

2022- SUPER LATE MODEL Rules

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1. Engines

- A.) Only conventional type V-8 engines with the cam in the block will be permitted. Cubic inch displacement is optional.
- B.) Engines must be based on a manufactured, factory design.
- C.) Aluminum or steel blocks will be permitted.
- D.) All engines must be naturally aspirated with a single conventional-type four barrel carburetor. No fuel injection devices, electric fuel pumps, turbo chargers, or blowers are permitted.
- E.) The engine must have an operating self-starting mechanism.
- F.) Only one distributor or magneto is permitted. Cylinder designed individual coil systems are not permitted. No distributor-less engines are permitted.
- G.) The engine may be set back a maximum of 25 ½" from the center of the ball joint to the back of the block.
- H.) All engines are limited to one spark plug and two valves per cylinder.
- I.) A harmonic balancer certified to SFI Spec 18.1 is required.
- J.) No overhead cam engines.
- K.) If there are new engine components and/or a new engine configuration they must be submitted to Speedway Officials for approval prior to being introduced into competition.
- L.) An approved carburetor roll-over plate that prevents fuel spillage in case of a roll over is highly recommended.

2. Transmission, Driveline, and Driveline Components

1. Transmission

- A.) A functional clutch must be used. Direct drive systems of any type will not be permitted.
- B.) The transmission must be bolted to the engine, and it must have forward and working reverse gear(s) and must be able to shift to forward or reverse with the engine running.
- C.) Only two speed transmissions with a working reverse low gear and high gear will be allowed. High gear is 1 to 1.
- D.) No overdrive or underdrive multiple speed transmissions will be permitted. i.) Willy's Carb & Dyno shop LLC. Part # WCD4000SB ii.) Willy's Carb & Dyno shop LLC. Part # WCD4002

2. Read End

- A.) Any type of rear end differential / center section will be permitted. No "live-axle" rear-ends are permitted.
- B.) No independent rear suspensions are permitted.
- C.) Full floating aluminum hubs with "wide 5" wheel bolt pattern must be used.
- D.) The axle housing must be of the "closed tube" design utilizing "full floating" magnetic steel axle shafts.
- E.) The center section of the axle housing must be manufactured of either aluminum or magnesium.
- F.) Axle tubes must be one piece. Axle tubes must be manufactured of aluminum or magnetic mild steel. Axle tubes manufactured of exotic heavy materials (ex: tungsten) will not be permitted. The

outside diameter of the axle tubes must not exceed 3". Axle tube internal inserts or external sleeves will not be permitted. The addition of any ballast weight to the axle housing will not be permitted.

G.) All axle housings using a cable to lock-in the rear-end must have the cable mounted outside the cockpit area and not in reach of the driver.

3. Driveshafts

A.) All drive shafts must be a minimum of two inches (2") in diameter. All drive shafts must be painted silver or white.

B.) Only one drive shaft is permitted.

C.) The drive shaft must be protected with a secure drive shaft hoop or sling.

3. Fuel, Fuel Cells, and Fuel System

A.) All fuel cells must meet or exceed the FIA / FT3 or SFI 28.3 specifications. Alterations of any kind will not be permitted. (Example: alterations to top plate, alterations, or removal of foam, etc.) The fuel cell may only have a maximum capacity of 35 gallons.

B.) The fuel cell must be enclosed completely in a container that is a minimum thickness of 20-gauge magnetic steel and/or .060"-inch aluminum.

C.) Fuel cell cap must be a threaded cap and/or ATL Part # TF751 1/4 Turn Bullet Cap. No twist on d-ring caps will be permitted.

D.) The entire container must be visible for ease of inspection.

E.) The fuel cell must be mounted behind the rear axle between the rear tires, a minimum of 4" ahead of the rear bumper. The bottom of the fuel cell must not be any lower than the bottom of the rear end/quick change housing.

F.) The fuel cell must be mounted with a minimum of two .125"-inch thick steel straps. The straps must cover the entire cell. Fuel cells that are mounted in a square tubing frame will be permitted. A minimum of 7/6" ASTM Grade 8 bolts must be used to mount the fuel cell to the frame.

G.) The fuel pick-ups must be positioned on the top of the fuel cell and be constructed of steel. The fuel pickup must have a check valve. Pick-ups on vertical sides prohibited.

H.) Only racing gasoline or alcohol will be permitted for competition. Nitrous oxide, nitromethane and/or propylene oxide will not be permitted.

F.) A firewall must be installed between the fuel tank and driver's compartment.

G.) Mechanical fuel pumps must be used. Fuel pumps must be engine mounted. Fuel pumps may be camshaft actuated or belt driven. Electric pumps, primary and/or secondary, pressure systems, and additional reservoirs will not be permitted.

4. Electrical Systems, Batteries, and Electrical Accessories

A.) The battery must be securely mounted with positive fasteners and brackets. All battery supports and/or mounts must be secure and braced in two horizontal positions and one vertical position.

B.) The battery terminals must be insulated, and the battery enclosed with a non-conductive material that will prevent contact with any part of the race car should the battery become dislodged from the battery mount.

C.) One mandatory battery disconnect switch must be installed on the rear deck, behind the driver seat, in a location that is easily accessible from outside the race car. The switch must be clearly labeled with off/on direction. The switch must be directly in-line with the NEGATIVE battery cable and be capable of completely disconnecting the NEGATIVE terminal of the battery from the race car. Negative or "ground" wiring connections must not be made anywhere from the battery negative terminal to the input side of the disconnect switch.

