

SECTION 7 - NSX360 Winged Sprintcars

7.1 ENGINE SPECIFICATIONS



7.1.1 602 GM or MS or other approved seal must be in place on the cylinder heads to receive the 50 lbs weight break for competition.

7.1.2 604 GM or MS or other approved seal must be in place on the cylinder heads and intake manifold to be eligible for use.

7.1.3 Any engine block used will be American or Canadian Chevrolet OEM cast iron.

7.1.4 Maximum 360 cubic inches as pumped or measured.

7.1.5 Crankshaft will be a stock steel 350 Chevy crank or an unaltered Scat std. crank part # 4-350-3480-5700(R) short #435010.

7.1.6 Cylinder heads will be OEM GM cast iron. Straight plug only 2.02 intake and 1.6 exhaust valves maximum. Minimum 64cc combustion chamber. Angle milling, porting and or polishing is not approved. Approved non OEM cast Iron part numbers (Dart #10024266, Dart #126122)

7.1.7 Retain flat or dish top pistons only, and use only Stud mount rocker arms, no pedestal or shaft mount. Includes no titanium engine parts, Exception: valve spring retainers.

7.1.8 Any single alcohol carburetor may be used. If fuel injection is used it will be mechanical, of individual stack per cylinder design with a single round butterfly. Restrictor openings shall be a maximum of 1 ½ "I.D. round and centered in the stacks. Restriction shall be no less than 1" of total restriction. Down nozzles not permitted.

7.1.9 Mechanical fuel pumps are mandatory, electric fuel pumps not approved.

7.1.10 Wet sump or dry sump oiling systems are approved. Dry sump oil pans will include a minimum 1" inspection hole, #12AN fitting or a 1-inch pipe plug

7.1.11 HEI or magneto ignition approved, MSD or MSD type box magneto not approved. All cars must be equipped with an ignition switch located within easy reach of the driver and clearly marked "on" and "off".

7.2 FUEL AND FUEL SYSTEMS

7.2.1 Only Methanol, E85 or racing gasoline approved.

7.2.2 All cars must be equipped with 1/4 turn fuel shutoff in driver's compartment within easy reach, fuel shutoff must be clearly marked as to "on" and "off" positions. It is recommended that the valve be accessible from the outside of the car.

7.2.3 The manufacturer for their intended use must approve fuel cells and/or bladders. They must be enclosed in a container constructed of steel, aluminum, or fiberglass of a minimum .063 thickness, or other approved sprint car tail tank.

7.2.4 Fuel cell vent must have a check valve.

7.2.5 Throttle toe straps are mandatory. In addition, a minimum of three (3) return springs must be connected to different locations on the throttle system. One spring must be on the butterfly shaft. If the throttle mechanism is the cable type, the cables must be encased to insure push-pull action. The throttle pedal must have a wide-open pedal stop.

7.3 CAR CONSTRUCTION

7.3.1 Wheel Base & Overall Length Width -The wheelbase must be at least 84 inches and no more than 90 inches. The overall length will be limited to a maximum of 14 feet. The overall width will be limited to a maximum width of 78 inches from the outside left front or rear tire to the

outside of right front or rear tire. The tread must be at least 47 inches center to center.

7.3.2 Weight -All cars must meet minimum weight **1675 lbs** post race with the driver. Any car that meets the 602 provision in the motor section will weigh **1625 lbs** post race with the driver.

7.3.3 Ballast - used must be securely bolted within the confines of the frame tubes no farther than 16" forward of the front engine mount and no further rearward than the back of the seat. All ballast must be painted white and clearly marked with the car number.

7.3.4 Off-Set

7.3.4.1 The maximum chassis offset allowed, for both front and rear wheels is four (4) inches (8 inches overall) measured to the inner wheel bead seat.

7.3.4.2 The outside of the right rear wheel at the outside bead seat of the wheel cannot exceed 43 inches from the centerline of the rear axle center section.

