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2017 Rule(s) Bulletin

Bulletin: 2017 - 3 - May 18, 2017

The following is a revision to the 2017 DIRTcar Racing UMP Modified Rules:

Please note: this document is intended to circulate the changed portions of the complete rules effective the date indicated.

UMP Modifieds

TECHNICAL BULLETIN

Effective Date: 06.10.2017

15.1 Engine

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 only breach of any interior 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. Local track rules will prevail when decibel and/or muffler rules.

15.7 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.

15.7.1 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. 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 multiple piece aftermarket spindles will no longer be permitted.
- F. 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).





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

15.7.2 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

15.7.3 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:
 - Aluminum birdcages will not be permitted.
 - Axle housing mounts may be a solid (welded) type or a floating type (birdcage) design.
 - 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





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dynamically are not permitted. (See Brakes 15.7.7D for floating caliper specifications)

- G. Independent rear suspensions will not be permitted.

15.7.4 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:
- The top of the front coil spring must be closed end and ground flat.
 - The upper front coil spring mount must be flat and support the top of the spring 360 degrees.
 - 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.
 - 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:
- The top and bottom of the rear coil spring must be closed end and ground flat.
 - The upper and lower rear coil spring mounts must support the spring for 360 degrees.
 - 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.
 - 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.

15.7.5 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.)

15.7.6 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.





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- 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

15.7.6 - 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. 1. Wilwood: P/N # 120-7197, 120-13900, 120-13899
 - b. 2. 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.

15.8 - Wheels and Tires

- A. 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.

Sam Driggers

DIRTcar Racing Director

