BRM International Rules Book 2008/2009 Rev.00 Thursday, November 27, 2008 – page 1



International Rules Book





English version



Summary

- 1. Introduction
- 2. Philosophy of 1/24 Scale Model Car Slot Racing
- 3. Car Models legal
- 4. Body Requirements
- 5. Chassis Requirements
- 6. Front axle/wheels/tires specifications
- 7. Rear axle/wheels/tires and gear specifications
- 8. Guide blade and braid specifications
- 9. Motor and pinion specifications
- 10. Weight specifications
- 11. Liquid, Oil and Greases
- 12. Controllers
- 13. Race Procedures

1. INTRODUCTION

This International Rules Book is intended to define the technical regulations for all official BRM competitions to be organised by BRM Model Cars Official Distributors or BRM Model Cars directly.

The main purpose is to enable all slot racers who want to participate in BRM Challenges in every part of the World, to have the same possibilities of tuning for their models.

This will allow International competitions, with the same models and specifications used for all National and International BRM Challenges.

This Technical Regulation can be applied both for sprint races and endurance races.

2. THE NEW PHILOSOPHY IN 1:24 SCALE MODEL CAR SLOT RACING

BRM is determined to create a real new Philosophy for Model Car Slot Racing in 1:24 scale.

When BRM decided to start, it because we were convinced we should launch on the world market a new type of slot car model, completely different from any other in this market. A true new philosophy.

A model simple, easy to drive, fun, with good performances and, above all, very beautiful!

And since that driving our models is fun, we thought of this International Rules Book, which we will apply to all Sanctioned races to be held with our BRM models.

3. MODEL CARS

- 3.1 Models car eligible for BRM Challenges are all those already present in BRM catalog:
 - BRM001 Porsche 962C Kenwood White # 10
 - BRM002 Porsche962C Kenwood Black & Red # 10
 - BRM003 Porsche 962C From A # 27
 - BRM004 Porsche 962C Leyton House # 16
 - BRM005 Porsche 962C Momo # 30
 - BRM006 Porsche 962c Advan # 25
 - BRM007 Porsche 962 IMSA Budweiser # 86
 - BRM008 Porsche 962 IMSA Coke # 5
 - BRM009 Porsche 962 IMSA Lowenbrau # 14
 - BRM010 Porsche 962 IMSA Miller # 14
 - BRM011 Toyota 88C Minolta # 36
 - BRM012 Toyota 88C Taka-Q # 37 (when available)
 - BRM013 Toyota 88C STP # 45 (when available)
 - BRM014 Toyota 88C Southeast Toyota Dealers # 98

New models will be allowed in the future, only in the same category (Group C) and if specifically notified by BRM Model Cars, with special modification of this technical regulation.

In the future there will develop other classes, which will be added to the regulations at that time.

- 3.2 All the parts of the model must be the ones used in the box stock car, they must be fitted as supplied by BRM.
- 3.3 Their replacement, or any modification, can only be done according to the rules herein.

4. MODEL BODIES

- 4.1 Must be complete in all its parts, except for mirrors, winglets, wipers, antennas.
- 4.2 Cannot be made lighter by sanding or any other means.
- 4.3 Body kits can be used, but they must be completely painted so that no unpainted areas remain (no clear coat only on white plastic).
- 4.4 The body weight should be no less than the standard box stock bodies.
- 4.5 Body minimum weight limit:
 - 4.5.1 Porsche 962C with rear wing type "A" gr. 40
 - 4.5.2 Porsche 962C with rear wing type "B" gr. 40 gr. 40
 - 4.5.3 Porsche 962 IMSA
 - 4.5.4 Toyota 88C (without rear wing, fixed to the chassis) gr. 34
- 4.6 Porsche bodies must be attached to the chassis using the provided screws and washers, screws must be stock length, no car may be raced with loose body screws.
- 4.7 Washers may be glued onto the screws, for faster assembly.
- 4.8 Toyota bodies must be attached to the chassis with the provided screws (fitted to bodies) and O-Rings (fitted to chassis).
- 4.9 Only original BRM screw sets are allowed.
- 4.10 Windows must remain transparent. They are permitted only tampo-prints included in the standard models or decals added in self painted kits, with the same size.

