

Welcome to the HPI Baja Endurance Challenge!

Thank you for participating in the HPI Baja Endurance Challenge! For several years, the HPI Challenge has been a way for new and experienced racers from around the world to get together and just have fun racing and competing in an organized, friendly way. We know that many people enjoy running their Baja buggy with friends, and we decided to provide a competitive format for racers to meet, have fun and race with other Baja buggy fanatics!

These rules are provided as a way to provide a fair and equal racing opportunity for racers across many countries and languages.

While these rules are provided specifically for the HPI Baja Endurance Challenge Series Final race, they may be used by any country participating in the HPI Baja Endurance Challenge Series, either as a guide or the actual set of rules used by that country.

Where these rules do not specifically state, the EFRA rules will be used as a guideline or specific clarification, please see the EFRA rule handbook: http://www.efra.se/pages/rules/rules.html

All the staff at HPI Racing hope that you will have a fun and fulfilling racing experience with your Baja buggy!

Sincerely, Frank McKinney HPI Racing

Last Updated: 3 August 2011

Please see text in RED for changes from the 2010 rules

EVENT DETAILS

Date: 9-10 September 2011

Location: Hillerød, Denmark, 35km north of Copenhagen, Denmark Navigation coordinates: 55°56' 0" North, 12°19' 0" East

Nearest airport: Copenhagen Airport, Kastrup (Airport code: CPH)

RC Club: Hillerød RC Racing large scale club, http://www.hrcr.dk

Torsholmsalle 6, 3400 Hillerød Denmark Google Maps link

Hotels: Hotel Hillerød, http://www.hotelhillerod.dk or Pharmakon Hotel,

reserve room here

Campsite: Hillerød Camping, http://www.hillerodcamping.dk, or at the track,

approximately €21/\$30 US per night (contact the club directly)

Food & Drinks: on-site during race - breakfast, lunch, coffee, etc.

Maximum # of Teams: 15 teams of 4-6 drivers

Team Entry Fee: €250 per team

Entry fee includes: handout tyres, exclusive edition 2011 HPI Baja Finals T-shirts for all team members, fuel and oil for the whole weekend, special Friday evening team activity and buffet, prizes for the Top Qualifier team, trophies for the top 3 teams and raffle prize tickets

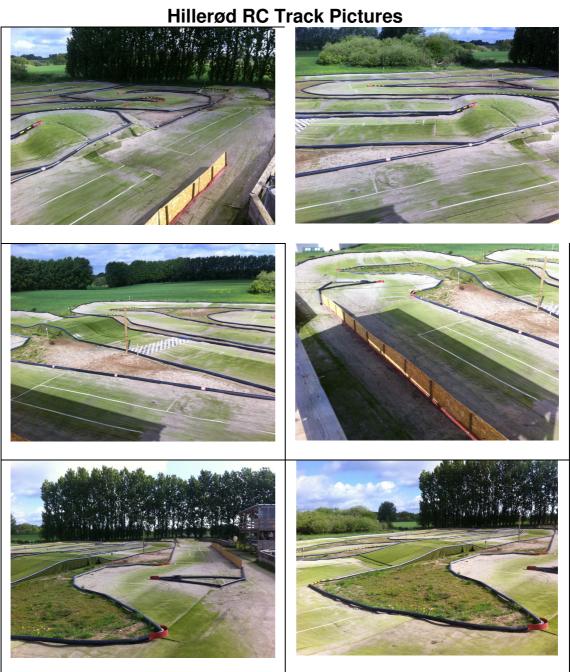
Weekend schedule

Thursday: Track setup only, no driving on track **Friday:** Registration, booking in, track setup

- 08:00-08:30 HPI Staff, Race Director and Race Organizer meeting, pits open
- 09:00 Driver Meeting, then Technical Inspection & tyre/shirt collection starts
- 09:00 11:30 Free Practice
- 12:00 13:00 Qualifying (Fastest Lap)
- 13:00 Group and Team Pictures
- 16:00 Bus trip to Go-Karting and Racer's Dinner (racers just pay for drinks)
- Evening: trip to Hillerød for clubs, etc.