5. Exhaust

- A.) The exhaust flow must be parallel to the ground. Exhaust systems that direct the flow toward the ground will not be permitted.
- B.) All exhaust systems/headers must end with a collector.

6. Traction Control, Radio, and Transmission Devices

- A.) All traction control devices, whether electronically controlled in the ignition system, wheel sensors or any means of measuring ground speed to control wheel spin, are strictly prohibited. All devices not mentioned in the above that are found to control wheel spin, timing or fuel delivery control will be considered strictly prohibited.
- B.) At NO time during the 2022 season and beyond will there be any type of ping control devices, dial chip controls, timing controls or any modifications to the ignition control boxes, distributors, or any other part of the Ignition System. This includes any add on component or components inside or outside the cockpit of any competitor's race car. There shall be NO driver-controlled wheel spin, timing or fuel delivery control devices in the cockpit area of any race car.
- C.) A competitor found with any of the above mentioned will lose the complete device permanently and will lose all points earned to that point in the season. A competitor may be asked for his electronic ignition at any time by the Technical Director to be sent for testing and inspection. Failure to hand over the electronic ignition will result in the holding of any purse money won.
- D.) GPS and/or any other type of electronic tracking and/or locating device will not be permitted for any reason.

7. Remote Control Suspension Devices

- A.) NO "in-cockpit driver controlled" suspension devices permitted. NO weight jacks of any kind permitted. (This includes fifth [5th] coils, etc.). ANY driver using "in-cockpit driver controlled" suspension devices or weight jacks WILL BE DISQUALIFIED FROM COMPETITION!

8. Chassis and Frame

1.Chassis

- A.) The minimum wheel base will be 103" with a maximum wheel base of 105".
- B.) Frames fabricated using square tubing must be a minimum of 2" x 2" or approved rectangular magnetic steel with a minimum material thickness of .083".
- C.) Frames fabricated using round tubing must be a minimum of 1.75" Outside Diameter magnetic steel tubing, 4130 Chrome Moly or DOM with a minimum material thickness of .083".
- D.) Rear bumpers that are stubbed may only extend a maximum of 8" beyond the frame. Any stubbed rear bumper that extends further than the maximum of 8" must be formed and directed 8" toward the front of the car.
- E.) External rub rails will not be permitted.
- F.) All cars must be equipped with a tow hook and/or strap for the purpose of towing.
- G.) All battery supports and/or mounts must be secure and braced in two horizontal positions and one vertical position.
- H.) Any frame built on or after January 1st, 2006, must have the builder's unique serial number plate prominently attached to the left side roll cage upright. The plate must be welded in place. All characters on the plate must be a minimum of ½" in height and the serial number must not exceed 8 characters.
- I.) No titanium fasteners, or chassis and suspension components are permitted.

2. Roll Cage

- A.) All cars must have a roll cage fabricated from a minimum of 1-1/2" outside diameter with .065" thick seamless magnetic steel tubing.
- B.) The side roll bars and/or door bars must extend into the door panels.
- C.) A minimum of three 1-1/2" outside diameter bars .065" in thickness must be utilized on the left side of the car in the door area.
- D.) Any of the bars that are utilized for the top portion of the roll cage, including, but not limited to the front and rear hoops, the top hoop and the uprights, must extend a minimum of 1" above the driver's helmet.
- E.) All new frames and/or roll cages built on or after January 1st, 2006, an additional vertical side brace is required on the left side in vertical alignment with the steering wheel.
- F.) No "fin-shaped" or "foil-shaped" add-ons permitted on any part of the roll cage. The entire roll cage must be constructed of round tubing only.
- G.) Roll cage padding certified to SFI Spec 45.1 is required anywhere the driver's helmet may contact the roll cage while in the driving position.

3. Driver Side Intrusion Plate

- A.) A minimum 1/8" thick magnetic steel intrusion plate on the driver's side door bars is mandatory.
- B.) Approved Installations:
 - i.) Welded plates- Individual plates between door bars are permitted but must be weld around the perimeter of each opening. Minimum area covered is 16" x 26".
 - ii.) A minimum of 16" x 26" plate bolted to fabricated 1/8" magnetic steel tabs, welded securely to the chassis, using a minimum of eight x 3/8" Allen button head bolts. A minimum of three fabricated 1/8" magnetic steel tabs and 3/8" Allen button head bolts required across top of the intrusion plate, a minimum of three fabricated 1/8" magnetic steel tabs and 3/8" Allen button head bolts required across the bottom of the plate, and one fabricated 1/8" magnetic steel tabs and 3/8" Allen button head bolt in each in the middle front and middle rear of intrusion plate.
 - iii.) A minimum of 16" x 26" plate bolted to a minimum of six approved-design door bar clamps using the included 12 x 1/2" Allen button head bolts per the manufacturer's specification. A minimum of three approved-design door bar clamps and the included six x 1/2" Allen button head bolts required across top of the intrusion plate and three approved-design door bar clamps and included six x 1/2" Allen button head bolts required across bottom of intrusion plate. Vendor and part number must be clearly labeled on part.
 - iv.) Current approved-design door bar clamps (as of December 1, 2018) – in order of submission: 1.) Allstar Performance – Part Number: ALL4198 2.) Bicknell Racing Products – Part Number: BRP 954 3.) Wehrs Machine & Racing Products – Part Number: WM39

