2019 Winged Super Sprint Rules

SAFETY

NO car or driver shall be allowed to participate in any on track activity without passing safety inspection. Violation of this will result in immediate suspension and fine. Cars or drivers found to be in violation of any of these safety regulations will be parked.

1. Roll cages are mandatory on all cars and must be constructed of seamless steel tubing with a Minimum O.D. of 1¼" and a minimum wall thickness of .095. This structure must be attached and secured to a strong component of the chassis structure and adequately braced fore and aft to secure it in an upright position. All roll cages must pass technical inspection. Roll bar cage must be a minimum of 2" higher than the driver's helmet. Any bars in proximity of the driver's helmet must be padded with high impact material conforming to SFI Foundation Specification 45.1. securely fastened to the bar. Driveline hoop and bar at bottom rear of seat required.

2. Fuel cells must be securely mounted behind driver and well protected. Bottom of fuel cell must be above frame rail. Fuel cells must by USAC approved type. Sprint car fuel cell must be centered in rear of chassis. Main fuel line must have ¼ turn shutoff valve between tank and pump. Fuels caps must be approved racing type. No plastic fuel lines; must be reinforced pressure hose. Tank must be vented in a manner that it will not leak if upset. Fuel shutoff must be clearly marked as to "ON" and "OFF" positions. It is mandatory that the valve be visibly accessible from outside the car. No plastic or glass fuel filters. No spring type clamps on fuel lines. All electric fuel pumps must use oil pressure activated switch.

3. No refueling on the track. All refueling must be accomplished in the pit area unless otherwise designated. Driver must be out of the car when refueling. Fueling with the driver in the car will result in $100 fine and back-of-pack start. A second offence in the same season will result in the loss of points and monies for the night.

4. All drivers must wear fire resistant head sock, underwear, socks, gloves and uniform able to fit snugly around the neck, wrist and ankles. It is required that the uniform meet ***SFI 3.2/5*** foundation specifications. Footwear must be fire resistant racing apparel. All safety equipment is to be clean and in good repair.

5. All participating drivers must wear safety helmets designed specifically for auto racing that meet or exceed the SA2010 Snell Foundation ratings. Helmets will be subject to inspection at each event by the Technical and/or medical representative. Face shields required. Helmets

must be replaced following any severe contact. ***A head and neck restraint system is mandatory.***

6. Seat Belts - The use of an approved seat belt is mandatory. Both the fastening design and condition of the belt are subject to the inspection of the Technical Committee. Life of the belts in use shall not exceed three (3) years and must be date stamped by the manufacturer. All belts must have a label showing that they meet ***SFI specification 16.1 or 16.5***.
a) Seat belts must be worn as tight as possible.
b) Seat belts must be worn in such a manner that it passes around the pelvic area at a point below the anterior superior iliac spines. Under no condition may it be worn over the area of the intestines and abdomen.
c) Seat belts must come through the seat at the bottom of each side thereby wrapping and holding the pelvic area over the greatest possible area. At any point where the belt passes through the sides of the seat, the seat edges must be rolled and or have grommets to prevent chafing or cutting of the belt material.
d) Five or six-point (crotch) belts connected to main belt quick release mechanism and securely attached to the chassis are mandatory.

e) The use of double over the shoulder straps is mandatory. Both the fastening design and condition of the straps are subject to the inspection of the Technical Committee. Life of the shoulder straps in use shall not exceed three (3) years and must be date stamped by the manufacturer. All straps must have a label showing they meet ***SFI specification 16.1***

f) Shoulder straps must be attached directly to a strong structural member of the chassis close behind the driver's head and neck. At points of attachment they should be four (4) to six (6) inches apart. They should be attached in a line approximately 90 degrees to the seat back and be approximately level with the top of the driver's
shoulders. They should not be more than two inches below the through hole in the seat back.
g) Where the straps pass through the seat or body structure of the car, the edges must be rolled or have grommets to prevent chafing or cutting of the strap material.
h) Shoulder straps must be secured behind the driver's shoulders so that they are prevented from sliding sideways more than one (1) inch in either direction.
i) Two belts joining in a "Y" behind the neck to form one strap may not be used.
j) The shoulder harness should be worn as tight as possible.

7. Knee guards on the car or driver worn knee pads required to protect from impact within cockpit.

8. A full firewall is required between the engine and driver's compartment. It must be fully sealed to protect the driver from water, flame or metal fragments.