7.3.4.3 The outside of the left rear wheel at the outside bead seat of the wheel cannot be less than 31 inches from the centerline of the rear axle center section

7.3.4.4 The outside of the right front wheel cannot be more than 43 inches from the centerline of the chassis.

7.3.5 Four-Wheel drive - No four-wheel drive cars will be allowed.

7.3.6 Weight Jackers - Driver-adjustable suspension and/or weight jackers will not be allowed inside or outside of the cockpit.

7.3.7 Nose Assembly - The front part of the body, known as the nose assembly, shall not be wider than the parallel lines of the body, may not exceed the width of the frame of the car and must have a minimum of 58 square inches of forward facing opening. The nose assembly may not extend forward beyond the confines of the front bumper.

7.3.8 Cockpit Opening - The cockpit opening must be at least five hundred (500) square inches, located directly behind the engine compartment and measured on a plane parallel to the ground and level with the uppermost part of the body or windscreen.

7.3.9 Air Deflectors - Any air deflector that is used to direct air for cooling shall be completely inside the confines of the nose and the solid sides of the nose shall cover this deflector. This deflector will not be moveable.

7.3.10 Oil Tanks –

7.3.10.1 Oil tanks, water radiators, oil coolers and any remote engine accessories or forward facing scoops must be within the confines of the mainframe tubes. Oil tanks mounted forward of the firewall must be behind the front axle and forward of the front engine mounting plate.

7.3.10.2 Oil tanks mounted behind the engine plate/firewall may be mounted outside the main frame providing they do not protrude more than eight (8) inches from the mainframe tubes.

7.3.10.3 For the purpose of this rule the frame tube will be considered a straight line between the front and rear attachment point. Cylindrical oil tanks mounted outside the frame, behind the engine plate/firewall, must be mounted as close to the frame as practical.

7.3.11 Radiators - No water radiators or oil coolers are to be placed above or besides the cockpit opening.

7.3.12 Chassis Centerline - The engine driveline and rear axle center section must be mounted on the chassis centerline. The engine must be mounted in a vertical position. A maximum of one degree from vertical and 1 /2-inch offset from center will be allowed. The driver shall be seated directly behind the engine and on the centerline of the chassis. The tail tank and the car's bodywork must be on the centerline of the chassis.

7.3.13 Cockpit - A suitable guard must shield all revolving parts inside the cockpit. Open drive shafts must have adequate restraining loops fore and aft. These restraints should be a minimum of one (1) inch tubing or equivalent materials. The U-joints must have shields of a minimum 1/8-inch steel or aluminum.

7.3.14 Torque-Arms - Torque arms located within the driver's compartment must be restrained

with safety loops of adequate strength.

7.3.15 Torsion Bars - Chassis using front torsion bars May not have the bar tubes below the horizontal centerline of the front spindles.

7.3.16 Engine Cowling - The engine must be covered with a cowling or hood secured in place. The hood or cowling need not enclose the sides of the engine.

7.3.16.1 Floorboards/Under pan - All cars must have a floorboard or under-pan, utilizing aluminum or equivalent alloy, under the cockpit area. The under-pan should extend from the engine plate to a point six (6) inches past the leading edge of the seat.

7.3.16.2 Under-Pan Specifications - Under-pans may not extend rearward past the leading edge of the rear axle. Under-pans or floorboards must be bolted to the chassis in the cockpit area. The under-pan or car bottom must be flat from side to side without any aerodynamic aids. Horizontal panels must not extend below the plane of the under-pan. It is recommended that under-pans be constructed of aluminum or equivalent alloy, extending from the front of the engine to the rear engine plate. It is recommended that a fireproof absorbent pad be used under the engine.

7.4 CAR BODY DESIGN –

7.4.1 Body panels rigidly attached to the frame to prevent chassis flex will not be permitted. All body panels must be readily removable. Right side cockpit panels may be a maximum of thirty-six (36) inches high as measured from the top of the bottom mainframe tubes at the engine plate and projected rearward. Any hood or cowl panels higher than thirty-six (36) inches from the top of the bottom main frame tube may not extend rearward past a point twenty-eight (28) inches forward of the rear vertical (or more forward) roll cage tube. Side panes cannot extend rearward past the rear diagonal roll cage tube or brace, single panel sail panels between the rear cage upright and brace are allowed.

