

2021 SMS Open Wheel Modified Rules



Smoky Mountain Speedway will utilize UMP DIRTcar Modified rules for 2021. Rules are as follows:

TO ALL COMPETITORS/PARTICIPANTS

* Under the guideline of the 2021 DIRTcar UMP Modified rules any and/or rules and as stated in the 2021 DIRTcar Rule Book, all DIRTcar rules applies to all divisions, except in instances where any local track rules, pertaining to any item are listed in the local track rules, whether that is in the technical components and/or the racing procedures and/or overall rules that are administered by the local track officials and management. In those instances, and where applicable, the local track rules shall prevail.

* The 2021 DIRTcar UMP Modified Rules have been established to include the rules in several different regions of North America, refer to the rules that are in effect in your region.

* The following are the 2021 DIRTcar UMP Modified rules. All amendments supersede any previous rules regarding any technical article and/or aspect.

* Under the guideline of the 2021 DIRTcar UMP Modified rules any and/or rules and as stated in the 2020 DIRTcar Rule Book, all DIRTcar rules apply to all sanctioned divisions.

* The specifications published shall be considered a section of the "Official Rules and Specifications" for all events, series and sanctions by World Racing Group. All sections should be considered when determining specifications and governance.

15.0 DIRTcar UMP Modified

ANY CAR, TEAM AND/OR DRIVER THAT DOES NOT MEET THESE SPECIFICATIONS AND/OR EQUIPMENT REQUIREMENTS WILL BE SUBJECT TO PENALTIES AS DETERMINED BY THE DIRTcar and/or World Racing Group OFFICIALS

15.1 – Engine

A. Any American made push-rod type engine will be permitted as long as the rear of the engine bell housing flange is mounted at least 72"-inches forward from the center of the rear axle. The engine offset must remain within two (2") inches of the centerline from the cross member. The minimum engine height when measured from the ground to the center of the crankshaft is 11" inches. Other engines of the push-rod type that meet this criteria may be approved for competition.

B. All engines used in competition must be able to be used in a conventional passenger car without alteration. Alteration of motor mounts will not be permitted. Alteration of the castings and/or fittings will not be permitted. Any machine work on the outside of the engine or machine work on the front or rear of the crankshaft will not be permitted.

C. Aluminum blocks will not be permitted.

D. Magnetos will not be permitted.

E. Wet sump oiling systems must be operative and will go with a claim by DIRTcar officials. Overall dry sump systems will not be permitted.

F. Alteration to the cooling system will be permitted. If alterations to the cooling system are made the stock-appearing hood line must be maintained.

G. The battery must be securely mounted and shielded. The battery must not be mounted inside the driver's cockpit.

H. The exhaust system(s) must be mounted with the exhaust directed away from the vehicle and away from the ground. The exhaust system(s) must remain completely below the interior deck of the car. The entire exhaust system (including the exhaust pipe and/or header exits) must be inside all parts of the body. The only breach of any interior or exterior body panel that will be permitted is for routing the left side header or exhaust pipe on the left side of the car. When routing the left side header or exhaust pipe through the left side firewall a maximum of 1/2" inch clearance around the header or exhaust pipe will be permitted.

I. Local track rules will prevail when decibel and/or muffler rules.

J. One two or four-barrel carburetor is required.

K. The engine must be a normally aspirated configuration.

L. Fuel injection systems or electric fuel pumps will not be permitted.

M. There may be specific engine rules issued for each region of North America that deviate from the standard UMP Modified Engine rules included herein.

15.1.1 – Engine Claims

A. Any qualified UMP Modified competitor has the right to claim any engine provided they follow the specifications as set forth by the rules herein. To begin the claim a \$550.00 fee, plus the agreement to an engine exchange in addition to \$50.00 for the tow truck operator. All claims do not include: flywheel, clutch, pressure plate, bell housing, headers, carburetor, starter, fan & pulleys, motor mount, sending units and switches for oil pressure and water temperature, carburetor adaptor, clutch ball, clutch arm, throw out bearings, dip stick, water pump, distributor, plug wires or fuel pump.

B. Any competitor who processes a claim must have taken the checkered flag in the feature race and have finished the feature race on the 'lead lap'. The claim must be presented in cash or certified check to promoter or designated DIRTcar official within five (5) minutes after the completion of the feature race. The driver must have the claim payment and his/her DIRTcar current/valid membership and claim card available. A third party cannot provide these items to the claiming driver. (Yearly membership runs from January 1 through December 31.) All claims, positive or negative, must be reported immediately to DIRTcar headquarters by the event promoter and/or chief steward of the event. Drivers will only have the ability to make two (2) claims in any UMP Modified season. A driver can claim another driver's engine only once during the year. Only the engine of the event winner can be claimed. In case of multiple claims on the same engine, the engine will go to a qualified driver who finished the furthest back in the field on the lead lap. Drivers may not claim an engine if he/she has spun out and caused a caution period. If a claim is refused, the claim is not held against the claiming driver. The claim rule is intended to maintain cost effectiveness and a level playing field in the UMP Modified division.

C. Any driver making a claim must drive his/her car immediately after the finish of the feature, under its own power, directly to the claiming area. Only drivers and officials will be permitted in the claim area. The claim area must be designated by the promoter to all drivers at the driver's meeting prior to the feature event. The feature winner must go to the claim area immediately following the finish of the feature event. If no driver comes immediately to the claiming area, the winner may proceed as directed.