9. Weight and Ballast

- A.) **The total weight of the car with the driver will be 2,250 pounds.**
- B.) Weights up to 50 lbs. must be positively fastened by 2 ½-inches, minimum grade 5 bolts with a minimum of two weight clamps. Threaded rods will not be permitted. All weights must be painted white and clearly labeled with the car number on it.
- C.) Any weight(s) must be securely attached to the frame below the body decking.
- D.) Any car that loses any weight/ballast during an event may be subject to a penalty.
- E.) Weights attached to the rear bumper and/or outside the frame will not be permitted.
- F.) Pellet-type and/or liquid-type weight/ballast will not be permitted.
- G.) Driver operated weight adjustment, 'weight jacking' devices will not be permitted.

H.) The track scales will be considered the official scales for the event. Scales will be available for any team to verify its car weight and determine the scale weight. Officials will allow a car to re-scale two times by pulling off scale and pulling back on. Reading of the third attempt will become the entered weight

10. Bodies

1. Overall Appearance

A.) The car must be neat in appearance and must display the car number on the front nose and the rear fuel cell. The minimum height for the number will be 6".

B.) The car must have legible numbers on each side and on the roof a minimum of 18" high.

2. General Body

A.) The nosepiece must match the body style of the make and manufacturer of the car and be the same as the make and manufacturer of the motor (GM, Ford, Mopar).

B.) All cars must have a minimum of 1/2" and a maximum of 2" inches of roll at top of fenders, doors, and quarter panels. A sharp edge or angle will not be permitted. Body roll must go from sides over interior, not interior over sides.

C.) Floorboards and firewall must cover the driver's area with no openings and be constructed to provide maximum safety.

D.) Fins and/or lips of any-type will not be permitted anywhere along the entire length of the car.

E.) The bodyline must be a smooth even line from front to rear.

F.) No "slope noses" or "wedge cars" permitted. Noses must be stock appearing, subject to Series template

G.) "Belly pans" or any type of enclosure on the bottom of the car will not be permitted. A skid plate to protect the oil pan is permitted. A maximum 1/8" skid plate will be permitted.

H.) Wings and/or tunnels and/or any type of air deflection device will not be permitted underneath the body and/or chassis of the car.

I.) A maximum of one stone deflector, for rear mounted oil pumps, oil filters, and for the main oil tank will be permitted. The deflector may be made of steel, aluminum, or heavy gauge wire. The cover may only be mounted near the unit it is designed to protect with a maximum size of 18" x18" and only mounted from the upper right frame rail to the lower right frame rail.

J.) Panels of any type under the rear deck running from the front to the rear of the car will not be permitted.

K.) Driver's seat must remain on the left side of the driveline.

L.) Front window bars are mandatory.

M.) All body panels must be solid. No holes, slots, or air gaps are permitted. NACA ducts or NACA style ducts are not permitted. One hole for interior (deck) mounted oil cooler is permitted.

N.) All non-approved bodies or any section(s) of the body can or will be assessed a fifty pound (50lbs.) minimum weight penalty. Placement of the weight will be at the discretion of the Technical Director.

O.) No panels of any kind under the rear deck running from the front to the rear of the car. Bracing from the fuel cell top from front to rear is legal.

P.) Any air cleaner scoops used must be positioned in front of or around the air cleaner and cannot Exceed 1" in height above any part of the air cleaner. The scoop cannot be designed with fins or raised edges to direct airflow. The scoop cannot extend behind the rear of the air cleaner and must have a maximum width of 17" at the rear, with a maximum of 10" width at the front and cannot have more than 1" opening in height at the front.

3. Nosepiece

A.) All stock nose pieces must be approved.

B.) Approved nose assemblies must be installed per the manufacturer's instructions. All nose assemblies

must meet the maximum/minimum dimensions, shall maintain manufacture appearance, and not be altered.

C.) Front nose assemblies, not meeting the maximum/minimum dimensions, at the series discretion, may be permitted to compete as a "non-conforming" nose with a minimum of 50 additional pounds mounted in front of the motor plate. At series discretion, degree on non-compliance may require additional weight and/or placement of penalty weight in front of radiator.

D.) Nose pieces must be made of molded type material.

E.) Nose filler panel shall be flat across to entire surface, dishing or rising prohibited.

F.) Two piece noses must be fastened together in the center. No spacers to gain width or cutting to narrow the overall width of the nose are permitted.

G.) The nose must be mounted flat where the filler panel and nose piece meet. Nose pieces may not be altered from its original shape. Nose pieces will be checked with a template. Nose will be pushed against mounting supports to gauge its profile against the template.

H.) Adding to the bottom of the OEM valance to achieve lower ground clearance is not permitted.

I.) A stock nose piece can extend a maximum of 52" from the center of the front hub to the farthest point extending forward. 1" tolerance.

J.) Front fender flares must be made of plastic and cannot alter the original shape of the nose piece. The front fender flairs cannot extend beyond the front tire more than 1" in width with wheels pointed straight.

K.) Front fender flares must have collapsible support.

L.) Front fender flares can extend a maximum of 3" above the fender tops and hood.

M.) Front fender flares can extend a maximum of 4" above where the filler panel meets the hood.

N.) The nose piece must have a headlight decal package attached. One warning will be permitted and then the car must run contrasting color tape in the shape of a headlight.

