

# 305 WINGED SPRINT CARE RULES/2020 RIS AND MSCA

## MUFFLERS AND RECEIVERS ARE MANDATORY

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 EXPRESSED 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 in no way a guarantee against injury or death to a participant, spectator, or official.

The race director shall be empowered to permit reasonable and appropriate deviation from any of these specifications herein or impose any further restrictions that in his/her opinion does not alter the minimum acceptable requirements. NO EXPRESSED OR IMPLIED 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.

The management of Riverside International Speedway.

### **Section 1: General:**

1.1. ASCS car specification rules apply, except specific rules below. (The new for 2019 support bars are recommended but not required)

### **Section 2: Safety:**

2.1 RIS general safety rules apply.

2.2 All drivers new to competing in full size sprint cars will be required to run an identifying bright orange strip on the rear of their car for the entire first season.

### **Section 3: Bodies:**

3.1 Top wings meeting ASCS specifications are mandatory. Front wings are optional and must meet ASCS rules.

3.2 Cockpit adjustable wing slider mechanisms are allowed.

### **Section 4: Wheel/Tires: Hoosier Race Saver Tires are legal.**

- 4.1 Right rear tire must durometer 38 minimum at any time
- 4.2 Maximum right rear wheel width is 18-inches, maximum left rear wheel width is 15 inches.
- 4.3 Hoosier Racing Tires on all 4 corners.
- 4.4 Left front is the only tire you can run flat.

#### **Section 5: Suspension:**

- 5.1 Safety strap must be affixed to drag link.

#### **Section 6: Rear End:**

- 6.1 Gear Rule – Open gear rule. Any gear is acceptable.

#### **Section 7: Fuel System:**

- 7.1 Methanol or Ethanol only. No Nitro or additives allowed.
- 7.2 Fuel subject to be checked any time by track officials. Fuel samples may be taken for analysis and winnings may be withheld until results are known. Penalty for fuel infractions will result in forfeiture of all points and winnings won during event detected.
- 7.3 Fuel cell must be securely mounted with bladder mandatory for all events.
- 7.4 Tanks used for qualifying heats must remain for all events.
- 7.5 ASCS legal injectors or carburetor allowed.
- 7.6 Cam drive fuel pump only.

#### **Section 8: General Engine Rules:**

- 8.1 A Racesaver legal sealed engine will be allowed.
- 8.2 316 max cubic inch limit / 3.48 Stroke Chevy / 3.000 Stroke Ford
- 8.3 No Hybrid Engines. You must follow the Racesaver engine rules or the RIS/MSCA engine rules.
- 8.4 No Hybrid motors. You will not mix the engine packages. Aluminum Heads only go on Racesaver engines. If you run a Racesaver engine will follow their cam rules.
- 8.5 No titanium or ceramics will be permitted.

#### **Section 9: Water Pump:**

- 9.1 Any belt driven water pump.

## **Section 10: Engine Block:**

- 10.1 Any OEM production cast iron 305 Chevrolet or 302 Ford will be allowed.
- 10.2 A Dart 305 Aftermarket iron block (#31151411) will be allowed.
- 10.3 No altering or lightening of the Dart block is allowed.
- 10.4 No repositioning, boring, or bushing of cam or lifter bores. Rebushing / repair of up to 4 lifter bores allowed in the interest of saving the engine block and to keep cost down.
- 10.5 Four bolt main caps (OEM or aftermarket) are allowed.

## **Section 11: Crankshaft:**

11.1 Any OEM production or aftermarket brand is acceptable. Cast iron or steel. Minimum crankshaft weight is 48.00 pounds (1% tolerance = 47.52# absolute minimum). The stroke is limited to 3.480" for Chevy & 3.000" for Ford with a tolerance of +/- 0.010". Balancing is permitted but no "Knifing".

## **Section 12: Connecting Rods:**

12.1 Any steel rod with a maximum length of 5.7" Chevy & 5.090" Ford.

Note: Minimum of a 1" round inspection hole in oil pan is strongly recommended for visual inspection of crank and rods; Location is recommended to be towards the front half of the engine, as high as possible. Otherwise, engine oil pan is subject to removal.

## **Section 13: Pistons:**

- 13.1 Any flat top two or four valve relief piston is allowed.
- 13.2 Max "0" deck height (Piston may not protrude above deck surface)
- 13.3 Any piston rings are allowed.

