



2013 New Zealand Endurance Race

4 Lydney Place North,
Porirua

Saturday 13th April 2013

12 hours of non-stop hard racing with 3 hours of night driving, 6 teams.

Race Length: 12 hours total, the only time that the track will be switch off will be at the time of changing lanes.

Each team will race for a total of 2 hours on each of the six lanes, changing lanes and driver at 30 minute intervals, (driver must race for 30 minutes, driver change at time of lane change), this will give each team four runs on each lane.

At no time during the race can a team have more than one (1) team member on the drivers stand (this is to lessen the chance of other drivers being distracted when racing).

At the time of changing lanes the power will be switched off for 45 seconds, it will be the teams responsibility to change their car to the correct lane with the appropriate coloured sticker in place, teams may work on their cars in this period.

If the track has to be turned off for repairs then the cars must stay on the track where they stopped and no work may be carried out on them, if the car is being worked on in the pits then work must stop.

Any time lost through track repairs will not be made up; the 12 hours will be from the start to power off 12 hours later, lost time will shorten the last heat, the length of all other heats will be governed by the computer timing less the 45 seconds lane change time.

Program:	Monday 11th February	Entries open.	When 6 entries are received with deposit from this date then entries will close.
	Friday 12th April	Practice;	Noon to 10.00pm. Local racers from 6.00pm
	Saturday 13th April	Doors Open;	7.00am
		Scrutineering;	7.30am
		Lane Choice;	7.45am
		Race;	Start time 8.00am finish at 8.00pm.
		Night Racing;	From 2.00pm to 5.00pm.
		Social Function;	After racing, venue to be notified.

Food and refreshments: This will be each individual teams own responsibility.

Coffee and Tea will be catered.

Teams: Each team must have minimum of 4 Drivers, they also may have one other non racing member as pit crew, your teams entry in the event will be accepted on the first come bases, entries open on the 11th February 2013 and must be lodged with deposit.

The following six teams and racers have entered.

Team 1	x
Team 2	x
Team 3	x
Team 4	x
Team 5	x
Team 6	x

There is no restriction on the amount of time a driver must race.

Each team will be allocated a marshal point/s for the full duration of the race.

Team Pits: All team pits will be located in a separate room away from the track, work maybe carried out on cars in the same room as the track during the hours of lights on but in the three hours of night racing all work must be carried out in the designated pit area, this is to eliminate pit lights being on around the track.

Night Driving: The lights will be turned off at the start of Heat No 13 (approx. 2:00pm) and be turned back on at the end of Heat No 18 (approx. 5:00pm) these times will be governed by the timing of the computer and takes into account of any time lost for track repairs / problems.

Lights: Lighting kits will be available from NZSCA at a cost of \$20-00 per kit and must be ordered at time of entering and paying entry deposit. Lighting kits supplied by NZSCA for the 2011 and 2012 Enduros are compliant and may be reused.

Only the lighting kits and spares supplied by NZSCA will be eligible, if a team is found to be using other than the official parts then they must stop and change them, i.e. brightness compared to other teams cars.

Lights, the car must have only two clear front and two red rear lights which must stay on all the time, no off and on brake lights, they must be turned on for the 3 hour period of darkness, if any of the four lights fail then they must stop and fix them.

Light mounting, the front lights must be mounted in the area marked on the body, the rear lights to be mounted on the back panel below the rear wing.

Track Calls: There will be no track calls as the computer will not be manned full time, if a car lands on the floor then it is the teams problem to retrieve it the best way it can, for riders it will be the drivers responsibility to yell out *riders* and the other drivers to stop. Its all part of endurance racing.

Scrutineering: Prior to qualifying, cars, all spare motors and spare body with lighting kit fitted will be presented for scrutineering with the body off, once the body has been attached and scrutineering is done, the car will be impounded in parc ferme.

At the completion of the race cars will be returned to parc ferme and may be re-scrutineered, this may involve motors being stripped down for inspection. Cars must remain in parc ferme until all placings have been confirmed.

Both the chassis centre section and the pans will be uniquely identified at the time of scrutineering, both parts will be signed by the Scrutineer with an ink pen and the signature covered with clear tape for protection and will be check after the end of the race that it is the same chassis.

The spare motors will also be marked uniquely so they can be identified in the event of a protest.

Lane Choice: Each team is to select one driver and that driver will have one (1) minute on Blue lane to post their fastest single lap, the car will be placed on the track and taken off at the completion of the one minute by the grid marshal and placed back into parc ferme.

The driver's team with the fastest single lap time will have first lane choice, then the second fastest going down to 6th fastest.

Entry / Fee: \$250-00 per team, this will cover the costs of Trophies and track fees to the Wellington Club. A none refundable Deposit of \$100-00 will be required with entry.

Payment to be made to NZSCA **ASB Account No: 12-3192-0025686-00**

Half of the total entry fee to NZSCA and the remaining half to the hoist club.

If there is more than six team wanting to enter then NZSCA has the right to choose which teams entries are accepted, taking into account the spread of the teams from within the NZSCA membership.

