

THE MISSISSIPPI VALLEY H. O. RACING ASSOCIATION

2015 - 2016 RULES & CLASSES

General Rules

1. MVHORA racing starts in September with our first season running September thru December, then our second season running January thru April.
2. Classes 1st Season
 - Truck – BRRC & TKO
 - NASCAR – TKO, BRRC, & BB
 - Indy Car- BB & BRRC
 - DLM- TKO Oval
3. Classes 2nd Season
 - Brass Car- BRRC & TKO
 - Skinny Fray- TKO
 - P-Cup – BRRC, TKO
 - Dash Muscle Cars – TKO / Dash Full Body Dirt Track Cars – Figure 8
4. MVHORA membership dues are \$20.00. This covers both 1st and 2nd seasons.
5. Track entry fee is \$2.00 per night for MVHORA members and \$3.00 per night for non-members.
6. Minimum clearance for all classes is .020 while sitting on flat tech block. Cars will be teched before racing and may be teched after a race.

CITRO DIRT LATE MODEL CLASS

DLM

Note: These rules state only those modifications that are allowed. It is the entrants sole responsibility to demonstrate that their “cars” meet these rules at all times. Modifications performed on entered “cars” that are not specifically identified in these rules will not be allowed and the “car” will be disqualified. In areas where specific modifications are identified, entrants may propose alternative methods, not listed in the rules, to achieve the same function as the identified modifications. The legality of these modifications will be determined on a case-by-case basis and may be allowed if the modification performs the function allowed without also resulting in a competitive advantage over the specific modifications identified.

BODY RULES

1. Body must be moonstone dirt late model
2. Body can be lightened. Wheel wells and the lower edge of the body can be modified. Body may be lowered. However, the body posts must touch the chassis when placed on a chassis.
3. No windows
4. The body must completely cover the chassis when viewed from above except for legal stock openings (i.e. windows).
5. Body must not exceed original width.
6. Two screws must be used to mount the body to the chassis. Screw head may be modified for track clearance. Screw heads shall be no larger than 0.165” in diameter.
7. Body must be equipped with two screw posts.
8. Split screw posts may be repaired or replaced with plastic in their original and intended positions(s). No metal sleeves are permitted.
9. All bodies shall have 3 numbers on the car.