D. The claimed engine must be completely removed within one (1) hour from the time the claim is made.

E. The first sell/no sell or trade of the engine by the driver being claimed is considered binding.

F. Only a qualified driver may claim an engine and only the winning driver may agree to sell.

G. Any refusal to sell forfeits all cash, trophies and contingency winnings for the feature as well as all DIRTcar State and Nationals points' award for that night. Any driver refusing to sell his/her engine the first time is fined \$200.00 and is suspended for the next racing event at their home track and one (1) week from all DIRTcar sanctioned race tracks. The second infraction for a driver refusing to sell their engine is a \$600.00 fine and a suspension from all DIRTcar sanctioned tracks for 30-days.

H. All claimed engines must be removed from the car at the track. The buyer must examine the engine before removal. Once removal has started, the sale is final. Any sabotage to claim an engine will result in the saboteur being suspended from all DIRTcar races for 30-days and until the fine of \$1,000.00 is paid to DIRTcar.

I. To claim an engine, the claiming driver must have raced at least one-half of the sanctioned events at the sanctioned track where the claim is made or at a minimum the three (3) most recent consecutive feature events at that track. A driver can have his/her engine claimed at any time. No claim can be made against a driver on his/her first night at a sanctioned track.

15.2 DC 18 Engine Option

As an option to the current DIRTcar, UMP Modified engine rules, an approved DC18 Chevrolet Performance CT525 Engine will be permitted for use in competition in all DIRTcar UMP Modified Events providing ALL the following requirements are strictly adhered to. An approved DC18 Chevrolet CT525 Engine is defined as follows:

A. Chevrolet Performance Engine, Part number GMP-19331563DC18 or GMP-19331563DC18K

B. The engine assembly MUST be obtained from the DIRTcar approved vendor.

C. Engine must have complete unaltered Chevrolet Performance engine seals installed at the time of manufacture assembly.

D. Engine must have complete unaltered secondary DIRTcar seals installed by the approved vendor prior to delivery of the engine.

E. Engine must have approved vendor seals and inventory numbers.

F. Ignition system must be controlled by an approved, pre-programmed MSD 6014CT control unit with the correct corresponding identification number for the engine being used.

G. All Engines, seals, and applicable components will be entered into a master database and must correspond to the engine being used.

H. The engine and engine components, engine seals, engine identification numbers and the likes must be used as received by the DIRTcar UMP approved vendor without modification, and/or alteration of any kind.

I. All DC18 engines must use gasoline or gasoline/ethanol blends. Methanol is not approved for use with the DC18 engine.

Approved Engine Vendor(s):

The DIRTcar UMP approved DC18 engine vendor for 2018 is:

Pace Performance (888) 748-4655 Don Blakshear 50 Karago, Boardman, OH 44512
donblakshear@paceperformance.com www.paceperformance.com

15.2.1 – Specifications

A. The DIRTcar approved DC18 Chevrolet Performance Engine part number GMP-19331563DC18 or GMP-19331563DC18K will be offered from Pace Performance in two approved versions reflecting the following part numbers:

- a. GMP-19331563-DC18 – Base engine as received from Chevrolet with applicable seals, identification numbers and pre-programmed MSD 6014CT ignition control
- b. GMP-19331563-DC18K – Base engine as received from Chevrolet with applicable seals, identification numbers and pre-programmed MSD 6014CT ignition control and the following approved bolt on components:
 - i. Pace steam line kit including billet water outlet in #16, #20 or 11/2' hose
 - ii. Jones Water Pump kit
 - iii. Pace crankcase vent system
 - iv. Remote oil filter mount kit
 - v. Oil Heater
 - vi. 8 quarts of break in oil and racing filter
 - vii. Aluminum motor mounts

15.2.2 – Directive

The direction of the DIRTcar approved DC18 Chevrolet Performance Engine program is to maintain a cost-effective, affordable racing program. Any alteration made in an attempt to influence the integrity of this program will not be permitted. The judgment and determination of any such decision will be at the sole discretion of DIRTcar and/or World Racing Group Officials.

A. The engine and all components must remain in their original configuration and form as purchased and/or delivered from the DIRTcar approved vendor. Any alterations to the engine will not be permitted. The engine must remain as manufactured by Chevrolet.

B. All engines are to remain sealed from the factory. The original factory seals must remain unaltered. Tampering, removal, modifications of any type and/or broken factory seals will not be permitted.

C. The Chevrolet Performance Engine seals (bolt-type) must remain unaltered. DIRTcar and/or World Racing Group Officials require secondary sealing and verification of all seals on any Chevrolet Performance Engine by the DIRTcar approved vendor. Tampering with and/or alteration of any seals will not be permitted and is subject to immediate penalty and/or suspension.

D. The DIRTcar approved MSD 6014CT ignition control is pre-programmed to a specified timing curve and a maximum RPM limit. Routine testing of controllers will be performed by DIRTcar Technical Officials. Any attempt to reprogram controller whether successful or not is subject to immediate penalty. DIRTcar Officials reserve the right to randomly confiscate or exchange any competitor's ignition controller.

