

2021 JOE HUNT / C&H VETERANS WINGLESS SPRINT SERIES



TECHNICAL RULES

UPDATED 1-1-2021

THIS BOOK IS EFFECTIVE January 1,2021
SUPERSEDES ALL PREVIOUS RULES

HUNT SERIES TECHNICAL DIRECTOR
"MOOSE" (MRMOOSE@SOFTCOM.NET)
(916-439-7272)

MUST BE 14 YEARS OF AGE 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. **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 devastation of these rules is left to the discretion of 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 as humanly possible 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 is his castle - therefore please stay out of other competitors pit area during any altercation.

ERIE

(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 TO PRESENT DATE, STATE RULES ALLOW 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 two (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 FOR EVERY TIRE LEFT BEHIND

TABLE OF CONTENTS

SECTION 1

- Chassis/Roll cage
- Body/General Appearance/Aerodynamics Devices

SECTION 2

Suspension and Steering Components

SECTION 3

- Weight
- Weight Rule Penalties

SECTION 4

- Engine
- Rods
- Pistons

- Cams
- Gear Drives
- Cylinder Heads • Rocker Arms
- Intake Manifold
- Carburetor
- Ignition
- Fuel Pump
- Fuel
- Fuel Shut-off
- Fuel Cell
- Read End
- Battery/Starters
- Bumpers

SECTION 5

- Tires
- Wheels
- Brakes

SECTION 6

- Exhaust/Muffler

SECTION 7

- Seat
- Safety Belt Requirements

SECTION 8

- Safety
- Other General Requirements
- Fire Control

SECTION 9

- Protest
- Transponders/Raceceivers

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.
- C. Cage must extend 2" above driver's helmet. A halo bar will be required if drivers head sits to high.
- D. Titanium will be allowed
- 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 4 mounting points to securely mount the seat as specified by seat and chassis manufacturer.
- G. Wheelbase minimum of 82". wheel base maximum of 90".
- H. Hollow or drilled bolts, fasteners of heim joints are prohibited. The following frame measurements are minimum dimensions. Only those areas indicated are mandatory and subject to technical inspections. In lieu of the "BUTT" BAR a car's rear end can be tethered to the rear of chassis.
 4130 chromoly steel.
 TOP RAILS 1-1/2" x .095"
 BOTTOM RAILS 1-3/8" x .095" or 1-1/2" x .083"
 ROLL CAGE UPRIGHTS 1-3/8" x .083"
 ROLL CAGE CROSSMEMBER 1-1/2" x .095"
 UPPER RAILS 1-3/8" x .083"
 REAR END SAFETY "BUTT" BAR 1" x .083" or 1-1/4" X .065"
 BRACE 1-1/4" x .065"

BODY/GENERAL APPEARANCE/AERODYNAMIC DEVICES

- A. body /chassis must be well maintained.
- B. Must have at least one number on both sides of the tail tank and on front of 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.
- C. Conventional sprint car hoods allowed. Hood must extend to the front torsion tubes or a similar location on coil over cans. While the hood may be 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 from a wind break except those to cool or protect the engine or braking system.
- D. Sunshields cannot restrict driver vision and are highly recommended.

- E. Right side arm may not exceed 36 inches in height measured from top of the 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.
- F. driver must be able to easily escape the car. Drivers may be asked to demonstrate this capability.
- G. Firewall will be solid and fit between the engine and the driver. Access holes may be drilled for wiring and linkage.
- H. Floor pan must extent from the firewall to the front of the of driver's seat. Constructed of steel or aluminum. No mirrors or electronic communication devices of any kind and no sign boards allowed.
- I. A kill switch is required within easy each of reach of drivers and safety crews. It must be clearly labeled "ON" and OFF".
- J. **No wickerbills allowed on these body panels: right arm guard, left arm guard (if running one) and nose piece.**

SECTION 2

SUSPENSION AND STEERING COMPONENTS

- A. Any conventional torsion bar or coil-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 is mandatory
- F. **NO COCKPIT ADJUSTABLE SUSPENSION DEVICES. NO EXCEPTIONS.**
If you are caught running cockpit adjusters during the night you will be disqualified from that event
- G. Drag links must be tethered to the frame with nylon webbing of at least one (1) inch width.

SECTION 3

WEIGHT

- A. Minimum weight of 1600 pounds on all cars with driver.
- B. All added weight must be in block form or formed to the frame, PAINTED EITHER WHITE, NEON GREEN OR NEON ORANGE AND / OR HOT PINK with car number on it.

All weight must be bolted secure to chassis.

All weight must be located between lower frame tube and upper midtube of chassis

NO WEIGHT BOLTED OR ADDED TO DRIVER SEAT.

- C. Weight CANNOT be added, moved, or replaced during yellow or red flag conditions.
- D. No weight over 25lbs per a weight.