DLM Class Rules, continued

CHASIS RULES

1. Chassis must be stock T-jet copper. Bending of motor brush springs is allowed. No other chassis modifications are allowed.
2. Removal of gear plate rail is permitted, patent number must be legible. No other cutting, grinding or drilling of chassis, gear plate or gear plate clamp is permitted.
3. Solder or glue is allowed to attach gears to shafts.
4. The cluster shaft shall be stock (steel).
5. Only stock or commercially available 14-tooth "armature" gears are allowed.
6. Only stock or commercially available 24-tooth brass idler and driven gears are allowed.
7. Only stock or commercially available 9-tooth rear end (final drive) pinion gears are allowed.
8. Only stock or commercially available 15-tooth crown gears are allowed. The crown gear boss may be trimmed or spacers may be added between the chassis and gear to adjust for proper gear mesh.
9. Gears may be polished to provide a smooth mesh. Drilled, grooved, chamfered or lightened gears are not allowed.
10. Guide pins must be wither stock black Aurora or mass-produced molded plastic guide pins. Pin length may be shortened. No rear or swivel guide pins permitted. Gluing of guide pins to chassis and countersinking of the guide pin screw hole are permitted.
11. Cars must use original stock, reproduction stock or narrow double-flanged plastic T-jet rim mounted any magnetic steel axle. The width of the chassis must be no wider than 1.085 inches, measured at the outside edges of the rims.
12. Front Rims may be equipped with rubber, silicone or plastic tires. RTHO delrin independent front ends allowed. Maximum tire width is 0.100". Minimum front tire diameter is 0.325". Rear tires must be JL/NOS rubber tired or Slip-on Silicone. Minimum rear tire diameter is 0.355". Tires may not easily rotate independently from the rims. Tire/Rim lubricant may not be used.
13. RTHO delrin independent front ends allowed. Maximum front axle lateral movement is 1/32" (0.03125"). Non-metallic (i.e. plastic or phenolic) flat washer type spacers with a maximum diameter of 3/16" (0.1875") may be used on the front axle only to limit lateral movement. All spacers must be located outside of the chassis. Wheel weights and/or hubcaps are not allowed.
14. Front axle may be located in any stock wheel base position. The center (truck) position must not be used.
15. Any original Aurora pancake style "armature" with no more than two "stack" gray laminations and with all of its original windings "unmodified" may be used and may be balanced. (No stock-replacement, de-wind, rewind, turned or epoxy coated motors are allowed).
16. The average "armature" pole resistance as measured from pole to pole must be equal to or exceed 16.0 ohms at ambient room temperature following a 5-minute cool down.
17. Any ceramic magnets allowed. Magnets must not be cut, drilled or sanded.
18. Magnets may not be shimmed.
19. Any and only copper/carbon brushes, flat top and bottom, are allowed. The brushed may be lightly scored in a maximum of two places (X pattern) to prevent rotation.
20. Pickup shoes and springs must be stock copper T-jets or stock replacement. (Aurora, American Line or Slot-Tech/BSRT 504 G/S and Wizzard fat shoes). No weights, wires or creative bends allowed. Pick up shoe travel may be limited. Ski shoes are not allowed.
21. The "step" in the pick-up shoe must remain intact and be unaltered, except for only that the first bend may be changed slightly so that proper "pick-up shoe" to "rail" contact can be achieved. No attempts to "flatten" the "step" are allowed. The area between bend 1 and bend 2 may be "flattened" to achieve better contact with the "rails". The front, vertical slotted portion of the pick-up shoe may be bent to limit shoe travel. The rear, hook portion of the pick-up shoe may be bent to limit shoe travel and adjust shoe tension. Heat shrink tubing may be placed on the front, vertical slotted portion of the shoe, prior to Bend 1, to limit shoe travel.

DLM Class Rules, continued

22. The chassis' copper pickup retainer may be bent slightly to improve electrical contact.
23. Pickup springs may be cut, crushed or lengthened. Washers or spacers shall not be used to adjust spring tension.

P-Cup Rules

** Please contact us with any questions not answered in this list. **

P-Cup Detailed Rules

Legal P-Cup Cars

Any Patriot II Extreme, Patriot III Extreme, (AMSO2E, (AMSO3E0
Any Patriot II Extreme Rolling Chassis (A2PEO9), (A3PEO9)
Scorpion chassis will be allowed (A3PS 12)

Can Dos

You CAN replace:

Stock P2E Lexan body with any UFHORA legal body.
Use Vortec Arm in place of stock arm.

You CAN add;

Any type of spacers to the armature shaft.
Any type of spacers to the front and/or rear axles.
Any type of oil and other lubricants can be used.

You CAN remove:

Material from the front and rear tires by sanding or grinding.
Bottom chassis material due to natural rail wear only.
Material can be removed from chassis body mounting holes to allow body pins to "float".

Cannot Dos

You CANNOT add:

Any part not sold as a stock P2E or P3E part except the Scorpion chassis and magnet clip.

You CANNOT remove:

Any stock part from the car.
Any material from any part.
Anything else!

Answers to Frequently Asked Questions:

The stock Patriot motor brushes (A3PO2) are the same as E06 (.178L 80% Copper Brushes).
The stock Patriot brush springs (A3PO4) are the same as E17 (Ultra High Temp Spring .006).
The stock P2E/P3E pickup springs (A3PE14) are the same as E57 (.010 Double Shoe Springs)>
The stock Patriot 7t25t gears (A3PO^) and gear boss (S3P29) MUST be used.
The stock Patriot .006 brush springs (A3PO4) or E17) CANNOT be cut.
Any stock Patriot armature brushings may be used. (A3PO1, A3PO8, A3PO8A, CH14).
Either stock Patriot rear tire, A32P28 (.450) or A3PE28 (.480) may be used.
Either stock Patriot wheelbase may be used.
The stock front and rear tires may be cut, sanded or ground.
Front and rear tires CANNOT be glued to the rims.