E. Routine external maintenance (oil and filter changes, sparkplug replacement, belts, hoses, etc.) will be permitted.

F. Approved repair is permitted; however, the repairs must be initiated and completed by the DIRTcar approved vendor. Engine rebuilds are not permitted. DIRTcar must authorize DC18 Chevrolet Performance Engine repairs.

G. DC18 Chevrolet Performance Engine repair procedure works as follows:

- a. Contact DIRTcar Technical Officials for authorized repair.
- b. The DIRTcar Technical Officials will approve a repair and provide contact information to the competitor for the DIRTcar approved vendor to obtain an estimate of repair(s).
- c. Based on the estimate and the detail of the repair, DIRTcar officials will determine if the repairs may be made or if a new engine must be purchased. Any repair estimates presented to the DIRTcar Officials that meet and/or exceed 80% of the actual price of a new engine, a new engine must be purchased. The engine that was damaged will no longer be eligible for competition
- d. If a repair is approved, the DIRTcar approved vendor will inspect the engine and make the repair to ensure that the engine maintains the DC18 Chevrolet Performance Specifications.
- e. Upon completion of the repair(s) the engine will be 'resealed' before being released for competition.

H. DIRTcar and/or World Racing Group Supervisory Officials reserve the right to inspect, exchange and/or confiscate any DC18 Chevrolet Performance Engine at any time. Failure to surrender the engine and/or submit the engine for inspection will result in disqualification from the event and/or suspension.

I. The DC18 engine is NOT eligible for engine claims as described in section 15.1.1 Engine Claims.

15.3 – Transmission & Driveline

A. The drive shaft must be made from magnetic steel or approved carbon fiber. Aluminum or fiberglass driveshafts will not be permitted. The driveshaft must be painted white with the car number clearly labeled on the drive shaft.

B. A 1/2"-inch x 2"-inch 18-gauge steel drive shaft hoop is mandatory. The drive shaft hoop must be at least six (6") inches behind the universal-joint. Two hoops are strongly recommended. A single 1/8"-inch plate on the right side of the drive shaft tunnel is recommended.

C. All competitors are encouraged to perform systematic checks on their drive-train.

D. Direct drives and/or any type devices will not be permitted.

E. The transmission must be bolted to the engine. All cars must have forward and working reverse gears and be able to shift to forward or reverse with engine running. BERT-type transmissions will be permitted.

F. Clutch-type transmissions must be equipped with explosion-proof steel bell housing. In lieu of an explosion-proof bell housing or if one is not available for your engine, a shield of at least 1/2" inch x 6"-inches covering the clutch area 360 degrees securely fastened in place and fabricated from magnetic steel will be permitted.

15.4 – Chassis & Frame

A. Only factory production full 1965 or newer parallel American passenger car frames will be permitted. The frame must be complete in front of firewall. Cutting of the frame in any way in front of firewall will not be permitted.

B. The frame must remain unaltered and must meet the requirements of the attached drawing.

C.

D. The Right-side frame rail may not be altered and/or raised and/or moved from the stock OEM location in any manner and must measure a maximum of six (6) inches from the ground to the bottom or lowest edge of the frame rail.

E. The front cross member may be notched to allow clearance for the radiator only. The cross members must be plated to retain complete box configuration.

F. Jeep, Bronco, 4-wheel drive, front wheel drive or sports car frames will not be permitted.

G. The minimum wheelbase permitted will be 108" inches. The maximum wheelbase permitted will be 112" inches. No tolerance – measurements are as posted

H. Fiberglass lift bars and/or rear torsion bars will not be permitted.

I. Any frame may not be widened or narrowed and must be able to support the roll cage on both sides and must be full and complete on both sides.

J. The minimum frame and body height from ground is four (4) inches.

K. The front bumper must be mounted to the ends of the frame with the bottom loop parallel to the ground.

L. A minimum of 1" diameter tubing and/or pipe is required to for towing of the vehicle.

M. The rear bumpers must be constructed of tubing and/or flat stock. All rear bumpers and/or tubing utilized in the fabrication of the rear bumper assembly must have an end cap. The rear bumpers must protect the fuel cell.

N. The bumper(s) (front and rear) when measure from their center(s) must have a minimum of 25" inches of ground clearance. There will be a two (2) inch tolerance, plus or minus regarding this dimension. The rear bumper and/or the nerf bars must not extend beyond the width of rear tires. All bumpers must have round edges. Sharp edges on any bumper and/or bumper surface will not be permitted.

O. The brace bars forward of the roll cage must not extend higher than stock hood height.

P. The rear push bars must not extend beyond six (6") inches of the rear quarter panel(s).

Q. All side bars and bumpers must be capped on ends.

R. The maximum overall width of the car, front and/or rear, shall not exceed 78" inches when measured from the outside of the tire tread on both sides of the vehicle. A maximum one (1") inch spacer between the hub and wheel will be permitted. Steel and/or aluminum spacers will be permitted, provided the overall tread width of the vehicle does not exceed 78"-inches.

15.5 – Weight

A. All added weight(s) must be painted white with the car number clearly labeled on each weight.

B. All added weight(s) must be securely mounted to car with minimum of two (2) 1/2"-inch bolts that pass completely through each weight and the car. Weights that are mounted on the rear bumper or outside the body of the car will not be permitted. All added weight must be mounted below all windows and the interior sheet metal.

