Cyclekart Club of Australia Incorporated

CYCLEKART CONSTRUCTION STANDARD

This document is part of a safety management framework that provides a safe system of operation for CCA activities. The complete framework is available to view at https://cyclekarts.org.au/safety1st

Version	Date	Details	Approved
V 1.0	20.09.2025	Draft Proposal	20.09.2025
V 1.1	29.10.2025	Draft Review	10.01.2026
V 1.2	12.02.2026	Updated Electric power limits to 7.5kw (10hp)	11.01.2026

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1. Objective

The purpose of this policy is to define the minimum performance standard for Cyclekart construction for CycleKarts participating in CycleKart Club of Australia (CCA) events.

Compliance with this policy ensures that all risks identified in the CCA Risk Management Register are considered and mitigated.

2. Scope

This policy applies to all members, associate members, and temporary participants who construct or operate CycleKarts at any CCA organised or endorsed event.

3. Definitions

For the purposes of this policy, all definitions provided in the CCA Master Definitions Document shall apply.

4. CycleKart Construction Specifications

4.1. Wheel Track

- Not more than 1000mm (measured between centre of contact patches)

4.2. Wheelbase

- Typically about 1675mm and normally less than 1800mm.
- Wheelbases longer than 1800mm are permitted in the Aerokart class

4.3. Engine

- 6.5hp Honda “GX200” or clone (e.g. Predator / Various branded copies)
- Electric motor (72V, nominal 5kW, 7.5kW peak).
- Engines may be modified but power is limited to 10hp.
- Rarely, approval may be given to use a different engine, but not in any circumstance where this results in more power.

4.4. Wheels

- 17” wire spoke wheels (e.g. Honda ‘postie bike’ or similar / pit bike wheel).
- 18” permitted for Edwardian era builds where appropriate.
- Maximum rim width 1.85” (Exemption for rear wheel on three-wheel cars)

4.5. Tyres

- Typically 2.5/2.75" but maximum of 3.25"
- Larger rear tyres are permitted in the case of three-wheel cars

4.6. Brakes

- Rear (driven axle) brake(s) ONLY (No front brakes allowed). Can be mechanical or hydraulic.
- Typically hydraulic disc brakes are preferred.
- If cables are used to operate the main brake mechanisms, then the minimum cable diameter is 1.8mm and a secondary cable is to be fitted in case of cable failure.
- It must be possible to lock the brakes on (e.g. handbrake or hydraulic line lock) or have a separately operated 'parking brake'.
- In both cases the 'parking' brake must be able to hold the CycleKart under engine load. This is to prevent vehicle runaway in the case of a stuck throttle when starting the engine.

4.7. Suspension

- Front suspension schemes should follow the inspiration car. For the pre-war period this is usually leaf springs on a beam axle.
- Typically, this is 2 leaf springs running along the car, a single transverse leaf spring or 1/4 elliptic schemes.
- Almost all cars in the period use beam axles. A handful of potential inspiration cars have coil springs and/or independent front suspension, for example a sliding pillar arrangement (Morgan and Lancia are most notable examples).
- Where the CycleKart is not following a specific inspiration car, leaf spring suspension must be used.
- Period style dampers can be used (they might not do much, but they can look great)

4.8. Transmission

- Transmission system is free choice: CVT, centrifugal clutch, belt clutch all acceptable.
- No manual clutch or manual gearboxes are allowed
- A reverse gear may be fitted if desired.

4.9. Rear Axle

- Rear Axle design is free choice: One-wheel drive, fixed axle, differential are all accepted

4.10. Weight

- Aim for 100-125kg (maximum recommended weight 150 kg - no driver, full fuel)
- Electric CycleKarts are weighed without batteries. Maximum weight for battery packs is 32kg.

4.11. Cost

- Open cheque-book builds are not really in the spirit of CycleKarting. Whilst other groups might put a specific limit on what a CycleKart should cost, we prefer to trust that people are doing the right thing.
- We encourage builders to employ thriftiness when sourcing parts. Repurposed items are ideal and fit the general style and ethos of Cyclekarting.
- We also encourage that each CycleKart should be at least 50% built by the owner. If you cannot weld or have no idea on how to get started, reach out to the community and you will find that there are plenty of people willing to help you out. Building your Cyclekart is where most of the fun lay and a good way to forge new friendships.

5. CycleKart Safety Requirements

The following safety requirements apply to all forms of CycleKarts:

- No sharp leading edges are allowed
- Any fuel used must be from a petrol filling station and be free from additional additives. (Additives to prevent damage for Ethanol content are permitted.)
- Fuel tanks must be originally designed to be a fuel tank or the design must be submitted for review by the committee.
- Maximum volume of fuel in the tank must not exceed 5 litres.
- An ignition cut-out “kill switch” must be fitted on the dashboard and clearly marked. Kill switch must also be of the latching type not a momentary push button.
- Where batteries are used, a master battery cut-off / isolator switch must be fitted to isolate the battery. Isolator switches must be accessible from both outside and inside of the cockpit and be clearly labelled.
- All throttle mechanisms must be fitted with a minimum of two throttle return springs.
- An effective braking system must be installed. If your brakes are ineffective, you will not be allowed to run.
- A Locking ‘parking brake’ that is capable of holding the vehicle under power must be installed. The ‘parking brake’ must be applied when starting the vehicle and when it is idling.
- For vehicles without a handbrake that are accepted under the grandfather clause. Engines can only be started and run with a driver sat in the drivers seat.
- A functional clutch which disengages drive to driven wheels at idle must remain in working order at all times (electric CycleKarts are exempt)
- All vehicles must have a securely mounted exhaust
- All engines must have a suitable silencer. Individual venues may have specific noise dB limits which will be advised before each event.
- Where vehicles are to be used in an area where there is deemed to be a high risk of fire, a spark arrestor must be fitted to the exhaust, or a silencer with integral spark arrestor used.

6. Review and Updates

- This standard shall be reviewed annually
- Amendments shall be ratified by the Committee and communicated to members.