

# ...Late Model Division

## Late Models -THIS IS A PROTEST DIVISION

The Bubba Raceway Park officials may inspect any car and equipment at any time for compliance.

No radios or audible communication devices except raceceiver.

NO TRACTION CONTROL ALLOWED

Glow Sticks allowed in designated areas only.

See officials All cars must have an extensive safety inspection each season before they race. All required safety equipment and apparel must be in use while the car is on the track. Racing helmet with minimum Snell 95 rating. Neck brace or Hans device recommended. Fire suit with SFI minimum rating of "1". No holes or torn fire suits allowed. Fire resistant gloves, shoes, and socks must be worn at all times when car is on track. Aluminum racing seats are mandatory. A single quick release 4 point harness (minimum 3" belts) dated 2011 or newer is required in all vehicles. All required belts must be in use anytime the car in on the track. Racing harness must be attached to the roll cage.

Drive shaft must be painted white and include the car number. Drive shaft loop will be a 5" diameter steel loop. 1" wide and ¼" thick. It must be securely mounted to the frame 12" from the front universal. Must have one on rear drive shaft. All lead ballast must be painted with car number and secured with one ½" bolt per 50 lbs. 50 + lbs require two (2) bolts. Will be inspected. It is your responsibility to make sure your ballast stays in your car for everyone's safety. Penalty weighs must be painted red or orange. If weight falls off of your car on the track at any time you are immediately disqualified from the event. Throttle toe strap is mandatory. Throttle linkage must have two return springs

**All cars must have front and rear hook ups for towing.**

**If it's not stated in the rules it doesn't mean it's approved. Please consult with tech official for approval.** All tech decisions are final. The track reserves the right to add weight to any driver in the fairness of competition. You need to understand all safety requirements. Track Management as well as the Tech official reserves the right to disqualify any car and/or driver that does not comply with all safety requirements. Competition will not and cannot come before safety.

Top 3 to scale after heat races Top 5 finishers must go across scale after feature and then report directly to TECH SHED. Tech inspector will inspect first five and anyone else track sees fit.

**Spoilers: Crate 602/604** 8" to 12" max spoiler

**NLMS, 358, CT525, Super**, 8" spoiler and side boards for all cars.

## WHEEL AND TIRES

1. **NO tire softeners. NO soaking of tires. NO pre-heating of tires. NO chemicals of any type inside of tires except oxygen or nitrogen.**  
**All tires are subject to sampling without warning**
2. **Crate, NLMS, CT525** Hoosier 1300 spec, 1350 spec, D21, Crate 21.
3. **Super** D55 on rear
4. 14 inch maximum aluminum or steel wheels.

## WEIGHT

Total weight minimum after race with driver

1. **602 / 604** Crate Motor 2100 lbs.
2. **NLMS** 2300lbs
3. **CT525** 2350 lbs.with 50 lbs in front of flywheel
4. **Super** (Any motor not a crate/nlms/ct525) 2450 with 50 lbs in front of flywheel

## Batteries

A.) NO batteries to be located in the driver's compartment/cockpit. B.) The battery must be securely mounted with positive fasteners and brackets. C.) The battery terminals must be insulated or 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. D.) One (1) 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. An additional battery disconnect switch within the driver's reach may also be used

## Bodies

- A.) Nose piece and roof must match body style of car.
- B.) All cars must have a minimum of one half inch (1/2") and a maximum of two (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 and be constructed to provide maximum safety.