O.) Holes for cooling purposes must be within 10" from the center point of the nose (where the left and right panels of the nose and/or valance come together).

4. Roof and Roof Supports

A.) The roof length size must be a minimum of 44" to a maximum of 54".

B.) The roof width size must be a minimum of 48" to a maximum of 52".

C.) Roof must be mounted directly to the roll cage with no spacers.

D.) The roof must be mounted parallel to the body and near the center of the car.

E.) A maximum 1.5" roll, turned downward, is permitted along the front edge of the roof. A maximum 1", 90° bend is permitted along the rear edge of the roof. (Roll permitted to help strengthen the roof).

F.) Flat and/or odd shaped roofs will not be permitted. Bellied and hollowed roofs will not be permitted.

G.) Any sun shields, 4" maximum, must be able to hinge for easy exiting of the car.

H.) A maximum of two roof edge bead rolls of a maximum height of ½" the length of the roof will be permitted.

I.) The roof posts and spoiler support(s) must not overlap.

J.) The maximum thickness of the roof at any point will be ½".

K.) The roll cage and associated frame members above the interior panels (decking) must remain open. Enclosures will not be permitted.

5. Roof Supports and Window Side Panels

A.) All roof side panels must extend to the edge of the body.

B.) Maximum (no tolerance) right side sail panel size – 17" at the top and 43" at the bottom. Maximum (no tolerance) left side sail panel size – 17" at the top and 43" at the bottom and minimum 15" at the top and 40" at the bottom. The window area may be covered with clear Lexan or transparent material. Both roof support openings must be covered, or both must be left open, if left open the openings must

maintain a border frame of 2-3" at the top and sides and 3" at the bottom. Decals will be permitted but must meet the dimensions in the drawing and must be approved by the Technical Inspector. Maximum 2" radius (No Breaks) in either direction in rear roof side panels is permitted.

C.) The left and right-side window panels must match.

D.) The front roof supports must extend forward to the rear of the hood. The front roof supports may be a maximum of 4" wide. The left and right front roof supports must match.

E.) Sail Panel Windows Openings must be a border frame of 2-3" at the top and sides and 3" at the bottom with no tolerance.

F.) All cars must have a minimum of 3" and a maximum of 4" between the sail panel and spoiler side where they meet the deck.

G.) Front posts must be flat and in uniform width from top to bottom – 4" maximum width.

Left and right sides must match in size.

6. Front Fenders, Fender Flares, and Hood

A.) Hood can drop 1" with a 1" tolerance measured at the back edge of the hood and in front of the carburetor from left to right side of the car. Fenders must taper from outer edge to hood in a straight line. Fender material must be flat with no bubbles. The fender top must have a 10" minimum width.

B.) Fenders are not permitted to gain height from rear to front of car. Will check with a string from the top of the quarter panel at the spoiler to the top of the highest point of the fender. Must be flat with a 1" tolerance.

C.) No part of the fender or hood can be outside of the body line.

D.) The front fender can be a maximum of 36" in height with a 1" tolerance. Height is measured vertically from the ground to the top of the fender behind the front tires.

E.) The outside edges of the hood and/or the fender must remain inside the overall bodyline.

F.) The front fender flares must not extend beyond the front tires more than 1" per side to a maximum width, edge-to-edge, of 90" in width with the wheels pointed straight.

G.) If the hood is dropped, the deck must remain flat. If your hood remains flat, a drop of the deck will be allowed. The maximum drop will be 2". If the interior is dropped, the hood and fenders must remain flat behind the air cleaner.

7. Doors

A.) The door-to-door measurement cannot exceed 76" in width at the top of the doors. 1" tolerance.

B.) The door-to-door measurement cannot exceed 89" in width at the bottom in the center of the car. 1" tolerance.

C.) The doors must not exceed 37" in height when measured from the ground to the top of the door. The measurement from the rear of the top deck to the highest point of the right front fender must be a straight line that must be within 1" when a straight edge or string is installed on the racecar the entire surface of the body must be within 1" of the plane.

D.) The door sides may not break inward from the top 76" and bottom 90" measurements. Hollow and/or belled doors will not be permitted.

E.) The minimum ground clearance permitted is 3".

8. Quarter Panels

A.) Quarter panel can be a maximum of 49" from center of rear hub to rear edge measured horizontally. Quarter panel can be a maximum of 54" from the center of the hub to the rear tbar at spoiler with no tolerance.

B.) Tire clearance from the body must be a minimum of 2". No wheel skirts permitted.

C.) At no point can quarter panel sides break in towards the center of the car between the top and bottom. 1" tolerance including plastic.

D.) Right side quarter panel must be straight in line with the door. Will check with a string from the top of the quarter panel at the spoiler to the top of the highest point of the fender. Must be straight with a

1" tolerance.

E.) Left rear quarter panels must extend downward from the deck a minimum of 33" and a maximum of 36" including the plastic. Measured at the front and rear of the quarter panel. Right rear quarter panels must extend downward from the deck a minimum of 27" without the plastic and 31" with plastic.

Measured at the front and rear of the quarter panel. 1" tolerance.

F.) Plastic quarter panels will be allowed on the right side of the car only. Plastic quarter panels will not be permitted on the left side of the car.

9. Deck Height

A.) The maximum height from the ground to the top of the rear deck at the top of the rear quarter panels (spoiler hinge bottom) is 38". 1" tolerance.

