### GENERAL, SAFETY AND EVENT RULES

### **DISCLAIMER:**

The rules and/or regulations are designed to provide orderly conduct of racing events, and to establish minimum acceptable requirements for such events. The rules shall govern the condition of all events, and by participating in these events, all participants agree to comply with the rules. These rules 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. Tech officials may disqualify any competitor, at any time, for rule violations, hazardous equipment, or hazardous actions. Vehicles approved for competition by a Tech official is not a guarantee that the inspected vehicle is mechanically sound. Tech officials shall not be liable for any mechanical failures, losses, injuries or death resulting from inspections.

### License:

All drivers competing in an event must have a current sprint car drivers' license. The cost of an annual license is \$100.00. A driver will not be allowed on any race track during an event until a completed license application is turned in. Forms will be given out to new competitors at the pits to be filled out in full.

#### **Age Restriction:**

Drivers must be at least 14 years of age or older to compete in a Wing sprint car during the 2025 race season. Management reserves the right to make exceptions to the age requirement when other factors can be considered. Any driver who is 14 or 15 years old will be monitored until the age of 16 years old. If the series feels that a driver is not ready to compete in the series, we have the right to remove any driver at any time in the racing season. All participants acknowledge that they are fully aware of the risks involved in the sport of racing, and that by participating in such a racing event, they assume all such risks. This acknowledgment extends to all licensed drivers and crew members entering the pit area whether racing or not.

### **Rookies:**

For their first five race night's rookies will start each race from the back of the field. Rookies may need to start in the back for more than their first five races depending on driving performance on the track. Rookies must put on a yellow or orange ribbon on the rear of the chassis on the highest visible chassis bar for the entirety of the rookie season.

## **Transponders:**

A functional transponder is mandatory and must be fastened to the chassis in a safe manner where the transponder can not fall off causing possible injury to other drivers.

### Radios:

The use of functional Raceceiver radios by all drivers in competition is mandatory.

### Weight:

• 1,500 pounds with the driver after the race is over.

#### Safety:

- All drivers must have a head next restraint, NO go kart style neck roll or collar.
- Recommend a Hans style / Simpson Hybrid
- SFI fire proof suit, gloves, shoes.
- 7.15 TETHERS\*\* A. Approved tethers are required. King Pin Tethers are mandatory in all classes. All axle tethers should connect around the axle either by clamp, intermittent rosette welded ring, or tether. Tethers terminating on the shock tower are for emergency use and should not be considered a satisfactory mounting point. Tethers should also be mounted around the front engine motor mount upright, not the radiator upright. Approved front axle tether systems are mandatory. The tether mounting must meet the SFI 55.1 specification which includes two (2) Vectran® HS V-12, or Dynemma 12 tethers attached to the chassis. Tether systems must include a "king pin to king pin" tether that will attach to the axle clamp/band. Tether cables should be installed using the manufacturer's provided fasteners. Tether systems of any type must be pre-approved and installed in accordance with the manufacturer's instructions. No "bolt to bolt" radius rod axle tethers will be allowed. B. All axle tether systems must clamp to or wrap around the axle per the manufacturer's instructions. C. Current approved: a. Butlerbuilt: i. BBP 4922-225 2 ¼" Axle diameter complete kit ii. BBP 4922-238 2 3/8" Axle diameter complete kit iii. BBP 4922-250 2 ½" Axle diameter complete kit iv. BBP 4924 King Pin Tether b. C & R Racing Sprint Car Front Axle King Pin Tether System: i. Radius Rod Tethers part numbers (NOT ALLOWED IN 2020) unless utilizing an axle clamp or other approved axle mounting system.) ii. CRA-102-255/265/27/275/28-A iii. CRA-103-53-A iv. CRA-103-54-A v. CRA-103-55-A c. Amick Associates Radius Rod Axle Tether i. Part number: WC-101M 8mm x 36" Radius Rod Tether (15,000 lbs Nominal Breaking Strength) (v-12 with Red Tracer) The approved tethers may be revised from time-to-time with additional approvals and/or other changes to the approved list. Please check the tether's condition. Tethers do degrade over time. Frayed and otherwise damaged tethers need to be replaced.