C. All added weight(s) must be securely attached to the frame below the body decking.

- D. Frame is defined as the steel welded structure only.
- E. Any part that moves or is not a fixed component to the steel frame structure may not be used for any weight attachment.
- F. Weights attached to the rear bumper and/or outside the frame will not be permitted.
- G. Any car that loses any weight(s) during any event may be fined up to \$500.00.
- H. The minimum weight of car with driver at all times including after the race is 2,400 lbs.
- I. All weight determinations will be measured on the scales selected by the local track officials and/or by DIRTcar Officials for each racing event. Burn off and/or weight percentages and/or tolerance after the completion of any racing event will not be permitted.
- J. All cars will weigh as directed by announcement, radio message or posted at the designated Scales, per the weight rule, and track layout. All cars must weigh in immediately following their races as directed. Any detour, redirection, mud puddle meandering, may result in disqualification or penalty
- K. The winner must weigh prior to any Winner's Circle Interview or Presentation.
- L. Any detour to the scale, may result in loss of finish position or time. Should any car stop on the way to the Scales, and be touched by anyone other than a Race Official, the Driver may be disqualified. Any car not meeting the minimum weight, after the designated event will lose its time, and or finishing position from that event.
- M. The scales used for the event, provided by the series or the track, will be considered the official scales for the event.
- N. Scales will be available for any team to verify its car weight and determine the scale weight.
- O. 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.

15.6 – Fuel Cells & Fuel

- A. Fuel cells must be used in accordance with the manufacturers specifications. Alterations of any kind will not be permitted (example: alterations to top plate, alterations or removal of foam, etc.).
- B. Either meet FT3 or SFI 28.3 requirements and/or Include:
 - a. Key components of an approved fuel cell are: a metal container, bladder, foam baffling for slosh and explosion suppression, flap valve and rollover vent valve, threaded or snap lock cap.
 - b. Fuel valve plate, fuel pickup and fuel return fittings must be on the top of the fuel cell.
 - c. The fuel cell must be completely enclosed in an 18-gauge magnetic steel container.
 - d. 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.
- C. The maximum capacity for the fuel cell will be 22 gallons. Engines that are fueled by alcohol may have a maximum capacity of 32 gallons.
- D. All fuel cells must be completely visible.
- E. The fuel cell must not extend lower than protective tubing.
- F. Racing gasoline or alcohol will be permitted.
- G. Nitrous oxide, nitrous methane, propylene oxide or any type of additives will not be permitted.

15.7 – Body (See drawing diagram for reference – there may be dimensions referenced in the drawing diagram that are not referenced in the written rules and vice versa. All dimensions whether written and/or referenced in the drawing diagram dimensional are rule(s)).

- A. All bodies must follow dimension(s) and the appearance as shown in diagram. The body shall be the fabricated modified body from approved vendors. The body must be symmetrical, including but not limited to doors, nose, sail panels, spoiler supports, etc.
- B. The front windshield and rear window support must be stock appearing. The front window support(s) may have a clear Lexan support of no more than 16" inches including the roof post at the bottom and going straight to the roof. The support must be securely fastened in a positive manner.
- C. The front roof post must be in a straight line from top to bottom.
- D. The sides of the engine compartment must remain open. Any side panels in the engine compartment area will not be permitted. A five (5") inch maximum drop of the hood on either side of the hood will be permitted and it must be enclosed at the rear of the hood. The firewall on driver's side must meet the front of the door. The firewall must be a minimum of 16"-inches in length from top-to-bottom.
- E. The top of the doors must remain in line with the rear engine plate. The bottom of the doors may extend a maximum of eight (8") inches past the motor plate toward the front of the vehicle. Any material that exceeds 8"-inches forward of the engine plate will not be permitted.
- F. Right panel from top of door to bottom of door may not be no more than 3 inches and must be mounted straight inside the bottom.

- G. A maximum one (1") inch flange on the outside edges (left and right side vertically) for the purpose of strengthening only will be permitted on the front nose only. Side fins and/or flanges of any kind along the length of the entire car (hood, front, and/or roof) will not be permitted.
- H. A maximum of one (1) stone deflector, mounted only on the right side of the car, 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 and is designed to protect with a maximum size of eighteen (18"x18") inches square and mounted only from the upper right frame rail to the lower right frame rail.
- I. The minimum roof height is 42" inches with a maximum height of 52" inches.
- J. The minimum deck height is 28" inches with a maximum height of 39" inches.
- K. All cars must have a car number on both sides and the roof that are at least 18" inches in height and 14" inches in width.
- L. The driver's last name must be displayed under the car number in a legible font that is a minimum of eight (8") inch high letters.
- M. A minimum of two (2") inches of tire clearance from the body is required.
- N. The minimum ground clearance will be four (4") inches.
- O. The measurement from center of the hub to the rear top of deck will be a minimum of 34" inches and a maximum of 48" inches.
- P. The maximum body width at the body's widest part will be 72" inches. The minimum of width at the body's narrowest part will be 53" inches. The top of the doors may have a maximum width of 67" inches. The bottom of the doors may have a maximum width of 68" inches. Q. On the left side, the rear of the door may flare out six (6") inches for tire clearance.
- Q. The bottom of the flare must be curved and rounded not pointed in any fashion.
- R. The maximum rear width of car must be 67" inches at the widest point.
- S. The maximum roof width will be 50" inches with a minimum of 44" inches.
- T. The maximum roof length will be 56" inches with a minimum roof length of 41" inches.
- U. The maximum height on rear roof post vertical is 3" inches.
- V. The nose piece must not exceed 45"-inches in width, centered between the frame rails and must not extend past the leading edge of the front bumper. The nose piece must have a minimum of six (6") inches from the ground to the bottom edge of the nose piece.
- W. The MD3 D3 Modified Aero Valance is approved.
- X. Rear spoilers of any type, including but not limited to, shaping of panels, shaping of interior body panels, shaping and/or redirecting airflow with sail panels, etc., will not be permitted.

