porting and polishing of heads are allowed.
- C. No angle milling of heads.
- D. All casting numbers must remain visible.

## **ROCKER ARMS**

- A. Roller rocker arms or roller tip rocker arms are allowed.
- B. Stud girdles ok.

## **INTAKE MANIFOLD**

- A. Aluminum 4bbl. intake manifold OK. 1/2" pipe plug in valley area of the intake manifold, (Between carb. and dist.)  
To check cams with-out opening engines or pulling distributor. External modifications to intake are not allowed.
- B. Ram intakes are NOT allowed.

## **CARBURETOR**

- A. Must have THREE METAL throttle return springs MANDATORY.
- B. Must have toe strap on throttle pedal.
- C. Bottom of carburetor may be no more than 4" from top of manifold.
- D. Holley #4412 or Demon or 9647 Series 500 cfm. 2bbl carburetor.
- E. 1 11/16" throttle bore; shafts and throttle plates must be stock. External jets OK.
- F. Venturi may be opened .010 over catalog specs.
- G. Choke tower may be removed
- H. Track Go-No Go Gauge will monitor carburetor specifications.

## **IGNITION**

- A. All Battery-powered ignitions or Magnetos will be allowed.
- B. Cars must have a clearly marked ON/OFF ignition switch within reach of the driver and visible to rescue workers.

## **FUEL PUMP**

Electric pumps are NOT allowed.

## **FUEL**

- A. Racing methanol or gas only. No Nitro or Nitrous Oxide.
- B. No fuel additives or oxygenating additives of any kind are allowed.

## **FUEL SHUTOFF**

- A. Fuel systems must have shut off device within reach of the driver, marked in large bold block letters and painted a ""Day glow-Red"" color for easy identification. A Waterman Shut-off system is recommended for additional safety.
- B. All fuel lines and filters will be securely and safely mounted to the satisfaction of the officials or race committee. NO EXCEPTIONS.

## **FUEL CELL**

- A. A securely mounted fuel cell with bladder is required. Midget or sprint type is OK.
- B. Minimum 25 Gallon tank. Maximum of 40 Gallons.
- C. Fuel tanks may not be mounted to the chassis utilizing any portion of the access plate or the nut plates bonded into the fuel bladder.

- D. Mounting fuel tank to chassis: All mounting points must have inner and outer plates attached to the shell or use mounts molded into tank. The plates must be of adequate size to insure the tank being secure to the chassis. All tanks will have four different mounts to the cage.
- E. Tank vent MUST have check valve.
- F. All fuel cell mounts subject to safety inspector's or race committee approval.
- G. Any car leaking or spilling fuel will be black-flagged.

## **RADIATOR**

- A. Must be in front of engine.
- B. Ant-freeze is not allowed.
- C. Water Wetter additive is allowed.

## **DRIVE-LINE**

- A. All drive trains must have a driveline or rear end coupler system (to disengage rear end from engine). Torque arm drivelines are not allowed. All drivelines must be enclosed and have no more than 1 u-joint and that u-joint must be at the front of the driveline.
- B. Buckley Yokes OK.
- C. All cars must utilize either a driveline strap or a drive line hoop restraint constructed of .065 inch steel either welded or bolted to the chassis. Metal hoop restraints must react positive to magnet testing. The rear cross member used for mounting the steel driveline hoop must be constructed of .083 inch steel
- D. Steel or approved aluminum shield that covers the flywheel is mandatory when bell housing is inside the cockpit.

## **REAR-END**

Any conventional quick change rear end is allowed with a maximum 2" offset.

## **BATTERY/STARTERS**

- A. Recommended battery location is under driver's seat.
- B. If battery is 'wet type' it must be covered to prevent acid spills. 'Maintenance free', no vent caps and sealed battery are suggested
- C. Starters are optional for the 2019 season. There are no penalties for not 'self-starting.'

## **BUMPERS**

- A. Bumpers and nerf bars must be sprint car type bars and securely bolted to the chassis.
- B. Bumpers and nerf bars will be constructed of no less than 1" O.D. and .060 wall thickness. Side nerf bars may have a triangular or 4 point configuration and may not extend outside rear tires
- C. The front bumper may not extend more than 8 inches from the frame or 23½ inches from center of front axle to front of front bumper.