- 4.11 All the BRM aftermarket parts designed for each model can be used.
- 4.12 Rear wing attachment can be reinforced with glue, tape or sponge rubber, provided the body shape is not altered in any way.
- 4.13 Cars can't be raced without the Rear Wings. If they comes off during the race, they must refitted or replaced immediately, in the same race stint in which the damage occurred, during race time. No replacement of Body or Chassis is allowed during a Race, You must repair the damage and pass Technical inspection before re-entering the race if the car is pitted for damage or repairs. Any minor parts that are lost during the race must be refitted before the next race. (Wheel inserts, Headlight buckets, etc.)

5. MODEL CHASSIS

- 5.1 The chassis can be cleaned from injection flash.
- 5.2 No trimming of the front edge of the chassis to allow braid clearance is allowed. No modification to axle mounts or bearings permitted, you may glue in the rear axle bearing, but not modify their fitment in any way.
- 5.3 In the Porsche 962C chassis (first production), is permitted to modify chassis to allow adjustment of rear wheels and gear. But only in the same area as the IMSA Car chassis, no extra plastic may be removed.
- 5.4 Magnet is forbidden.
- 5.5 It is allowed the use of adhesive tape under the chassis to prevent the loss of screws that fix the body. Cars that lose screws during a race will be penalized, especially if such action causes a problem to the track or another car. (Suggested penalty 100 laps Endurance Race, 10% of heat total Sprint Race).
- 5.6 The cockpit, the dashboard and the driver must be present and regularly fixed to the chassis, as per specifications contained in the assembly instructions of the original BRM kits.
- 5.7 The cockpit, the dashboard and the driver must be painted.

6. FRONT AXLES, FRONT WHEEL HUBS/TIRES

- 6.1 Maximum front wheel width tire-to-tire are:
 - 6.1.1 for any Porsche mm. 82
 - 6.1.2 for any Toyota mm. 80

In no case, wheels and tires must be visible outside the body when viewed from above (also in case of front axle floating).

- 6.2 Only original BRM front tires are allowed. It is possible to lower front tires, but it is forbidden to treat them with glue (or similar) for limiting its grip may be made slightly conical section, but the outer diameter of the front tires can't be less than mm. 23.
- 6.3 Front wheel hubs must be complete with original inserts; the type of insert to be used may be chosen from among those in the BRM catalogue and must be fully assembled and painted.
- 6.4 Only original BRM spacers between chassis and wheel hubs are allowed; they could be in Teflon or Brass, with the aim of achieving the maximum width allowed.
- 6.5 New accessories of this type will be allowed in the future, if specifically notified by BRM Model Cars, with special modification of this technical regulation.

7. REAR AXLES, REAR WHEEL HUBS/TIRES, CROWN GEARS

- 7.1 Maximum rear wheel width tire-to-tire are:
 - 7.1.1 for any Porsche mm. 83
 - 7.1.2 for any Toyota mm. 81

In no case, wheels and tires must be visible outside the body when viewed from above.

- 7.2 Only original BRM rear tires are allowed:
 - 7.2.1 For Plastic tracks S-020 and S-021 could be used
 - 7.2.2 For Wood tracks S-021 and S-021S could be used
- 7.3 When race tires are supplied by the race organization, type and size will be decided by the race organization.
- 7.4 It is possible to turn the rear tires, but their outer diameter must not be less than mm. 27.5. If the outer diameter becomes less than 27.5 mm., Tires must be replaced immediately with others of the same type.
- 7.5 Only original BRM bearings are allowed; they could be in Teflon or Brass. Rear bearings may be glued into the chassis. It is <u>absolutely</u> forbidden to change their position.
- 7.6 Only original BRM stoppers are allowed.
- 7.7 Only original BRM spacers (same as 6.4) are allowed, with the aim of achieving the maximum width allowed.
- 7.8 Only original BRM crown gears are allowed; the number of teeth of the crowns is of free choice.
- 7.9 Rear wheel hubs must be complete with original inserts; the type of insert to be used may be chosen from among those in the BRM catalogue and must be fully assembled and painted.
- 7.10 New accessories of this type will be allowed in the future, if specifically notified by BRM Model Cars, with special modification of this technical regulation.

