

British Federation of Pedal Car Racing

British Pedal Car Specification - Issue 1

For the 2010 season onwards, the BFPCR has adopted this British Pedal Car Specification. For anyone designing a new car, or modifying an existing vehicle, the following technical specifications must be followed if you wish to enter any BFPCR event.

Notes

This Specification must be read in conjunction with the BFPCR Rule Book, the BFPCR Number Plate Requirements and any other pertinent documents and information. These define, for example, type of lights to be used during darkness, number plate colours and other mandatory class markings, etc.

Certain rules below have differences depending on whether a car was substantially built before January 15th 2001 (such cars are henceforth referred to as "Pre rule date cars").

Pedals, chainrings, number plate mounting spikes and the like are all considered "... protruding parts, which in the opinion of the scrutineers could cause damage or injury ..." (rule 10.2) if not suitably protected (rule 10.4)

1. Number of Road Wheels

Four, all functional and load bearing.

2. Configuration of Road Wheels

Conventionally arranged in two pairs.

3. Dimensions

- 3.1. Maximum overall length 3000mm
- 3.2. Maximum overall width 1125mm
- 3.3. Maximum overall wheel diameter (measured over the inflated tyre) 560mm. (Pre rule date cars: 765mm.)
- 3.4. Maximum height of uncompressed seat cushion (above ground level) 610mm
- 3.5. Minimum distance between centre of wheels 650mm (Pre rule date cars: 550mm.)
- 3.6. Minimum distance between front and rear axles 650mm

Safety Note: Experience shows that short wheelbase cars are significantly less stable in corners and designers are urged to ensure an adequate size for their cars.

4. Motive Force

Motive force is that of a single driver. Any system to alter velocity ratio between input and output is permitted (e.g. gears).

5. Manoeuvring

- 5.1. Steering shall be provided such that the car has a turning circle of not more than 10,000mm diameter (which includes the width of the car) when underway.
- 5.2. The design of the steering shall be such that the wheels can be moved from full left lock to full right lock in one uninterrupted movement.
- 5.3. Steering must be effective on front wheels by a safe system of rods or cables. All linkages must be secure and free of excessive play. Four wheel steering systems are permitted. Steering systems acting only on rear wheels are banned.

6. Braking

Braking must be efficient, effective and balanced on at least two wheels with due allowance for wear during racing. All components shall be securely fixed to the car and in good condition.

7. Mirrors

Mirrors, if fitted, shall not extend outside the widest part of the car as measured at any point perpendicular to the centre line and must be plastic or otherwise rendered shatterproof.

8. Seating

- 8.1. The driving position will be between upright and supine (not prone).
- 8.2. The seat back recline angle must not be so excessive as to prevent a clear and easy view to the front.
- 8.3. The driver must be able to get into and out of the car unaided.

Safety Note: Excessive recumbent angles on seating which in the opinion of the organisers will endanger the driver in the event of a collision will fail scrutineering on safety grounds.

9. Fairing

- 9.1. If a fairing is fitted all pedallers must either be tall enough to be able to see over it, or a section must act as a transparent windscreen. In either case good all round visibility for the driver must be demonstrated.
- 9.2. It should not have any sharp or dangerous edges which could cause injury in the event of a collision or rolling the car.
- 9.3. The design of the fairing should be such that, in the event of the car rolling, drivers can protect their heads with their arms. Where this is impossible roll bars must be fitted that are at least as high as the tallest pedaller in the team when seated and wearing a crash helmet.

10. Safety

- 10.1. Hand controls shall not be positioned near the chain or sprocket wheels.
- 10.2. No protruding parts, which in the opinion of the scrutineers could cause damage or injury, will be permitted.

- 10.3. Any entry, which, in the opinion of the scrutineers, is unsafe, will be refused permission to start.
- 10.4. For the safety of all, suitable protection must be provided, within the overall permitted dimensions, to any items considered a danger by the scrutineers. This could be in the form of bumpers, crash bars or a fairing.

11. Identification

- 11.1. Racing numbers must be clearly visible from the front, back and both sides of the car, from any reasonable viewing angle, including those represented by other competitors, race marshals and possible manual lap scorers.
- 11.2. Racing numbers must be of highly contrasting colours and must be weatherproof (i.e. not paper)
- 11.3. Minimum height of numbers is 150mm and minimum width of stroke of each number 25mm
- 11.4. Race rules may mandate colour schemes for numbers and their backgrounds to enable competitors to identify racing divisions

NB. Templates for legal numbers are now available.

12. Lighting

At least two headlights and two rear lights must be operational during any statutory lighting up period and shall be battery powered. Lights must be securely fitted on a stable base for scrutineering prior to any race with statutory lighting up periods, though may be removed outside any such periods. Restrictions on the type of lights (if any) may be found in the race rules.

IMPORTANT: See the BFPCR Rule Book for additional lighting requirements for BFPCR events.

Change Log

BPCS issue 1, effective 2nd November 2009:

These sections were altered from the IPCS (see below):

3.1

International Pedal Car Specification (IPCS):

IPCS adopted 15th January 2001, in conjunction with The Hong Kong Human Powered Vehicle Association and Karbyk (of Italy): no longer used by the BFPCR.