Saturday: Qualifying and Race

- 08:00 HPI Staff, Race Director and Race Organizer meeting (if necessary)
- 08:15 Team Manager Meeting with Race Officials (if necessary)
- 08:30 Driver Meeting 2 (if necessary)
- 09:00 Race Start
- 21:00 Race Finish, Post-Race Inspections Top 3 and 2 random cars
- 21:45 Prize Ceremony & Racer BBQ (each person pays for meal)



http://www.hrcr.dk



Google Maps link

Online Information

Official HPI Europe website:

http://www.hpieurope.com/feature.php?id=1&lang=en

Friday Evening Activities

- After the Qualifying and Free Practice sessions we have arranged for transport to a nearby go-karting track for team go-karting and tasty racer's dinner! Each Baja team will have their own racing kart and take part in an endurance race event!
- The top 3 teams will **win a special prize** from HPI that they are welcome to enjoy that evening!
- After the go-karting race all the teams will sit down to a wonderful racer's dinner, with complimentary wine, beer and soda drinks! (up to 6 team members per team get free meal, extra people must pay €20-25 for dinner, price to be confirmed)
- Once the dinner is complete, everyone is welcome to explore the nightclubs of Hillerød or make their way back to the hotel & campsite to prepare for the race the next day.

Saturday Night Racer's BBQ

• After the race and technical inspections, everyone is invited to the postrace BBQ for a tasty meal! There will be plenty of food for everyone! Please note: any food & drinks must be purchased.

Team Registration and Car Inspection

At any time after the Driver's Meeting but before Qualifying, all teams must register and bring their race car and transponder number to the timing/inspection area.

The team manager will need to:

- Confirm driver names
- Collect race T-shirts for each member of their team (1 shirt per racer, 6 shirts maximum)
- Provide at least one personal transponder number for race officials
- Clear any payments outstanding with HPI staff
- Collect handout tyres and/or wheels

At the same time, the car will be inspected by HPI staff (see below)

Technical Inspection

All cars must pass inspection by HPI personnel before qualifying. Each chassis will be carefully marked with a rotary tool, inspection sticker and/or paint during inspection. Please note that this is a permanent mark on the chassis but it will not affect the performance of the car.

Wheels and tyres given to the teams will also be marked with rotary tool, inspection sticker and/or paint – subject to availability, only wheels & tyres given out at the race by HPI officials will be legal to run in the race.

Immediately before the race start and at random points during the race, each car will be checked for the chassis/wheel marks before the car can join the track.

HPI reserve the right to require any race team to disassemble any parts of the car (engine, tyres, brake, diff, etc.) while under inspection, this includes during the race.

At random points during the race, teams will be asked to bring their cars into the pit lane for a very quick inspection of the tyres, chassis and other parts. The inspection will not take longer than 2 minutes, provided there are no problems. HPI Staff will attempt to inspect every car one after another. The race car will also be inspected at random times during repairs and refuelling. The inspection times will **not** be pre-announced. All teams will be randomly inspected at least once every 4 hours of racing. Attempts to avoid or deter inspection will not be tolerated and may result in penalty laps or disqualification.

Teams using unmarked tyres or chassis will be subject to immediate penalties (as detailed below) and the car will not be allowed to race until it fully complies with the rules and has been inspected again.

Car

HPI Baja 5B, Baja 5B SS, Baja 5SC, or Baja 5T trucks only. No other make/brand/car allowed.

Changing vehicles, chassis pieces or engines during the race is not allowed. Each half of the engine, the main chassis and rear subassembly plate will be marked during inspection and unless the team can demonstrate damage sufficient to replace it, the team vehicle must start and finish the race with the same chassis and engine. All other components on the vehicle are allowed to be changed, including internal engine parts. Teams are allowed to bring extra vehicles to use for spare parts.

There must be a secure mount for an AMBrc style transponder in the chassis. Teams must supply their own transponder.

Teams using a chassis or rear subassembly (engine plate) during the race not marked with inspection tags will be given an immediate minimum 10-lap penalty, and must change the chassis.

Options and Modifications

Unless otherwise allowed elsewhere in these rules, only HPI, HB or Edit parts specifically made for the Baja 5B buggy are allowed. To provide fairness for all racers, the official options must be announced on the HPI EU website on or before 1 August 2011. New parts are only announced when they are in stock at HPI EU, so distributors will have a chance to order the parts in time for the HPI Baja Endurance Challenge Finals.

No non-HPI, non-HB, or non-Edit options or hand-made modifications are allowed that affect suspension geometry, provide substantial weight changes, affect engine or braking power, clutch, etc. If in doubt, please contact HPI staff before the event or *before qualifying starts* to verify the legality of the part/modification. Have a supply of spare or otherwise legal parts to return your car to stock form in case your modification is not allowed.