15.7.1 – Interior and Driver Compartment

- A. All windows must have a minimum 11"-inch vertical opening. The entire interior must have a minimum of 11"-inches of clearance from the interior deck to the roof and all sections of the roll cage. The minimum window opening will be 12" inches. The interior deck sheet metal to the right side of the driver from the back of the seat forward should be fabricated on an angle from the driveshaft tunnel to the right-side window to promote ease of exit for the driver through the right side and or front window opening.
- B. A master ignition switch within easy reach of the driver is mandatory. The switch must be clearly labeled "ON" and "OFF".
- C. Hydraulic and/or pneumatic weight jacks, trackers, or similar adjustable components of any type will not be permitted.
- D. Mirrors of any type will not be permitted.
- E. The drivers compartment must be sealed from the engine and the race track. The rear bubble of the hood should be closed and sealed from the driver.
- F. The maximum slope/rake of the interior sheet metal "shelf" front-to-rear is 4"-inches when measured from the firewall to the top of the most rearward part of the rear deck. A maximum of 2"-inches of slope/rake will be permitted in front of the rear of the seat to the firewall and a maximum of 2"-inches of slope/rake will be permitted from the rear of the seat to the top of the most rearward part of the rear deck.
- G. The top of the interior must be flush with the top of door and quarter panels. A one inch drop on the inside will be permitted when measured laterally from the top of the doors to the lowest part of the deck.
- H. Any car in competition must have right side door bars as part of the roll cage. Please reference 15.11 – B in the roll cage section of the 2018 DIRTcar UMP Modified Rule Book.

15.7.2 – Roof & Roof Supports (see drawing diagram for reference)

- A. All roofs must be full size. Half-moon roofs will not be permitted. The rear edge of the roof may not be mounted more than 12" (twelve inches) past the rear axle. The roof must be symmetrical.
- B. Wings, roof spoilers or ground effects of any kind will not be permitted.

- C. All flat type roofs will be allowed a maximum 3"-inch difference in height between the front of the roof and the rear of the roof. This measurement may be taken from the interior and/or the ground. The rear of the roof must maintain the same height from side to-side.
- D. All curved type roofs will be allowed a maximum of 5"-inches in the front and 2"-inches in the rear. The break in the roof must be within 6"-inches from the center of the roof.
- E. Wedge roofs will not be permitted.
- F. Dished roofs will not be permitted. Roofs must be rounded side-to-side. Bead rolls will be permitted.
- G. The rear roof post must begin where it meets the back edge of the roof. The rear roof supports may not extend past the front side of rear upright of the roll cage.
- H. The side vents on the front roof posts may extend rear ward from the lowest point, a maximum of 16"-inches, then at a 90-degree angle to roof for one (1) configuration, side vents must meet the outside of the car.
- I. The roof side (sail) panel window size must be 10"-inches x 15"-inches and must match drawing number -2- side view. There will be a tolerance of 2"-inches at the top and 3"-inches at the bottom. A maximum crown of two (2) inches will be permitted, measured from the center of a common tangent point on either side of the crown. The roof side (sail) panels must be symmetrical.
- J. If the long roof side (sail) panel is being used a 1"-inch radius will be permitted.
- K. Any sun shield must be on hinge for easy exiting, taping will not be permitted. The window opening must remain at a minimum of 12"-inches.
- L. All race cars in competition must meet the measurements illustrated in the DIRTcar drawing.
- M. There are only 4 (four) approved roof supports to choose from.
- N. The roof should be single thickness of material. The roll bar hoops must be exposed for inspection.
- O. If the roof is curved then a level will be placed on the top of the car and if the roof is 5"- inches or less in the front and 2"-inches or less in the rear and the break is in the middle then the roof will be permitted.
- P. The roofs must be stock appearing. The roof must maintain the same height on both sides. If a DIRTcar and/or local track official determines the roof does not meet the requirements as stated above then a penalty as determined by the official may be determined prior to competition, additional weight and/or other penalties, unless the roof can be returned to within the parameter as stated above prior to competition in the event that the roof was inspected for.

15.8 – Suspension / Steering

Suspension/Steering designs and applications are constantly evolving. Although the intent of the suspension/steering rules are an attempt to accommodate the majority of suspension/steering and suspension/steering component designs and applications currently being used in competition, the rules cannot be absolute.

Any and all new designs or modifications to an existing suspension/steering and/or suspension/steering component must be communicated to and approved by DIRTcar Racing before being used in competition.

Unless otherwise specified, suspension/steering components must be manufactured using magnetic steel only. This includes but is not limited to, shocks, hubs, all control arms (A-frames), axle tubes, tie rods, etc.