B.) Deck height will be measured with the nosepiece splitter at a maximum height of 15" with no tolerance from the ground to the top (highest point) of the splitter.

10. Spoilers, Spoiler Braces, and Spoiler Supports

A.) Only aluminum and/or Lexan and/or Lexan-type rear spoilers will be permitted.

B.) The maximum overall height of the rear spoiler will be 8". The maximum width of the rear spoiler, including braces and/or supports is 72".

C.) The rear spoiler must begin at the deck and extend 8-1/4" from that point. Mounting hardware, hinges, etc. will be included in the 8-1/4" measurement. Suspending the spoiler to create a wing-type device will not be permitted.

D.) Rear spoiler must begin where quarter panels end. No extended decks permitted.

E.) Maximum of three rear spoiler supports. Option of two additional 1" aluminum braces.

F.) The outside spoiler supports must not be mounted any wider than the top of the quarter panel(s) and must be centered on the rear deck.

G.) If aluminum angle is used to brace the upper edge of the spoiler, the angle must not add to the height and/or length of the spoiler in any way.

11. Interior

A.) The interior of the cockpit must be a minimum of 11" below the top of the roof and/or roll cage, measured perpendicular to the ground from the bottom of the roof to the cockpit deck. Roof rolls are not part of the measurement.

B.) The side window opening(s) must be 15" from the top of the door to the bottom of the roof.

C.) Support bars that block the right window from the driver exiting the cockpit will not be permitted.

D.) A rock guard (Lexan screen) can be no higher than 4" and no farther back than the front edge of the right-side head rest.

E.) If the interior deck drops, the drop must begin at the rear of the engine plate with a maximum of 4" and must not drop below 4" at the rear of the hood. The start of the dropped interior must remain closed as a part of the fire wall. The entire width must be closed off with sheet metal.

F.) The interior must gradually taper up to the quarter panel height and must be level for a minimum of 20" from the rear of the quarter panel and deck.

12. Driver Compartment

A.) A full metal firewall fabricated from magnetic steel and/or aluminum must encompass the driver's compartment from front-to-rear, on both sides and floorboards.

B.) All cars must be equipped with a quick-release type steering wheel that is a full circle.

C.) Mirrors of any-type will not be permitted.

D.) Radios and/or electronic and/or data communication devices will not be permitted.

E.) Any edge and/or sheet metal end in and around the driver compartment must be protected with trim and/or beading and rounded. Sharp and protruding edges will not be permitted.

F.) A substantial rock guard with a minimum of three additional roll bars must be mounted in front of the driver. The rock guard must be made from wire screen. Windshield screens must be a minimum of .090" and must be securely fastened.

G.) Cockpit adjustable components except for brake bias adjusters will not be permitted. Adjusters of anytype, including but not limited to adjustable shocks, hydraulic or pneumatic weight jacks, trackers, ignition boxes or similar adjustable components will not be permitted inside the cockpit of the car or within reach of the seated driver.

13. Body Skew

A.) The measurement of the left rear quarter panel from the center of the hub to the rear of the quarter panel should not exceed 54". Measuring 6' from the left rear quarter panel to the right rear quarter panel, then 8' forward along the right-side door, the diagonal measurement from that point to the top of the left rear quarter panel should not exceed 118".

14. Brakes, Brake Components, Wheel Hub

A.) Brake calipers must be manufactured of aluminum.

B.) The brake caliper including brake caliper pistons must be used as produced by the brake caliper manufacturer.

C.) Brake rotors must be manufactured of magnetic or stainless steel.

D.) Brake rotors must be used as produced by the brake rotor manufacturer.

E.) Wheel hubs must be manufactured of aluminum or magnesium.

F.) Wheel hubs must be used as produced by the wheel hub manufacturer.

G.) The combined weight of the wheel hub, wheel bearings and seal, spindle nut and washers, brake rotor and attaching hardware, the axle cap, and the wheel spacer must not exceed 27 lbs.

H.) Ontrack three-wheel braking is allowed.

15. Suspension, Suspension Components, Spring, Shocks, and Steering

1. General

A.) Rear suspension designs and applications are constantly evolving. Although the intent of the rear suspension rules is an attempt to accommodate most of the suspension and suspension component designs and applications currently being used in competition, the rules cannot be absolute. All new designs or modifications to an existing suspension and/or suspension component must be communicated to and approved by the Technical Director before being used in competition

B.) Rear suspension must utilize either coil or leaf springs,

C.) Rear suspension configuration used on current and new chassis(s) must be the design commonly known as four link. Older cars currently competing with other rear suspension designs will be allowed to compete until further notification at the discretion of the Technical Director.

D.) Regarding swing arm and/or Z-Link suspension, these suspension types are permitted. The shock on a swing arm or z-link rear suspension may mount to the bird cage or bottom radius rod. Top and bottom solid links must be mounted on hiems and run in the opposite direction of bird cage.

E.) Bump sticks are not allowed anywhere on the car.