Some simple modifications will be allowed to improve durability or maintenance, however they must be *simple* modifications *any* team can do and not consist of extensive modifications. Examples of these modifications are on the HPI EU website in the 'Bulletproof Your Baja' tutorial: http://www.hpieurope.com/walk.php?lang=en&id=22.

Non-HPI parts

In general, using non-HPI ball bearings, screws, air filters, washers, shims, nylon ties, shock covers, rock guards, turnbuckles, wheel scrapers, etc., are allowed within the 'spirit' of the rules. However, any attempts whatsoever to modify any component, system or part of the car using these parts will be grounds for immediate disqualification.

Team managers must ask HPI personnel about any parts they have any doubts about.

Dimensions

The length and width of the standard HPI Baja buggy or truck is not to be altered.

Engine

Only standard HPI Fuelie 23cc, 26cc and 26S engines are allowed. Any spark plug may be used. Any air filter or cover may be used. Filter or cover of pullstart or flywheel is allowed. Modification of any internal or external engine part is not allowed whatsoever.

We reserve the right to require that teams use one engine only, or two engines only (which would be marked and may be rebuilt during the race). Teams using an engine during the race not marked with inspection tags will be given an immediate minimum 10-lap penalty and must change the engine.

Race officials must be notified of any repairs requiring removal or disassembly of the engine, so that the engine can be given another inspection mark if necessary.

Exhaust

Only the stock 5B or 5T muffler may be used at the track, due to noise constraints. Teams found using the option pipe during qualifying will be warned ONCE only, and must immediately replace the exhaust system before continuing the qualifying or race. Teams found using modified exhausts or option pipes during the race will be given an immediate minimum 10-lap penalty, and must change the exhaust.

Fuel Tank & Fuel

Only the standard HPI Baja fuel tank is allowed. No modifications are allowed. Only standard-size fuel tubing is allowed. Excessive lengths of fuel tubing will not be permitted. A single in-line fuel filter is allowed. Fuel will be from normal 'pump' sources (i.e., a car petrol station) and supplied in the fuelling area at the race track. Custom mixed or race fuels are not allowed. No additives other than standard HPI 2-cycle engine oil are allowed. HPI reserve the right to check any race team's car for fuel capacity.

Teams will be required to mix their own fuel and oil, the same amount of fuel and oil will be provided for each team.

Drivetrain

Clutch, spur gear and all other parts of the drivetrain must be as standard, except for allowed option parts. Any diff oil or grease may be used.

Suspension

Standard HPI shocks must be used. Altering suspension geometry in any way is not allowed. Any shock oil may be used. Shock 'socks' may be used. The internal parts of the shock may not be altered or replaced.

Brakes

Rear wheel brake must be as standard. HPI options are allowed. No front brakes or alternate linkage of any type are allowed.

Tyres

Only HPI brand tyres, wheels or foams are allowed. Tyres may not be modified in any way. Larger beadlock screws may be used, but they must not protrude from the wheel. Glue may be used only to attach tyres to wheels.

Race teams will be supplied with these tyres and wheels for the race:

Front

2 pairs DIRT BUSTER RIB TIRE M COMPOUND on BLACK WHEEL

Rear

- 2 pairs DIRT BUSTER BLOCK TIRE S COMPOUND
- 4 pairs BLACK WHEEL (Rear) and HD Beadlock Rings
- 2 pairs HB Khaos tyres
- 2 pairs HB Proto tyres

Teams may bring their own HPI tyres, wheels & inner foams to use. The tyres & wheels to be used must be brought to scrutineering before racing begins to be inspected in their original, un-opened packaging. A tyre assembly area will be provided where teams can assemble their tyres. The assembled tyre/wheel sets will then be marked by HPI staff and the tyres can then be used. Tyres that are unmarked may not be used during the race.

The maximum total number of tyres allowed (including those supplied by HPI) are:

Front: 0.5 pairs per hour of racing (6 pairs for 12 hrs, 12 pairs for 24 hrs, etc.)

Rear: 1 pair per hour of racing (12 pairs for 12 hrs, 24 pairs for 24 hrs, etc.)

For example, if HPI provide 7 pairs of rear tyres to each team for a 24 hr race, the teams are allowed to bring up to 14 pairs of their own, which will all be marked.

Teams using tyres during the race that are not marked with inspection tags will be given a 5-lap penalty and must change tyres immediately.

Alternately, we may announce no limit to the number of tyres used during the race. Teams will be informed before they must prepare for travel or at the Driver's Meeting.