7.4.2 Spill Plates - Vertical spill plates may be used on the outer edges of the hood and can be a maximum of 2 1/2 inches in height. The outside dimensions of these spill plates cannot be wider than 24 inches at the front and 30 inches at the rear of the hood. Sun visors are limited to seven inches from the top to bottom including any tabs, extensions, etc. and cannot be wider than the cage. Sun visors cannot extend above the cage.

7.4.3 Roll Cage - All cars must have a roll cage, which is integral with the frame and does not encroach upon an imaginary cylinder, 20 inches in diameter, extending through the top cockpit opening. The roll cage must be adequately braced fore and aft, and side to side, to secure it in an upright position in case of rollover. The roll cage should extend four inches above the driver's helmet when he/she is seated in the driving position. All roll cages must be constructed of SAE 4130 seamless tubing with a minimum O.D. 1 3/8" and minimum wall thickness of .095. The roll cage must be gusseted in all four corners. For all new construction, gussets must be tubular and attached a minimum of 2 inches from the centerline of the angle being gusseted. Material must be a minimum of 1 1/16" O.D. x .095 wall thickness or 7/8" O.D. x .065 wall thickness.

7.4.4 Nerf-Bars - All cars must be equipped with rear wheel nerf-bars. The right rear nerf-bar cannot extend beyond the outside edge of the tire. Nerf bars must be constructed from SAE 4130 alloy tubing or equivalent having an O.D. of one (1) inch, a minimum wall thickness of .065 inch and a maximum wall thickness of .120 inch. A maximum of three horizontal and/or three vertical tubes are allowed in the construction of nerf-bars. No ballast is allowed in the nerf-bar tubing. With the exception of the exhaust system, no components or accessories may be attached to the nerf bar assembly.

7.4.5 Rear Bumper - All cars must have an adequate rear bumper for push starting.

7.4.6 Front Bumper - All cars must be equipped with a front bumper. No part of the car may extend beyond the front bumper. Front bumper may be no more than 28" from the front of front axle.

7.5 STEERING

- 7.5.1 **Engineering** - The steering mechanism must be engineered and assembled in accordance with sound engineering principles.
- 7.5.2 **Design** - All highly stressed steering parts must be made from SAE 4130 steel or an alloy, specified by the manufacturer of the part as equivalent in necessary strength for its intended use.
- 7.5.3 **Steering Wheel** - The steering wheel hub must be padded with a resilient material or not less than three-fourths (3/4) inch thickness. Removable steering wheels incorporating a quick release mechanism are mandatory. Pip pin type mechanisms are not allowed.
- 7.5.4 **Steering Link Strap** - The use of an approved steering link strap is recommended.

7.6 SUSPENSION

- 7.6.1 **Sway bars** - Sway bars approved.
- 7.6.2 **Shocks** - Any non adjustable shock approved for 3 corners, 1 corner may be adjustable, cockpit adjustability is not approved.
- 7.6.3 **Axels General** - Independent suspension is not permitted. The car's axles connecting the wheels must be of one-piece tubular construction without the capability of camber adjustment to the wheel assembly. Any other construction will be considered as independent suspension. The rear end gear assembly must be of conventional design with only one set of spur gears located behind the ring and pinion.
- 7.6.4 **Spools** - Front axle spools or kingpin boss shall be attached by the coping method, must have the axle wrap around the spool at least two thirds of the spool diameter. Gusset plates are recommended on all spools.
- 7.6.5 **Front Axle** - All front axles must be constructed of SAE 4130 steel or a steel alloy equivalent in structural strength. Titanium front axles are not permitted.
- 7.6.6 **Spindles and Hubs** - Steel front spindles and hubs are recommended. Steel or one (1) inch aluminum torsion bar arms and stops are recommended for the right front suspension. 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-inch steel or 3/16-inch aluminum must be used between the lug nuts and the wheel face.

7.7 BRAKES

- 7.7.1 **General** - All cars must be equipped with a foot operable braking device to stop all wheels.
- 7.7.2 **Master Cylinder and Brake Lines** - Master cylinders not fixed to the frame must have flexible lines. Copper tubing is not allowed anywhere in the braking system.