- D.) Driver's seat must remain on the left side of the drive line.
- E.) Front window bars are mandatory.
- F.) Legible numbers, at least eighteen inches (18") high are required on each side of the car and roof.
- G.) No fins or raised lips of any kind are permitted anywhere along the entire length of the car.
- H.) Right side body line must be straight from front to rear with a one inch (1") tolerance up and down, left and right.
- I.) No "slope noses" or "wedge cars" permitted. Noses must be stock appearing, subject to Series template.
- J.) No "belly pans" or any type of enclosure on bottom of cars will be permitted. Skid plate to protect oil pan is permitted.
- K.) No wings or tunnels of any kind are permitted underneath the body or chassis of the car. A maximum of one (1) 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, carbon fiber, or heavy gauge wire. Can run from rear of motor mount to in front of the four bar brackets not to cover bracket. Not to be above the top frame rail. Not to exceed below the bottom frame rail.
- L.) 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.
- M.) 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.
- N.) No panels of any kind under the rear deck running from the front to the rear of the car. Bracing from fuel cell top from front to rear is legal.
- O.) Any air cleaner scoops used must be positioned in front of or around the air cleaner and can not exceed one inch (1") in height above any part of the air cleaner. The scoop can not be designed with fins or raised edges to direct airflow. The scoop can not extend behind the rear of the air cleaner and must have a maximum width of seventeen inches (17") at the rear, with a maximum of ten inches (10") width at the front and can not have more than one inch (1") opening in height at the front.
- P.) No cockpit or driver adjustable shocks, hydraulic or pneumatic weight jacks, trackers, MSD boxes or similar adjustable components of any kind are permitted inside the cockpit of the car. Taping over of any adjuster is not permitted. The offending component must be removed from the cockpit.

#### **Stock Nose Pieces**

- A.) Nose pieces must be made of molded type material.
- B.) Two (2) piece noses must be fastened together in the center. No spacers to gain width or cutting to narrow overall width of the nose are permitted.
- C.) The nose must be mounted flat where filler panel and nose piece meet. Nose piece may not be altered from it's original shape. Nose piece will be checked with a template. Nose will be pushed against mounting supports to gauge its profile against template.
- D.) Adding to the bottom of the OEM valance to achieve lower ground clearance is not permitted.
- E.) A stock nose piece can extend a maximum of fifty-two inches (52") from the center of the front hub to the farthest point extending forward. One inch (1") Tolerance.
- F.) Front fender flairs must be made of plastic and can not alter the original shape of the nose piece. The front fender flairs can not extend beyond the front tire more than one inch (1") in width with wheels pointed straight.
1. G) Front fender flairs must have collapsible support.
  2. H) Front fender flairs can extend a maximum of three inches (3") above the fender tops and hood.
  3. I) Front fender flairs can extend a maximum of four inches (4") above where the filler panel meets the hood.

- J.) Holes for cooling purposes must be in the center area (in front of the radiator) of the nose and/or valance.

#### **Roof and Roof Supports**

- A.) The roof length size must be a minimum of forty-four inches (44") to a maximum of fifty-four inches (54").
- B.) The roof width size must be a minimum of forty-eight inches (48") to a maximum of fifty-two inches (52").
- C.) Roof must be mounted directly to roll cage with no spacers.
- D.) The roof must be mounted parallel to body and near center of the car.
- E.) A maximum one and one half inch (1.5") roll, turned downward, is permitted along the front edge of the roof. A maximum one-inch (1") ninety-degree (90°) bend is permitted along the rear edge of the roof. (Roll permitted to help strengthen roof).
- F.) No odd shaped roofs permitted.
- G.) All roof side (sail) panels must extend to the edge of the body. Maximum (no tolerance) right side sail panel size – seventeen inches (17") at the top and forty-three inches (43") at the bottom. Maximum (no tolerance) left side sail panel size – seventeen inches (17") at the top and forty-three inches (43") at the bottom and minimum fifteen inches (15") at the top and forty inches (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 two-inch (2") radius (No Breaks) in either direction in rear roof side panels is permitted.

H.) Sail Panel Windows Openings must be a border frame of two to three inches (2-3") at the top and sides and three inches (3") at the bottom with no tolerance.

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

J.) Front posts must be flat and in uniform width from top to bottom – four inch (4") maximum width. Left and right sides must match in size.

K.) Any sun shields, four inch (4") maximum, must be able to hinge for easy exiting of car.

#### **Front Fenders and Hood**

A.) Hood can drop one inch (1") with a one inch (1") tolerance measured at the back edge of the hood and in front of the carburetor from left to right side of car. Fenders must taper from outer edge to hood in a straight line. Fender material must be flat with no bubble. Fender top must have ten inch (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 one inch (1") tolerance.