Car Rules:

GENERAL CAR SPECIFICATIONS

1. DIMENSIONS

1.1 Width - maximum width is 82.5mm [3.25"] excluding body pins

1.2 Clearance - minimum clearance is .6mm [.025"] under the rear axle and gear at the start of the race. **The gear shall not protrude below the chassis**

Any car deemed to be at risk of damaging the track during the race as judged by the Chief Steward or his deputy will be immediately black flagged and the car must be rectified immediately by the team.

2. GUIDE FLAG

2.1 One Guide - only one guide flag allowed, with a blade not more than 27mm long, the guide may be black or made of graphite for lap counting purposes

2.2 Spacers nut etc - guide nut, spacers, clips, lead-wire and earring backs are free

3. WHEELS

3.1 Four visible wheels - all cars must have a total of four visible wheels when viewed from the two sides, of not less than 12.5mm [*half an inch*] diameter when the body is attached in racing position.

3.2 Front wheels – must have two front wheels that rotate on the axle.

3.3 Front axle - may solder front axle to front wheel towers.

3.4 Rear wheels & tires - Rear tire width may not exceed 20.5mm [.810"]

3.5 Tire Goop – the use of any tire goop or glue on the rear tires is prohibited. [*Spray glue will be applied to the track from time to time as the race directors see fit*].

4. BODY

4.1 LMP- HP Toyota TS020, *Part No: HP2011*

Each team will be allowed two (2) bodies, both bodies must be the same model and manufacture and painted as near as possible the same.

4.2 Paint - bodies must be fully painted and sufficiently opaque so that no chassis or components can be seen through the body when viewed from above. Windscreens and windows must be left clear. A clear strip may separate the wing from the main body

4.3 Interior – all cars must have a 3D painted driver figure, and a sufficiently full interior so that no chassis or components can be seen through the windows

4.4 Numbers – all cars must have at least two readable numbers, of the same numeral.

4.5 Wheel arches – front wheel arches must be clear, or cut to at least the horizontal centre line of the front wheels. Trimming for front or rear wheel clearance may not extend into the top surface of the body

4.6 Cover chassis - The chassis and guide must be completely covered by the body when viewed from above.

4.7 Trimming & cut outs - Body shape is to remain as manufactured except for the necessary cut-outs to clear axles and wheels

The front of the body may not be cut so high as to lose the shape and detail of the front

Cutting out the rear of the body is OK on GTP and LMP cars

No other cut outs are allowed except areas normally cut out on full size race cars, [*eg air intakes*]

4.8 Body Mounting – Bodies may be fixed to the chassis by any combination of tape, clips or pin tubes. Where pin tubes are used they must be located in the existing body fixing chassis holes.

8. CHASSIS

8.1 Type – 1/24th scale Champion Turbo Flex chassis only with standard pans.

Only one chassis is allowed, chassis maybe repaired, the same centre section and pans must be used for the entire race. It must be uniquely marked to Identify the chassis to be used in the enduro.

8.2 Blueprinting – chassis may be flattened and straightened, wheel towers straightened to ninety degrees, guide tongue leveled and doubled, rear bearing holes filed out to enable rear axle to be set level and at ninety degrees to direction of movement, sharp edges rounded to avoid track damage, and chassis assembled to allow pans to move freely

8.3 Motor mounting - may enlarge motor bracket holes to clear the motor bushing, but the full bracket outline must remain. May solder motor in place, and brace it to the chassis

8.4 Bracing - may add bracing to support the rear axle uprights

8.5 May not - alter chassis movement or remove chassis material, except as specified above [*the original manufacturers method of joining the chassis pieces together and articulating their movement must be retained*]

8.6 Gears – Free

8.7 Rear axle bearings - must be brass/bronze, no ball races.

8.8 Tape & weight - may apply tape to the chassis and add lead weight

9. MOTOR

9.1 Set ups – Parma, Slotworks, RJR, Fastones, Camen, Red Fox and Proslot S16D cans and magnets permitted. Any S16D end bell permitted-

9.2 Armatures – Only standard PARMA S16D arms [the original Chinese arms] or tagged PRO-SLOT S16D arms, [part PS700] permitted. Tag must read S16D, [60 turns of #28 AWG per pole]. Any armature timing is allowed

9.3 Blueprinting – motor may be blueprinted. Super glue may be used to secure magnets but magnets may not be shimmed with tape or any shim stock. Magnets may not be honed

9.4 Motor grooving – may groove the motor can and magnet to achieve axle clearance

9.5 Brushes & springs – brushes & springs may be changed. Brushes cannot be timed, drilled, friction cut or fitted with shunts. Brush hoods must remain standard & in the standard horizontal position

9.6 Motor Bearings – the can may be drilled to allow the fitting of a replacement bearing. Any oilite may be fitted to the end bell as long as the end bell is not modified. Can end ball bearings are permitted.

9.7 Spacers – spacers may be added to limit armature endplay.

9.8 No other motor modifications are allowed.