Natural chassis wear "from track rails only" will be allowed.
The stock Patriot body mount holes may be reamed.
Stock Patriot arms vary from 6.0 to 7.2 ohms resistance - choose wisely.
NO parts that have been dyed or changed in color will be allowed.
NO silver electrical allowed.

If it does not say you can do it, you Can't!

INDY Car Rules

Any Indy car or Formula 1 style body, but subject to approval by the association. Must have all 4 tires and body attached at the finish line. Cars must have the rear wing attached, the front wing is optional.

Maximum car width - 1.312".

Chassis - Tyco 440x2 narrow only.

Armature - Stock Tyco may be balanced and trued.

Motor Magnets - Stock Tyco 440x2 or Wizzard MHP20Quad Magnets

Traction Magnets - Stock Tyco 440x2.

Gears - Any gears

Bulk Heads - Stock Tyco or after- market bronze busing bulkhead.

Electrical system - any after market

Rear Tires- Any compound.

Dash Car Rules

You must use a Dash Chassis. All parts have to come from a Dash chassis. NO truck or slim line or dune buggy parts. Stock axles 1.00" width MAX. You can use any wheel base including truck holes.

Exception to original rule- you can use any replacement guide pin, brushes and shoes. You may also add nylon shims to your front axle to keep the front rims from hitting the shoes.

Exception to original rule- you can use any replacement double flange rear rim (must be cut off at the hub, no sleeve can be attached) along with Johnny Lightning or Dash rear tires trimmed to any size.

You must still use stock front rims along with either original or Johnny Lightning or Dash Tires.

No additional materials can be used or added except to glue the tires/wheels and guide pin to chassis. Any custom fabrications that can be done with simple hand tools and a dremel are allowed.

No minimum weight rules. You may lighten your gears but it must be done by your own two hands- no purchase lightened gears.

Armature OHMs to be determined. Dash 15ohm arms are legal. Arms may be balanced by removing material only- no adding glue to balance.

Dash Car Rules, continued

Any tire treatments should be done prior to coming to the track. No tire treatments on the track surface!

Bodies should be injection molded plastic or resin bodies made to mount by screw with 2 posts. On the TKO track muscle cars will have front windshields made of plastic. On the Figure 8 track dirt track cars 1959 or older. No windshield required on dirt track cars.

Trucks

Any full body truck with doors, but subject to approval by the association. Glass may be removed. Must have all 4 tires and body at finish line.

Maximum car width - 1.312.

Chassis - Stock Tyco 440x2 wide or narrow or Life- Like M chassis.

Armature - Stock Tyco 440x2 or Life- Like M.

Motor Magnets - Stock Tyco 440x2 or Life- Like M.

Traction Magnets - Stock Tyco 440x2 or Life- Like M.

Gears - Stock Tyco 440x2 or Life- Like M or after- market 7n25t equivalent.

Bulk heads - Stock Tyco 440x2 or Life- Like M or after- market Bronze Bushing Bulk Head Tyco.

Electrical - Stock Tyco 440x2 or Life- Like M or after- market but no silver or gold.

Front ends - Stock Tyco 440x2 Wide or narrow or Life- Like M.

Rear tires - Any compound

Note: These rules will also be used for Sports Car class.

Nascar

Any Nascar body, but subject to approval by the association. Glass may be removed. Must have all 4 tires and body attached at finish line.

Maximum car width - 1.312".

Chassis - Stock Tyco 440x2 wide or narrow or Life- Like M chassis.

Armature - Stock Tyco 440x2 or Life- Like M.

Motor Magnets - Stock Tyco 440x2 or Life- Like M.

Traction Magnets - Stock Tyco 440x2 or Life Like M.

Gears - Any after market

Bulk heads - Stock Tyco 440x2 or Life- Like M or after- market Bronze Bushing Bulk Head Tyco.

Nascar Rules, continued:

Electrical - Stock Tyco 440x2 or Life- Like M or after- market but no silver or gold.