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

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

#### **Doors**

A.) Door to door can not exceed seventy-six inches (76") in width at the top of the doors. One inch (1") tolerance.

B.) Door to door can not exceed eighty-nine inches (89") in width at the bottom in the center of the car. One inch (1") tolerance.

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

D.) The minimum ground clearance permitted is three inches (3").

#### **Quarter Panels**

A.) Quarter panel can be a maximum of forty-nine inches (49") from center of rear hub to rear edge measured horizontally. Quarter panel can be a maximum of fifty-four inches (54") from center of hub to rear t-bar at spoiler with no tolerance.

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

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

One inch (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 one inch (1") tolerance.

E.) Left rear quarter panels must extend downward from the deck a minimum of thirty-three inches (33") and a maximum of thirty-six inches (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 twenty-seven inches (27") without the plastic and thirty-one inches (31") with plastic. Measured at the front and rear of the quarter panel. One inch (1") tolerance.

#### **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 hinged bottom) is thirty-eight inches (38"). One inch (1") tolerance.

B.) Deck height will be measured with the nosepiece splitter at a maximum height of fifteen inches (15") with no tolerance from the ground to the top (highest point) of the splitter. Effective Date: April 1, 2018

#### **Frames**

A.) No aluminum frames or bumpers permitted in construction of car.

B.) Minimum one hundred three inches (103") and maximum one hundred five inches (105") wheelbase.

C.) Rectangle or Square Tubing:

i.) The frame of all cars must be constructed of two inch (2") by two-inch (2") minimum rectangular or square tubing with a minimum of eight inch (8") circumference and a minimum of eighty-three thousandths inch (.083") wall thickness.

D.) Round Tube Frame:

i.) The frame of all cars must be constructed of a minimum of one and three-quarter inch (1¾") round tubing and must have a wall thickness of eighty-three thousandths inch (.083") wall thickness minimum.

E.) If rear bumper is stubbed, it may only extend a maximum of eight inches (8") beyond frame. Any stubbed rear bumpers that extend eight inches (8") or more beyond frame must be rounded and directed towards the front of the car.

F.) It is recommended that all cars be equipped with a tow hook or strap.

G.) All battery supports must be braced in two axis – two horizontal and one vertical.

### **Roll Cages**

A.) Cars must have a suitable steel roll cage in driver's compartment.

B.) Side roll bars are mandatory and must extend into the door panels.

C.) A minimum of three (3) bars must be used on the left side of the car. Each bar must be a minimum of one and one-half inch (1½") in diameter with a minimum thickness of ninety-five thousandths inch (.095").

D.) Roll cage must be welded to the frame.

E.) Roll cage must be above the driver's helmet thirty-eight inches (38") minimum between floor pan and the bottom of the roll cage

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.

### **Driver Side Intrusion Plate**

A.) Driver side intrusion plate(s) will be mandatory for all perfect attendance drivers on August 1st, 2018.

All other drivers will receive three (3) full weekends grace period before required compliance. Perfect attendance drivers with intrusion plates will receive a 50 point bonus at the first race after August 1st, 2018.

B.) A minimum ¼ inch (.125") thick sixteen inch (16") x twenty-six inch (26") magnetic steel intrusion plate on the driver's side door bars is mandatory

C.) Approved installations:

1. Direct Welded/Individual Plates
2. Individual plates between door bars are permitted but must be welded around the

perimeter.

### **Welded Tabs/Bolt on Plates**

1. Intrusion plate must be bolted to fabricated ¼ inch (.125") magnetic steel tabs, welded securely to the chassis, using a minimum of eight (8) x ⅜ inch Allen button head bolts.

1. A minimum of three (3) fabricated ¼ inch (.125") magnetic steel tabs and ⅜ inch Allen button head bolts required across top of the intrusion plate. A minimum of three (3) fabricated ¼ inch (.125") magnetic steel tabs and ⅜ inch Allen button head bolts required across the bottom of the plate. One (1) fabricated ¼ inch (.125") magnetic steel tabs and ⅜ inch Allen button head bolt in each in the middle front and middle rear of intrusion plate.

