
2017 National Racing Alliance Rules and Procedures

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National Racing Alliance Sprint Invades
is hereafter referred to as NRA.

GENERAL INFORMATION

1. This booklet contains the official rules and car specifications for all sanctioned events of the National Racing Alliance Sprint Invaders. Any point not covered herein shall be resolved by NRA or their appointed representative.
2. All cars **MUST** display the official decals of major NRA sponsors, or any other designated sponsors to be eligible for contingency and point fund. Drivers must be a member in good standing of NRA in order to qualify for point fund money. Cars must display decals on outside of both of the side panels of wings. Decals shall be provided free of charge by NRA.
3. There will be special event shows during the year that do not follow these formats. You will be informed of specific procedures. All racing programs are subject to change. Any such changes will be covered at the drivers meeting.
4. NRA points shall be awarded to drivers in accordance with the following schedule:
 - NRA event cancellation policy: All full-time members in attendance (on site) with a purchased pit pass and their car, verified by NRA officials, at the time official pill draw **is closed**, will receive 50 appearance points.
 - 15 points will be awarded to all drivers that take a competitive green flag but fail to qualify for "A" feature: **OR**
 - 10 points will be awarded to all drivers that make an effort to compete but fail to take a competitive green flag in heat or feature action.

HEAT RACE POINTS	QUALIFYING
1. 6	QT. 5
2. 4	
3. 2	ALL MAIN FEATURE
4. 1	NON TRANSFERS
5. 0	1. 15

A FEATURE POINTS		
1. 68	9. 46	17. 30
2. 63	10. 44	18. 28
3. 59	11. 42	19. 26
4. 56	12. 40	20. 24
5. 54	13. 38	
6. 52	14. 36	
7. 50	15. 34	
8. 48	16. 32	

1. General

- 1.1.** Raceceiver one-way radios are mandatory at all NRA events. No two-way radios allowed.
- 1.2.** Transponders are required at all times.
A limited number of transponders will be available for rent on a nightly basis.
- 1.3.** Previous racing experience is required for drivers under 16 years of age. Drivers under 16 years of age must seek approval from NRA prior to competing. Drivers under 18 years of age must have a notarized parental consent form signed by parents or legal guardians.
- 1.4.** No earning will be issued until required W-9 tax forms are completed and returned to NRA. Drivers are considered an independent contractor and as such are responsible for all charges and taxes on any funds received from NRA.
- 1.5.** All cars are subject to inspection at any time. NRA reserves the right to refuse entry to any car or driver.
- 1.6.** No alcoholic beverages will be consumed by drivers or their pit crew at any time prior to or during an events. Use, sale or distribution of illegal drugs at anytime shall be cause for immediate suspension. Participation by team member in either activity will result in disqualification with all points and earnings being forfeited to the year end points fund.
- 1.7.** The driver is the sole spokesperson for the race team and is responsible for their actions. Any drivers or crewmembers fighting will result in disqualification for that team and all points and moneys for that evening will be forfeited. Striking an official will result in disqualification for the evening, loss of membership, forfeiture of all points and moneys for that evening, and up to a one-year suspension.
- 1.8.** Verbal abuse or inappropriate behavior will not be tolerated. No warning will be given. If violated, the team may be disqualified with all points and/or money forfeited for that night. Other penalties may be applied depending on specific situation.
- 1.9.** Race teams will collect earnings within 20 minutes of the completion of the A-main unless prior arrangements are made. Failure to collect the night of the race will forfeit all earnings to the year end points fund.

2. Safety Equipment

- 2.1. Flame retardant driver suit, gloves, socks, underwear (unless 3 layer suit is utilized), and shoes are required. A head and neck support or restraint system is mandatory. Approved racing, full-face helmet is mandatory. Snell SA 2010 or Snell SA 2015 sticker mandatory. Driver must wear helmet, driver suit, competition lap belts, shoulder harness, anti-sub strap and arm restraints, anytime car is started. Safety belts and arm restraints must be no more than **three** years old and contain unaltered SFI safety labels. Quick release steering wheel and right side cage net or headrest must be used. A five-pound fire extinguisher is mandatory in each pit.
- 2.2. Protective debris screen must be installed in front of driver, with no larger than 4" square (2"x2") opening.

