



## **2012 Lake Erie, Motordrome & TBRA Late Model Rules**

### **A. Eligible Cars and Bodies**

1. All competing cars will conform to the current A-B-C Body Rules and guidelines unless otherwise specified herein. Refer to A-B-C Rulebook and guidelines for details. Also, no panels will be allowed to extend above the top edge of the doors. No under car panning outside of frame rails and no further than driver's box front or rear. Any holes in body not being used must be covered and remain so during the race event. Air deflectors of any type will not be permitted.
2. Rub rails are discouraged and may only be used if they are polycarbonate.
3. If exhaust exits through the door, installation must include an exhaust flange that is mounted flush to the door. Maximum ½ inch gap around exhaust pipe. Exhaust pipe must not protrude through the door.
4. At all times the A-B-C "A" measurement must maintain a min. length of 11.5 inches. Also, 20 inches is the minimum length allowed for the nose, measured from the bottom leading edge at the center up to the hood seam.
5. The air box between the nose and the radiator may have no pieces wider than the radiator. No types of under-body air deflectors are allowed. All air for blowers or coolers in the engine compartment must be pulled from the nose or the radiator air box. Air may not be blown or forced onto the tire or bead, air may only be directed to the brake rotors.
6. Minimum base weight is **2750 lbs.**
7. Maximum left side weight is **58%.**
8. Maximum tread width, front or rear, is **76 inches** measured from bead flange to bead flange of wheel or **66 inches as measured by the referee.**
9. All cars must go through tech inspection prior to practice. Cars will be teched and weighed with the driver in the car with all safety equipment prior to qualifying or feature. (The following pertains to TBRA races only) Cars will remain **untouched** with the exception of air pressure **after leaving the scales. All cars will be impounded post qualifying.** No one is permitted to make any adjustments to the cars with the exception of the removal of tape or the adjustment of air pressure before the feature event. **Any other issues must be addressed in the presence of a tech official.**

### **B. Engines**

1. Following are the approved engines: **GM #88958604 / Ford #M06007-D347-SR McGunegill Ford #425LM / Motordome rules Built Motor/LES rules Built Motor**
2. The above crate engines must be raced as produced by the Manufacturer or within the rebuilder guidelines. **Except where noted in these rules.**
3. The GM engine may utilize 1.6 rocker arms, GM valve spring kit #12586484, or Comp Cams valve spring kit #941-16, Champ oil pan #CP106LTRB, and may have the balancer replaced with an SFI approved aftermarket balancer. The GM engine may also use a 1 inch aluminum spacer with 1 paper gasket per side, not to exceed .065 inches in thickness. The spacer must be of an open or 4 hole design with **no taper or radius.**
4. Teams that use an **unaltered, original factory sealed GM engine** may deduct 50 lbs from their base weight. This means they would run at 2700 lbs, 58% left side weight. **This engine must not have any of the above mentioned updates and may not utilize the 1 inch carb spacer.**

5. The Ford D347 engine may use the KEVKO oil pan and pick-up #F201 and F#201-1, as well as an SFI approved aftermarket balancer.
6. **All Ford** engines must use 1.5 rocker arms only.
7. All engines must be located so that the forward most spark plug is no more than 4 inches behind the centerline of the upper ball joints.
8. No Crankcase Evacuation systems permitted.
9. Any competitor that finishes in the top 5 may be required, at their expense, to remove the intake manifold, cylinder heads, and/or oil pan for inspection purposes.
10. **All competitors will be required to have their engine teched and sealed by Lake Erie Speedway or Motordrome Speedway or the TBRA Series. The tech inspection will consist of a cube check, a compression check, a carb check and a Cam Doctor check. Your motor must pass all points of inspection before being deemed legal.. These inspections will be conducted at the shop of TBRA, at Lake Erie Speedway's practice day and at Motordrome's practice day or at any future race events as necessary, including post race inspections. Seals of other major sanctioning bodies whose rules, at a minimum meet these requirements will be accepted.** For any further questions please contact the following:
 

<b>Lake Erie Speedway</b>	<b>AJ Moore</b>	<b>814-323-2595</b>
<b>Motordrome Speedway</b>	<b>Stan Lasky</b>	<b>814-525-0090</b>
<b>TBRA</b>	<b>Tom Fares</b>	<b>330-926-9236</b>