Front Ends - Stock Tyco 440x2 Wide or narrow or Life- Like M.

Rear Tires – Slip- On Silicone.

Brass Car

1. Cars must be brass weighted inline chassis. Legal chassis are the BSRT G-Jet, Wizzard Thunder Storm, Slot-Tech Panther Jet & Thundercat Jet, Tyco440 chassis (narrow & wide) using only the JW speed Parts brass weights and front ends. Chassis may be flexible, medium or stiff.
2. Each car must have the rear traction magnets replaced by brass weights as manufactured by the manufacturer of that chassis. Heavy or Light weights may be used, if offered by that manufacturer.
3. Each car must have a front brass weight(s) as manufactured by the chassis maker.
4. Chassis may not be modified except to add body mounts.
5. Glue may not be used except to body mounts, retain the guide pin or to as “Loctite” for the BSRT G-Jet front weight screw.
6. Front/Rear weights may not be modified.
7. Aftermarket weights and non-brass weights are NOT ALLOWED except for the Tyco chassis as in rule #1.
8. Extended length guide pins are allowed.
9. The motor must be as provided by the chassis manufacturer. Minimum armature OHM 5.8 pole to pole. Hot stock balanced arms are legal. NO CUSTOM ARMS.
10. Motor magnets must be as provided by the chassis manufacturer and may not be cut or restricted by artificial means. NO additional magnets may be used.
11. Armature bushings may be brass or plastic. May be reamed and chamfered. Ball bearings are NOT ALLOWED.
12. Front rims must be plastic, brass or aluminum. Front tire height is open. Independent front ends allowed. Front axle holes can be reamed to .052.
13. Rear tires are open, .020 clearance must be maintained.
14. Max width is 1.312”.
15. Rear rims and crown gear may be lightened.
16. Any electrical system is legal. Shunts are not allowed.
17. May use rear axle retainers.
18. Track voltage will be 12V+.5Volts.
19. Body must be painted and cover the chassis, tires and wheels when viewed from above, except thru legal openings (windows etc.) Any car without a body or with an interfering body will not be allowed to run.

Skinny Fray

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Skinny Fray, continued:

BODY RULES

1. Body must be a copy of a 1:1 car and/or concept car.
2. Bodies must be manufactured by either the process of casting or injection molding and be made from resin or plastic. No feather light resin allowed.
3. Bodies with cast-in handling pans or exaggerated details (such as unrealistic or inappropriate hood scoops, oversized windows, side pipes, sloped sides or snow plow noses) are not allowed.
4. Bodies must be originally manufactured with the intention of being mounted with the use of 2 screws via 2 body posts, on a HO pancake style slot car.
5. Body must completely cover the chassis when viewed from above except for legal stock opening (i.e. windows).
6. Body must not exceed width of 1.200".
7. No Indy, Formulas style open wheel bodies allowed.
8. Maximum body thickness on the sides (including fender flares and running boards) is .125".
9. With the body mounted to the chassis and viewed from the side, the top rear edge of the gear plate (minus rail) cannot be above the body profile.
10. Body can be lowered and lightened by removing material through the process of grinding or scraping as long as rule #8 is not violated.
11. Bodies that have a separate roof and/or windshield and have molded-in interiors may have the interior portion completely removed.
12. Front and rear wheel wells may be opened up for tire clearance. This opening may be not bigger than 1/8" around wheel wells.

CHASSIS RULES

1. Chassis must be stock T-jet copper. Bending of motor brush springs is allowed. No other chassis modifications are allowed.
2. Removal of gear-plate rail is permitted, patent number must be legible. No other cutting, grinding or drilling of chassis, gear-plate or gear-plate clamp is permitted.
3. Solder or glue is allowed to attach gears to shafts.
4. The cluster shaft shall be stock (steel).
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Skinny Fray rules, continued:

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22. The chassis' copper pick-up retainer may be bent slightly to improve electrical contact.
23. Pick-up springs may be cut, crushed or lengthened. Washers or spacers shall not be used to adjust spring tension.