

Catterline Cartie Challenge 2010

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Competition Rules

1. Introduction

The Catterline Cartie Challenge is a competition for gravity powered vehicles. By entering the competition, teams are deemed to have agreed to comply with the rules and conditions specified below and to follow the instructions of the event organisers.

Before taking part, all team members will be required to sign disclaimers absolving the organisers from responsibility for any injury or damage sustained while taking part in the Catterline Cartie Challenge.

With regard to the interpretation of the rules, the organiser's decision is final.

2. Classes

1. The following classes of vehicle are permitted;

- Cartie
- Gravity sidecar

2. Carties must conform to the Construction Rules (Carties) shown on page 6. Gravity Sidecars must conform to the current Scottish Cartie Association Gravity Sidecar Technical Specification. This is available for download from <http://scottishcarties.org.uk/resources/downloads>

3. Display

1. All carties and gravity sidecars must be displayed at the Gala on the second Saturday in June from 1.30pm to 4.00pm. Any team failing to display their cartie at the gala without good reason will be deemed to have withdrawn from the event.

4. The Team

1. Any number of people can be in a team.

2. Other than those covered by rules 5 and 6 regarding the driver, there is no age restriction on team members.

3. All team members under the age of 16 must be accompanied by an adult.

5. The Drivers (Carties)

1. All drivers must be 14 years or older on the day of the time trials.

2. Any team member over the age of 14 can drive for any run.

3. The cartie driver's body and limbs must be fully covered by suitable abrasion resistant clothing such as; heavy duty overalls, a karting suit or, ideally, motorcycle leathers or similar. Sturdy footwear and abrasion resistant gloves must be worn.

4. The driver must wear a helmet. The helmet must at least comply with, and carry the appropriate markings for, any one of;



- BSI 6658-85
- BSI 2495-77
- EN 22.05
- DOT FMVSS 218
- SNELL M2005, M2010, SA/K2005 or K-98
- ACU Approved

5. The helmet may be “open-face” or “full- face” .

6. The helmet must be in good condition and worn to the manufacturers recommendations.

6. The Drivers and Passengers (Gravity Sidecar)

1. All sidecar drivers must be 16 years or older on the day of the time trials.

2. If the sidecar driver is 18 years or older, the minimum age of the passenger is 12 years old.

3. If the sidecar driver is 16 or 17 years old, the minimum age of the passenger is 16 years old.

4. Any team member over the relevant minimum age can be the driver or passenger for any run.

5. Sidecar driver and passenger’s clothing must comply with those detailed in the Scottish Cartie Association Gravity Sidecar Technical Specification.

7. The Time Trials

1. No practice is permitted on the course on the day of the time trials.

2. Each vehicle will be allowed up to three timed runs on the course. Teams will be allocated a starting number before the event and must be ready to begin their timed run when called by the Start Marshal. Any undue delay may result in that run being voided.

3. The organisers reserve the right to eliminate the slower vehicles from the event after the second run if the event is running significantly behind schedule. Please note that this is only a contingency plan and it is hoped that it will not be necessary to invoke this rule.

4. Each vehicle will start from behind a marked start line, and will be timed from the start signal to when the vehicle breaks the timing beam at the finish line. Standing push starts by up to two people are permitted. The pushers' feet may not leave the ground until the vehicle has entirely crossed the start line.

5. The start procedure is as follows;

- Vehicle lines up entirely behind start line. The Start Marshall will perform a brake function test and satisfy him/herself that the driver, passenger and pushers are suitably attired and ready to go. When all is ready, the Start Marshall will signal the Timekeeper.
- The Timekeeper will start the timer, which will cause the red start light to come on. After 5 seconds the green light will come on and the clock will start. The green light is the start signal.



- The vehicle will proceed down the course, and the timer will automatically stop when the cartie breaks the timing beam at the finish line. Any penalties, such as false starts and slalom cone hits, will be signalled to the Timekeeper and added on to the time for the run to produce the final time for the run.