### **Door Bar Clamps/Bolt on Plate**

1. Intrusion plate must be bolted to a minimum of six (6) approved-design door bar clamps using the included twelve (12) x half-inch (0.5") Allen button head bolts per the manufacturer's specification.

1. A minimum of three (3) approved-design door bar clamps and the included six (6) x half-inch (0.5") Allen button head bolts required across top of the intrusion plate

and three (3) approved-design door bar clamps and included six (6) x half-inch (0.5")

Allen button head bolts required across bottom of intrusion plate

1. Vendor and part number must be clearly labeled on clamps.
2. Current approved bar clamps (as of June 6, 2017)

■ Allstar Performance – Part Number: ALL4198

■ Bicknell Racing Products – Part Number: BRP 9547

■ Wehr's Machine & Racing Products – Part Number: WM397

### **Interiors**

A.) Interior is permitted to be dropped to the middle (just behind the seat) of the car a maximum of five inches (5") below the top of doors and a minimum of twelve inches (12") below the roll cage.

B.) Interior must be fastened flush at the top of the door and quarter panels and must taper gradually towards the center of the car. Maximum of seventy degree (70°) angle from the deck.

C.) Interior must run in a straight line from behind the driver's seat to the rear spoiler.

D.) Interior (deck) must run in a straight line (vertical and horizontal) across the back of car at the spoiler.

E.) All interiors must be made of aluminum.

F.) If interior is flat through the car, it must maintain a twelve-inch (12") clearance from roll cage for easy exiting from either side of the car.

G.) Cowl (driver protection) panels in front of the driver may have a maximum of three inches (3") in height. The cowl panel must taper to the deck or end in line with the steering wheel.

H.) If interior is dropped at firewall/back of hood, that portion of the firewall must be filled in vertically with aluminum. Interior may be dropped a maximum of two inches (2") from the top of the hood.

### **Engines**

#### **602/604 stock**

**NLMS per their rules except as listed here weight, spoiler, and tires for non-series races**

**CT525 nesmith & fuel series rules expect as listed here weight, spoiler, and tire for non-series races**

**Super as follows per rules except as listed here weight, spoiler, and tires for non-series races**

A.) Engines must be based on a factory design and must be naturally aspirated. Aluminum or steel blocks permitted.

B.) No fuel injection devices, electric fuel pumps, turbo chargers, or blowers permitted.

C.) Magnetos are permitted. However, the engine must have an operating self-starter.

D.) The engine may be set back a maximum of (25 1/2") from the center of ball joint to back of the block.

E.) Carburetor is limited to one four barrel.

F.) All engines are limited to one spark plug and two valves per cylinder.

G.) No engines using coil packs are allowed. Engine must operate using a single distributor. No distributor-less engines allowed.

H.) A harmonic balancer certified to SFI Spec 18.1 is required.

I.) No overhead cam engines.

### **Fuel Systems**

A.) An approved fuel cell (32 gallon maximum) must be used at all times.

B.) The only fuel cells that are approved are those that meet and/or exceed the FIA / FT3 or SFI specifications.

C.) Fuel cells must be used in accordance with 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.)

- D.) Fuel valve plate, fuel pickup and fuel return fittings must be on the top of the fuel cell.
- E.) Fuel cells that are not contained within a welded steel tubing "rack" must have two (2) equally spaced steel straps that measure two (2) inches wide by 1/8 inch in thickness that completely surround the fuel cell. The straps must be bolted to the frame. Longitudinal (front to rear) orientation is recommended for strap mounting.
- F.) A firewall must be installed between the fuel tank and driver's compartment.
- G.) Gasoline or Alcohol only. Nitrous gases or other nitrate additives are not permitted.
- H.) Willy's Carburetor roll over plate part # WCD4000 is approved for competition.
- I.) Fuel Cell Can must be sixty thousandths (.060) aluminum or twenty (20) gauge steel.
- J.) Caps must be threaded on. No twist on d-ring caps.
- i.) ATL Part #751 twist on cap is permitted.

#### **Steering Components**

- A.) One mechanical power steering pump permitted. Electronic steering components are not permitted.