15.8.1 – Front Suspension

- A. All front suspension and steering components (except the upper control arm mounts) must utilize the original O.E.M. suspension and steering component mounting holes. All mounting holes must remain a single round hole as produced by the O.E.M. Adjustable mounts and/or "slugs" will not be permitted.
- B. Weight jacking bolts (wedge bolts) may be added to O.E.M. frame but, must be located within 1 (one) inch of the original centerline of the O.E.M. front spring location.
- C. Unless otherwise specified, the front suspension components must be O.E.M. serviceable parts and originate from the same O.E.M. frame manufacturer for that application.
- D. Unless otherwise approved, only O.E.M. and/or O.E.M. replacement type passenger car spindles will be permitted. Spindle O.E.M. manufacturer and model is optional. Fabricated spindles will not be permitted. Spindles must not be altered. O.E.M. spindles utilizing a removable steering arm must use the same O.E.M. steering arm originally supplied with the type and model of spindle being use or a fabricated steering arm that is an exact match (length, mounting holes, etc.). If a fabricated steering arm is used, competitors must be prepared to supply an O.E.M steering arm for an inspection comparison.**
- E. As of 01/01/2018 the following approved multiple piece aftermarket spindles may be used for competition.
 - a. Speedway Motors: 91034313, 91034501/2, 91034511
 - b. Afco: 1063435L/R
 - c. Argo manufacturing: RP-929 (AMC), Mustang II

Alterations and/or relocation of the lower control arm mounts will not be permitted. Lower control arms may be O.E.M. lower control arms for the frame being used or DIRTcar approved fabricated lower control arms, which are mounted in the O.E.M. location and maintain the O.E.M. dimensions. Lower control arms must be the same length when

comparing to O.E.M. right and left. The lower coil spring seat must be an integral welded component of the lower control arm. If using spherical rod ends (heim joints) as lower control arm mounts, the spherical rod ends (heim joints) must be welded to the lower control arm to prevent adjustment. Competitors must be prepared to supply an O.E.M. lower control arm for an inspection comparison. All fabricated lower control arms must fit the DIRTcar/UMP lower control arm fixture(s).

F. Tubular-type upper A-frames will be permitted. The upper A-frame mounting locations may be relocated. Aluminum cross shafts will be permitted.

15.8.2 – Steering

A. An O.E.M. steering system applicable to the O.E.M. frame assembly must be used. The steering system must consist of 1 (one) reciprocating steering gear assembly, 1 (one) pitman arm, 1 (one) idler arm, 1 (one) center steering link (drag link), 2 (two) inner tie rod ends or spherical rod ends, 2 (two) adjusting sleeves, and 2 (two) outer tie rod ends or spherical rod ends. Additional components, braces, rods, etc. will not be permitted.

B. O.E.M. or exact fit aftermarket replacement center steering (drag) link, pitman arm, and idler arm available at auto part replacement venues will be permitted. Aftermarket components must match O.E.M. for all specifications, dimensions and design. Only single point round tapered mounting holes and O.E.M. tapered ball studs will be permitted. **

C. **As of 01/01/2018 fabricated center (drag) links, braces, etc. will no longer be permitted.

D. Steel spherical rod ends (heim joints) and fabricated magnetic steel tie rod adjusting sleeves will be permitted. 5/8" or larger spherical rod ends and fasteners must be used. The inner rod end must connect to the center steering link using a stud that is tapered to fit the center steering link on one end with a straight 5/8" stud on the opposite end, or the center steering link may be drilled to accept a 5/8" bolt. The outer rod end may use a 5/8" grade 8 bolt with a bump steer spacer to connect to the steering arm. The O.E.M. steering arm may be drilled to accept a 5/8" bolt. Tie rod adjusting sleeves must be magnetic steel tubing.

E. The steering shaft and interior mountings may be fabricated. The steering wheel must remain on the left side of the vehicle. The steering shaft must have at least 1 (one) universal type joint to allow shaft to "fold" under impact.

F. All steering wheels must connect to the steering shaft with an approved quick release coupler. SFI certified steering wheel couplers are highly recommended.

15.8.3 – Rear Suspension

A. Rear suspension configuration used on current and new chassis(s) must be the design commonly known as four (4) link. Older cars currently competing with other rear suspension designs will be allowed to compete until further notification at the discretion of the Series Director.

B. 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.

C. The only material used to fabricate frame suspension mounts that will be permitted is magnetic steel.

D. Axle Housing Mounts:

a. Aluminum birdcages will not be permitted.

b. Axle housing mounts may be a solid (welded) type or a floating type (birdcage) design.

c. Only one (1) axle housing mount per side will be permitted.

E. The final assembled axle housing mount must be a one (1) piece mount. When a floating type mount (birdcage) is fabricated using two (2) pieces, the two (2) pieces must create a common one (1) piece pivot (barrel). The two (2) pieces must be fastened or welded together to prevent independent movement of the two (2) 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. Only 2 (two) radius rods per side will be permitted to be connected from the axle housing mounts (birdcages) to the frame. Radius rods must be magnetic steel. Spring rods or any type of radius rods that change length dynamically are not permitted. (See Brakes 15.7.6D for floating caliper specifications)

G. Independent rear suspensions will not be permitted.

15.8.4 – Springs and Shocks

A. One (and only one) coil or leaf spring per wheel must be used. Coil springs must be manufactured from magnetic steel. Rear leaf springs (if used) may be either magnetic steel or an approved composite material. All coil springs must be a minimum of 5 (five) inches in diameter. Coil springs must be wound with all coils being the same O.D., I.D. from the top to the bottom of the spring. The coil spring wire diameter must be the same from the top to the bottom of the spring. Coil spacing must be equal. Round coil spring wire must be used. Coil springs with linear spring rates are the only coil springs permitted. Air springs are not permitted.