WEIGHT PENALTIES

- A. Any car weighing light after qualifying will lose it's time and will need to add weight and get re-weighed before competing in another event on the nights schedule.
- B. If light after qualifying the driver will be allowed to re-weigh 2 times.
EXAMPLE: If driver is light after qualifying officials will roll the driver forward off the scales and roll back onto the scales. If still light officials will do same procedure. If driver is still light they will not be given a qualifying time and will have to start at the rear of the field in the heat race and can start no better than behind the main event inversion.
- C. YOU WILL NOT BE ALLOWED TO GO TO THE TRAILER AND RETURN TO THE SCALES IF LIGHT TO MAKE WEIGHT FOR YOUR QUALIFYING ATTEMPT.
- D. Any car weighing less than 1600 pounds after the main event will be scored last place and will NOT be given any points for the main but will be given last place money for the main event.

SECTION 4

ENGINE

- A. 360 cubic inch +2 % (367.2 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. E. Dry sump and Wet sump oil systems are allowed.
- F. Engine connecting rods must be 100% steel. There must be an inspection plug in the oil pan. Either a #12AN fitting or a one (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

- A. Steel rods only.

PISTONS

- A. ANY.

CAMS

- A. Any stock or aftermarket flat tappet cam and lifter.
- B. Camshaft button is allowed.
- C. Hydraulic roller cams and lifters
- D. Roller cams are allowed

GEAR DRIVES

- A. Are allowed

CYLINDER HEADS

- A. Must be OEM or aftermarket cast iron heads only
- B. All heads must be stock valve angle for makes.
 - Chevy = 23 degree
 - Ford = 20 degree

- Dodge = 18 degree
- C. No angle milling of heads.
- D. Grinding , porting and polishing of heads are allowed
- E. All casting numbers must remain visible

ROCKER ARMS

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

INTAKE MANIFOLD

- A. Cast Aluminum 4bbl. Intake manifold OK.
- B. External modifications to intake are not allowed.
- C. Ram intakes are NOT allowed.

CARBURETOR

- A. **MUST have three (3) METAL throttle return springs. MANDATORY.**
- B. Holley #4412 or Demon or 9647 Series 500 cfm. 2bbl carburetor.
- C. **1 11/16" throttle bore; shafts and throttle plates must be stock. (no variance as per go no go gauge)**
- D. **Venturi maximum 1.380 (no variance as per go no go gauge)**
- E. Choke tower may be removed.
- F. **Track GO-IN-GO Gauge will monitor carburetor specifications.**
- G. **9 inch maximum height manifold base to carb mounting pad**



IGNITION

- A. All battery-powered ignitions or Magnetos will be allowed.
- B. Cars must clearly have marked ON / OFF ignition switch within reach of the driver and visible to rescue workers.
- C. All magneto or coil spark box must be on same side of dash as the engine/magneto (no boxes or coils in the cockpit)
- D. Traction control of any shape or form is not allowed.

FUEL PUMP

- A. Electric pumps are NOT allowed.

FUEL

Methanol fuel only

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 that are visible.
- B. All fuel lines and filters will be safely mounted to the satisfaction of the officials or race committee. **NO EXCEPTIONS.**

FUEL CELL

- A. **NO BLADDERLESS FUEL CELLS WILL BE PERMITTED.**
- B. A securely mounted fuel cell with bladder is required. Midget or sprint type is OK
- C. Minimum 25 gallon tank . Maximum 40 gallon tank.
- D. 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.
- E. Mounting fuel tank to chassis: must be mounted with a minimum of 4 bolts using factory tank mounts.
- F. F. Tank vent **MUST** have a check valve. Any car leaking or spilling fuel will be black flagged from that event.

RADIATOR

- A. Must be in front of the engine.
- B. Coolant / Antifreeze 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 are OK.
- C. All cars must utilize either a driveline strap or a d driveline hoop restraint constructed of .065 inch steel either welded or bolted to the chassis.
- D. Steel or approved aluminum shield that covers the flywheel is mandatory when bellhousing is inside the cockpit.

REAR END

- A. Any conventional quick change rear end is allowed with a maximum two (2) inch offset.

BATTERY / STARTERS

- A. If running a battery starter, the battery **MUST** be mounted under the 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** 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 one (1) inch 0.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 exceed more than 8".

SECTION 5

TIRES

- A. Hoosier tires only 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:
 - RIGHT REAR: OPEN HOOSIER RULE in 2021 on the RIGHT REAR
 - LEFT REAR: RD12 and / or H tire (Outlaw tire)
 - Racers responsibilities to carry a hard tire
- B. The altering of any tire compound, by any means 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. Must have Bead lock right rear wheel with mud cover.
- E. 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.
- B. Steel, cast iron or titanium rotors only. **Carbon fiber rotors are not allowed.**

SECTION 6

EXHAUST / MUFFLERS

- A. Mufflers are mandatory (**flowmaster 53545-10 or spintech 1545**) are the 2 approved mufflers for the hunt series.
- B. Mufflers to be securely fastened. **MUST HAVE EITHER HOSE CLAMP AND / OR WELDED STUD TO NERF BARS TO BOLT MUFFLER TOO.**
- C. Mufflers and headers must remain attached. All muffler and header components must remain intact and operating.
- D. Track DBA requirements must be met at a **95 DBA @ 100 feet.**
ABSOLUTELY NO EXCEPTION AS THIS NOISE REQUIREMENT WILL BE ENFORCED.