9. Hoods are required and must cover radiator, cap and engine compartment. Must be on car when it is on the racetrack during practice and in competition. Cars may be pushed off without hood for fire up only, no hot laps without hood.

10. Belly pans or floorboards must extend from frame rail to frame rail and from firewall to under seat (or as approved by safety official). All oil or grease leaks are always to be cleaned up – including floor. Dirty or greasy driver's compartments or improper seals will lead to car being "parked".

11. All cars must have foot operated hydraulic brakes in good working order.

12. All cars must be equipped with front and rear bumpers. Must extend a minimum of 6" ahead of the front tires and 6" behind the rear tires. Bumpers must not be more than 4" wider than the frame. Drag link must have safety strap attached to chassis member.

13. All cars must be equipped with side nerf bars which must extend to the normal width of the tire. No part shall extend beyond the width of the car. Nerf bars must also extend to the fullest length possible
between the front and rear tires.

14. Ignition shutoff must be of a toggle type and mounted within easy reach of the driver. All switches to be clearly and permanently labelled "ON" and "OFF".

15. Batteries must be securely mounted. Conventional batteries must be retained in case of a crash or rollover. On sealed batteries, the vent hose must be routed to the outside of the car. Batteries must be covered to prevent spillage and have a clearly identified master disconnect switch.

16. All cars must have a radiator catch can. An overflow tube may run into the header system a minimum of 3 feet from the final exhaust outlet.

17. Mandatory that all teams always have a fully operable ABC type fire extinguisher (min. 5# capacity) plus 4 litres of water in their pits – visible. A 5-gallon open bucket of water is recommended.

18. No glass (except instruments) allowed. No rear-view mirrors allowed.

19. Wrap around aluminum or composite full containment seat is mandatory and must be securely mounted and be padded with rigid high impact foam. Seat to be securely fastened with a minimum of three grade 8 or better 3/8 "bolts and fender washers or four grade 8 or better 5/16" bolts and fender washers. Headrest to be securely mounted to roll cage with a minimum of two 5/16 bolts and be approved by tech. Seat back to extend to top of driver's shoulders. (Safety Committee Approved).

20. No car to have pitman arm or drag link inside of roll cage

21. No coolers can be attached to roll cage.

22. No riding on race cars or trailers permitted.

23. Recommended: Fuel cans labeled, and colored RED / water cans labeled and colored BLUE.

24. Use of Raceceiver one-way radio is MANDATORY so officials can communicate with each participant. Any car found to not have a functioning Raceceiver during race events will be parked until they do, NO EXCEPTIONS. Not required for warmup or practice sessions.

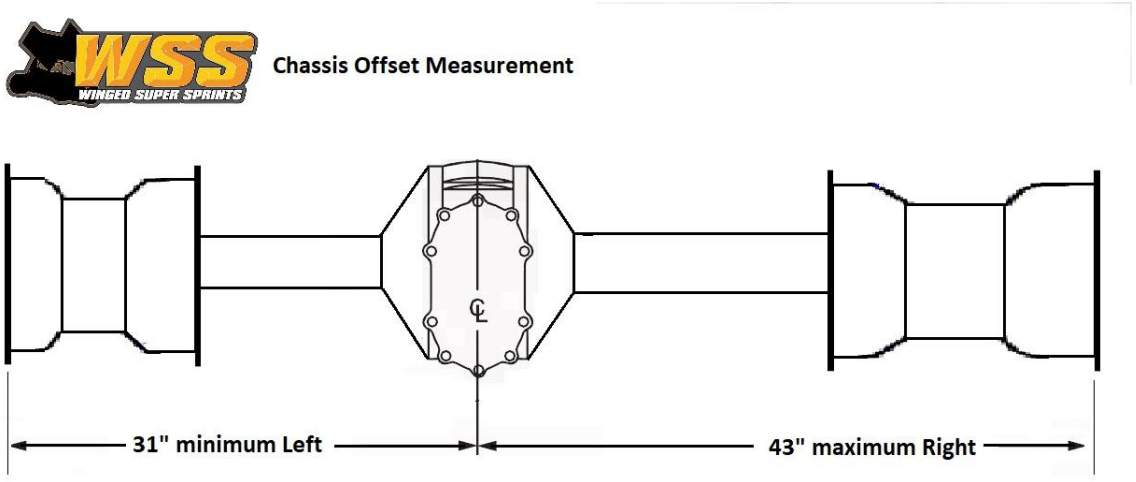
25. Track reserves the right to withhold any car from competition if it does no conform to safety regulations and official inspections.