#### **Chassis**

- A.) No titanium chassis or suspension components.
- B.) No titanium fasteners.

#### **Transmission, Clutch, and Axle Housing (Rear End)**

- A.) Any transmission with working reverse and working forward gears is permitted.
- B.) Manual transmission must be equipped with an operational clutch.
- C.) Automatic transmissions are permitted.
- D.) The transmission must be mounted to the rear of the engine and lead to one drive shaft.
- E.) No "live-axle" rear-ends are permitted.
- F.) No independent rear suspensions are 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.
- H.) The axle housing must be of the "closed tube" design utilizing "full floating" magnetic steel axle shafts.
- I.) The center section of the axle housing must be manufactured of either aluminum or magnesium.
- J.) Axle tubes must be one (1) 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 three (3) inches. 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.

#### **Drive Shafts**

- 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.

#### **Only aluminum wheels will be permitted.**

- B.) Wheels must be mounted with lug nuts: no knock-off mounting devices are allowed.
- C.) Maximum wheel width is fourteen inches (14").
- D.) Maximum width outside of front tires is ninety inches (90").
- E.) Maximum width outside of rear tires is eighty-eight inches (88").
- 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 (3), quarter-inch (0.25") or five sixteenth inch (0.3125") 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.) The combined weight of the wheel, wheel hardware, wheel disc and fasteners, and tire must not exceed 40 pounds\*. \*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.
- I.) Bleeder valves of any kind are not permitted.

#### **Brakes, Brake Components, Wheel Hub**

- A.) Must be equipped with sufficient four (4) wheel braking system.
- B.) On track three wheel braking is allowed.
- C.) Brake rotors must be manufactured of magnetic or stainless steel. No titanium or carbon fiber brake rotors are permitted.
- D.) Brake rotors must be used as produced by the brake rotor manufacturer.
- E.) Brake calipers must be manufactured of aluminum.
- F.) The brake caliper including brake caliper pistons must be used as produced by the brake caliper manufacturer.
- G.) Wheel hubs must be manufactured of aluminum or magnesium.
- H.) Wheel hubs must be used as produced by the wheel hub manufacturer.
- I.) 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 twenty-seven pounds (27lbs.).

### **Shocks and Springs**

- A.) Shocks must be constructed of aluminum or steel. Canister shocks are permitted.
  - i.) The only external connection allowed to the shock is a single hose to a single remote canister with the option of a compression adjuster in the canister.
  - ii.) Compression adjuster and/or canister cannot be mounted within the reach of the driver.
  - iii.) Maximum shock body outside diameter is two (2), half-inch inches (0.50").
  - iv.) Maximum front shocks length is twenty one inches (21"). Measured center to center of the shock eyes.
  - v.) Maximum rear shocks length is twenty seven inches (27"). Measured center to center of the shock eyes.
- B.) No cross connected shocks are allowed.
  - i.) The only external connection allowed to the damper is a single hose to a single remote canister with the option of a compression adjuster in the canister.
  - ii.) Compression adjuster and/or canister cannot be mounted within the reach of the driver.
- C.) No "Rod-Through" designs are allowed.
  - i.) "Rod-Through" shocks are defined as those shock absorbers in which the piston rod protrudes from both ends of the shock body.
- D.) No Inerters are allowed.
  - i.) No rotating parts inside the damper.
  - ii.) No Inerter style dampers, either mechanical or hydraulic, or other type of primarily acceleration sensitive damping devices permitted.
- E.) No Electrical adjusted or active dampers are allowed. No electrical wires, transmitting or receiving components will be allowed to be attached internally or externally to the dampers or mounted inside any component or dampers. No portion of the race car including and not limited to – shocks and spring components or chassis components may have the ability to communicate transfer/transmit/receive any type of digital or analog data or any language and or adjust or monitor in any way whatsoever including but not limited to a variation of a wireless remote device/phone/computer/tablet/ipad or a mechanical remote device.
- F.) Any new chassis design or component designs pertaining to and/or but not limited to shock absorber mounts must be submitted to the Lucas Oil Late Model Dirt Series for approval before they will be permitted for use in competition. Manufacturer and/or competitor may be required to disassemble for complete inspection before in-statement of new part is permitted.
- G.) Springs must be made of steel. Torsion bars are not allowed in rear.
- H.) Coil springs must be steel. Leaf springs may be composite or steel.
- I.) Spring preload adjustments for coil springs must be made using mechanical adjusting nuts on the shock body.
- J.) Spring preload adjustments for leaf springs must be made using a mechanical adjusting device such as an adjustable shackle or threaded rod type mount.
- K.) Other than spring dampening by the shock absorber, hydraulic, pneumatic, or electrically controlled adjusting devices, (static or dynamic) that affect spring preload or race car heights will not be permitted.
- L.) Shock Locations
  - i.) Only one (1) shock per wheel is permitted at the left front, right front, and/or right rear corners.
  - ii.) Left rear must have one shock behind the axle tube and may have one traction (dummy)

