

## **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. Changes to previous specifications are made in **YELLOW**.

### **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 may be changed to suit the various events. This is at the discretion of the teams and no time allowance will be given for changing of ratio's.

### **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.
- Mechanical stops must be fitted to prevent bending of steering arms/linkages.

### **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**

- Min of 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 metal.
- Must be fixed by mechanical fasteners.
- Pan must extend at least from under the seat to forward of the driver's feet, and be wide enough to fully protect the drivers legs.
- 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 or open 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.
- 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 of a suitable material

## **Front Bumpers**

- Must fully protect the drivers feet by being:
  - A minimum of 100mm in height
  - A minimum of 150mm forward of drivers feet when pedal is fully extended
  - A minimum width of the pedal assembly
  - Must not exceed the inside turning line of either front tyres.
- Alternatively the front of the kart maybe fully enclosed

## **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.
- Suitably mounted enclosed pods of similar overall dimensions may be used as an alternative.

## **Signage**

- School or team name (or recognised abbreviation) must be displayed and must be clearly visible from the front of the kart. Lettering should be a minimum of 75mm high.
- 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.
- Must be correctly secured when driving.

## **Protective Clothing**

- Suitable protective footwear and eye protection (racing goggles, safety glasses, 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 recommended.
- 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.