## **Tire Regulations:**

- Any Hoosier front tires allowed
- Hoosier Racing Tires on all four corners: Fronts: 85/8.0-15 D12, D15, D20 Left Rears: 15.0/90-15
  \*\* 15.0/94-15, 15.0/95-15, 15.0/96-15, D12A Right Rears: 105/16.0-15 Medium, D15A, New tread design Medium B. No tire prep chemicals or tire softeners allowed.
- RR -Hoosier medium tire,H-15, D-15, D-12, D-15A, D-12A, Medium 1, Racesaver
- LR -Hoosier RC1 SC12-96 or SC-12 on the Left Rear, D-12, D-15, H12 (Racesaver LR must Durometer 35)
- NO Doping ALLOWED. Automatically banned from the series for the year, with 1000\$ fine before returning to the series.

• WHEELS AND WHEEL COVERS\*\* A. Maximum right rear width is 18 inches and maximum left rear width is 15 inches. Aluminum wheels only. B. Wheel covers: it is highly recommended that wheel covers have a minimum of 5 mounting points. However, both 5 and 3 mounting point wheel covers will be allowed for competition under the following conditions: Wheel covers having a minimum of 5 attachment points may continue to use dzus fasteners. Fasteners must be made of steel only. Wheel covers having only 3 attachment points must be bolted-on at all 3 points utilizing a minimum 5/16", flanged steel bolt and an approved fastening (nut assembly) system. (Titanium fasteners are allowed.) Rounded or flat topped Allen/Screwdriver headed bolts with washers are recommended. C. Approved fastening (nut assembly) systems: a. Keyser Manufacturing Part #100 7-101 b. Wehrs Manufacturing Part #(WM377A-312 Aluminum 5/16) (WM377S312 Steel 5/16) c. Triple X Chassis Part #SC-WH-7810(for a 1" spring) / SC-WH-7820(for a 1 3/8" spring) d. Smith Precision Products Part #MC-516-18 e. Speedway Motors Part #910-07119

# Wing rules:

- Dished and non dished wings will be allowed.
- Wing sliders will be allowed.
- No Turn up/ wicker bill allowed, except on flat wings 1" Max

## **Chassis rules:**

- Chassis must be within 15 years old and meet all safety requirements.
- Current woo safety bars are required.
- Driver halo is recommended but not required.
- No asphalt chassis are allowed at this time.

### Suspension rules:

- Single adjustable shocks
- Only steel, aluminum, titanium, or carbon fiber brake rotors allowed. Cars may not race without working breaks

## Miss conduct / behavior / sportsmanship:

- The driver of the team is responsible for any team member that is in there pit area, any team member who is associated with the driver that acts out in a disrespectful manner, the driver will be fined or suspended for the event, or multiple events, and may be served a fine between 100\$ to 1000\$. This rule also goes for the driver if he or she acts out in any way on or off track.
- Social media rules will apply also, any driver or crew we see posting or creating content in a disrespectful manner towards the series will have actions taken against the driver of the team. Fines can be handed out from 100\$ to 1000\$ or be removed from the series at any time.

### Points system: / Draw redraw:

- points are only awarded in the Features
- 1st place 100 points, 2nd 95 points, 3rd 90 points, 4th 89 points, 5th 88 points, each place will go down by 1 point after 3rd place until the last place car of each event.
- No more than 24 cars into the main event.
- points will be awarded to every driver who participates in the nights event,
- If there is a B main, top 2 drivers will advance into the A main.
- Top 3 from each heat will do a draw redraw for starting spots in the A main.
- 10 cars max per heat race.

### **Engine Regulations:**

These engines are legal in this series. All engines are subject to pumping, whistling, and/or tear down by officials at any time.

### Small block chevy

## 1. Block:

- Must be stock appearing. Any American make is permitted. Absolutely no changes allowed. Must use stock firing order for that make and model (GM to GM, Ford to Ford, etc.). Titanium is not allowed.
- Maybe a maximum of 360 cubic inches.
- Must appear strictly stock for that model and make and in the original mounts. Parts for 400 cubic-inch or larger engines are not allowed.
- Approved aftermarket blocks are permitted. Approved aftermarket blocks include DART #31161111 or Brodix #BRS400035842 or GM #12480047 or World Products #084010.
- Lightweight, aluminum and/or fluid dampeners are not allowed
- GM five and seven-tenths (5.7) inch or six (6) inch rods are permitted. Must be stock appearing I-beam non-polished rod. Aluminum or light weight is not allowed. Cap screw rods are permitted
- Mushroom lifters are not allowed (stock diameter only). Must match make and model.

