

# Vintage Brass Wars Car Rules

January 11, 2018

*The intent of this class is to recapture the fun of racing the type of slot cars that ruled the roost in the early 70s before magna-traction became de rigueur in HO. There are a few production cars that fit these rules (Riggen and the Dyna-Brute to name two), but the real hope is that most racers will break out their soldering irons and razor saws (and some band-aids - we're all out of practice) and experiment just like we did back in the days when brass cars ruled the HO slot car scene.*

## 1.0) Chassis Specifications

### 1.1) Overall Dimensions

**1.1.1)** Maximum car width shall be 1.312" including the front wheels at their full extension as verified by passing through a tech block set to 1 5/16th inches without being forced

### 1.2) Ground Clearance

**1.2.1)** No part of the chassis / motor / body shall contact the track or track rails / braid other than the pick-up shoes / wipers and guide pin / flag. If scraping is detected at any time during a race or practice, the car shall be immediately removed from the track – no exceptions

### 1.3) Allowable Construction Materials

**1.3.1)** Pans shall be constructed from brass, steel, copper and/or aluminium

**1.3.2)** Frame rails (if utilized) shall be constructed from piano wire, brass rod and/or brass tubing

**1.3.3)** No exotic materials (Ti, Tungsten, etc) allowed

**1.3.4)** Solder and / or glue may be used in assembly of chassis

**1.3.4)** Lead may be used to add weight to chassis

### 1.4) Only one guide pin or guide flag may be used per car

**1.5)** No traction magnets allowed - each car will be limited to two ceramic motor magnets

**1.6)** Only metal or plastic axle bushings are permitted (no ball bearings allowed).

**1.7)** Wheel / Tires

**1.7.1)** The car shall have four (4) tires that touch and roll on the track, with pickup shoes / wipers in place.

**1.7.2)** Minimum tire diameter, front and rear, shall be 0.25". Maximum tire diameter, front and rear, shall be 0.50".

**1.7.3)** Maximum rear tire width shall be 0.312"; minimum front tire width shall be 0.062". Rubber O-rings may be used for front wheels.

**1.7.4)** Maximum side-to-side play in front wheel assembly shall be 0.030"

**1.7.5)** Silicone or Sponge\Silicone Tires may be glued to the wheels which can be pressed-on, set-screwed, or threaded to the axle.

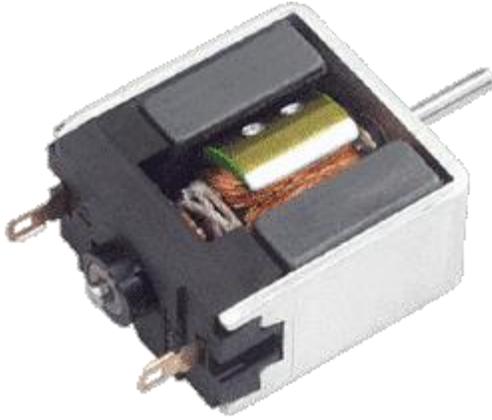
**1.7.6)** Tire dressings and additives (glue, goop, cleaners, etc) are prohibited, unless approved by the Race Director.

**1.8)** The chassis, and all components of, should be completely covered by the body when viewed from above; except when viewed through legal openings. "Legal opening" are defined as, windows, air scoops, vents, grills, and intakes. Race director has the right to refuse entry, if in question.

## **2.0) Motor Specifications**

**2.1)** Cars shall be powered by motors like the Mabuchi HT-50, i.e. a motor of rectangular can (frame) design with two (2) motor magnets and a removable/separate endbell. Overall motor dimensions of the can are approximately 0.75"L X 0.71"W X 0.375"T. The bottom of motor shall not be lower than flush with the bottom of the chassis.

**2.1.1)** No "strap" motors allowed, the motor housing (aka the motor can) must fully cover the back surface of the magnets and at least partially cover the top and bottom surfaces of the magnets.



Illegal Motor



Legal Motors

**2.2)** Armatures (rewinds are okay) shall have a minimum ohm rating of 5.0 ohms measured at room temperature. Armature may be balanced and trued

**2.3)** Motor parts from different manufacturers may be used to assemble a complete motor.

**2.4)** Motor shall have a maximum of two ceramic magnets, to operate the motor. Material may be removed from the magnet faces (the vertical coplanar surfaces) to permit easier magnet installation and/or to minimize the gap between the armature and the magnets. No other magnet modification is permitted.

**2.5)** Magnetic shim material is prohibited.

**2.6)** Modification of the motor can, endbell, and brush tubes is permitted.

**2.7)** Only metal or plastic motor bushings are permitted (no ball bearings allowed).

### **3.0) Bodies Specifications**

**3.1)** The body must be an HO scale replica of an actual car. Any obviously out of scale bodies will not be allowed to compete.

**3.2)** Modifications are allowed to the body. Technical Inspectors may refuse any car they consider having been excessively trimmed or modified.

**3.3)** Air control devices cannot be added to the body. Scale wings that were on the real car are okay as long as they fit inside the max dimensions.

**3.4)** Bodies may be trimmed in order to lower the body to the track providing that no major detail such as door lines , lower edges of grill, and bumpers.

**3.4.1)** Wheel wells may be trimmed and flared neatly and must not extend above the top edge of the fender.

**3.4.2)** Front wheel wells do not need to be open. If left closed, front wheel wells must be clear to allow viewing of the front tire/wheel assembly.

**3.4.3)** Trimming must be as neat as possible. Any obviously shabbily trimmed body will not be allowed to compete.

**3.5)** All bodies must carry the car's individual number in at least three locations all being 1/8 inch minimum height.

**3.6)** External mounting devices, when used, must not detract from the car's appearance, nor extend beyond the maximum body width. Bodies must be mounted firmly to chassis in such a manner that they will not be lost during a race and/or cause a hazardous situation to the other drivers.

**3.7)** All open cockpit cars must have a realistic appearing driver head and arms. The driver must be situated in an appropriate position with a realistic appearing interior. Open cockpit cars must also carry a head high rollbar. This rollbar must be strong enough to support the weight of the car, to insure that it remains the length of the race. The interior must cover all running gear exposed by the cockpit opening. The interior, driver figure, and rollbar must remain throughout the length of the race.

**3.8)** All coupes and sedans must have both front and rear windows in their entirety.

**3.9)** All cars must use the originally entered body throughout the race. Major body components must remain throughout the race.