2. Front Suspension

A.) All cars must utilize independent front coil spring suspension consisting of one right and one left lower control arm, one right and one left upper control arm, one right and one left spindle, one right and one left shock, and one right and one left spring / spring stack.

i.) Lower control arms must be fabricated using magnetic mild steel or 4130 chrome moly tubing.

ii.) Lower control arms may be of the "A" frame design with two inner pivots or the Ford design with one inner pivot and a strut rod to secure the control arm fore and aft movement. The strut rod may

be mounted either forward or rearward of the control arm.

iii.) All lower control arm frame mounts must be welded to the applicable frame rail. (The right lower control arm mounts must be welded to the right-side frame rail and the left lower control arm mounts must be welded to the left side frame rail.) This procedure applies to the Ford style including the strut rod as well.

iv.) Lower control arm mounts, (inner pivot points) must remain to the outside of the front frame centerline for the respective side.

v.) The frame mounts for the lower control arm inner pivots may be adjustable by two methods:

1.) A series of single round holes.

2.) A machined slot that will accept a steel "slug" with a single round mounting hole(s).

vi.) Both methods of mounting must produce a secure non-moveable mount when assembled and tightened.

vii.) Upper control arms must be fabricated using magnetic mild steel or 4130 chrome moly tubing.

viii.) Upper control arms may be either the "A" frame type design with or without a shaft or the individual tube type with individual inner pivot mounts.

ix.) All upper control arm frame mounts must be welded to the applicable frame rail. (The right upper control arm mounts must be welded to the right-side frame rail and the left upper control arm mounts must be welded to the left side frame rail.)

x.) The frame mounts for the upper control arm inner pivots may be adjustable by optional methods including but not limited to:

1.) A series of single round holes.

2.) A machined slot that will accept a steel "slug" with a single round mounting hole(s).

3.) A machined slot with a capture eccentric (cam) type adjuster.

xi.) All methods of mounting must produce a secure non-moveable mount when assembled and tightened.

xii.) Spindles must be fabricated or forged using magnetic mild steel.

xiii.) If separate, spindle steering arms must be welded to the spindle.

xiv.) Steering arms must remain below the spindle pin.

xv.) Spindles must connect to the upper and the lower control arms by utilizing ball joints, monoballs, or spherical rod ends.

16. Axle Housing, Rear Differential

A.) The axle housing must be of the "closed tube" design utilizing "full floating" magnetic steel axle shafts.

B.) The center section of the axle housing must be manufactured of either aluminum or magnesium.

C.) Axle tubes must be one piece. Axle tubes must be manufactured of aluminum or magnetic mild steel. Axle tubes manufactured of exotic; heavy materials will not be permitted. The outside diameter of the axle tubes must not exceed 3". Axle tube internal inserts or external sleeves will not be permitted. The addition of any ballast weight to the axle housing will not be permitted.

D.) Axle tube, including axle tube sleeves, donuts, or added parts may not exceed 3" O.D. at any point from center section to hub.

17. Rear Suspension Frame Mounts

A.) The frame/roll cage structure must have integral welded mounting brackets for the attachment of rear suspension components. Frame suspension mounts may be welded or bolted securely (without any movement) to the frame/roll cage structure.

B.) The only materials used to fabricate frame suspension mounts that will be permitted are magnetic steel or aluminum.

- C.) Frame suspension mounts must be double shear configuration for mounting suspension components.
- D.) Double shear frame suspension mounts must be a minimum of 3/16" thickness on both sides of the mount.
- E.) All frame suspension mount component mounting holes must be round and sized correctly for the fastener being used. Clearance between the fastener and the mounting hole must not exceed the next fractional drill size. Example: 1/2" fastener, 33/64" mounting hole.

18. Axle Housing Mounts

- A.) Only one axle-housing mount per side will be permitted.
- B.) The only materials used to fabricate axle housing mounts (birdcages) that will be permitted is aluminum or magnetic mild steel. Axle housing mounts fabricated of exotic; heavy materials will not be permitted.
- C.) When fabricating axle housing mounts, detail must be paid to functionality. The completed axle housing mounts, when comparing the right and the left side, must be as similar in design as possible.
- D.) Axle housing mounts may be a solid (welded) type or a floating type (birdcage) design.
- E.) The final assembled axle-housing mount must be a 1 piece mount. When a floating type of mount (birdcage) is fabricated using two pieces, the two pieces must create a common one piece pivot (barrel). The two pieces must be fastened or welded together to prevent independent movement of the two pieces. The axle-housing mount must attach directly to the axle tube with clearance only to permit rotation of the entire mount. Fore, aft, or vertical movement of the mount or the axle housing within the mount will not be permitted.
- F.) Mounts for suspension attaching (radius) rods must be an integral part of the axle-housing mount. The mounts may be either a single or double shear configuration. When using a single shear configuration, a minimum thickness of 1/4" for magnetic steel or 1/2" for aluminum is required. When using a double shear configuration, a minimum thickness of 3/16" for magnetic steel or 1/4" for aluminum is required. Dynamic movement of any mount other than a rotating and pivoting movement because of suspension travel will not be permitted.
- G.) Unless otherwise authorized by the Technical Director, the mounting of any component(s) other than suspension attaching (radius) rods or shocks will not be permitted on the axle housing mounts.