8. GUIDE BLADES (PICK-UP) AND CONTACT BRAIDS

- 8.1 Only original BRM Guide Blades (Pick-Up) are allowed. Must be held in place by provided O-Ring in correct stock position. The O-Ring holding the guide must not be glued post.
- 8.2 It is possible to use thicknesses between the guide blade and the chassis (guide shims), in order to make the front axle more efficient.
- 8.3 Only original BRM guide shims is allowed.
- 8.4 Only original BRM Contact Braids and spares are allowed.
- 8.5 New accessories of this type will be allowed in the future, if specifically notified by BRM Model Cars, with special modification of this technical regulation.

9. MOTORS, PINIONS

- 9.1 Only original BRM Electric Motors are allowed:
 - 9.1.1 BRM T-027 motor
 - 9.1.2 BRM T-RS motor
- 9.2 Only original BRM pinions are allowed; the number of teeth of the pinions is of free choice.
- 9.3 When race motors are supplied by the race organization, they will handed out with pinion and power cables. Type of motor and pinion will be decided by the race organization.

- 9.4 Motor and pinion cannot be changed unless under race direction authorization. This must be observed by a Race Official.
- 9.5 Motor cannot be fastened to the chassis by glue or tape.
- 9.6 Any maneuver to increase the motor's performance is forbidden, included running-in and use of performance enhancements liquid. To this purpose, the motor shall be assembled under scrutiniser's surveillance during pre-race technical verifications and lubrication will be done with oil provided, or approved by the organizers.
- 9.7 Removal or opening of the identification label on the motor is prohibited. Motor leads must remain as supplied by BRM no modification to fitment or length allowed.
- 9.8 New motors will be allowed in the future, if specifically notified by BRM Model Cars, with special modification of this technical regulation.

10. WEIGHTS AND BALLASTS

- 10.1 The minimum weight for any BRM car in running order was set in 180 grams.
- 10.2 The use of brass shaped weights, specific to each model and produced by BRM, can be used for balancing the model. No other type of ballast is allowed.
- 10.3 Shaped brass weights must be fixed in the chassis in seats of the same shape, with biadhesive tape, if used.

11. LIQUIDS, OILS AND GREASES

- 11.1 May use oil or grease to lubricate motor, gears and axles.
- 11.2 You may lightly sand tires no other chemicals or additives allowed.
- 11.3 No tire treatment of any kind is allowed.
- 11.4 Races may be run on Plastic Tracks or Wooden Tracks. BRM prefers races to be run with Rubber tires on a clean track surfaces. However certain Clubs and Commercial Track run glue. If this is the case, tires will be supplied to suit the track conditions. However no fluids or glue may be added to the tires or track surface by the Racers; only treatment allowed will be done by Race Officials.
- 11.5 No treatment may be added to the braid on the car, or added on the track.

12. CONTROLLERS

Any type, even self-built. The maximum voltage and maximum current available at the throttle's contacts must not be larger than those provided by the power supply, and the lowest available voltage must not be any lower than the power supply's ground.

13. RACE PROCEDURES

Race procedure for BRM 1/24 Scale Model Car Slot Racing.

In building accurate Scale Models for racing BRM believes the Aim of the New Philosophy of Scale Racing is to race in a realistic manner.

To that end it is up to drivers to protect their equipment (the Car) during the race.