## **SECTION 5**

### **TIRES**

- A. Hoosier tires will be permitted for competition on at all four (4) positions of the racecar at all HUNT SERIES Sprint Car Series Events. The tire will be available in the following compounds:  
**Rear:** Only the following Hoosier Tires will be permitted for competition:  
**Right Rear:** HTW, or 105/16 Medium.  
**Left Rear:** Open – Hoosier only  
**Fronts:** Open – Hoosier only
- B. The altering of any tire compound, by any means will not be permitted. Chemical alteration of the tread carcass and/or tread compound, such as tire 'soaking' and or the introduction of tread 'softener' will not be permitted.

## **WHEELS**

- A. Any aluminum, steel six-pin or spline wheel are OK. Any wheel offset is allowed.
- B. Maximum wheel width: Front 10", Left Rear 15", Right Rear 18".
- C. Bead locks on all wheels is recommended.
- D. Plastic or carbon fiber wheels are not allowed.

## **BRAKES**

- A. Minimum left front and left inboard rear brake system. Front and rear brakes must work at start of event. Rear brakes must work at ALL times. Additional rear brake OK.
- B. Steel, cast iron, aluminum or titanium rotors only. Carbon fiber rotors are not allowed.
- C. No copper or plastic brakelines.

## **SECTION 6**

### **EXHAUST / MUFFLERS**

- A. Mufflers are mandatory must Flowmaster model #54345-10
- B. Mufflers to be securely fastened.
- C. Mufflers and headers must remain attached. All muffler and header components must remain intact and operating. Failure to comply with this provision will result in automatic disqualification (Black Flag).
- D. Track DBA requirements must be met 95dba @ 100'. ABSOLUTELY NO EXCEPTIONS AS THIS NOISE REQUIREMENT WILL BE ENFORCED.

## **SECTION 7**

### **SEATS**

- A. High-back Aluminum (Stock car style) seats should be securely mounted to the frame as recommended/required by seat manufacturer and chassis manufacturer. Sprint car suitable FIA manufacturer approved composite seats are permitted.
- B. Head rest (behind the head) should include padding.
- C. Seat should be mounted in 4 places to the chassis with minimum 5/16" steel bolt and nut.
- D. Mounting hole in seat must have a 2" diameter mounting plate with a minimum .060".
- E. Positively No Homemade Aluminum, Plastic or Fiberglass seats allowed.
- F. A right head net or support is highly suggested. Head nets must be equipped with quick release mechanisms.

### **SAFETY BELT REQUIREMENTS**

- A. General - Each Competitor is solely responsible for the effectiveness of personal safety equipment used during an event. Each competitor is expected to investigate and educate themselves with the effectiveness and availability of personal safety equipment.
- B. Seat Belts - 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. (A quick release seat belt and shoulder harness no less than 3" wide and submarine belt (crouch) are mandatory. 2" wide shoulder harness for Hans device ok).
- C. Seat belt webbing that comes into contact with any sharp or 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.
- D. It is the responsibility of the driver, not the Track, 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.



- E. All belts must be mounted to the roll cage separately from the seat with 7/16" grade five bolts minimum or 3/8" grade five bolts for ratchet belt hold-down.
- F. Belts must come from behind driver. The mounting position is important! Shoulder belt should be mounted approximately 4" below the shoulders. The lap belts mounting should be the same width of the driver.
- G. Harness/belts must be worn at all times when the car is on the track.
- H. 2 year old on belts maximum. The date stamp must be readable and belts must not be worn (frayed) or they will have to be replaced for your safety.

## **SECTION 8**

### **SAFETY**

- A. Driver should wear a full face helmet, with at least a valid SA 2005 Standard Snell and/or a valid SFI 31.1, SFI 31.2 or SFI 31.1 2000 label at all times on the track or when car is fired.
- B. The driver should wear the helmet in accordance with the directions provided by the helmet manufacturer and/or supplier.
- C. Neck collars or HANS type device required. HANS type devices are highly suggested. If a head and neck restraint system is connected it should conform to the manufacturer's mounting instructions.
- D. Helmet and face shield must be worn at all times while operating a car on the race track. No goggles permitted.
- E. Each driver should wear a fire resistant uniform meeting the SFI 3.2A/5 specification and display a valid SFI 3.2A/5 label.
- F. 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 3.3 label. Nomex-type or equivalent fire resistant uniforms (suit), gloves, neck brace, shoes, are mandatory.
- G. Nomex-type or equivalent hood socks or skirts mandatory.
- H. Nomex-type or equivalent socks, underwear are highly suggested.
- I. Right Side window Net suggested. Window nets must be equipped with quick release mechanisms.
- J. Quick release steering wheel mandatory.
- K. Arm restraints are mandatory.
- L. Flame retardant roll bar padding, knee and steering pads or padding highly suggested.