19. Rear Suspension Attaching (Radius) Rods

- A.) A maximum of two attaching (radius) rods per side will be permitted.
- B.) The only materials used to fabricate attaching (radius) rods that will be permitted are magnetic steel or aluminum.
- C.) Attaching (radius) rods may be solid or tubular material. The material may be round or hexagon in shape.
- D.) Spherical rod ends, or steel clevises must be used at the end of each rod for pivoting, static length adjustment, and mounting. Bushings of any type will not be permitted.
- E.) The final assembled attaching (radius) rod must not have the capability to change length dynamically by any means or devices.
- F.) Spherical rod end sizes may be a minimum of a 5/8" rod end body with a 1/2" bearing to a maximum of a 3/4" rod end body with a 3/4" bearing.
- G.) In all applications, the correct size fastener must be used when mounting the spherical rod end to a bracket (example: 1/2" fastener must be used with a 1/2" bearing and mounting hole). Metal step spacers will be permitted to reduce the hole size of the spherical rod end bearing.
- H.) Attaching (radius) rods must mount directly to the frame suspension mount at the forward end and to the axle-housing mount at the rearward end.

I.) All rear suspension fasteners must be magnetic steel with a minimum diameter of ½". The use of grade 8 fasteners is highly recommended. All fasteners must be correctly sized for the component and application of use.

J.) When rear suspension assembly is completed, the attaching (radius) rods must have a minimum of 8" between the pivots at both the frame suspension mount and the rear axle-housing mount.

20. Torque Control Devices

A.) Lift arm assemblies and pull bars will be permitted.

B.) Only one torque control device may be used.

C.) Lift arms must attach to the axle housing using a mounting configuration that prevents any movement between the lift arm and the rear axle housing. A gusset or brace bar to prohibit side-to-side flex will be permitted.

D.) The forward end of the lift arm may use a spring over shock assembly (5th coil), a spring or bushing, and a limiting chain.

E.) Pull bars may be adjustable on both ends; however, the adjustments must remain fixed during competition. Adjustors within reach of the driver will not be permitted. No hydraulic or pneumatic pull bars will be permitted.

21. Springs

A.) The front suspension must use magnetic steel coil springs.

B.) The rear suspension may use coil or leaf springs. The coil springs must be magnetic steel. Leaf springs may be either magnetic steel or a composite material.

C.) Coil springs may be used individually or stacked.

22. Shock Absorbers

A.) Shocks are intended to dampen and help control spring frequencies in both the compression and rebound motions. The amount of force applied to move the shock piston and shaft assembly may be varied with the option of shock "builds" however the piston and shaft assembly must have the ability to move in both directions.

B.) Mono-tube, single piston, nitrogen gas charged shocks will be permitted. All shocks must utilize mechanical oil controls, such as: spring shim(s), drum and disc(s), check ball and spring, needle and seat for internal and external shock adjustments. Magnetic and/or electro-magnetic controls are not permitted. Remote nitrogen gas reservoirs will be permitted. The remote reservoirs may contain a compression adjustor. Adjustments described above are the only shock adjustments that will be permitted.

C.) Shock adjustments while the vehicle is in motion will not be permitted.

D.) Shocks and shock components may only be manufactured from steel or aluminum.

E.) Rotating parts will not be permitted inside or mounted to the shock absorber. Inertia/gyro style shocks are not permitted.

F.) Thru-rod shocks will not be permitted.

G.) Unless otherwise authorized, all shocks must be mounted as close to vertical as possible.

H.) Approved shock locations are as follows: One shock will be permitted at each front wheel. One shock will be permitted at the right rear wheel. Two shocks will be permitted at the left rear wheel. When using only one shock at the left rear wheel, the shock must be mounted behind the rear axle tube. When two shocks are used at the left rear wheel, one shock must be mounted behind the rear axle tube and the second shock must be mounted on top of or forward of the rear axle tube. One shock will be permitted mid-ship at the front of the lift arm assembly. One braking shock will be permitted. The shock

must be mounted within 3" of the center line of the rear axle center section. This shock must be mounted horizontally.

I.) Prior to introduction into competition a new design shock absorber must be submitted to speedway officials for approval. Shock absorber manufacturers may be required to provide a board of components for inspection and display.

J.) Air shocks are permitted.

K.) Maximum shock body outside diameter is two , 0.50".

L.) Maximum front shocks length is 21", measured center to center of the shock eyes.

M.) Maximum rear shocks length is 27", measured center to center of the shock eyes.

23. Steering Components, Wheels, and Tires

1. Steering Components

A.) Only one power steering pump allowed. Electronic steering and/or electronic steering components will not be permitted.

2. Wheels

A.) Only aluminum wheels will be permitted for competition.

B.) The wheels must be mounted to the hubs utilizing lug nuts. "Knock off" and/or single type wheel mounting systems will not be permitted.

C.) The maximum wheel width that will be permitted is 14".

D.) The combined weight of the wheel, wheel hardware, wheel disc and fasteners, and tire must not exceed 40 lbs. The maximum combined weight in this rule is based upon current tire rules and may need to be adjusted in the event of an alternate tire.

E.) The maximum front track width will be 90" the maximum rear track width will be 88", measured from the outside edge of the tire to the outside edge of the tire.

F.) Only approved wheel discs will be permitted. Approved wheel discs are wheel discs that are fastened to the wheel using a minimum of three, ¼ or 5/16" diameter magnetic steel hex head bolts. The use of wheel discs with any other type of fastener will not be permitted.

G.) Only aluminum wheel spacers will be permitted.

H.) Wheel/Air Bleeders are not allowed anywhere on the car.

I.) The combined weight of the wheel, wheel hardware, wheel disc and fasteners, and tire must not exceed 40 lbs. The maximum combined weight in this rule is based upon current tire rules and may need to be adjusted in the event of an alternate tire.

