



RULES & REGULATIONS TERMS & CONDITIONS

2009

EUROPEAN PRO-KART ENDURANCE CHAMPIONSHIP

TECHNICAL

1. SCRUTINEERING

Competitors should work on the basis that if any process is not clearly stated as being permissible, then they should accept that it is illegal.

- 1.1 Karts must comply with these technical regulations at all times during official practice and racing. It is the competitors' responsibility to ensure that their kart complies.
- 1.2 Technical checks may be carried out before, during and after practise and racing. The scrutineers are empowered to undertake any form of verification they deem necessary.
- 1.3 The scrutineer may select one or more karts at any reasonable and appropriate time from which the engine(s) shall be removed. They also reserve the right to take away an engine or engines for inspection and dynamometer testing if they wish. Engines may be returned to competitors without reassembly.
- 1.4 If an infringement has been found to exist, the driver is liable for an inspection fee in addition to any penalties.
- 1.5 Karts must be recognised Pro Karts and have originated as a Pro Kart, by the manufacturer's definition and specification. The kart must satisfy the scrutineer that it is safe, is of a construction strong enough, and has brakes, wheels and steering adequate for speeds likely to be attained. It should not include any components of a temporary character, nor present any undue hazard to its driver or other competitors. The chassis must be of one piece construction, either brazed or welded. It must be constructed from magnetic steel tubing whose cross section is free. No form of chassis frame control such as pivots, dampers or similar devices is permitted. With the exception of those required for seat fixing, no additional holes may be drilled in the rolling chassis, whether for lightening or any other purpose.
- 1.6 All karts must be checked by a scrutineer before being permitted onto the circuit. Please note that the fuel caps will be checked during scrutineering and if found to be loose or defective must be replaced before the team is permitted to race.
- 1.7 Any kart damaged or breaking down on the circuit during an event may be returned to the designated pit area for repair and must be checked before being allowed to continue. Such checks will place emphasis on the safety of the kart in respect of securely fitted bumpers, seat and other equipment; freedom from sharp protrusions which could cause injury or damage; and correct operation of the brake/throttle/steering. On

being removed from the racing circuit, the kart must be weighed and presented to scrutineers before proceeding to pit for repairs. Repairs may only be carried out within the designated pit area. This will be identified at the event during drivers briefing.

- 1.8 During the course of an event teams may only use one chassis, although the components fitted to that chassis, including engines, may be replaced. If engines are changed, the replacement engine numbers must be reported immediately in writing to the scrutineers. This remains the sole responsibility of the team manager. Failure to do so may result in exclusion.
- 1.9 At the discretion of the scrutineer, a team may replace a chassis in the event that the kart is beyond reasonable repair. Please note that teams will only be permitted to use another chassis once the scrutineer has inspected the damaged kart and confirmed that the replacement chassis is in fact a 'bare' chassis. Report all changes, this remains the sole responsibility of the team manager. Failure to do so may result in exclusion.
- 1.10 All drivers must attend scrutineering with their protective clothing/ appropriate racewear. The Kart will have the maximum amount of ballast with which it will race, securely attached. Fuel tank(s) must be empty.

2. **WEIGHT**

- 2.1 Minimum weight of kart and driver must not be less than 180kg, at any time. This will be checked during both racing and qualifying. Ballast may be added to the kart, no single piece of which can exceed 5kgs. This must be carried on two securely mounted posts with a retaining mechanism for each. Up to 5kg may be carried on a single post with a single retainer, ballast up to 10 kg maximum will require 2 posts, each having a retainer. Any ballast carried in the seat up to a maximum of 4kgs must be restrained with a minimum of two heavy-duty nylon cable ties. Where a smaller seat is inserted in to the main seat, it must be retained with a minimum of two heavy-duty nylon cable ties at the waist line, or similar. Sheet ballast in excess of 4kg (and up to a maximum of 15kg including inner seat) must be fixed to the rear of an inner seat in such a way that its shape follows the contour of the inner seat and does not impede the fitting of the inner seat to the outer seat. The sheet ballast must be firmly and permanently fixed to the inner seat at the top, centre and bottom of the ballast sheet. Any other arrangements for ballast fixing must be to the scrutineer's satisfaction.
- 2.2 A weighing machine will be placed at the entrance to the pits. All karts must be weighed before being allowed into the pits. The scales will be available for the use of teams during scrutineering / pre-race only. The scales of the day will be considered to be a judge of fact.
- 2.3 It may be necessary to reset the scales after each kart has been weighed. If this is not done an accurate reading cannot be guaranteed. Therefore all drivers need to stop before driving onto the scales and should not proceed until invited by the marshal to do so. Any team driving onto the scales before being instructed will have to accept the reading provided, regardless of any inherent inaccuracy caused by their