Bodyshell & Wing

Only HPI Baja 5B, 5SC or 5T polycarbonate upper and lower bodyshells (as appropriate for the chassis) are allowed and must be used.

Bodyshells must remain on the car for the entire race. The same bodyshell must be used. Spare bodyshells are allowed, however these must be painted in the same colours and similar scheme as the original. Separate 'high visibility' bodyshells are not allowed. Cars running without bodyshells must be brought into the pits immediately and fitted with a legal bodyshell, if not fitted with a bodyshell within 5 laps the team will be subject to a minimum 2-lap penalty. If the bodyshell is damaged in some way, repairs are allowed while the body is off the car and the car is racing, however these must happen within 5 minutes from the time the body is removed.

Vehicle numbers must be placed on each side of the bodyshell and across the front window, bonnet or roof of the car. The front window is the preferred location for the front number, alternately the number must be on the bonnet/hood or roof. Custom numbers are allowed, these must be clearly visible and readable as the car drives under the driver stand, across the timing line and on the pit straight. Teams without car numbers or numbers that are unreadable may be told to bring their car into the pits to clean the numbers.

Windows/deflectors are allowed on the roll cage or under the Baja 5SC or 5T bodyshell to keep rain & dirt off the air filter.

Only standard HPI Baja 5B wings are allowed on the buggy, and only standard HPI Baja 5SC or 5T spoilers are allowed on the truck. No additional material is to be added other than decals, etc. No other wings, fins, etc. are allowed anywhere on the car. Reflective stickers are allowed for night visibility.

Race teams are encouraged to paint the bodyshell with their national flags or colours!

Lights, reflective strips or glow strips are allowed and encouraged for all teams during night driving. Any lights used must not be distracting to other drivers on the driver stand.

Bumpers

Front, side or rear bumpers are not allowed.

Electronics

Radio Equipment

Only radio frequencies allowed in Denmark are allowed. This includes 40 mHz frequencies. HPI recommend using 2.4GHz radio systems, which do not require any frequency crystals and prevent radio conflicts and frequency changes. However, if a high frequency radio system is used, race officials will not be able to help in case of radio interference.

If the team is not using 2.4GHz radio equipment, three sets of frequency crystals are required. It is up to the race teams to supply their own legal frequencies. If a team does not use a legal frequency, race officials will not be able to help in the case of any radio problems.

Data-Logging Devices

Data devices are allowed. If these devices transmit information to the race team while the car is on the track, these devices are not allowed to interfere with any teams' radio equipment. HPI reserve the right to require the removal of data devices from team cars if they are thought to interfere with radio equipment.

Receiver Batteries

Optional receiver batteries are allowed in the Baja cars, however the weight of the race car must not be below the weight of a standard Baja 5B. If using lithium-polymer or lithium-ion batteries, reasonable protection is suggested to prevent any problems. Only LiFE, LiPo or Li-lon chargers are to be used, at a proper charging rate. To ensure the safety of all participants and the premises, we will require fireproof charging sacks or pouches for LiPo or Li-lon batteries.

Transponders

Transponders must be 'personal' type transponders with a serial number. One personal transponder, with serial number, per car must be provided by the race team.

Other Electronics in Pit Area

To protect the electricity supply at the race track, only electronics for racing are allowed in the pit area, such as:

- Chargers (maximum of 2 operating at any time)
- Charger power supply
- Lights
- Rotary tool (Dremel, etc.)
- Mains chargers for any tools such as drills, rotary tools, etc.
- One soldering iron (which must have an on/off switch)
- One laptop computer

Items such as kettles, cooking equipment, etc., are explicitly not allowed, as these will draw too much power and possibly affect the ability of other teams to charge batteries and work on their cars.

We ask that any equipment that is not being actively used by a team (such as mains chargers, lights, etc.) be unplugged or switched off. Race officials will switch off or unplug electrical items that are left on and unattended.

Race Team

A race team will consist of a minimum of four, and a maximum of six, racers from the same country. This allows for one driver, one pit crew, one mechanic and one team member resting at any time during the race. Extra team members in the form of mechanics, etc., are allowed, however they must not drive the car during qualifying or the race.

For insurance purposes, *all* team members must be members of their country's RC racing organization (BRCA, AECAR, DMC, etc.). Team managers may be required to provide proof of membership for each team member at the time of registration.

Race teams are encouraged to bring their national flag, and wear their national colours during the team presentations on Saturday, and during the trophy presentation on Sunday!