#### 2. Crankshaft:

- Only stock appearing crankshafts are permitted. Lightweight cranks are not allowed. No undercut, bullnose, gun drilled or knife edge crankshafts allowed.
- Stroke must match the block.
- No lightening, counterweight knife edging, or counterweight polishing allowed. Balancing is allowed.
- Crankshaft flange may be machined to fit the rear motor plate and torque ball housing.

## 3. Connecting Rods:

- Any stock steel production connecting rod, Scat OEM replacement I-Beam (must say Scat 5.7), Eagle OEM I-Beam PN SIR5700BBLW, or Eagle OEM I-Beam PN SIR 5700 BPLW is allowed Page 22 of 43
- Chevrolet 5.7" length powdered metal connecting rods are allowed.
- The connecting rod length must match the block.

- No grinding or polishing allowed. Connecting rod balance pads may be machined to balance rotating and reciprocating mass. One big end and one small end balance pad must remain stock.
- No cap screws allowed except on designated Eagle OEM rod. Max 3/8" bolts.

#### 4. Pistons:

- Only flat top or dished pistons are permitted.
- Must be a maximum 9.5:1 compression. Exception: 302-, 305-, 307- and 318-cubic-inch engines may run 10.5:1 compression.

#### 5. Camshaft:

- Roller cams and lifters are not allowed.
- Only lifters of engine make can be used.
- Lifters must rotate freely and be of magnetic material.
- The camshaft must be driven by a timing chain. No belt or gear drives are allowed.
- The camshaft may be drilled for a rear spud.

### 6. Cylinder Heads

- Cast iron stock production or aftermarket steel stock replacement heads are permitted. Porting and/or polishing is not allowed.
- GM cars must utilize 76cc heads (approved head numbers are 336, 339, 388, 441, 454, 487, 624, 813, 882, 991 and 993).
- Aftermarket head numbers are: GM EQ Part #CC167ES2 or #CH350I; Dart Part #10024267 or #10024360; World Products Part #043600 or #042670; Ford World Products Part #53030.
- Chrysler EQ Part #CH138B; RHS/Indy Part #20300 or #20301. Heads may be flat milled to reach the 9.5:1 compression rule. Valve size no larger than 2.02 intake and 1.60 exhaust.
- VORTEC heads are not allowed.
- Porting or polishing of any kind is not allowed.
- Angle milled cylinder heads are not allowed.
- Carbide cutter relief cuts are allowed below the valve seat, but are not to exceed more than ¼ inch below the top of the valve seat. A small deviation in this specification is allowed due to manufacturing variations in the area below the valve seat area.
- Valve springs must be the same diameter of a stock production spring. Tapered or Beehive valve springs are not allowed.
- Roller rocker arms are not allowed (stock-type stamped steel rocker arms or cast steel rocker arms only). Roller tip rocker arms are permitted. Chryslers may utilize OEM steel shaft rockers but may not exceed one hundred twenty (120) pounds of valve spring seat pressure and must maintain OEM valve spring dimensions. Under valve cover pressurized valve train oiling systems are not allowed.
- Stud girdles are not allowed. Screw-in studs, guide plates and poly-locks are permitted.

#### 7. Intake Manifolds:

- Only stock, unaltered two-barrel low rise cast iron intake manifolds or Approved aluminum intakes are permitted. Bowtie, aftermarket, SVO and W2, marine, VORTEC or other special production intake manifolds are not allowed.
- Approved aluminum intakes are GM Edelbrock (#2101 or #2701) or Weiand (#7547 or #7547-1); Ford Edelbrock (#2121 or #2181 or #2665) or Weiand (#7515 or #8023 or #7516); Chrysler Edelbrock (#2176) or Weiand (#7545 or #8022).
- External cooler lines from back of intake to front of intake is permitted.
- Porting, polishing or port machining is not allowed.