haste. If the kart and driver are found to be underweight it will need to be re-weighed. In this event, the team requiring re-weighing must make way for any other teams that may be queuing / waiting to use the scales.

The penalties stated in the List of Penalties are regardless of weather conditions.

3. ENGINE

3.1 Karts will run on supplied unleaded fuel to which additives must not be added. The Organisers reserve the right to take fuel samples at random to ensure conformity with the regulations. No additional or enlarged tanks may be fitted. All seals & unions must be checked regularly for leaks and replaced as necessary. It is strongly urged that the engine's integral fuel tank be removed and the engine fitted with a suitable cover. A standard floor mounted fuel tank should then be used, unmodified and this tank and its mounting must be in accordance with chassis manufacturer's instructions or homologation. The capacity of this tank must not exceed 7.5 litres. Ballast may be added to the tank in order to maintain the maximum capacity. In this instance the kart may be fitted with a pulsed fuel pump(s), which will take a vacuum feed from either the governor rod hole or one drilled in the inlet manifold, tapped to accept a vacuum fitting. Fuel pipes must be of no more than 5.3 mm i.d. and must take a direct route to the carburettor and be safely secured. One engine may have an extra loop of fuel pipe no more than 50cm longer than the direct route and/or a return feed to the tank. One in-line fuel filter of nominal capacity per engine may be fitted.

3.2 Engines must, in all respects, comply with the current Honda GX160 Technical Regulations at latest release version. These are available from the ABkC.

3.3 It must be stressed that Pro Kart racing is for essentially standard Honda engines and teams should consider the following maxim at all times: Honda (UK) will admit no warranty claims on engines used in any practice or racing.

3.4 The only permitted modifications to the engines are:

3.4.1 Removal of governor mechanism.

3.4.2 Fitting of alternative valve springs

3.4.3 Fitting of alternative Honda carburettor jets.

3.4.4 Use of alternative lightweight Honda flywheel, Honda Part no. 31100-ZE7-811 (This part is being made available to assist heavier drivers who wish to save weight on their kart, it may not improve the engines' performance).

3.4.5 Substitution or complete removal of the renewable paper/foam air filter.

All of these modifications are clarified in the Honda GX160 Technical Regulations.

3.5 Separate return springs must be fitted to each carburettor and to the throttle pedal, each acting independently. A linkage may be manufactured to actuate the standard Honda throttle. This may include fitting additional return springs.

- 3.6 It is the teams responsibility to ensure that all plastic, rubber and nylon engine components are in good condition and operating in the manner for which they were designed.
- 3.7 The fasteners on the engines may be drilled for the purposes of lock wiring. This includes the fitting of a fuel tank cap security device - though this must not in any way increase the capacity of the standard tank.