6. A false start is where the vehicle breaks the start line before the start signal goes to green. There is a detector on the start line that will sound an alarm if the line is crossed while the start signal is still on red.

7. The driver and passenger must be in the vehicle when it crosses both the start and the finish line.

8. The driver and passenger of the vehicle must not intentionally touch the ground or get out of the cartie during the run, excepting if the vehicle has come to a complete stop. If the vehicle has come to a complete stop, the driver and passenger may get out of the vehicle and/or touch the ground only for the purpose of getting the vehicle moving in the right direction again.

9. In the event of the vehicle coming to a stop because of an accident, the run may not be restarted until a marshal has confirmed that the driver and passenger are fit to continue.

10. Team members may follow their vehicle down the course. If the vehicle comes to a complete stop they may assist in getting the vehicle moving again. Team members may push to get the vehicle moving again after it has stopped. Team members must either return to the start or move to the end of the course as quickly as possible after their run is complete.

11. Drivers will stop their carts as quickly as is safe if any race official gives them a stop signal. Failure to do so will result in immediate disqualification, and all previous runs will be deemed void.

8. The Course

1. The course runs down the brae, starting at the top of the track up to The Reath and running down to the first white line adjacent to the pier ([see map](#)). The track that goes down the side of the boat house to the car park by The Green is the braking area.

2. The course will be laid out on the morning of the time trials. It will include several features to test the skill of the driver and the handling of the cartie. These features may include any or all of the following; chicanes made of tyres and/or bales, ramps, humps, water splashes, slalom sections, large piles of cardboard boxes, barrels of toxic waste, rotating blades, flaming hoops and anything else we think of between now and the day of the event.

3. The course will be no less than 5 feet wide at its narrowest.

9. Modifications

1. The vehicle may be repaired and adjusted but it may not be significantly modified after it has passed scrutineering, except that temporary decorations may be added for the Gala Display. The vehicle should be returned to the state in which it was when scrutineered before the start of the time trials on Sunday.



2. Parts may be replaced on a like-for-like basis, but no parts may be added to or removed. Ballast may not be added or removed at any time during the event.
3. Any replacements made during the time trials must be indicated to the pit lane marshal prior to being carried out and must be inspected and approved on completion.
4. Vehicles may be inspected at any time to ensure continuous compliance with the rules throughout the event.

10. Penalties

1. Certain rule infringements will incur time penalties, which will be added to the overall time for the run in which the rule infringement occurred. For the purpose of determining which run a penalty applies to, a run is deemed to start at the point at which the vehicle crossed the finish line of the previous run, or the start for the event for the first run. The following penalties are defined;

Infringement	Penalty (seconds)
False start / push rule infringement	5
Hit slalom cone	5
Unapproved modification (see rule 6)	5
Failure to stop	Disqualification

Other penalties may be applied at the discretion of the event officials.

11. The Prizes

The Connors Shield. The cartie that makes the single fastest run down the brae, including any time penalties for that run, will be awarded the Connors Shield. In the event that more than one cartie has the same fastest time, their respective second fastest times will be considered, followed by the third fastest times. If the times are all equal, then the cartie with the fewer or fewest time penalties will be adjudged the winner. If, after all that, there is still no way to differentiate the carties, then the result will stand as a tie. The shield will be engraved with the cartie's name and the year, and displayed in The Creel Inn. You don't get to keep it - sorry.

Applies to; Carties only.

Constructors Championship (Cartie). Awarded to the cartie with the lowest aggregate time for all three runs. In the event of a tie on aggregate time, the team with the fewer or fewest time penalties will be adjudged the winner. If, after all that, there is still no way to differentiate the teams, then the result will stand as a tie.

Fastest Run (Gravity Sidecar). The Gravity Sidecar that makes the single fastest run down the brae, including any time penalties for that run. In the event that more than one sidecar has the same fastest time, their respective second fastest times will be considered, followed by the third fastest times. If the times are all equal, then the sidecar with the fewer or fewest time penalties will be adjudged the winner. If, after all that, there is still no way to differentiate the sidecar, then the result will stand as a tie.