3. Race Format

- 3.1. Qualifying/hot lap lineup will be determined by pill draw. The top 4 qualifiers in each heat race will be inverted with the fast qualifier starting 4th.
- 3.2. Any cars that fail to qualify shall be placed at the rear of a heat race, in order of pill draw.
- 3.3. Any car that does not score a timed lap in their qualifying group will be allowed to requalify after all other groups have posted times. Any car who must requalify may not qualify any better than the 1st car outside the invert. Car may only attempt to requalify 1 time.
- 3.4. **Feature Line Up**
 - 3.4.1. Number of redraw cars from each heat race will be determined at each event. Redraw cars will **draw** for feature starting position from qualifying order.
 - 3.4.2. Some events, redraw cars will draw for Dash starting position. Dash will be announced at the drivers meeting.
 - 3.4.3. Other feature qualifiers will line up by heat race finish order.
 - 3.4.4. Number of cars that transfer will be determined at each event.
 - 3.4.5. B-main/s qualifiers will line up by heat race finish order.
- 3.5. A main Alternate will be taken to fill vacancies that occur, from first nonqualified car in B main.
- 3.6. **No alternate will be taken after the original green flag is displayed.**

4. Race Procedures

- 4.1. **Push off.** You are allowed only one push off per race. If you require a second push off, you go to the tail. After drivers have been called to line up for a race, all drivers must be ready for push off or will start at the tail. If belts come loose, driver must stop by an official to buckle up and will not be penalized.
- 4.2. **Yellow flag.** If you stop on the racetrack, you go to the tail. During yellow, no working on the car is allowed on the track or the car will be disqualified. Any car that stops twice on the track or is involved in two unassisted yellow or red flags will be black flagged. Any car that does a 360 spin and does not bring out a yellow flag will continue to race where it falls in line. If the yellow does come out, the car will be charged with a yellow and re-start at the tail of the field. The track flag person will determine if a yellow flag is needed and will have final say to what any yellow flag was displayed for.

