

Grass Kart Specifications

Note: Any questions of interpretation of the following are to be addressed to the Kart Challenge Steering Committee for clarification. Contact details are on the bottom of this document.

Pre Race Inspection

All karts must be inspected by a scrutineer prior to race day to be eligible to race. Any kart not meeting the specifications listed below may not be able to race (however they will still be eligible for points under the other 3 categories).

Overall Dimensions

Maximum 1800mm long and 1200mm wide.

Engine

Engine must be as supplied and not modified in any way, with the exception of:

- fuel tank (which is able to be relocated but not modified in any other form).
- oil level switch (may be disconnected if required).
- kill switch:
 - Must be mounted on the steering wheel and be clearly seen and working, unless the factory on-engine kill switch can be easily reached by the driver when seated.
 - Must be of latching on/off type.

Governors are not to be interfered with or overridden to enhance performance:

- Engines may be subjected to a maximum RPM check.
- Direct operation of throttle on engine (i.e. in case of throttle cable stretching during race) is not permitted. Throttle is to be remotely operated via a cable from a suitable foot or hand control.

Hose clips are to be placed on all fuel line connections (not cable ties etc).

91 octane petrol only is to be used: no octane boosters, alcohol, methanol, nitro etc.

Drive Gearing/Ratios

- The overall drive ratio is not to be changed once scrutineering is complete.

Drive Guard

- A guard must be fitted to cover the exposed top and sides of the drive mechanism with a minimum width of 50mm.
- The guard must be able to deflect the drive mechanism away from the driver in the event of breakage.

Steering

- Handlebar or wheel type steering is permitted.
- Design must not have any pinch points or projections.
- Steering must be adequately attached with no slop.

Stub Axles

- Minimum 15mm diameter at inside bearing, minimum 12mm diameter at outside bearing.
- Front stub axle nuts to be either secured by either split pins or nylocs.
- Stub axle mounts are to be welded.
- Stub or drive axles must not protrude past outside of wheel rim.

Brakes

- Brakes must work on rear axle only.
- All karts will be subjected to a braking performance test prior to driving events commencing.

Wheels

- 4 wheels per kart.
- Maximum tire size 455mm high x 135mm wide.
- Wheel rims must be free from sharp edges & burrs.
- Wheel and tyre sizes or tread patterns are not to be changed once scrutineering is complete.

Seat

- A suitable rigidly mounted seat with adequate lateral support must be fitted.

Floor Pan

- The floor pan must be of suitable non-perforated material.
- Pan must extend at least from under the seat to forward of the driver's feet.
- No part of the body work shall be closer to the ground than the floor pan.

Push Bars

- Push bars are compulsory for all karts.
- Minimum of 25mm outside diameter tubing and constructed with no sharp ends.
- Minimum height of 600mm from top of rear axle.
- Tube thickness minimum 1.6 mm.

Rear Bumpers

- Not to exceed rear wheel and rim total width.
- Must have rounded corners and be adequately constructed.
- No less than 100mm under total rear wheel width.
- Must be a minimum of 100mm tall.
- Must be of tubular design with vertical or horizontal bars so that other karts cannot go between top and bottom bars.
- Must be constructed from a minimum of 19mm x 1.2mm tubing.
- Suitably mounted enclosed pods of similar overall dimensions may be used as an alternative.

Mud Flaps

- Mud flaps are to be fitted to rear bumper.
- Lower edge maximum 20mm from the ground.
- Upper edge minimum 25mm above top of tire.
- Flap to be no narrower than tyre width.
- Must be firm material e.g. conveyor belt rubber but not metal.

Front Bumpers

- Must be of tubular design with rounded corners.
- Must not exceed the inside turning line of either front tyres.
- Suitably mounted enclosed pods of similar overall dimensions may be used as an alternative.

Side Bars

- Must be of tubular design with rounded corners.
- Must be within 100mm of the front tires
- Must reach past the centre of the rear tyre tread width, but not protrude wider than rear wheels.
- Side bars must run parallel to centres of front and rear wheels.
- Each side bar must be of closed loop construction and a minimum of 100mm tall.
- Minimum 19mm x 1.2mm tube.
- Suitably mounted enclosed pods of similar overall dimensions may be used as an alternative.

Signage

- School name (or recognised abbreviation) must be displayed externally on all four sides. Minimum area A5 size equivalent for each sign.
- A 200 mm diameter area is to be provided on the seat for the Grass Kart Challenge logo.
- Sponsorship signage is permitted

Helmet

- New Zealand Safety standard or I.U.E standard and fitted correctly.
- Must be worn at all times when in Kart.
- Must be in good condition.

Protective Clothing

- Suitable protective footwear and eye protection (racing goggles or full face helmet lenses, NOT sunglasses) are to be worn.
- Race suit or overalls are to be full length and long sleeved.
- Gloves are compulsory.
- No clothing to be worn over top of overalls, no loose clothing, no bare skin.
- Neck braces are recommended.

Fittings

- All fasteners are to use a lock nut system. Generally this will mean the use of nylock nuts on all fittings, or a castellated nut with split pin.