### C. **Carburetor and Fuel System**

1. **On crate engines the Holley 650HP #4150-80541 is the only carburetor** legal for use and it must remain unaltered from the manufacturer. No epoxy or coatings of any type permitted. **Motordrome and LES built motors may only use the Holley 4412 500cfm carburetor** and it must follow the same rebuild guidelines below. **All competitors are required to have the right rear carb mounting stud drilled to accept a wire seal.**
2. The following list of tuning and replacement parts are permitted for use on the carburetor. Parts must be only genuine Holley replacement parts and must exactly match any of the following parts being replaced; jet, bleed, needle and seat, emulsion bleed, power valve, accelerator pump nozzle, accelerator pump cam, and carb specific float. The float may be modified/angle cut.
3. A maximum 16 inch OD air filter element and housing must be used. All air must enter the carb at the base of the cowl. No forced air type induction system permitted.
4. Series and Track specified fuel (presently Sunoco purple) will be the only fuel permitted for use. Fuel samples will be taken and matched to fuel sellers stock. Absolutely no additives, boosters, alcohol, or any type of oxygenating agents will be permitted to be added to the fuel. Specific gravity tests will be used.
5. No electric fuel pumps permitted. Manual cam driven fuel pump only.
6. No icing down or cooling of fuel system permitted.
7. A 22 gallon maximum fuel cell consisting of a rubberized bladder with a fill plate housed in a minimum 22 gauge steel container is mandatory. Fuel cell must mount behind the rear axle assembly a minimum of 8 inches above the ground. Container must be wrapped by a set of two steel straps spaced equally apart out of a minimum 1/8 by 1 steel and be securely fastened to the frame with at least 4 bolts. A minimum 1/8 inch steel or aluminum plate must be mounted between the fuel cell and the rear axle assembly. At the rear of the fuel cell a protector bar must extend straight downward from along the rear frame member to the bottom of the fuel cell.

### D. **Ignition**

1. Battery powered ignition required with the car starting under its own power.
2. Maximum 16 volt battery. Car must be capable of starting with a 12 volt battery. **Only one ignition box permitted** and it must mount on the right side of the dash, in plain view, out of the reach of the driver.
3. All wiring must be of a sealed type. No unplugged or loose hanging wires permitted. All wires to the distributor/coil must be run as individual wires and may not be run together with other wires in a larger loom. Each wire must be of one solid piece, the same color, not spliced and easily traceable from origin to termination.

4. **Following are the only approved Ignition boxes:** Crane Part #6000-6463HI-6RC, or MSD 6AL, 6AL-2, 6ALN, 6HVC, and 6HVC-L.
5. Rev limiting device must be operational at all times with the **MSD 6300 Chip** securely tie wrapped in place or the Crane RPM dials securely covered. The method of securing limiting devices and chips may be changed by officials as they deem necessary. **The Motordrome/LES Built Motor will have a limit of 6800 rpm.**
6. During qualifying and feature events all tachometers must be unplugged and both ends of the wires taped over and tie wrapped back on itself.
7. **At any time one or all competitors may be required to switch out their ignition box with a track or series supplied ignition box.**

#### **E. Suspension**

1. No fifth coil or lift bar type suspensions will be permitted. No birdcage of any kind (3 or 4 link). Rear trailing arms must mount to a non moveable rear axle bracket with a heims end. Rear axle housing bracket must be fastened solid to the axle housing in such a fashion as to not allow it to move in any manner.
2. No driver suspension adjustments permitted. Brake bias driver adjustments only.
3. Coil springs and spindles must be of steel construction. (Unless using the approved Coleman Spindle).
4. No traction control devices, electronic or otherwise, will be permitted. The use of any device that could be construed to be a traction control aid will be the cause for immediate disqualification and suspension along with other penalties deemed necessary.
5. Only one shock per wheel permitted. Shocks must be only mechanical in nature and no part of the shock or the suspension may use electricity or any type of computerization. Bump stops permitted.

#### **F. Wheels and Tires**

1. Steel wheels with a maximum bead width of 10" only. Bleeders or anything that attempts to reduce air during the event is prohibited.
2. **Official tires will be: F25 left side only and F48 right side only. Absolutely no altering of the tire's surface or makeup by chemical or mechanical means will be permitted. If your tire does not meet the manufacturer's benchmark for testing, it will be deemed illegal.**
3. For TBRA series events all competitors must purchase their four race tires the day of the event and have them impounded by the track until right before qualifying when they will be released to the teams. All cars must start the event on the same four tires they qualify on.