Applies to; Gravity Sidecars only.



Constructors Championship (Gravity Sidecar). Awarded to the Gravity Sidecar with the lowest aggregate time for all three runs. In the event of a tie on aggregate time, the team with the fewer or fewest time penalties will be adjudged the winner. If, after all that, there is still no way to differentiate the teams, then the result will stand as a tie.

Applies to; Gravity Sidecars only.

Best Engineered. Each team will pick the three carties that they think are best engineered, ranked in order of merit. Three points will be awarded for each first place vote, two for each second and one for each third place vote. The cartie with the highest number of points will be declared the “Best Engineered”². In the event of a tie on points, the cartie with the most first place votes will be the winner, followed by second place votes if it is still a tie. If the carties are still equal after that, then the result will stand as a tie.

Applies to; All classes

Best Decorated. This is voted for by the general public at the Catterline Gala on Saturday.

Applies to; All classes

Champagne Moment. This is voted for by the marshals and helpers at the Cartie Challenge. It is awarded to the team responsible for the most memorable or most sporting moment of the day. If nothing warrants such a description, then the most spectacular crash will probably do.

Applies to; All classes

12. Appeals

1. Any team may present an appeal regarding the actions of another team or teams, or regarding any adjudication, except that they may not appeal against a adjudication that is itself the result of an appeal.
2. All appeals must be received by the Chief Marshal within 15 minutes of the completion of the last run of the day.
3. There will be a fee of £10 per team for each appeal. This fee will be refunded if the appeal is upheld.
4. The team(s) that raise(s) the appeal will be bound to accept the decision. Multiple appeals on the same issue will not be entertained.

Construction Rules (Carties)

1. Disclaimer

1. No expressed or implied warranty of safety shall result from publication of or compliance with this specification.



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2. This specification is not a guarantee against injury or death to a participant, spectator or official.

2. Dimensions

1. Cartie must not exceed 220lb in weight (not including the driver).

2. There are no limits to the size and width of the cartie, but the competitors' attention is drawn to the rules regarding the construction of the course (Competition Rule 8), and in particular the minimum width of the course.

3. Wheels

1. Cartie must be designed to have at least four load bearing wheels. Each wheel must support at least 10% and no more than 50% of the cartie's unladen weight.

4. Driving Position

1. The driver must be seated and forward facing.

5. Design

1. Cartie must not have any parts to aid speed, for example (but not limited to) catapults, elastic bands, pedals, hamsters, motors, propellers, jet engines, balloons, pigeons, warp drives, teleporters, springs, KERS or anything else like that. It's not complicated. It's just a free wheel gravity powered cartie.

2. Cartie must not have any smoke or fire devices fitted.

3. Cartie must have an effective steering system. There must not be excessive free play, nor any characteristic tending to promote instability.

4. Cartie must have an effective braking system. The brakes must be capable of holding the vehicle on a dry horizontal road surface, when laden with driver and ballast, against a horizontal load of 500 Newtons (approx 51KgF). Brakes should be graduated and apply equally to both sides of the cartie.

5. Cartie must have a towing eye or similar point at the front where the brake test line can be attached.

6. It must not be possible for any part of the driver's body to become trapped in moving parts of the cartie (i.e. wheels, steering assembly, etc).

7. Cartie must have no loose parts or sharp edges.

6. Scrutineering

1. Carties will be scrutineered two weeks before the event. Carties that pass may not then be substantially modified. Carties that fail may only make required changes. Modified carties will be required to pass a further inspection before they are permitted to take part in the time trial. Carties from teams that are based far far away from Catterline may request alternative scrutineering arrangements. Such requests will be negotiated on an individual basis and will be accommodated if at all possible.



2. Cartie must, in the opinion of the scrutineers, be safe, soundly made and robust enough to compete up to 3 times. It must not pose an unreasonable threat to the driver, other team members, event officials, members or the public, any property or animals in the vicinity, the environment or world political stability.
3. Carties that the scrutineers believe to be safe and fit to take part but which do not meet all of the construction criteria *may*, at the scrutineers' discretion, be allowed to take part. Such carties will only be eligible for the non-race prize(s).
4. The scrutineers' decision is final.