Team Manager

One member of the race team must be the 'manager'. This person is responsible for communicating with HPI Europe staff about team accommodations, names of team members, car information, etc. – everything to do with the team must be through the team manager.

Race officials and HPI staff will discuss penalties with team managers ONLY. This makes it much easier for HPI and race staff to work with all the teams. If the team manager is not available, a team member will be informed of any warnings or penalties, and the driver must be informed immediately. Penalties will be posted publicly near the official timing screens.

The team manager is required to speak English as this is the official language of the HPI Baja Endurance Challenge Finals. *Only* the team manager may discuss penalties, infringements, complaints and/or grievances with HPI staff. If any member of a team causes a disruption to the race, impedes or harasses race officials, track staff or HPI staff members, that driver or their team may be subject to disqualification, dismissal, banning, etc., from the track and race weekend.

The team manager is required to attend any team manager meetings to be held during the race weekend. If any issues make themselves known that could affect the race weekend, further team manager meetings may be announced. These meetings cannot begin without all team managers being present, so prompt attendance is required. Reference EFRA rule 8.8

Driver Meeting

Before practice begins on Friday, all drivers must attend the official driver meeting. The meeting will be conducted in English, but every attempt will be made so that all drivers will be made to understand what is said.

Items to be covered include:

- introduction of Race Officials and HPI Staff
- marshal, track crew and spectator safety

- security in the pit area
- pit area power usage soldering irons, toasters, kettles, etc.
- technical inspections
- refuelling and fuel mixture
- driver time checks
- warnings and penalties procedure

The race club official will then be introduced and will cover these topics:

- pit lane procedure
- practice procedure
- qualifying procedure
- race start procedure
- smoking in the driver, pit lane, pit area and timing area

Before the race on Saturday, a second driver meeting may be called to answer any questions or settle any issues that may have come up from the day before. Once everything has been settled the race will begin.

Race Rules

Penalties and Flags

The HPI Challenge races are not under EFRA rules, however we will reference EFRA rule 8.9 and 8.10 when needed for guidelines in deciding penalties for drivers and/or teams.

Race officials and HPI staff will act as referees as much as possible.

Warnings

The first time a race official witnesses an act by any driver or team member that falls under a penalty, they have the right to give the driver and team manager an official warning. All warnings and penalties will be noted in writing and shared with all race officials. Any warning is transferrable to the remainder of the team. The team manager must relay the warning to the rest of the team, and is allowed on the driver stand to relay the warning to the driver.

Penalties during Qualifying

Penalties that occur during qualifying will result in a warning, as above. If the penalty happens again during qualifying the team will take a time penalty on their fastest lap in seconds, equal to the penalty laps indicated in the specific penalty. Serious or repeated penalties will result in the team starting with negative laps. All warnings given during qualifying will transfer to the race itself, meaning that no warning will be given during the race, the team will be given an immediate penalty.

Penalties during Racing

Penalties that occur during racing will result in a warning, as above. If the penalty happens again, the team will receive the penalty laps indicated in each specific penalty.

Examples of on-track actions that will result in warnings/penalties:

- Deliberate corner-cutting
- Team driving or blocking
- Ignoring race officials
- Dangerous or wild driving, or excessive hitting/block of other cars, whether intentional or not
- Not slowing around turn marshals, track repairs or track staff
- Car repairs made on the track
- Refuelling outside the designated refuelling area
- Driving too quickly through pit lane, or pit crew stepping onto pit lane or the track
- Cars being driven in undriveable or dangerous conditions
- Unsportsmanlike behaviour

HPI Staff and the Race Officials expect all participants to behave in a way that would encourage spectators unfamiliar with the RC hobby that this is a great hobby, populated with lively and fun people. We also appreciate that racing

can be stressful due to its competitive nature, however if anyone is expressing their stress in a manner that threatens other people, we will be forced to take action. Examples of OFF-track actions that might result in warnings/penalties include:

- Loud cursing, swearing or abuse of any racer, Race Official or HPI Staff
- Excessive yelling on the driver stand
- Stomping feet or waving hands/arms on the driver stand
- Deliberate activities that might slow or prevent the repairs of another team or racer
- Any other unsportsmanlike behaviour

Truly excessive displays of anger, etc., may result in a particular racer being banned from all future HPI events.