SECTION 7

SEATS

- a) All current aluminum seats must be full containment type construction and must adhere to the general design specifications of SFI 39.2 seat construction standards. Design shall include comprehensive head surround, shoulder and torso support system, energy impact foam, and removable head foam.
- b) Approved carbon fiber seats must have a current valid SFI 39.2 Certification.
- c) Up fitting a current seat with bolt on kits will be permitted with a seat manufacturer produced kit and an acceptable base seat approved by the seat manufacturer. Components must include comprehensive head

surround, shoulder and torso support system, and energy impact foam. It must be installed in accordance to seat manufacturer instructions. Combining components may not meet SFI 39.2 Certification.

d) Seats must be used as supplied and installed following instructions provided by the seat manufacturer.

SAFETY BELT REQUIREMENTS

- a) Each car will be equipped with minimum of an SFI 15.5 or SFI 15.1 approved restraint system, until the date of the belt expiration (two years from the date of manufacture).
- b) Seat belt restraint systems shall be installed and used in accordance with manufacturer's instructions.
- c) In any type of manufacturer's installation the fasteners must be magnetic steel unless using type of mount in which the seat belt wraps around the roll cage. A seven- point harness is recommended)
- d) Seat belt material should not be permitted to come in contact with any sharp or metal edge, including when the material passes through the seat

SECTION 8

SAFETY

- A. All drivers will be required to wear a full-face helmet, with a Minimum safety rating of FIA 8860-2010, Snell SA 2015, Snell SA 2010, Snell SAH 2010 and or SFI 31.1/2005 label at all times on the track or when car is fired.
- B. The driver must wear the helmet in accordance with the directions provided by the helmet manufacture and / or supplier.
- C. Neck collars or HANS device is highly recommended but is NOT mandatory. If a head and neck restraint system is connected it should conform to the manufactures mounting instructions.
- D. Helmet and face shields must be worn at all times while operating a car on the track. No goggles permitted.
- E. Each driver should wear a fire resistant uniform meeting the SFI 3.2A/5 specifications and display a valid SFI 3.2A/5 label.
- F. Each driver MUST also wear fire resistant accessories that effectively cover the remaining parts of the body. Shoes and gloves that also meet the SFI 3.3 specifications and display a valid 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 are recommended.
- H. Nomex - type or equivalent sock, underwear are highly suggested.
Quick release steering wheel is mandatory
Arm restraints are mandatory
- I. Knee pads and steering wheel padding is highly recommended.

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. Rock screens are MANDATORY in 2021 with a minimum .090 inch screens that must be securely fastened.
- C. A marked electrical kill switch in reach of the driver is MANDATORY.
- D. A marked fuel shut off valve in reach of the driver.
- E. Torsion bar restrainers are MANDATORY FOR THE FRONT ARMS AND FRONT STOPS.

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. If seat belts come loose stop at the closest HUNT official to make sure your belts are properly tight before re firing.

FIRE CONTROL

- A. It is mandatory 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

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 (specific in what parts protested) must be filed with the Director of Competition.

- B. \$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 and camshaft. Deposit must be within 10 minutes after being notified. Once the technical inspector receives protest money, protest has begun.
- C. 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 BOTH DRIVERS. OFFICIALS WILL MAKE FINAL DECISION IF DRIVERS CAN NOT AGREE.
- E. Tear downs will be made by the driver, one pit man 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 150 points and will receive \$0 for the night of racing.

AMB TRANSPONDERS

- A. Transponders are mandatory on all cars; must be mounted to the right front down tube between frame rails.
- B. They can be purchased at WWW.AMB-IT.COM
- C. Personal TRANx 260 Direct Powered Transponder. Is by far the most popular with driver and owners. 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. MAKE SURE IT IS FULLY CHARGED BEFORE THE NIGHTS EVENT.
- D. Personal TRANX 260 Rechargeable Transponder, is 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 increased flexibility

in operation. Though the transponder does need recharging after 5 days of operation, it's special charging cradle is designed to prolong the battery life when not in use.

RACECEIVERS

- A. Raceceivers are mandatory with every car in the HUNT SERIES. B. They Can purchased through WWW.RACECEIVER.COM**
- C. FD1600 Fusion Driver Raceceiver.**
- D. If you are out of position, you will be asked twice (2 times,) to get into the correct order, if you do not move back because your Raceceiver is not in your ears you will be black - flagged from that event.**
- E. A HUNT SERIES official will have a white board with running order on the back stretch at EVERY race. It is your job to have your raceceiver plugged in and pay attention to the board under yellow.**
- F. We understand that this system can fail under green flag action due to conflicts with the magneto but as a driver you should pay attention to the board. If you disobey the options we have you will be disqualified for stalling the show and not cooperating with the series Director of Competition.**