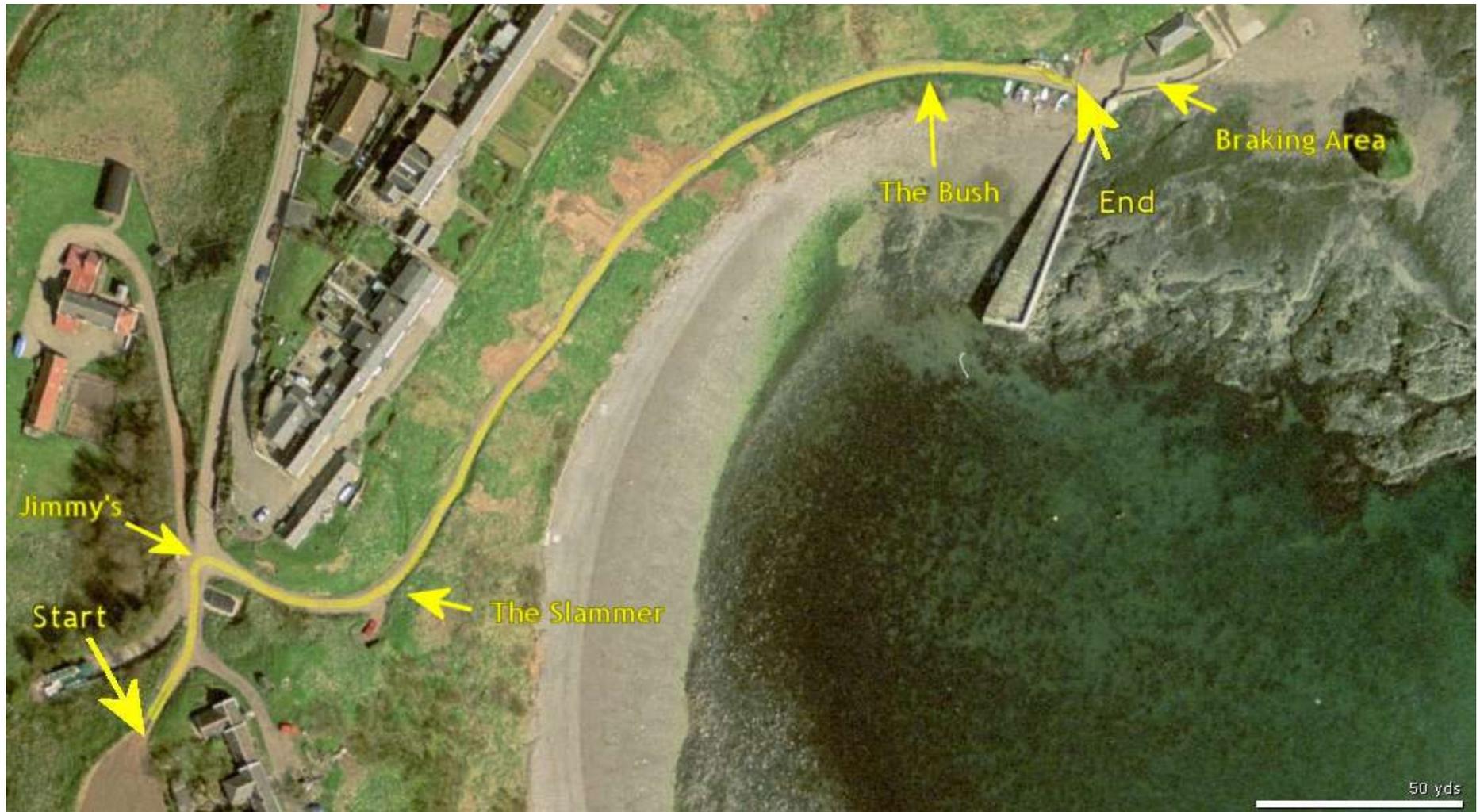


Figure 1 - Course Map