B. Front coil springs:

- a. The top of the front coil spring must be closed end and ground flat.
- b. The upper front coil spring mount must be flat and support the top of the spring 360 degrees.
- c. The lower end of the front coil spring must be an open end with a maximum gap of 1/4 inch between the "tail" of the spring and the next coil.
- d. The lower front coil spring mount may have a single step to prevent spring rotation and accommodate the open end of the spring. The step of the lower front coil spring mount must not exceed one (1) inch in height. The lower coil spring mount must be a welded integral component of the lower control arm. When installed the lower end of the front coil spring must be supported 360 degrees.

C. Rear Coil Springs:

- a. The top and bottom of the rear coil spring must be closed end and ground flat.
 - b. The upper and lower rear coil spring mounts must support the spring for 360 degrees.
 - c. Rear steel coil-over eliminators and/or steel/aluminum coil-over kits will be permitted. The coil-over eliminators and/or coil-over kits must conform to the shock and spring rules.
 - d. Only one coil spring per wheel will be permitted.
- D. All rear springs must have a tethered and/or cable system in place to securely fasten them in position in the car.

15.8.5 – Shocks

- A. Only magnetic steel body, mono tube shocks with approved external adjustments will be permitted. Approved external adjustments are adjustments that can only be made with the shock absorber removed from the car. Remote adjusters of any type will not be permitted. Shocks must be conventional oil emulsion design. Shocks may be gas pressurized providing gas reservoir is an integral component of the shock body. Gas must be separated from the oil by a divider piston with a positive stop. The external portion of the shock shaft must remain exposed at all times. The lower shock "bearing" inside diameter and the shock shaft must not exceed 5/8" in diameter. Pneumatic (AIR) shocks, remote adjustable shocks, and remote gas reservoirs will not be permitted.
- B. Coils over shocks of any type on the front of the car will not be permitted.
- C. Only one shock per wheel will be permitted. Lay down shocks less than 12" (twelve inches) away from brake rotor will not be permitted.
- D. The shock absorber claim will be \$350.00 per shock absorber. (No exchanges.)

15.8.6 – Axle Housing & Rear Differential

- A. The axle housing must be of the "closed tube" design utilizing "full floating" magnetic steel hubs and axle shafts. "Live axle"-type rear ends will not be permitted.
- B. Quick change rear ends will be permitted.
- C. The center section of the axle housing must be manufactured of either aluminum or magnesium.
- D. Axle tubes must be one (1) piece and manufactured of magnetic steel only. Axle tube internal inserts or external sleeves will not be permitted.
- E. The axle tube must not exceed (3) three inches O.D. (outside diameter) at any point from center section to hub.
- F. Aluminum spools will be permitted

15.8.7 – Brakes

- A. All cars must be equipped with a working braking system on all four wheels and all four wheels must be able to stop/brake at all times.
- B. Front brakes must utilize a one piece O.E.M. or aftermarket O.E.M., magnetic steel hub and vented rotor assembly. Rear brakes must utilize magnetic steel vented rotors. Carbon fiber, aluminum, and solid disc rotors will not be permitted. Drilling, lightening and/or any alteration to the brake rotors or calipers will not be permitted. Brake rotors of excessive size or weight when compared to an O.E.M. brake rotor will not be permitted.
- C. Only stock O.E.M. and/or DIRTcar approved aftermarket calipers will be permitted. The following calipers have been approved for competition:
- a. Wilwood: P/N # 120-7197, 120-13900, 120-13899 AFco: P/N # 6630311 and 6630310.
- D. Front calipers must mount solid to the front spindle. Rear calipers may be a solid mount type or a floating type design. Both solid and floating type rear caliper mounts must be mounted to the rear axle housing. When using a floating rear brake caliper, it must be completely separate from the rear axle housing (birdcage) mount. The floating rear caliper mount must pivot independently and be supported by one radius rod to the frame only.
- E. Brake proportioning (bias) valves and a right front shut off valve are permitted.