Summary of Car Penalties:

- Using unmarked main chassis or rear subassembly: 10 laps*
- Using unmarked engine: 10 laps*
- Using incorrect exhaust: 10 laps*
- Using unmarked wheels: 5 laps*
- Not using original bodyshell: 2 laps (after warning & 5 laps)

*No warnings are liable for these penalties, they take effect immediately. Repeated offences will result in double the penalty laps taken from the team.

Race Format

All practice, qualifying and race times will be run regardless of the weather or external lighting conditions.

Driving Stints

All team members must drive the car approximately the same amount of time:

- a team with 4 drivers must have each driver drive for 3 hours each
- a team with 5 drivers must drive for approx. 2 hours 24 minutes each
- a team with 6 drivers must drive for 2 hours each

Drivers must sign in and out of the driver stand as they begin and end their driving stint. Driver times will be tracked by computer and compared at the end of the race. Teams with a large variance in driving times for their drivers will be penalized at least 10 laps at the end of the race, and may be excluded from the race results.

Marshals

- Race teams must be able provide at least one marshal at all times, or when scheduled. Depending on the number of teams, some teams may not have to marshal for the duration of each track period.
- Marshals must be members of a race team.
- Teams may alternate who is marshalling for their team at any time, taking care to change quickly, and not cross the track at a dangerous area (walk around edge of track as much as possible)

- Marshals must carefully watch their area of the track ONLY, and turn over crashed cars as quickly as possible.
- Only marshals are allowed to be on the track. Mechanics or pit crew are not allowed to be on the track and must stay in the pit area or pit lane.
- In the case of a car engine stopping, only THREE attempts (pulls) are allowed to restart the car. If this does not start the car, it must be brought safely to the edge of the track by the marshal. A team mechanic may then retrieve the car from the edge of the track.
- Any team member that is not a marshal who goes onto the track or racing surface and impedes or damages another car will earn a 10-lap penalty for their race team.
- Mobile phones and radios are not allowed to be used by turn marshals at any time. Marshals must pay full attention to their duties and not talk to other racers or team members.
- All marshals must wear high-visibility vests and sturdy, enclosed footwear at all times (no open-toe sandals, etc.), be able to quickly retrieve crashed cars and be able to lift cars.
- Team managers will be asked to relieve marshals who are unable to fulfil their duties.

Pit Lane

- Cars must drive slowly (below walking speed) through the pit lane.
- Up to 2 mechanics or pit crew are allowed into the pit area per team at any time. Depending on the size of the pit lane, we may limit pit crew to just one person. This will be announced at the driver's meeting
- For safety reasons, pit crew are not allowed to step on the pit lane surface.
- Mechanical work such as changing tyres, cleaning, etc., may take
 place at the front area of the pit lane (the first area approached by the
 car as it enters pit lane).
- Major mechanical work such as suspension repair, etc., must be made in the pit tent area.
- Pit crew should be positioned under their driver whenever possible.
- All fuelling activities (mixing, removing fuel cap, adding fuel, securing fuel cap) must take place in the designated fuelling area. The fuel handler must inform the fuel crew when their car is coming in for fuel to allow time to fill a fuel bottle for the car.

Qualification

Qualification will take place Friday afternoon from 12:00 to 13:00.

All cars must have transponders fitted. Teams running a car without a transponder will not be counted for qualifying in the Final race and must start from the back of the grid. Cars will be ranked in order of the fastest single lap time achieved during qualification. There is no limit on the number of laps for each team, or for the number of drivers driving during qualification. In the case of an identical lap time, the second fastest lap time will be the tie-breaker, and so on. Cars not completing a lap during qualification will start at the back of the starting grid.

Final Race

The Final race will take place Saturday from 09:00 (9 AM) to 21:00 (9 PM).

Cars not able to join the grid on time must start from pit lane and will not be allowed to exit pit lane until all cars have passed the pit exit after the official start.

Parc Ferme'

All finishing cars must go into a parc ferme' for a complete inspection by race officials and HPI staff. After the car is brought into the pit lane and shut off, the team manager must bring the car into the inspection area. No race team members are allowed in Parc Ferme' except to disassemble cars as required by HPI staff. Parc Ferme' will not open until at least 30 minutes after the end of the race.

All teams must have their tools with them. The top 3 teams, plus 2-4 teams chosen at random, will be required to disassemble their cars after the race, in front of race officials and the other teams. The engine, shocks, tyres, chassis and more will be closely examined for legality.

Race officials and HPI staff will discuss cars or infractions with team managers ONLY.

Prize Ceremony

The official prize-giving ceremony will be held within 45 minutes of the race finish.