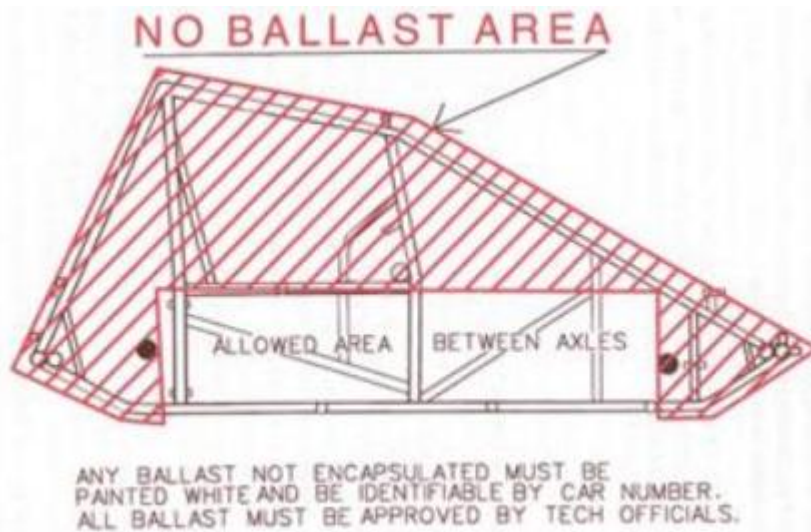
- 4.3. Red flag.** Stop. Do not pass crash site. Cars that have ample time to stop, but still pass crash site, and keep safety crews from reaching accident site in a timely manner will be disqualified for that race. NRA utilized only "closed" red flags. On a closed red, crews will NOT be allowed on racing surface to work on cars. Violation of red flag procedures will result in a black flag. No red flag will be displayed for a fuel stop.
- 4.4. Black flag.** If black flag is waved you are disqualified from that race and must return to pits. Failure to leave track will result in disqualification from all races for the remainder of the evening, and all points and moneys for that evening will be forfeited. Any car not running at reasonable racing speed may be subject to black flag for safety reasons. Any lapped car not able to keep a consistent racing line may be subject to black flag for safety reasons.
- 4.5. Starts.** Initial starts will be **inside** the "**start box**" in turn four. Pole sitter sets a moderate steady pace. **Race starts when *the front row accelerates inside the start box*.** Pole sitter may start the race any were inside the start box but may **NOT** jump before the white line marking the beginning of the start box. Any car passing before the start of the race, or jumping the start will be charged with a yellow and will be penalized two (2) positions on the ensuing restart. If an offending car is located on the last row of the starting grid then that car is allowed to restart but will be penalized 2 positions from its finishing position. If the same car commits a second offense it shall be disqualified from that event. If in the event that the race is not properly started by the two (2) front row cars, the responsible car(s) will be moved to the second row. Failure to acknowledge and comply with the "move back" signal will result in an instant disqualification from the racing event. **NO WARNING** will be given for false starts. Cars must be nose to tail when crossing the white line. Any car with excess space in front to try to get a jump will be called for a jumped start and penalized two (2) positions.
- 4.6.** Lining up for restarts. Form a single file line nose to tail. Officials will correct the lineup when received from the scorers. First lap restarts "complete restart"; inside or outside row will move straight up to fill a void for a missing car. **All other restarts will be single file.**
- 4.6.1. All lapped cars will go to tail of the field when a caution comes out during a feature. They will be lined up in their scored position behind all lead lap cars. This is for **A** features only.
- 4.6.2. In the event that a car on the lead lap spins during a feature event and brings out a yellow, they will be placed at the tail of the lead lap cars, in front of the lapped cars.
- 4.7.** Restarts will be at the white line, at the beginning of the start box. Cars must pass between cone and outside barrier of track. Leader of race has option to increase speed anywhere between the restart line and cone in turn four and must continue to accelerate past the cone. No passing before the cone, driving below or hitting the cone. Any car in violation will be charged with two positions per car passed, or two positions for hitting or driving under cone. If yellow must come out for the cone, car hitting cone will be charged with a yellow and must start at the tail.
- 4.8. Work Area:** You may **ONLY** work on car in designated work area **NO** fueling allowed! Designated work area will be announced at drivers meeting. When the one lap signal is displayed, cars will not be allowed to return to track. Any team working on their car for any reason will start at the tail.
- 4.9.** A race is considered complete when the checkered flag appears. If a yellow or red flag must be thrown after the checkered flag appears, the race is officially over and the finish will be scored as follows. Any car that crosses the finish line before the caution appears will be scored in the position they cross. Any car that does not cross before the caution or red flag will be scored in the same manner as a yellow/red flag restart.

- 4.10.** Running below the tires or off the intended racing surface to pass another car will result in a penalty of two positions per car passed.
- 4.11.** Any car not obeying an official will be black flagged and scored last for the event. This includes, but is not limited to, not getting in the proper position in a timely manner, stopping on the racing surface to dispute a decision, and excessive speed during yellow flag conditions.
- 4.12.** All feature races that have a caution on last lap will be restarted with a green, then white, then checkered flag finish. There will be NO green and white flags waved together in a feature event, a yellow on last lap means two laps to go when race goes back to green.
- 4.13.** If an alternate is taken, the original qualified car will receive the alternate's pay.