If a rear wing is lost it must be replaced immediately under Green (while the race is still running). If a heat ends while repairs are being done, work must stop until the next heat starts.

Repairs should be done on an allocated Pit Table in clear view of all Racers and Officials.

No car may be removed from the Race and taken to any area other than the Official Pit after qualifying and technical inspection. This is to ensure Fair Play for all Racers.

Sprint Races can be run in many different formats, this must be clearly published well before the race so all traveling Teams are aware of the regulations and Procedure for the Race.

Endurance Races shall be run for the Published time of the Race i.e. a 4 Hours Endurance Race must feature 4 Hours of running time.

The only exception to this is the suggested time for lane changing (usually 1 minute) which may be deducted from the running time.

So a 4 Hour Endurance Race on an 8 lane track would run for at least 29 minutes per lane.

No work can be done on the cars during lane changes, only sticker replacement and the lane change is allowed.

No inspection of the car during lane change, no checking temperature of motors or condition of braid or tires. These must be done in the Pit Area under Green (while the race is running).

In Endurance races the Power shall only be turned off for a problem with the Track or Computer Equipment no Track or riders calls are allowed.

The idea of BRM Endurance Racing is to test Driver and Equipment, track calls and Rider calls encourage overly aggressive driving and reward such actions.

The idea of a BRM Endurance race is to replicate the experience of Real Endurance Racing where the Clock runs continually for the given length of the time of the race and the Drivers are challenged to control the fate of their cars for that time.

This is the challenge, if you put your car in harms way you may have to endure damage, this is part of Endurance Racing.

13.1 Parke Fermé

Once cars have passed Technical Inspection they shall be placed in Parke Fermé until the Race Starts.

No work may be carried out after Technical Inspection and Qualifying if held.

Any car broken during Qualifying may be repaired or replaced but qualify as last. Once the race has started no car may be replaced, all Chassis and Bodies that start the race shall be the only recognized as Official Finishers.

13.2 Repairs during the Race

Introducing their car to the Technical Inspection, each Team must deliver to the Race Direction, who will store it in a team private box, the spare parts deemed necessary for the entire race, respecting the following rules and list (maximum quantity per spare allowed):

- Body and Chassis can't be replaced. It is legal to repair damaged threads on BRM chassis or guides with glue; however that glue may not be used to hold the parts together. If glue can't repair the part it must be replaced (Chassis may not be replaced during the race)
- Shaped Weights: not allowed after Technical Inspection. Once race starts weights may be changed under Green (while Race is running)
- Guide blade, with screws and O-Ring: 2
- Guide Shims: 4 of each size
- Contact Braids: 2 pairs (must be clean and dry, no additives allowed)
- Motor Retainers with screws: 2
- Screws, washers and O-Rings (to fix body to chassis): 2 full sets
- Crown Gears: 2 of each size
- Pinions: 2 of each size
- Bearings and Spacers (in Teflon or Brass): 2 full sets
- Stoppers: 2
- Wheel Inserts, front plus rear: 1 full set
- Front Wheel Hubs with Tire: 2
- Rear Wheel Hubs with Tires: handled out only
- Motor: if handled out only

No Complete BRM Chassis or Bodies shall be in the Teams Pit Areas during a Race, anyone found with duplicate cars or chassis to the one entered in the Race will be disqualified.

13.3 Tools allowed

- Screwdriver
- Key Allen
- Knife
- Adhesive tape
- Glue (only for plastic parts reparation)
- Cleaning rag
- Soldering Iron (supplied by the Directorate Race)
- Lubricating oil (supplied by the Directorate Race)

After the introduction of cars in Park Fermé, any intervention of repairs and/or inspections must be carried out in the Pit Table in clear view of all Racers and Officials under Green (while the race is running).

When building your BRM Car to race in a BRM Challenge all parts must be fitted in the correct place designed by BRM, fitment of BRM parts in a different position than designed, or held together in a different way than designed is NOT LEGAL.

And finally, anything not expressly permitted by this Rules Book is prohibited