## **Section 14: Valve Train Specs:**

- 14.1 Timing Sets – Chain only. No belt or gear drives allowed.
- 14.2 Valve springs straight wound only.
- 14.3 Max seat pressure 120 lbs (after the feature)
- 14.4 Spring must have 5 full coils.
- 14.5 Any flat tappet lifter with max diameter of .842 for Chevy and .875 for Ford.
- 14.6 No roller or mushroom style lifters allowed.

14.7 Any 5/16" diameter pushrod allowed.

14.8 Any steel 7 or 10 degree valve spring retainer allowed.

14.9 Stamped steel or roller rockers arms allowed. No shaft systems, rev kits, or valve stabilizers allowed. (Stud Girdles Allowed)

### **Section 15: Oiling System:**

15.1 Wet sump only (No Dry Sump Allowed).

### **Section 16: Camshaft:**

16.1 Flat Tappet only / No Roller Cams. No "Hard Face" Cams.

16.2 Chevy must utilize stock firing order (18436572); Ford must utilize stock firing order (15426378) or 13726548)

### **Section 17: Valves:**

17.1 2.02 intake / 1.60 exhaust max head diameter allowed.

17.2 11/32 valve stem diameter only.

17.3 No titanium valves allowed.

### **Section 18: Cylinder Heads:**

18.1 Any OEM or aftermarket cast iron 23 degree cylinder head with a maximum intake runner of 200cc and a minimum combustion chamber of 64cc Chevy and 58cc Ford.

18.2 Tolerance: applicable to all heads (OEM or Aftermarket) the absolute maximum on any single intake port is 206cc. The absolute minimum combustion chamber volume is 62.5cc for the Chevy and 56.5cc for the Ford.

18.3 No modifications allowed to the port, bowl, or chamber area. No grinding, polishing, welding, acid or caustic work, shot peening, glass beading, coating, or other process that alter the machined surfaces or natural sand casting finish. Heads must ne untouched. Comparisons will be made to known legal heads if questions arise. The only exception allowed to this rule will be when media blasting has been used for cleaning purposes only. This determination will be made by the tech inspector(s). Any questionable parts may be presented to track management for inspection prior to assembly to avoid possible issues later.

### **Section 19: Weight:**

19.1 Cars must weigh 1,500 pounds after race with the driver in the car and no fuel added.

19.2 No bolt-on weight allowed.

**Section 20: Protest / Post Race Inspection:**

20.1 Protest: \$600 for the top half of the engine. \$900 for complete engine.

20.2 Track does NOT pay for labor or materials associated with teardown or inspections.

20.3 The track has the right to look at / tear down any motor (Racesaver or RIS/MSCA) they deem necessary at any time.

20.4 If a Racesaver sealed engine is torn down for any reason (by the track or by protest) the resealing fees are the responsibility of the owner of that Racesaver engine. The track nor the protestor will be responsible for resealing fees.

20.5 Protest must be submitted within 10 minutes of feature completion (drop of the checkered flag) for that class and before the top 5 cars and drivers are released from the scale area. Car protested has the right to counter protest. Only top 5 cars and on the lead lap may protest.

20.6 Can or Can't Rule: Do not try to read between the lines on the rule book. Just because the book doesn't say you can't, don't assume you can. Any modifications not specifically outlined here are at the Tech Departments discretion. All final decisions will be made by the Tech officials. Ask first before you assume something is legal. Any violation of these rules will result in disqualification of the car and points for that night.

20.7 The protest area will be designated by the track officials and secured by track officials prior to tech procedure beginning.

20.8 The portion of the engine being protested will be fully dismantled for inspection. All measurements and inspections will be noted by the Tech and Track official. The inspection does not stop at the first infraction.

20.9 No more than two people from each team (the Protestor and the Protested) will be permitted into the tech area during the entire tech procedure. Team representatives should be designated prior to tech procedure beginning and will not change during procedure.

20.10 If engine is found illegal or driver/owner refuses the inspection, the driver will be disqualified, will lose purse for the night. If a driver/owner refuses the inspection before the car is allowed compete again the car/engine will be inspected (inspection may include an engine teardown).

20.11 Once a protest is submitted and teardown begins it is intended that the protested party will follow through with committed teardown until complete. If at any time after teardown has started the protested party decides to stop inspection whether any infractions have been found or not, the engine will be found illegal, the driver will be disqualified, will lose purse for the night.

20.12 If a protested car is found to be legal after inspection, all protest fees minus filing fee will be released to the protested team. Filing fees are \$100 for top half; \$200 for complete engine.

20.13 If a protested car is found to be illegal, all protest fees will be returned to the protesting team. Driver of car found illegal will pay the filing fee of \$100 for top half or \$200 for complete engine before participating in any event.