

Construction Rules

2011-2012-2013

A. Body

1. Any American made car body 1948 or older. Neat in appearance. No convertibles or pickups. Fiberglass bodies allowed with tech approval.
2. All bodies must be recognizable as factory production cars- original in appearance. No wings, spoilers, aerodynamic aids, etc. Radiator shrouds allowed.
3. All glass must be removed. Screens are approved only with full hood. Safety glass or Lexan is approved. All factory upholstery must be removed.
4. Front and rear fenders must be removed. Doors and rear deck lids are mandatory.
5. All cars are to be self starting.
6. Car numbers will be a minimum of 16" high with a minimum stroke width of 3" and will be on both sides and top of car. Please make sure they can be read.
7. Pump gas only, no Nitrous or Alcohol allowed. Trick and aviation gas is allowed.
8. No 4x4 or front wheel drive cars allowed. No rear engine cars allowed.
9. Any car damaged during a race will be repaired before the next race day. (Skin and paint damage.)
10. Mufflers or approved baffles are mandatory. Subject to track approval for noise level or with Tech approval.
11. Floorboards are to be a minimum of 20 Gauge steel or .080 Aluminum. Stock floorboards are optional.
12. All sheet metal to be securely fastened.
13. 2950 pounds minimum weight with driver in driver's seat, with a maximum of 57% left side weight. Cars must meet this weight regardless of fluids carried or used. Cars are subject to weigh in at any time during a race day.
14. Bumpers: Minimum of two (2) horizontal bars separated by a minimum of 6", minimum of two vertical bars between the horizontal bars. Front bumpers must not extend out beyond 2" on either side of the front frame rails. Rear bumpers must not extend beyond outside edge of the rear tires and extend to a minimum of 2" inside the outside edge of the tires. All bumpers will have a contact height of 16". No bumper or nerf bar will have an end that can catch, poke, etc. another vehicle. Tech Committee can mandate additional bumper bars as needed for safety .

B. Safety

1. Safety approved helmets are required, with eye protection.
2. Approved gas Fire Extinguisher 2 ½ pound minimum is mandatory in drivers compartment within reach of belted-in driver. An on board system may be used in addition to the removable 2 ½ pound extinguisher.
3. All batteries will be securely fastened and protected outside the drivers compartment. Subject to Tech approval.

4. Racing type drivers seat will be securely fastened to the frame or cage. High back seat or headrest is required. Do not attach seat to floorboards.
5. Wheels must be suitable for racing. Maximum wheel width 10". Subject to Tech approval.
6. Drive shaft retaining loop or chain within 12" of front Universal Joint.
7. A minimum 3" wide lap belt and double shoulder harness with a single quick release is mandatory. Belts must be securely fastened to the cage and/or frame. Frayed or torn seat belts are unacceptable. Seat belts must be replaced 5 years after manufacture date.
8. Six point cage required.
 - A. Main cage to be a minimum of 1¼ O.D. x .095 tubing.
 - B. Door bars are to be a minimum of 1½ O.D. x .095 tubing.
 - C. Four door bars (frame rail included), with top bar within 1" of window opening on the driver side. Subject to Tech approval.
 - D. Three door bars and "X" brace on passenger side.
 - E. All door bars to be tied together in the middle on driver side.
 - F. One stress bar or cross "X" bar behind driver.
 - G. Cage behind driver to be higher than the driver's helmet when buckled in.
 - H. Gussets are required on the floor main upright tubes joining the roll cage to the frame. (4 Minimum on uprights).
 - I. All tubes to have complete 360 degree welds. Subject to Tech approval.
 - J. A minimum of 1/8th inch steel plate is required on outside of driver door bars. Must cover driver's torso.
9. Fuel cells must be protected on all sides, top and bottom- securely fastened to the frame behind rear firewall. Guards required to prevent impact from the rear. A fuel cell or Tech approved cell is mandatory. Fuel cell must have a one-way roll over valve on vent and be covered on all sides
10. Firewalls, front and rear, to completely enclose driver compartment are required.
11. Left side nerfbars can extend a maximum of 2" past the left tire if required for body and frame. Right side nerfbar can NOT extend outside of the right side tires. Height of nerf bars (left and right) at rear of bars to be at center of rear wheels plus or minus 3". No nerfbar will have an end that can catch, poke, etc. another car.
12. Color coded Master Kill Switch easily reached by belted in driver and from the outside of the car is mandatory. Color to contrast with interior color.
13. All drivers are required to wear an approved fire retardant fire suit.
14. Windshields are to be strapped or suitably retained. Subject to Tech approval.
15. Rear view mirror is mandatory.
16. Scatter shields are mandatory. Subject to Tech approval.
17. Fuel lines may NOT run thru the driver compartment. Subject to Tech approval.
18. Window nets are mandatory.
19. Electric fuel pumps are allowed with the use of a low oil pressure cutoff switch.
20. All cars will have operational four wheel brakes. OEM bolt-up locations without adapters for calipers, no 4 piston calipers on front.