7.8 WING

- 7.8.1 **Total Area** - Maximum Top Wing Area 3600 sq. in., Maximum Front Wing Area 864 sq. in.
- 7.8.2 **Dimensions** - All top wings will meet the following specifications:
 - 7.8.2.1 Maximum length or width of 72" and cannot extend outside of the rear tire/wheel assemblies.
 - 7.8.2.2 Top wing sideboard height will be a maximum of 30".
 - 7.8.2.3 Flat top style wing may use a 1" wicker bill. Any dish wings will be no more than 2.5" of dish and will not have wicker bill approved.
 - 7.8.2.4 Multi stage wings not approved.
- 7.8.3 **Obstruction of View** - Sitting in the car's seat, the driver must have a minimum 135-degree of unobstructed vision on each side for a total 270 degrees. This rule pertains to all wing (airfoils) attached to bodywork and free standing.
- 7.8.4 **Rear wing** - Airfoils mounted to suspension components will not be permitted. The top wing may not extend more than 36" beyond the centerline of the rear axle.

7.8.5 Wing Sliders – in cockpit adjustable wing sliders not approved.

7.8.6 Front Wing

7.8.6.1 Top area may not be larger than six square feet.

7.8.6.2 Width may be not wider than 36”.

7.8.6.3 Shall not extend beyond the front bumper.

7.9 EXHAUST SYSTEM

7.9.1 General - The angle of exhaust shall be parallel with the ground and must deflect the exhaust and heat so that it will be diverted from cars and drivers following.

7.9.2 Muffler - A muffling device will be required. All cars must meet local speedway DBA requirements. Sprintcars must install spec legal mufflers as listed below to be in compliance with the "minimum specifications" and to be legal to enter and compete in any event at Meridian Speedway or Magic Valley Speedway. Schoenfeld #14272535 (-89 is not considered a compliant muffler) any non approved muffler may be disallowed at any time. Your Muffler(s) must be un-altered and in otherwise in stock condition. This muffler is an item in stock at Meridian Speedway if you have issues locating it.

7.10 RADIOS - Two-way radios are not allowed. One way race official communication is mandatory.

7.11 TIRE AND WHEEL SPECIFICATIONS

7.11.1 Wheels - Maximum of four aluminum or steel Sprintcar industry standard wheels.

7.11.2 Bleeders are not approved for use.

7.11.3 Tires – No altering or soaking of tires approved. Siping, grooving allowed. May be stamped or marked by tech, all tires must be used in two consecutive event nights (QHM).

7.11.4 Tires will be Hoosier Racing Tire.

7.11.4.1 FRONTS - LF-11.0/24.0-15 2010 or (m10) - RF-11.0/24.0-15 2030

7.11.4.2 REARS - LR-26.0/13.0-15 M-20 or (m30) - RR-17.0/28.0-15 M-30 or (2045 or M450)

7.11.5 All tires stay with the car and number and the owner.

3.18 PURSE PAY OFF

Minimum

Pay Structure is locked for 7 of the pre scheduled events.

One event will have an increased value, the minimum for the 7 A-Feature events will be;

1st- \$1800 2nd- \$1000 3rd- \$850 4th- \$750 5th - \$650 6th - \$550

7th - thru 20th \$400 (= \$11,200 total purse) = x7 events = \$78,400

Special Event

Pay Structure for the special event.

One event will have an increased value, the minimum for A-Feature event will be;

1st- \$2000 2nd- \$1000 3rd- \$850 4th- \$750

5th - thru 8th \$600

9th - thru 15th \$525

16th - thru 20th \$475 (= \$13,100 total purse) + \$78,400 = \$91,500

Year End Owners Points Fund (eligible to those owners that have completed 50% of events)

Paid on year-end Owner Points to the registered owners number. Duplicate #'s will not be approved.

1st- \$2000 2nd- 1500 3rd- \$1200 4th- \$1000 5th - \$800

6th - thru 10th \$400 (= \$8500) + \$91,400 = \$100,000