15.9 – Wheels & Tires

- A. The tire rule may be amended by bulletin.
- B. The only tires approved for DIRTcar competition are the Hoosier: M-30S and M-60 compounds, American Racer: Hard and Extra Hard in the DIRTcar plated tire 26.5/8.0/15 or 27.5/8.0/15. The maximum width of the tire will be 9" inches. Hoosier right rear only option: 27.5 medium and 27.5 hard (these are 2-ply tires).
- C. The M-60 may be used as a right rear option tire.
- D. NO GROOVING allowed.
- E. Siping permitted on all tires.
- F. Recapping of an approved tire is not permitted.
- G. Any local track and/or DIRTcar official can confiscate any tire at any time and during any DIRTcar event to be evaluated and analyzed including verification using a tire durometer. Tires may also be submitted for further chemical analysis.
- H. Defacing or altering any of the manufacturer's identification markings, letters, words, numbers, on any tire will not be permitted.
- I. Any alteration of tires may result in immediate suspension from all DIRTcar racetracks and/or events and/or penalties deemed appropriate by local track and/or DIRTcar and/or World Racing Group Supervisory Officials.
- J. Tire softeners and/or chemicals designed to alter the chemical characteristics of the tire and/or the tire surface will not be permitted.
- K. Bead locks will be permitted on the right side only.
- L. Wheel discs shall be fastened to the wheel using a minimum of three (3)- 5/16 inch or (3) ¼ inch diameter magnetic steel hex head bolts.
- M. The use of wheel discs with any other type of fastener will not be permitted.
- N. As an option, a wheel cover with minimum of (5) five steel Zeus fasteners mounting points may be approved.
- O. Only 8-inch DIRTcar approved and labeled racing wheels will be permitted. Wheels must not weigh over 30 pounds
- P. All wheels must be conventional one-piece magnetic steel and must be mounted with lug nuts. Aluminum, plastic and/or carbon fiber wheels will not be permitted. R. All wheels must be fastened to the hub with five lug nuts.
- Q. Wheel spacers are permitted. Wheel spacers may only be manufactured from magnetic steel or aluminum. Exotic, heavy metals are not permitted. Wheel spacers must not exceed one (1) inch in thickness. Wheel spacers must not exceed a 6-1/2 inch outside diameter.
- R. Approved fastening (nut assembly) systems:
 - a. Keyser Manufacturing – Part #100 7-101.
 - b. Wehrs Manufacturing – Part # WM377A-312 Aluminum 5/16 / WM377S-312 Steel 5/16
 - c. Triple X Chassis – Part # SC-WH-7810 (for a 1" spring) / SC-WH-7820 (for a 1 3/8" spring)
 - d. Pit Stop USA Part #:
 - e. Smith Precision Products – Part # MC-516-18

Tire protest:

Any car can protest a tire and have it sent to Blue Ridge for testing for \$100. Blue Ridge's decision will be final. All protests must be at the scales and be made immediately after qualifying and after the feature. Refusal is an automatic disqualification.

15.10 – Personal Protection Equipment

(See section 3.0 for requirements)

Note: Industry approved requirements in the Personal Protection Equipment will begin to be introduced into all divisions. When upgrading or purchasing new please consider the future requirements.

15.11 – Roll Cage

- A. All cars must have a roll cage. The roll cage must be approved prior to competition and it must be welded to the frame. The driver's head must not protrude above the top of the roll cage with
- B. the driver's helmet on. The top of the roll cage must extend above the top of the driver's helmet by a minimum of one (1) inch. The entire roll cage and all roll bar pieces must be fabricated from magnetic steel a minimum of .095" in thickness.
- C. The driver and right-side door bars must be parallel to the ground and located perpendicular to the driver. There must be right side door bars. The side bars must be welded to the front and rear of the roll cage. No brazing or soldering is permitted. The door bars must have a minimum thickness of .095" and must have a minimum of 1-1/2" diameter. On the driver's side, there will be a minimum of three (3) door bars.
- D. Foot protection is mandatory. One piece of magnetic steel tubing, a minimum .095" in thickness, must be fastened and/or welded across the back of the engine with vertical tubing a minimum of .095" thick.

- E. The door side roll bars are mandatory and must extend into the door panels.
- F. The roll cage must consist of continuous hoops that are no less than 1-1/2" in diameter and must a minimum thickness of .095".
- G. The roll cage must be mounted securely (welded) to the frame in a minimum of 6 (six) places.
- H. The roll cage must consist of a configuration of front and rear hoops connected by tubing on the sides and/or side hoops. Roll cage must be securely supported and braced. Gussets to brace any portion of the roll cage will be permitted.

15.12 – Other

- A. All electronic and/or computerized wheel spin and/or acceleration retardation traction control devices will not be permitted. Controlled timing devices attached to or controlling accelerator or rotation of wheel will not be permitted. GPS and/or any other type of electronic tracking and/or locating device will not be permitted.
- B. All traction control devices utilizing wheel sensors and/or any means of measuring ground speed to control wheel spin will not be permitted.
- C. Adjustable ping control devices, dial a chip controls, timing controls or automated throttle controls will not be permitted in cockpit or driver accessible areas. D.) Adjustable restrictor plates will not be permitted.
- D. Any remotely controlled components inside or outside the cockpit of any competitor's racecar will not be permitted.
- E. Radios or devices for transmitting voice or data will not be permitted, either in the racecar or on anyone connected with the car.
- F. The uses of pit boards or colored flashlights are prohibited

15.13 – Series Decals & Patches

- A. All participants shall display required decals as provided on decal verification sheet to be allowed to compete.
- B. Series Decal on both side of the car is mandatory, Drivers series patch mandatory to receive point fund distribution.
- C. To receive any contingency sponsorship awards, team must meet the requirements of the award such as; decals, patches, product use, product verification

16.0 – Drawings

(For all drawings and diagrams, refer to <http://www.dirtcarump.com/wp-content/uploads/2018/01/2018DIRTcarUMPModifiedRules.pdf>)

Protest Rules:

\$1300 Complete Tear Down

\$1000 Going to the winner of the protest.

\$300 Going to Tech.

\$400 To remove 1 head and check head bore and stroke.

\$150 To check cam.