5. Car

- 5.1.** Any sprint chassis is allowed, but it must pass any test prescribed by the safety inspectors. The roll cage must be of a four-post design. No dirt champ cars. No elliptical (oval shaped) tubing used on or as part of the main frame structure. Minimum wheel-base of 83 inches, maximum wheel-base of 90 inches. No aluminum or titanium frames.
- 5.2.** Triangular side panels on roll cage allowed within roll cage. No side foils, rudders or panels are to extend beyond the roll cage on any side, no body pieces are to extend beyond or underneath the racecar. Any body panel not meeting NRA specifications must be removed.
- 5.3.** The maximum distance from the leading edge of the front bumper to the leading edge of the front torsion tube is a maximum of 8". The maximum distance from the leading edge of the nose wing to the leading edge of the front axle is 20".
- 5.4.** Rear bumpers and nerf bars must be steel or stainless steel, min. 1" diameter, min. 0.65 thickness and bolted on. Nerf bars mandatory and must not extend beyond tires.
- 5.5.** Front axle must be steel only. Axle tube must be one piece. 52" maximum width. No independent front or rear suspensions. Drag link must be attached to the frame with a tether strap.
- 5.6.** Brake rotors must be steel, aluminum, or titanium.
- 5.7.** No offset motors will be allowed, engine must be directly in front of driver. Driver must straddle driveline. All drivelines must be broken in the coupler or rear end slider, fully enclosed and contain no more than one U-joint or C-V joint. Steel driveline hoop or strap is mandatory.
- 5.8.** Driver's seat must be bolted in with a minimum of four bolts. High back style seat is mandatory. Safety harness lap belt must be routed through the belt holes in the side of the seat.
- 5.9.** Roll cage must have protective padding. Roll bar padding must cover upper part of roll cage on both sides, and behind the driver's head. Roll bar padding must also be placed on any bars near the driver's head. Roll bar padding not required if a full containment style seat with padding on sides and back is used.
- 5.10.** The right side cockpit opening must be a minimum of 10 inches vertical at any point *and 21 inches horizontal.*
- 5.11.** Mufflers are NOT required by NRA. Special events or tracks may require a muffler. All mufflers or inserts must be bolted, clamped or welded on, or in the header. If a muffler is lost during a racing event the car will be disqualified and scored last. Some tracks may impose a Db rule. During these events Schoenfeld part # 14272735-78 (AScoC or ASCS Muffler) must be used. NRA officials reserve the right to measure Db levels of any competing car to ensure muffler is working properly.

- 5.12.** Other than wing slider no cockpit adjustable devices. This includes, but is not limited to brake bias, shocks, suspension and fuel.
- 5.13.** Car numbers must be run on both sides of fuel cell, both sides of top wing and center of the top wing.
- 5.14.** Minimum weight will be 1,475 pounds with driver, at the conclusion of the race. No weight allowance of any kind. Any bolt-on weight must be painted white and the car number must be on the weight. Loss of any bolt-on weight during competition will disqualify the individual from that event. Bolt-on weight can only be added in the areas designated in the accompanying diagram. The weight must be securely attached and must remain in place during a race. It must not be moved or removed during a red flag situation. We reserve the right to disqualify any individual whose weight mounting procedure does not meet our specifications. (see illustration)



- 5.14.1.** Weigh in procedures. **All transfer cars** from each event must weigh in immediately after the race. Failure to report directly to the scales after race will result in disqualification for that race and scored last. Excess mud will be removed before crossing scales. Any car not meeting 1,475 pounds with driver will be disqualified for that race, scored last and will start last in any further race that evening after the minimum weight has been met. Only two crew members plus the driver will be allowed in the scale area. Violation will result in disqualification. Car may not cross the scales more than 2 times with duplicate weights.
- 5.15.** No traction control devices of any kind allowed. This includes mechanical and electronic. No wheel speed sensors permitted. Violation of this rule will result in a one year suspension. Teams may be required to disconnect tachometers at any time.
- 5.16.** No drilled bolts of any kind allowed. Manufactured tubular bolts will be allowed, but may not be used in any steering components, or torsion arms.

6. Engine

- 6.1.** 360 Cubic Inches: plus 1% maximum displacement (360 plus 1% = 363.6). No aluminum blocks. No Titanium in engines, excluding valves and valve retainers. No computer operated or controlled devices. Must be fuel injected.