4 **CHASSIS**

- 4.1 Wheelbase to be between 104 - 108 cms
- 4.2 Competitors may only scrutineer and compete with one chassis and two engines. If damage occurs, chassis and engines may be substituted at the discretion of the chief scrutineer.
- 4.3 If a kart suffers a mechanical defect on the circuit which forces the driver to reduce speed, such as a chain or belt failure on a twin engined kart, then the driver may drive back to the pits. The driver must not attempt to complete the race distance.
- 4.4 All karts must be fitted with side pods, nassau panel and front fairing/spoiler panel. Neither the front panel nor side pods should be filled with any medium.
- 4.5 Number plates with numbers must be fitted to the nassau panel and the rear of the kart, and be clearly visible to officials at all times. Numbers and backgrounds will not be supplied by the organisers. Number plate backgrounds to be black with white numbers unless stated differently in Specific Race Regulations. It is possible that Series' sponsor's identification will need to be shown at certain rounds, and the competitor is agreeing to comply with this when signing on.
- 4.6 Competitor's sponsors names and other graphics may be applied to the kart making use of the side pods, nose cone etc. There is no restriction on these subject to the numbers being clearly visible. Tobacco advertising must be obscured if TV coverage is present and no graphics are to be offensive.
- 4.7 An extended width rear bumper is mandatory. The bumper is to be constructed from a minimum 25 mm nominal diameter 14g magnetic steel tube. The bumper must form an extended loop of 180 mm +/- 10 mm centres with the bottom loop centre 60 mm +/- 10 mm from the ground in dry configuration. The horizontal rails must be wider than the outer chassis rails. The bumper must be supported in a minimum of two places from the chassis and be of such a construction to withstand substantial impact. In side view the bumper will be in the vertical plane. The overall width of the bumper must not exceed the rear width of the kart at any time; The measurement to be taken at the outside of the rear wheel or tyre, whichever is the greater and must cover a minimum of 50% of each rear wheel/tyre at all times. Adjustable width bumpers are not permitted. (illustration available from organisers).
- 4.8 The front bumper must also be of strong construction. A front fairing / spoiler of suitable construction and fixing must be attached.
- 4.9 The type and construction of the seat is free so long as it is mounted in the originally intended position, of sound and rigid construction and securely mounted.

- 4.10 Steering wheel type and size is free, however it must have a continuous rim. It must be made of a material which will not constitute a danger in the event of an accident.
- 4.11 Special modifications will be permitted to allow use of hand controls to enable disabled drivers to compete.
- 4.12 All karts must have an effective dual connection between the brake pedal and caliper. The main connection may be either solid or cable. The back-up connection should be made by cable, set slightly slack, and with a minimum dia of not less than 1.8mm.

5. **AXLE**

- 5.1 Rear axle must be 30mm diameter, solid or hollow magnetic material. No differential of any type is permitted.
- 5.2 Unless two securing bolts are fitted to the hubs on the rear axle, a circlip must be fitted on each axle end to prevent accidental loss of the hub. Any hub with an overall length, excluding wheel studs, of less than 60mm must not overhang the rear axle.
- 5.3 One hydraulic or mechanical brake should be fitted to the rear axle only. The brake disc must be made of metal but can be vented and drilled / slotted. A caliper with a maximum of four pistons may be used. Additional air ducting to the rear brake is permitted but must be securely attached.
- 5.4 Gearing will be: 20 tooth clutch with axle sprocket size(s) being specified in SR's or final instructions.
- 5.5 Drive is to be by 219 chain or by belt. Where belt drive is used, it is the competitor's responsibility to show that the kart is using a fixed drive ratio compatible with the stipulated gear ratio for that circuit.
- 5.6 Only one sprocket may be fitted to the rear axle for each engine. All chains/belts must be adequately protected at all times. The top of the clutch, the chain/belt itself, and axle sprocket and gear must be covered from above down to the centre line at the rear axle sprocket. Sprocket protectors may be used but not have additional teeth.
A chain guard, which fully covers both engine and axle sprockets down to at least the bottom of the axle, must be fitted to either side.

6. **WHEELS**

- 6.1 Wheels must be of metal or alloy construction in sizes suitable for the tyres specified. They may be of one or two piece construction. Maximum wheel widths between the beads are:

Front: 130mm
Rear: 200mm

- 6.2 Control tyres for dry and wet conditions are as follows:

	Dry		Wet
	Bridgestone YDS		Bridgestone YDK
Front	4.5 x 10 x 5	Front	3.6 x 10 x 5
Rear	7.1 x 11 x 5	Rear	6.0 x 11 x 5

Only Bridgestone YDS/YDK tyres marked NFA, will be allowed.

6.3 The use of any equipment or chemical designed to preheat the tyres or retain heat in them, or soften or otherwise modify tyres or their compound prior to use is strictly prohibited. Non-compliance will result in exclusion. Monies will be forfeited.

The spirit of Pro Kart racing is based on the use of “as manufactured” engines and proprietary chassis and is intended to offer each driver competitive racing on equal machinery. Any drivers and entrants wishing to compete with the scrutineer and the regulations rather than their fellow competitors, should not race in these classes.