shock on the front side or top of axle tube. Must mount vertically to the birdcage or clamp bracket.

iii.) One (1) fifth coil shock permitted.

iv.) One 90/10 optional shock may be mounted above lift arm on upper lift arm plates. Must be mounted towards the front of the car lying parallel with the car. Shock must mount within three inch (3") of the centerline of the rear ends center section.

M.) One (1) drop chain (limiting chain) is permitted. Must mount vertically from the frame to a bracket on the birdcage to axle tube. Bracket on the axle tube can have a bearing or clamped solid.

N.) All bump stops and/or springs must be mounted on a shock with the exception of a left rear drop chain assembly, 6th coil assembly and/or lift arm assembly. No bump sticks are premitted.

O.) Suspension covers are not allowed. Rear covers on race car are not allowed outside of your pit area. Spring and/or shock covers are permitted, but must be fastened directly to the spring or shock.

P.) A swing arm and/or z-link suspension is permitted as long as the top and bottom solid links are mounted on hiems and run in the opposite directions of the bird cage. The shock on a swing arm or z-link rear suspension may mount to the bird cage or the bottom radius rod.

### **Suspension Components**

A.) Any new chassis design or component design and or technology pertaining to and/or containing suspension must be submitted to the Lucas Oil Late Model Dirt Series for approval before they will be permitted for use in competition. Manufacturer and/or competitor may be required to disassemble for complete inspection before instatement of new part is permitted.

B.) Suspension and/or rear end parts can be made of steel or aluminum. Aluminum mounting brackets are permitted.

C.) Frame and/or suspension mounts must be welded or bolted solid to the frame and not move. ieFloating, sliding, flexible, pivoting and/or rotating mounts and/or brackets of any sort are not allowed.

D.) Bolted components must match the correct bolt size with the hole (for instance no 3/8 inch (.375") bolts in a 1/2 inch (.50") hole will be deemed illegal) and be torqued to a min of forty (40) foot pounds per inch.

#### **E.) Rear Suspension Mounts**

i.) All mounts must be double sheer.

ii.) Double sheer mounts must be 1/8 inch (.125") minimum steel and/or 1/4 inch (.25") minimum aluminum.

iii.) Sheer mounts must use minimum 3/8 inch (.625") rod ends with minimum 1/2 inch (.50") grade eight bolts only. The bolt must be bolted through both sheer mounts.

iv.) Double sheer mount must be no wider than four inches (4") with a minimum 1/2 inch (.50") inch grade eight bolt with steel or aluminum spacers only.

F.) Only one (1) mechanical traction device is permitted. Only one (1) pull bar or one (1) lift arm is permitted. No other options are allowed. Covers of any sort in any relation to the lift arm or pull bar are not allowed.

#### **G.) Lift Arm & Pull Bar**

i.) Floating, pivoting and/or rotating mounts and/or brackets of any sort (connected to and/or associated with the pull bar or lift arm) are not allowed.

ii.) Lift arm is defined as a steel or aluminum triangulated bar that is connected at the top and bottom of the rear end housing, extending forward where it is connected to a shock, shock-spring coil-over combination and a limiting chain. One stabilizer bar is permitted to locate the front of the lift arm from left to right in the car.

iii.) Sixth coil or braking spring assemblies are permitted, must be in front of 5th coil shock.

iv.) Pull bar is defined as a continuous assembly that is connected to the top of the rear end and extends forward to a solid mounting point located on the chassis. The mounting location at both the front and rear of the pull bar may be adjustable but must remain constant during competition (cannot be adjustable from the cockpit).