6.2. Injectors: 2 3/16 (2.187 inch) maximum inside diameter of injector stack and at least 3 inches in length. Larger injectors may be used on all engines, but sleeves a minimum of 3 inches in length must be installed in stacks above the butterflies. No relief hole may be drilled above the butterfly on any injector. No alteration of injector manifold mounting holes will be allowed. No throttle body or plenum type injectors allowed. No down nozzle injectors. One nozzle per cylinder for all engines. No timed fuel injectors will be allowed. Electronic fuel injection shall not be allowed. Only one injector nozzle and one injector line per cylinder. Injection unit shall have one shaft operated butterfly per cylinder. The immediate area of the butterfly must be round. No slide or barrel type injectors will be allowed.

6.3. Spec Heads Brodix heads, part #27-211 (Chevy), #27-223 (Ford), and #27-222 (Mopar)

Chevy heads part #27-211 with ASCS logo. Intake opening no larger than original opening, the only exception being, inlet opening may be ground or polished 3/4 inches or no further into port than the closest edge of the closest letter of the ASCS logo. During this polishing the left side of the letter "A" is sometimes inadvertently brushed with polish wheel. This is permissible as long as letter is still intact. During polishing of inlet port sometimes polish marks may go slightly further than the 3/4 inch. Please note that the intake port is for the Fel-Pro #1206, or equivalent, gasket. Angle milling is allowed as long as the head remains within 1 degree of original manufacturer's specifications. Excessive porting and/or angle milling of the ASCS logo Cylinder Heads may affect their structural integrity, and is no way recommended by Brodix.

Ford heads part #27-223 with ASCS logo. Intake opening must be 2.150 inches tall by 1.300 inches wide. Intake port polishing will be allowed. Polishing will be allowed in the combustion chamber area to avoid hot spot chafing. Polishing will be allowed in the exhaust ports as long as the original ASCS logo is not affected or port shape is not altered substantially. Please note that the intake port is for a Fel-Pro #1262, or equivalent, gasket. Angle milling is allowed as long as the head remains within 1 degree of original manufacturer's specifications. Excessive porting and/or angle milling of the ASCS logo Cylinder Heads may affect their structural integrity, and is in no way recommended by Brodix. Absolutely no intake or exhaust port relocation, raising, enlargement or reshaping of any type and intake to head angle must remain within 1 degree of stock. Valve angle and placement may not be altered in any way on the ASCS spec head or on any other head.

ASCS checking fixtures will be used by NRA officials to enforce specifications and dimensions. Non Spec heads will be allowed, but must remain at factory valve degree, (no angle milling allowed), have an unaltered ASCS/NRA (CHEVY) intake-restricting gasket installed. Unaltered means absolutely no modifications to bolt holes or port sizing. These gaskets are to be installed right side up with Logo to top. The ASCS restrictor gasket must protrude a minimum of .150 inch into the roof line of both the injector port and the cylinder head port. The .150 inch protrusion must extend fully across the roof line of the intake port in both the manifold and cylinder head. There shall be no streamlining or reshaping of intake ports or injectors to reduce the effect of the restrictor gasket. Non spec heads must have stock intake bolt location, and injector manifold is to be installed with stock 3/8 inch diameter bolts. No step studs or relocating bolt holes. You cannot enlarge or relocate restricting gasket bolt holes.

6.4. Penalty for altered spec head or altering gasket will be subject to suspension for one calendar year. Forfeit all points and money won during the race in which the infraction was found and subject to a \$500 fine that must be paid to GLSS before reinstatement.