## 8. Oiling System:

- Wet sump only. The oil pump must be in the oil pan.
- A minimum one (1) inch plug above the oil level in the side of the oil pan is recommended. If not utilizing a one (1) inch plug, the oil pan may have to be removed at time of inspection.

## 9. Ignition, Starter & Electronics:

- All battery-powered ignitions and magnetos are allowed, except where noted. A magneto is highly recommended. External coils are allowed.
- No MSD type magnetos are allowed.
- Aftermarket crank triggers are not allowed.
- Cars must have a clearly marked ON/OFF switch within reach of the driver and visible to officials.
- No electronic monitoring devices capable of storing or transmitting information are allowed, except for a memory tachometer.
- No electronic traction control devices are allowed.
- All engines are required to use a stock firing order.

#### 10. Exhaust:

- Any sprint car type header is allowed, except where noted.
- One collector per side. Slip or merge type headers are not allowed. Mufflers are optional.
- Race cars may be required to have a muffler if local track rules require mufflers.
- Schoenfeld part number 112535 (11") are mandatory for all tracks that require the use of a muffler.
- No Tri Y headers.

## 11. Carburetor/Injection:

- A minimum of two return springs must be connected to the throttle.
- The throttle pedal must have a toe strap.
- A Holley base 650 or 750 CFM 4 bbl carburetor is the only carburetor allowed.
- Alkydigger assassinator Jr with the 1200 cfm throttle body can be used as well.
- Testing will be conducted for a stack style interjection and intake manifold.

- The carburetor may be modified for use with alcohol, but the main body and main body base must remain stock.
- Aftermarket metering blocks are allowed.
- Aftermarket carburetor main bodies are not allowed.
- The choke tower may be removed.
- A go/no-go gauge will be used to determine carburetor legality.

#### 12. Fuel Pump:

- Mechanical, belt driven, and cam driven fuel pumps are allowed. A cam driven fuel pump is recommended.
- Electric fuel pumps are not allowed.

### 13. Water Pump:

- Any stock style water pump is allowed
- The radiator must be mounted in front of the engine.

## 5.3L LS engine

### 1. Block:

- Factory production iron blocks allowed. Aluminum blocks are allowed but will need 100 Lbs of weight bolted directly to the engine block. Aftermarket blocks are not allowed.
- Only industry standard reconditioning of the factory production iron block is allowed.
- Boring, honing, line honing deck resurfacing, and lifter bore repair is allowed.
- The cylinder bores may be resized a maximum of .040" overstock.
- Absolutely no lightning of any kind. All mounts must remain. Grinding or defacing of any factory numbers or markings of any kind is not allowed.

#### 2. Crankshaft:

- A stock stroke length of 3.622" is the only stroke allowed.
- Balancing rotating assembly is allowed.
- 24 and 58 tooth reluctor wheels are allowed.

# 3. Connecting Rods:

- Connecting rods with a 6.098" center to center length are the only connecting rods allowed.
- Connecting rod bolts may be replaced. Small ends may be bushed and fitted for floating pins. Big ends may be resized to factory specs.
- No deburring or polishing is allowed. Connecting rod balance pads may be machined to balance rotating and reciprocating mass. One big end and one small end balance pad must remain stock.

#### 4. Pistons:

- Any forged, cast, or hypereutectic aluminum piston is allowed.
- Engines must not exceed 11.0:1 compression ratio. No exceptions!

## 5. Cam/Lifters:

- Any LS lifter is allowed.
- The maximum allowable cam lift at the valve is .600.
- The camshaft may be drilled for a rear spud.

### 6. Cylinder Heads:

- Factory aluminum cylinder heads only. The casting number must end in 862 or 706. All other cylinder heads are illegal.
- Only industry standard head reconditioning is allowed. Valves may be replaced, but the replacement valves must have a stock stem diameter, stock length, and a stock head diameter (1.89" intake, 1.55" exhaust). Seats and guides may be replaced.
- Carbide cutter relief cuts are allowed below the valve seat, but are not to exceed more than ¼ inch below the top of the valve seat. A small deviation in this specification is allowed due to manufacturing variations in the area below the valve seat area.
- Angle milling of the head, intake, or exhaust surfaces is not allowed.
- No porting, grinding or polishing of any kind is allowed.
- .660 lift valve spring is the maximum allowed.
- Cylinder heads can be milled down no more than .030 by the authorized machinist (Cheney Performance Inc)

## 7. Intake Manifolds:

- All 5.3 LS engines must use the Edelbrock Victor Jr. part number 29087 intake. It is the ONLY intake allowed. (subject to change due to supply issues)
- No porting, polishing, or grinding of any kind is allowed.