CHASSIS

1. Must be an open cockpit open wheel sprint car design.

2. Wheelbase will be 85” minimum and 102” maximum.

3. The maximum chassis offset allowed, for both front and rear wheels, is four (4) inches (8inches overall) measured from the centerline of the chassis to the inner wheel bead seat. The right rear outside bead seat (measured to the bead flange) cannot exceed 43 inches from the centerline of the rear axle center section. The outside bead seat (measured to the bead flange) of the left rear wheel cannot be less than 31 inches from the centerline of the rear axle center section. The outside of the right front wheel cannot be more than 43 inches from the centerline of the chassis. Overall width will be limited to a maximum of 78”. Distance measured from outsides of opposite tires on a perpendicular plane. NOTE: 78” maximum includes tire sidewalls.



4. No independent suspension allowed front or rear. Torsion bars / coil overs/ weight jacks and

spring perches allowed.

5. No four-wheel drive, front wheel drive, rear-engine or “Oswego” type offset cars.

6. No *driver* adjustable shocks or corner weight jackers. Hydraulic wing sliders are allowed on top wing. Wings must not extend beyond the track of the car.

7. Cars must have complete body panels and be of professional appearance (Tech approved).

8. Cars must have an under pan under the cockpit area and vertical panels to effectively seal the cockpit area from the engine compartment.

9. No bodywork or airfoils may extend over any portion of the front or rear tires, measured vertically from the rear tires outside edge in a straight line forward. Bodies must not exceed more than 2” outside frame rails and floor must extend to it. Bodies must be sprint car or super modified type and be securely fastened. Bodies may extend a maximum of 36” forward of the front axle centerline.

10. Minimum weight: 1625 pounds (including driver). Cars may be weighed at any time during race meet. Any cars can be weighed after Main Event (No Fuel added).

11. Engine to be mounted upright in chassis and be located within the frame rails.

12. All weight ballast to be painted white and indicate car #. Must be securely bolted between the frame rails (Tech approved).

13. Driveshaft and torque arm: All revolving parts inside the cockpit must be shielded by a suitable guard (fully enclosed – Tech approved). Buckley joint must be shielded in such a manner to protect the driver from errant parts and fluids.

REMINDER: IF IT’S NOT IDENTIFIED IN THE RULES, IT MAY BE CLASSED AS ILLEGAL.

BRAKES

1. All cars must be equipped with a hydraulic foot operated braking system capable of stopping the race car in a safe manner.

2. If at any time during competition it becomes evident that a car is without brakes, the necessary repairs must be completed before the car can continue.

3. Master cylinders not fixed to the frame must have flexible lines. Copper tubing is not allowed anywhere in the braking system.

ENGINES

The intent is to allow every engine combination to compete with the use of intake restrictors to maintain power equality.

Any one of the following engine configurations is permitted:

A) Open 360 (NSRA)* less than 21deg heads use *1.500" restrictors, weight 1625lbs*

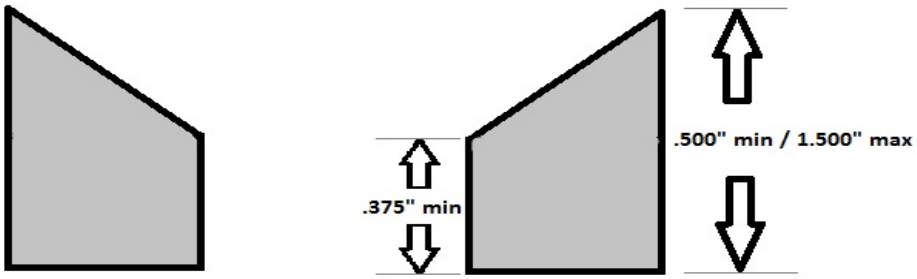
B) Open 360 (NSRA)* with 21-23 deg heads or ASCS* 360 use *1.625" restrictors, weight 1625lbs*

- Based current *NSRA* rule book plus *required restrictors**
- As per current *ASCS* rule book plus *required restrictors**

C) Iron 360 with flat tappet or roller cam, max net lift .620" at valve. Unrestricted injection*, weight 1625lbs*

Restrictor inside diameter shall be no larger than as stated above for your engine configuration. Must be round and centered in the stacks, I.D. stated above must be continuous for a minimum of .375". Minimum overall thickness is .500", maximum overall thickness is 1.500". No alterations to bypass restrictor, outside circumference of restrictor must be sealed against inside of stack.