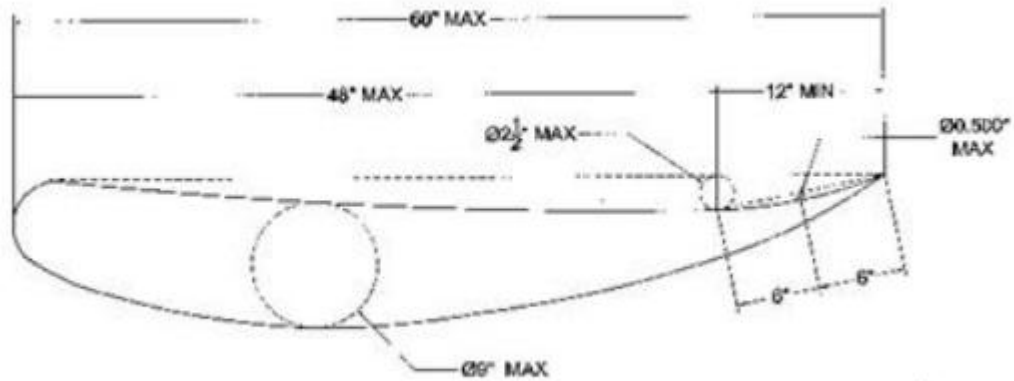
- 6.5.** 305 cubic inch engines that meet Fremont (Ohio) and Attica (Ohio) Raceway Park rules are legal as is. Any car with a legal 305 engine must comply with all other NRA rules.
- 6.6.** Oil pans must have an AN-16 or equivalent inspection plug, that when removed will provide direct access to the adjacent connecting rod. Oil pans without plug or direct access will be subject to pan removal.

7. Wings

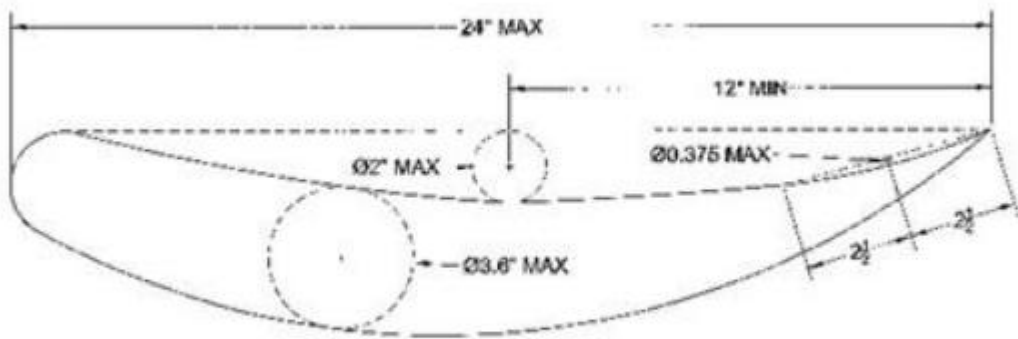
- 7.1.** Top Wing: (see Illustration)
- 7.2.** Center Foil maximum size of 25 square feet with a maximum width of 60 inches with a one degree plus or minus tolerance. Center Foil shall be fully sheathed in aluminum. Vent holes are strictly prohibited. Other than the slider mechanism, no moving parts allowed on or in foil structure. Wing must be fabricated of metal alloys only. No fiberglass, carbon fiber or other similar material may be used in the basic framework of the wing.
- 7.3.** No wicker bills or Gurney lips permitted on Center Foil, unless center foil is totally flat. If flat, a one-inch wicker bill is allowed.
- 7.4.** The 12-inch section located at the rear of the Center Foil must not have the belly/curl arc out of proportion with the rest of the Center Foil. The belly/curl arc must span the entire length of the Center Foil and appear to be a gradual arc with the deepest point no further back than 48 inches from the leading edge. As measured on a 12-inch straight edge, the belly at 6 inches from the rear of the Foil may be deeper than 1/2 inch. There is zero tolerance on this 1/2 inch depth. It is suggested that the wing blue print specify 15/32-inch depth, so that if any deflection or movement of the wing occurs, the depth will not exceed the 1/2 inch specification. (This 1/2 inch measurement ensures that the belly/curl arc is gradual.)
- 7.5.** The belly/curl arc must start at the radius of the Center Foil's leading edge and shall not exceed a depth of 2 1/2 inches. Center Foil thickness cannot exceed 9 inches. Center Foil top surface from side to side must remain flat. Center Foil must be one-piece construction. No split or bi-wings will be permitted. Wings must be fabricated of metal alloys only. No fiberglass, carbon fiber or other similar material may be used in the basic framework of the wings. Top wing must not extend beyond outside of rear tires.
- 7.6.** Two stationary foils or rudders will be allowed to run the entire length of the underneath portion of the top wing. Maximum height proportions are 1 inch at the front and 3 inches at the rear. Nowhere shall the foil exceed 3 inches in height. The top wing can be cockpit/driver adjustable.
- 7.7.** All side board panels must be within an eight-degree plus or minus tolerance.
- 7.7.1. Side panels may not be supported by braces whose section is not horizontal. All braces or supports shall be oriented thin edge to face the air stream. Only rectangular, round or oval metal braces not exceeding 1 inch in width may be used. No aero section side panel brace material allowed. No brace or support shall resemble a wicker bill or a split wing.
- 7.7.2. Top Wing sideboards maximum size, 72 inches long and 30 inches tall. Panels must be of one-piece construction. Panels must be fabricated flat so as to have no turnouts or flaps made of more than 2 inches of material on the front or rear of panels and no more than 1 1/2 inches on the top or bottom. The entire panel must remain perpendicular to the center foil. No bending the side panel and/or moving the braces to kick out the right side panel.