### 8. Oiling System:

- Wet sump only. The oil pump must be in the oil pan.
- A 3/4 inch inspection hole must be installed in the side of the oil pan 2 ½ inches down from the pan rail and in line with a journal. Removal of the oil pan may be required if further inspection is necessary.

## 9. Ignition:

- The MSD #6014 and MSD #60143 ignition controllers are the ONLY controllers allowed.
- Stock or aftermarket coils are allowed.
- Magneto or distributor is allowed.
- No electronic traction control devices are allowed.

#### 10. Exhaust:

- Any sprint car type header is allowed, except where noted.
- One collector per side. Mufflers are optional.
- Race cars may be required to have a muffler if local track rules require mufflers.
- Schoenfeld part number 112535 (11") are mandatory for all tracks that require the use of a muffler.

## 11. Water Pump & Radiator:

- Any stock type or electric water pump is allowed.
- The radiator must be mounted in front of the engine.

## 12. Carburetor/Injection:

- A minimum of two return springs must be connected to the throttle.
- The throttle pedal must have a toe strap.
- A Holley based 650 or 750 CFM 4 bbl carburetor is the only carburetor allowed.

- The carburetor may be modified for use with alcohol, but the main body and main body base must remain stock.
- Aftermarket metering blocks are allowed.
- Aftermarket carburetor main bodies are not allowed.
- Alkydigger assassinator Jr with the 1200 cfm throttle body can be used as well.
- A go/no-go gauge will be used to determine carburetor legality.

#### 13. Fuel:

- Racing alcohol is the only fuel allowed. The use of gasoline is strictly forbidden.
- No nitro or nitrous oxide is allowed.
- No oxygenated fuel additives are allowed. Fuel is subject to inspection at any time.

# 14. Fuel Pump:

- Mechanical, belt driven, and cam driven fuel pumps are allowed. A cam driven fuel pump is recommended.
- Electric fuel pumps are not allowed.

## CT 525

#### KNOXVILLE RACEWAY ENGINE RULES.

- Must be a GM Knoxville ct525 crate engine. Must have a 1 ¼ restrictor plate
- SEALED ENGINE: A. Sealed engine package part #GMP-CT525-KX will be specified as the only engine for use within the Knoxville Raceway PRO Sprint division. B. Only approved vendors may provide this sealed engine package option. C. This sealed engine package utilizes mandated bolt on components. The engine and all mandated bolt-on components must remain in their original configuration and form as purchased and delivered from the approved vendors. D. This engine retains all GM factory installed seals and includes vendor provided performance serial numbered cable seals with QR coded seals to allow tracking on the intake manifold, valve covers, front timing cover and oil pan. E. This sealed engine must remain intact and not tampered with. Any seals that have been removed or tampered with will make the engine non-conforming and not eligible for competition at Knoxville Raceway. The penalty for anyone tampering with seals, modifying any integral components within the seals will be subject to expulsion from participating at Knoxville Raceway as a Driver or Owner for 365 days from the date of expulsion and fined \$1000.00 to be paid prior to returning to competition. The penalty for anyone tampering with or modifying any external components outside the

seals including ignition control box is subject to a two week suspension and fined \$250.00 to be paid prior to returning to competition. F. Carburetor: Spec Holley 80535-2. The only allowed changes are jetting, power valves, and air bleeds. No other modifications are allowed. Carburetor will be subject to Go no-Go gauge checking as part of tech. G. Carburetor Restrictor/Spacer: Each restrictor/spacer is serial numbered to each engine and will also be Go no-Go gauge checking as part of tech.

Contact Karl's performance 855 806 1147

## <u>305</u>

• 305 style engine is allowed.

## Series contact information:

- Logan Brown 641 529 0138
- <u>Jason Gorman 641 229 5416</u>
- <u>Dave Gorman 641 330 4980</u>

All rules are subject to change at end of season and after any testing has been concluded.