### **OTHER SAFETY ITEMS**

- 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. A marked electrical kill switch in reach of driver.
- D. A marked fuel shut off valve in reach of driver.
- E. Flame retardant seat padding is suggested.

### **GENERAL SAFETY REQUIREMENTS**

- A. A medical examination of any driver may be required as needed by officials for safety.
- B. All wrecked cars must be inspected by a safety official before re-entering competition. A race car may be inspected by officials at any time.
- C. Any car found to be illegal will be disqualified from competition.
- D. Seat belts will be used at all times.
- E. All moly or heim ball joints will have flat washers installed.

## **FIRE CONTROL**

It is recommended that teams have in the rear of their transporter an easily accessible fire extinguisher of at least 2.5 gal FFF or equivalent.

## **SECTION 9**

### **ROLL-OVER REGULATIONS**

Any car or driver rolling over may be subject to approval to participate in any event that night, unless cleared through the track official. Any official may make comments in regards to the condition of the car and/or driver. ANY CAR, TEAM, OR DRIVER NOT MEETING SPEEDWAY SPECIFICATIONS, OR STANDARD RACING SAFETY PROCEDURES AND EQUIPMENT, IS SUBJECT TO AUTOMATIC DISQUALIFICATION AND/OR PENALTIES.

### **PROTEST ENGINE/TRANSMISSIONS/CHASSIS**

- A. Participating car owners and drivers ONLY may protest another car's compliance with the rules. Car must be still running competitively at end of feature. The protest must be filed with the Race Director with a \$500 deposit (\$350 protest \$150 Tech Time) for a top end inspection which includes all top end items plus the piston rod assembly, timing chain, camshaft. Deposit must be within 10 minutes after the main event and protested CAR OWNER may counter protest within 10 minutes after being notified. Once the Technical Inspector receives protest money, protest has begun. Money will not be dispersed until protest inspection of the engine rules and office notified of results. If anything else regarding the engine is being questioned it must be written down on the original protest, it must state what is to be inspected.

**D. Tear down location at track shall be agreed upon by both Drivers. Officials will make final decision if drivers can't agree.**

- E. Tear downs will be made by the driver, one pitman or mechanic, the Technical Inspector or person chosen by him to be an observer and two alternates. The committee will also safely check cars and assist in rules interpretations.
- F. If declared legal the deposit goes to the protest owner. If declared illegal the deposit is returned to the protester, the car and owner/drivers will be penalized 100 Championship Points and receive no money for that night of racing or points.

### **AMB Transponders**

**Transponders are mandatory on all cars;** must be mounted to right front down tube between frame rails

They can be purchased through [www.amb-it.com](http://www.amb-it.com)

**Personal TranX260 Direct Powered Transponder** By far the most popular with drivers, the Direct Powered Transponder (DP) needs a quick two-wire connection to the car's battery to operate. Once mounted to the car using zip-ties or rivets, the DP Transponder requires no maintenance or upkeep.

**Personal TranX260 Rechargeable Transponder** Ideal for cars that have a limited electrical system on-board or cars whose electrical system is an older 6 volt type, the Rechargeable Transponder offers drivers increased flexibility in operation. For example, the transponder can be easily switched from car to car where a driver races two cars during a weekend. Though the transponder does need recharging after 5 days of operation, its special charging cradle is designed to prolong the battery life when not in use.

### **RACECEIVERS**

**Raceceivers are mandatory on all cars;** they can be purchased through [www.raceceiver.com](http://www.raceceiver.com)

FD1600 Fusion Driver Raceceiver. If you are out of position, you will be asked twice (2) to get into proper spot, if you do not you will be penalized 2 spots for every position that you are out, on the next yellow or at the end of the race, whichever comes first.