- 7.8. Front Wing: (see Illustration)
- 7.9. Front wing must be made of metal alloys, max. 6 sq. ft., max. 36" wide, max. 12" side boards with 1/2" turn out on top & Bottom of sideboards allowed.
- 7.10. A 1" wicker bill allowed on flat or dished front wings.
- 7.11. No split or bi-wings, gurney lips, rudders or any air flow altering devices allowed. Center Foil must be one piece. No fiberglass, carbon fiber or other similar material may be used in the basic framework of the wing.
- 7.12. Maximum distance from the Center Foil front edge to the front edge of the front axle may not exceed 20 inches. The Center Foil front edge must remain at least 1 inch behind the front edge of the front bumper. The Front Wing must not extend beyond outside of front tires.
- 7.13. The Front Wing may not be cockpit adjustable. No moving parts allowed on or in foil structure.

Top wing diagram/specification



Nose wing diagram/specification



8. Fuel

- 8.1.** Methanol or Ethanol only. No nitro or additives or any kind allowed. Fuel is subject to be checked anytime. If fuel is found illegal, driver and car will be disqualified and all points and money will be forfeited for that event. Driver or car owner will be responsible for any lab cost for fuel test.
- 8.2.** Fuel tank: Fuel cell/tank and bladder are mandatory.

9. Tires and Wheels

- 9.1.** NRA branded Right Rear Mandatory.
 - 9.1.1. During Co sanctioned events Hoosier Medium will be allowed.
 - 9.1.2. For 2017, Once Hoosier and the NRA have SOLD OUT of NRA tires; the following 3 races only will allow NRA, or Medium. After the 3 race exclusion period NRA will adopt the Medium as the Right rear spec tire for the remainder of the 2017 season.
- 9.2.** Bead locks recommended on all wheels.
- 9.3.** Maximum right wheel width is 18 inches maximum left rear wheel width is 15 inches.
- 9.4.** Absolutely no tire prep is allowed. If tire prep is found on your tires, you will be DQ'd for the remainder of the season and any points fund money will be forfeited.
- 9.5.** Tire confiscations will be by team protest. If a team wants another teams tire confiscated, for chemical testing, they must post a 500.00 dollar fee with an NRA official prior to the start of the A main.

10. Memberships

- 10.1.** Member must clearly display NRA series decal and all required sponsor decals at all NRA sanctioned races to be eligible to compete in and collect event points, year end points fund money, and awards.

11. Rookie of the Year Award

- 11.1.** Rookie driver will be defined as someone who has less than 2 seasons competing in a full size sprint car. Candidates are a driver who has competed in no more than a total of six previous NRA races. The rookie driver who finishes highest in total points will determine Rookie of the Year.

Disclaimer

These rules 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. 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.