#### **H.) Radius Rods**

i.) All rear suspension radius rods must be of a fixed length. No hydraulic cylinders, torsion bars, bump rods, spring rods, slider rods or shock-type radius rods are permitted.



- ii.) The only materials used to fabricate attaching (radius) rods that will be permitted are magnetic 31 steel or aluminum.
- iii.) Aluminum attaching (radius) rods may be solid or tubular material. Magnetic steel attaching (radius rods) must be tubular with a maximum wall thickness of 3/16 inch (0.1875).
- iv.) Radius Rods must be a minimum of one inch (1") diameter OD. Rods can be round, square, or hex shaped. Rods must be a minimum of .095 steel or .120 aluminum in tubing thickness.
- v.) Heim joints must be a minimum 5/8, and a maximum 3/4" steel heim. No rubber bushings.
- vi.) ONLY – two (2) radius rods per side.
  - 1.) Radius rods must be spaced on the frame a minimum of 6"
  - 2.) Radius rods must be spaced on the birdcage a minimum of 6" and a maximum of 12"
  - 3.) Measurements will be made from center of each radius rod bolt.
- vii.) All radius rods must be straight with the exception of the left lower, that can have a bend for axle housing mount clearance.
  - I.) Axle Housing Mounts (Birdcages)
    - i.) Axle Housing Mounts (Birdcages) may consist of multiple barrels but must bolt or weld together to work as single barrel birdcage.
    - ii.) Limited one (1) Axle Housing Mount (birdcage) per side.
    - iii.) Shock(s) and radius rods must mount to the Axle Housing Mount (birdcage).
    - iv.) Floating, pivoting and/or rotating mounts and/or brackets of any sort are not allowed. All brackets or mounts attached to the Axle Housing Mount (birdcage) must be bolted or welded solid.
    - v.) 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.
  - J.) Jack Bolts are permitted.

#### **Shock, Spring, and Suspension Penalties and Infractions**

1. If violations are found during pre-race technical inspection: The driver and/or team will receive a warning and must meet full compliance before being allowed to compete. If a violation is found after pre-race technical inspection: No Winnings, Points, Winners Circle Pay will be paid and a fine of \$5,000 may be assessed to the violating team and or driver.

#### **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!

#### **Traction Control Devices**

- A.) All Traction Control Devices are strictly prohibited during any form or portion of a race or practice/test session.
- B.) 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.
- C.) At NO time during the 2018 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.
- D.) 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 monies won.
- E.) GPS and/or any other type of electronic tracking and/or locating device will not be permitted for any reason.

## **RULE BOOK DISCLAIMER**

The rules and/or regulations set forth herein are designed to provide for the orderly conduct of racing events and to establish minimum acceptable requirements for such events. These rules shall govern the condition of all events, and by participating in these events, all participants are deemed to have complied with these rules. NO EXPRESS OR IMPLIED WARRANTY OF SAFETY SHALL RESULT FROM THE PUBLICATION OF OR COMPLIANCE WITH THESE RULES AND/OR REGULATIONS. They are intended entirely as a guide for the conduct of the sport and in no way guarantee against injury or death to any participant, spectator or official.

The race director or Head Tech Inspector shall be empowered to permit reasonable and appropriate deviation from any of the specifications herein or impose any further restrictions that in their opinion do not alter the minimum acceptable requirements. NO EXPRESSED OR IMPLIED WARRANTY OF SAFETY SHALL RESULT FROM SUCH ALTERATIONS OR DEVIATIONS. Any interpretation or deviation of these rules is left to the discretion of the officials and is final and binding.

On occasion when situations arise that are not covered by written rules herein, special rulings may be put into effect by the track officials. Once such rulings are acted upon, they may become an act of policy and will be added to the existing rules of procedures.