3. Tires

A.) All four tires must be: Hoosier: 1300 or harder, American Racer: 44 or harder.

Minimum durometer reading of 32 at anytime

B.) The maximum size for any tire in competition is 11"x 29"x 15", unless otherwise specified.

C.) The maximum outside circumference of the tire will be 93", unless otherwise specified.

D.) The maximum width of the tires measured from the outside edge(s) of the sidewalls across the face of the tire will be 16 ¾". There will be a tire hoop used for inspection and the tire must pass through the tire hoop freely, without any manipulation or outside contact.

E.) No tire softeners, no conditioners, no altering of tires with any natural or unnatural chemicals, no hazardous or non-hazardous components or chemicals which alter the factory set baseline-settings of a given tire.

F.) All sidewall markings must be always visible. No buffing, removing, or altering of the compound designations.

24. Miscellaneous

- A.) No two-way radios. No crew to and from driver radio or transmitted communications of any kind.
- B.) No "in-cockpit driver controlled" electronic devices of any kind permitted.
- C.) No computer-controlled devices of any kind permitted.
- D.) No rear-view mirrors of any kind permitted.
- E.) No cellular devices in cockpit.
- F.) No cameras of any type permitted below the interior (deck) of the car.
- G.) No data systems or harnesses of any kind permitted

25. SCORING

MyLaps transponders are required on all cars. Rental units are available from the speedway.

- 1.) Transponders for Late Models should be mounted on the rear side of the engine mounting plate or to the engine compartment side of the firewall but can be no less than 80" from the center nose of the car. Shims can be used between the engine plate and mounting bracket to obtain this distance.
- 2.) Transponders must be mounted in a vertical position pointing straight down and as close to the ground as possible. There cannot be any metal, carbon fiber or other material that would deflect or block the signal between the transponder and the ground. Other than wiring used to connect direct powered units the transponder should not be mounted within 12" of any device that generates, transports or stores electric or magnetic energy (individual race cars may require a greater distance or shielding).
- 3.) Transponders/brackets should be riveted, wire tied or clamped to the mounting point with additional wire ties, clamps or other securing devices encompassing the entire mounting point /bracket / transponder for additional security. Speedway is not responsible for lost/damaged transponders.
- 4.) Damaged/Lost units rented from Speedway are the responsibility of renter. It is each race team's responsibility to assure that the transponder they are using is mounted properly and in working condition at all times car is on track. Changes in mounting location may only be approved by speedway officials and only in the case of transponders not reading correctly. This shall only be approved if it is determined by officials that all other possibilities and scenarios to correct the situation have been exhausted.

26. OTHER

- A.) Cars will not be permitted to make a qualifying attempt without passing technical inspection. All cars must be available for inspection prior to the time of the driver's meeting. Following the driver's meeting, covers of any-type on the racecar will not be permitted.
- B.) All cars may be subject to technical inspection at any time.
- C.) Full or partial car covers will be permitted only when there is inclement weather and/or the car is in its designated pit stall. All covers shall be removed prior to the car leaving its designated pit stall.
- D.) Drivers should have flame retardant firesuit certified to SFI spec 3.2A/5 and racing approved full-face helmet with face shield certified to Snell SA2005 or SA2010 standard or SFI spec 31.1A, 31.1/2005 or 31.1/2010. Gloves certified to SFI spec 3.5/5 highly recommended. Nomex shoes, socks, and hood highly recommended. Head and neck restraint system certified to SFI spec 38.1 and arm restraints are highly recommended.
- E.) All cars must have wrecker hookup.
- F.) SFI-approved and labeled seat, roll bar, knee and steering pads and/or padding is recommended.
- G.) It is recommended that all teams have a fire extinguisher in the rear of their transporter. The fire extinguisher is recommended to be a minimum Of 2.5 gallons FFF type chemical and/or equivalent.

H.) All drivers are required to have a one-way radio. The one-way radio must be working and active prior to any 'on-track' activity. Two-way radios, crew-member to driver and/or any other means of electronic communication, other than the one-way radio, will not be permitted

27. PENALTIES

The technical rules contained here have been assembled with great concern toward maximizing competition and minimizing costs. Rule violations will not be tolerated. Major violations will result in disqualification, loss of points, and prize money earned. Depending on the severity and the intent of the violation, there could be a suspension from future racing activity at the speedway. Minor violations will be considered major if they are not corrected in the grace period allowed by the tech team. Any car must be presented for the scrutiny of the tech man at our request, and results will not be considered official until we are satisfied. Any protesting must be done in an orderly manner, in cash, and under the conditions previously specified. If at any time the conduct of any team member, driver or associate becomes a discredit to the speedway, the sport, or himself, they will be removed from all racing activity at the track. Owners/ drivers are responsible for the behavior of all individuals associated with the car and may suffer similarly.

These rules have been designed to facilitate the orderly conduct of and establish minimum or maximum requirements for the events. No express or implied warranty of safety shall result from publication or compliance with these regulations. Management is empowered to, at their discretion, deviate from specifications described herein. Management reserves the right to update these regulations at their discretion, in the interest of cost, safety, or fairness. Management's interpretation of these regulations will always be considered final.

Management has the right to confiscate any part deemed to be in violation of the technical rules. Any driver/ car found to be in violation of any technical/ procedural rules can have their racing privileges revoked for any length of time deemed appropriate by management.