#### **G. Transmission and Driveshaft**

1. No quick change transmissions or automatic transmissions will be permitted.
2. A minimum of one reverse gear and two forward gears will be required.
3. All transmissions must have a final gear ratio of 1 to 1 and no other gears may have a ratio numerically lower than 1.18 to 1.
4. Transmissions that utilize drop out features (i.e.: causing the disengaging of the cluster gear or auxiliary shaft) are prohibited.
5. Bert/Brinn style internal wet disc clutch transmissions are acceptable and must bolt to the back of the engine as designed. A minimum 5.5 inch diameter metallic multi disc external racing clutches is permitted. No carbon fiber or non-standard type material will be permitted. The clutch must bolt to the crankshaft as designed and must be housed in a steel, aluminum, or magnesium 360 degree bellhousing bolted to the back of the engine. A 1 ¼ inch inspection hole must be drilled in the bottom of the bellhousing directly under the clutch unit. No "slipper style" or "centrifugal type" clutches will be permitted. All friction plate cores and floating plates must be made of metallic steel.
6. Chassis must be equipped with a minimum of 2 driveshaft safety straps, one behind the front u-joint and one along the back half of the driveshaft. At a minimum the straps should be at least ¼ inch thick by 2 inches wide. The driveshaft must be a one piece assembly made of either aluminum or steel and be painted white. No absorber or wrap up style driveshaft permitted.

#### **H. Brakes**

1. Race car must be equipped with fully functioning four-wheel hydraulic disc brakes.

2. No carbon fiber or titanium rotors. Metallic steel rotors only.
3. Brake fluid circulators permitted. Liquid or gas cooling is prohibited.

#### I. Safety

1. Each team must have a designated spotter who must be present in the spotters stand at all times during qualifying and feature events. No spotter in the stand....you will be pulled from the race! Spotters must also have the ability to scan race control.
2. All teams are required to have a minimum 10 lb aluminum functioning fire extinguisher, readily accessible, in their pit area. This will be checked for!
3. All cars must be neatly painted. A minimum 21 inch high by 3 inch wide number of contrasting color will be painted on both doors and on the roof (readable from the infield). Numbers will be a maximum of 2 digits. In the case of duplicate numbers a smaller letter will be taped next to the number for that day's event.
4. A minimum 4 inch tall car number is to appear on the upper right windshield area and the right rear taillight area of the car. Scorers will have final say on numbers and car appearance. Cars not meeting scorer's direction could forfeit their purse for the event.
5. All frame and cage assemblies must be constructed of metallic steel. The main frame assembly extends from in front of the front suspension through and to behind the rear suspension assembly and must be constructed of minimum 10 inch OD rectangular steel tubing. The main cage assembly must be constructed of minimum 1 3/4 OD by min .090 wall steel tubing. All frame and cage assemblies must be professionally welded together as to provide a safe race car design.
6. Driver's side door bar basket must be covered with a minimum .065 thick steel plate no less than 12 inches high and running horizontally from the front down post to the rear post. Plate must run from the top door bar downward and be fastened with a minimum of six 1/2 inch bolts or be stitch welded to the basket.
7. All ballast weight must be in the form of lead only (no tungsten), be a minimum of 10 lb blocks, be painted white, have the car's number on it, and be securely fastened at the minimum with two 1/2 inch steel bolts. No weight will be permitted in the driver's compartment. Any lost weight found on or near the track surface will result in a fine of \$10 per lb.
8. Batteries must be securely fastened outside the driver's compartment.
9. A main electrical cut off switch needs to be clearly marked and easily accessible to safety crews within the driver's compartment.
10. All cars are required to have at a minimum a working fire extinguisher mounted in the driver's compartment. **For 2013 all cars will be required to be fitted with a fully functional fire suppression system.**
11. All cars are required to have a ribbon style driver's side window net with a latch style release in the upper left hand corner. The bottom of the net must fasten to the chassis structure and must be strung so as to fit as tight as is possible.
12. All cage and chassis structure in and around the driver must be adequately padded with an SFI approved padding.
13. It is highly recommended that all cars be equipped with a full containment type seat mounted according to the manufacturer's instruction. Full leg supports are also recommended.
14. A minimum 5-point (6 or 7 point recommended) SFI approved double shoulder style racing harness is required. The date of manufacture may be no more than 5 years old.
15. A strap type head and neck restraint system is mandatory. **An SFI approved system will be required in 2013.** Neck collars will not be allowed. **Head restraint systems must be worn at all times while on the race track!**
16. A full face style racing helmet with a Snell 2000 rating is required. No motorcycle rated helmets permitted. **Snell rating sticker must be visible or helmet will not be considered legal.**
17. At a minimum drivers are required to wear a single layer fire retardant driving suit with flame retardant underwear (double layer suit with underwear is recommended). Suits must be neat and clean in appearance and display all necessary patches required by any sanctioning bodies or track sponsors. Fire retardant driving gloves and shoes are also required.