C. Frames and Suspension

1. Stock American frame clips must be used, including the cross member. They must extend 12" forward of the spindle centerline and to the rear of the engine block. NO Aluminum clips or frames allowed. Rack and Pinion type clips are NOT allowed. Lower cross member may be modified on two sides not including modifications for fuel pump or steering box. Lower side of cross member MUST remain stock.
2. Stock lower control arms must be used. A stock lower control arm is defined as the outside stamped configuration of the A-frame and shall be unaltered. Additions may be made for the shocks and sway bar. Ball joints will remain in the stock location. A-Frame mounts on the frame are to remain in the stock location.
3. Upper control arms and mounts may be stock or fabricated. Upper control arm mounts may be repositioned.
4. Stock OEM spindles must be used. No cutting or welding. May move tie rod location with minor grinding. ¼" wall thickness on all drilled holes. No dropped, after market or Aluminum spindles allowed. Minor grinding is allowed to remove flashing and clean up spindle.
5. Steering must be of the type the clip was designed for. No rack and pinion steering.
6. Weight jacks are allowed on all four comers of the car.
7. Springs and Shocks: No coil over type suspensions. No coil over spring eliminators to be used. Minimum 5" diameter coil springs to be used. Rear leaf springs allowed. One steel or aluminum non - adjustable shock per wheel. No internal or external bumpers or stops. No air or remote reservoir shocks. No Schrader or bladder type valves allowed.
8. 104" minimum wheelbase.
9. No straight front axle cars.
10. Frames may be stock from the clip back or may be manufactured from a minimum 2"x3"x .090 steel tubing or equivalent. If 2"x3" or equivalent is used it must extend beyond all cage uprights.
11. Engines must be centered between the stock front clip rails with the most forward spark plug no more than 1" behind the center line of the ball joints. Crankshaft centerline must be no lower than 11" from the ground.
12. No quick change, independent or "C" clip rear ends. No detroit lockers, Gold Tracks or similar locker units allowed. Full or mini spools are allowed.
13. Wide 5 type wheels may not be used.
14. Minimum body height is 45". Maximum track width, outside edge to outside edge at spindle height is 82" front and rear.

D. Engines and Running Gear

1. No fuel injection, blowers, superchargers or turbos.
2. All engines must be stock American factory production blocks. No aluminum or after market type blocks.

3. No dry sump engines.
4. OEM Cast Iron heads only, or approved after-market heads (See list Below).
Heads may not exceed 200 cc on intake runner.
- 4a. APPROVED AFTERMARKET HEADS (Small Block Chev): **World Products=** WRL0121150; WRL012250; WRL011150; WRL011250. **Dart Heads=**DIEP-2001-S; DIEP-1001-A; DIE-2001-S; DIE-1001-A. **Patriot Head=** PAT-2151. **RHS Heads=** RHS-2233-S; RHS-2233-A; RHS-2236-A; RHS-2236-S; RHS-12317-01S; RHS-12318-01A; RHS-12301-01S; RHS-12302-01A; RHS-12319-01S; RHS-12320-01A; RHS-2235-S; RHS-2236-A. Other engine makes may use comparable aftermarket heads with Tech approval. Contact VMRA Tech BEFORE purchasing heads.
5. No porting, polishing, or port matching on heads. No tapering or grinding below 1" of valve seat. If in doubt see a Tech official for clarification.
6. Maximum 370 Cubic Inch engines. Flat top pistons only. After market steel rods and crankshafts are OK. No stroker engines. Ask Tech for clarification.
7. Any type ignition is approved. No magnetos.
8. Any intake manifold with a normally aspirated carburetor, 2 or 4 barrel may be used. No home made/custom made intake manifolds.
9. No mushroom lifters or roller camshafts allowed. Roller rockers are permitted.
10. Rules apply to all engines, 4-6-8-10-12 cylinders, straight or V design.
11. Manual transmissions are required a working stock type clutch and pressure plate. Stock Cast Iron or Steel flywheels are required. NO Aluminum flywheels. No small or lightweight trick type clutch assemblies, spaces joints, or racing gear boxes allowed. Automatic Transmissions MUST run an operational stock type torque converter.

ATTENTION

All construction rules and safety items on cars will be checked and approved by the Technical Committee. It is understood that rules can be viewed differently by everyone. The Technical Committee will determine whether the way you conform to the rules are within the spirit of VMRA and the spirit of why the rule was written.

DISCLAIMER

No express or implied warranty of safety shall result from the publication of, or compliance with these rules. They are intended as a guide and are in no way a guarantee against injury or death to spectators, participants or others.