RESTRICTOR EXAMPLE



**track reserves the right to adjust restrictor sizes on a race to race basis to maintain equality between all engine combinations.*

Configuration A&B - Open 360 or ASCS 360

OPEN 360 (BASED ON 2019 NSRA) ENGINE SPECIFICATIONS

CID

Maximum cubic inch displacement is 360.0 ±1%. Must be piston driven, cam in block, production-based engine. No super chargers, turbos or nitrous oxide allowed.

Blocks

Must be American or Canadian Made. No big blocks allowed. Aluminum blocks are allowed provided the car meets the minimum weight rule.

Rods

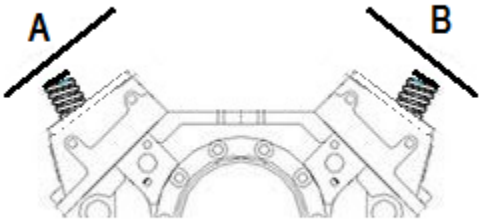
No titanium rods or crankshaft allowed. A method of inspecting rods and crankshaft is required. It is recommended that an inspection plug be put in the oil pan consisting of a one-inch pipe plug.

Injectors – *Restrictors MUST be run as follows*

A) Less than 21deg valve angle heads use *1.500" restrictors, weight 1625lbs*

B) 21-23 deg valve angle heads or ASCS 360 use *1.625" restrictors, weight 1625lbs*

Measuring Valve Angle



90deg - (A+B) ÷ 2 = valve angle

A+B	*Valve Angle*	*Req'd Restrictor*
44	***23***	***1.625***
46	***22***	***1.625***
48	***21***	***1.625***
50	***20***	***1.5***
52	***19***	***1.5***
54	***18***	***1.5***
56	***17***	***1.5***
58	***16***	***1.5***
60	***15***	***1.5***
62	***14***	***1.5***
64	***13***	***1.5***
66	***12***	***1.5***

Down Nozzles
Injection nozzles in heads are permitted. A maximum of sixteen (16) injection nozzles are allowed.

Heads
No #12 heads

GM
All General Motor heads must have 23° ±2°-valve angles. See above for restrictor requirements on injection.

Ford and Mopar
All Ford and Mopar heads must be stock per factory production +1 - 2°. See above for restrictor requirements on injection.

NOTE: The valve angle and injection size may be checked at any time.

Compliance
Engines may be pumped for size and cars may be weighed for compliance at any time at the discretion of the Race Director.

Configuration C – Iron on Iron 360

1. No titanium allowed. No use of ceramic or composite internal engine components allowed

2. Engine must be naturally aspirated

3. Any GM, Ford, or Dodge cast iron block. After market blocks allowed but all internal specifications of cylinder block must match OEM configuration. i.e. Chev – Chev, Ford – Ford. Steel caps and splayed caps allowed. 1" inspection plug required in oil pan or be prepared to pull pan when requested. Cubic in max 360 plus 1%.

4. Any steel rod allowed.

5. Any standard configuration cast iron cylinder head allowed (No raised runner heads). Porting is OK. No aluminum heads allowed. Screw in studs and guide plates permitted. Valve angle must remain stock, no rollover means just that, and would include angle milling of cylinder heads, which is not permitted. Any roller rocker OK

6. Any stack style mechanical fuel injection is permitted with no restrictors.

**track reserves the right to adjust restrictor sizes on a race to race basis to maintain equality between all engine combinations.*

Maximum 8 nozzles and must be in intake manifold, no down nozzles, nozzles must be mounted on intake portion of manifold only. No timed or electronic fuel injection allowed.

7. Any carburetor combination permitted with no restriction.

8. Unaltered Felpro gaskets required. (Chev #1206/1266, Ford #1262, Dodge #1213) or smaller as approved by tech.

9. Any flat tappet or roller cam, net lift at valve not to exceed .620".

10. Cast or forged steel crankshaft permitted (balancing allowed).

11. Magneto ignition only. No electronic traction control devices permitted. No driver adjustable ignition, except kill switch.

EXHAUST

1. Mufflers required to meet 95 DBA at 100 feet. Must meet local track requirements as directed.

FUEL

1. Alcohol or methanol only. No performance enhancing additives allowed.

RADIOS

1. Raceceiver radios are mandatory (also a safety requirement). No transmitting devices in car, track approved radios/transponders only. No electronic monitoring computer devices capable of storing or transmitting information allowed (except tachometer).

STEERING

1. Steering mechanism must be engineered and assembled in accordance with sound engineering principles.

2. Recommended that all highly stressed steering components must be made from SAE 4130 steel or an alloy, specific by the manufacturer of the component as equivalent in necessary strength for its intended use.

3. Rack and pinion steering permitted.

4. Steering wheel to be a metal "quick release" design.

THROTTLE

1. Throttle toe straps and a return spring are mandatory. A minimum of 3 return springs must be connected to different locations on the throttle system. One spring must be on the butterfly

shaft.

2. If the throttle actuating mechanism is the cable type, the cables must be encased to ensure push-pull action.

3. The throttle pedal must have a wide-open stop.

TIRES

1. Tires for 2019 are Hoosier 2045 (right rear); Hoosier 2030 (right front); Hoosier M20 or M30 (left rear); and Hoosier M10 (left front).

2. For 2019, both WSS one day events will allow 4 new tires per event.

3. The tires used in qualifying must be used in all races for the balance of the night. Alternate RR may be used for trophy dash only.

4. If a tire becomes punctured or cut an official must be notified to come and inspect the tire before it is removed from the car and if deemed to be unsafe by tech A **used** tire that has a **brand** may be used in its place only after an official has approved the tire

5. If a used tire is placed on a car the driver will hold his qualifying position and receive all points and finishing position

6. If a used tire is placed on a car to replace a damaged tire a new tire can be put on a car for the next race event

7. If a used branded tire cannot be acquired to replace a damaged tire a new tire will be allowed to be used in its place **ONLY** after a tech official gives the car permission and not before then

8. If you choose to use a new tire you will be required to start at the back of the pack. Further penalties may be assessed.

9. If a team is caught attempting to circumvent these tire rules ALL MONIES AND POINTS earned on that race night to be forfeited.

10. Tire pressure relief or bleeder valves of any kind are not permitted.

WHEELS

1. Steel, aluminum (alloy) allowed. Bead locks permitted.

2. Wheel weights must be stick on only and be securely attached.

3. Recommended: Any car using a lug nut type right front hub must use all six lug nuts. A 360-

degree pressure plate of either 1/8” steel or 3/16” aluminum must be used, between the lug nuts and the wheel face.

4. Tire pressure relief or bleeder valves of any kind are not permitted.

WINGS

1. Maximum top wing area 25 square feet.

2. Maximum nose wing area 6 square feet.

3. Top wings cannot extend outside of the rear tire/wheel assemblies.

4. Top wing sideboard height will be a maximum of 30” vertical height and a maximum of 72” length.

5. No wing lip (wicker bill) to exceed 1” in height.

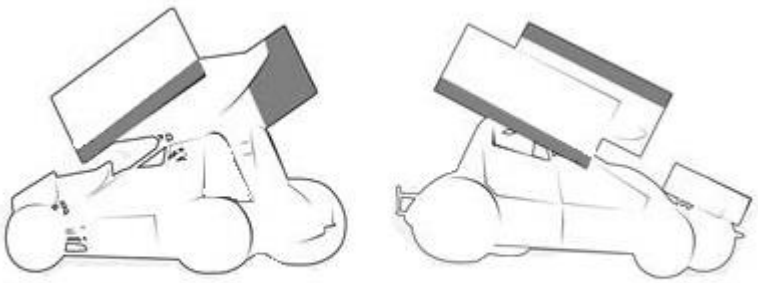
6. All wing assemblies must be securely attached to the chassis of the car.

7. Single stage wings only

8. Drive adjustable hydraulic wing sliders are approved.

9. Top wing numbers on sideboards are mandatory and must measure 16” high minimum. The numbers must be of a contrasting color and be highly visible.

10. Contingency decals. Officials will designate areas on wings for sponsor logo/advertising signage to be displayed. Contingency awards may be withheld if signage not displayed.



Shaded areas of top wing side boards to be reserved for WSS contingency decal placement.

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