



Dry Lakes Racers Australia

Rookie Orientation Booklet

DLRA Rookie Orientation Booklet

Contents

Contents	2
Introduction	3
Safety equipment	4
Rookie Orientation Meetings	5
Course Description – Track 2 (Former GPS Course)	6
Course Description – Track 1 (Former Long / Short Course)	7
Crew Preparation	9
Things that can go wrong	11
Record runs	12

DLRA Rookie Orientation Booklet

Introduction

Welcome to Land Speed Racing, Australian style!!!

By now you've built your car or bike and made the long journey out to Lake Gairdner, South Australia. This booklet has been put together for racers and their crews to give them a jump start on what is expected of them and what to expect from a racing perspective. It also includes other sections on the responsibilities of all participants in this event.

If you are racing at Lake Gairdner then you will have joined the DLRA. As a member there is an expectation of responsible behaviour from yourself and your crew. Bad behaviour and rule breaking will not be tolerated and may result in you being asked to leave the event. If you have gone to the trouble and expense of building a car or bike for this event I'm sure you will agree that it pays to do the right thing.

The majority, if not all, of the volunteers that run this event are members of the DLRA and give up many hours of their time both at the event and prior to its running in order to make the event run as smoothly as possible. It is a close knit community that is dedicated to making racing safe and enjoyable for all who attend this event. Volunteering to help out is encouraged and facilities have been put in place to allow this to happen. If all teams gave an hour or two of their time over the course of Speed Week it would make the event more enjoyable for those who regularly give up their whole week.

All Drivers / Riders / Officials = ZERO Alcohol Tolerance

Safety equipment

Drivers / Riders must have all of their safety gear available for inspection during scrutineering. During this time SFI tags, expiration dates and specifications are examined to ensure all equipment is safe and appropriate for the speeds you plan to do. Fire bottles and other safety equipment are also checked at this time.

You should make sure you have the following items available for inspection:

Support Vehicle

- Fire bottles in push truck
- CB radio in push truck
- Roof mounted yellow flashing light

Car Driving apparel

- Race suit
- Helmet
- Gloves
- Race boots
- Head sock

Motorcycle Riding Apparel

- Leathers
- Helmet
- Boots
- Gloves

DLRA Rookie Orientation Booklet

Rookie Orientation Meetings

Rookie orientation takes place on the first and second days of competition either at the pits or at the start line of Track 2 unless otherwise notified. A general Drivers meeting is held on the Sunday evening prior to any racing the following day. The first Rookie meeting will directly follow on from this Drivers meeting at the start line for Track 2. Since all new racers must qualify for their 125mph licence as well as their 150mph licence on Track 2, you will be making a minimum of two runs on Track 2.

Information relating to which course is to be used following on from the initial Rookie run is explained in greater detail further on in this document.

Orientation is run by one of the DLRA starters and ALL rookie drivers and their crews MUST attend the meeting and bring with them a vehicle as well as a UHF CB radio. After the initial meeting, crews will drive down the course with the DLRA official who will point out important course features via the CB radio. Crews will be able to familiarise themselves with mile markers, turn out area and the return road.

After the meeting drivers will be given a Rookie sticker. This is to be stuck on the Rookie's helmet. The sticker is to remain in place for the duration of the event. The sticker is used to alert the starter's assistants that the driver / rider is new and may be nervous or may have overlooked some aspect of their preparation. They will take extra time if necessary to prepare the driver / rider for their run.

NOTE: It is the Driver's / Rider's responsibility (and their crew) for their own preparation for a run. Starters will perform basic checks but overall responsibility is up the Driver / Rider and their crew.

Regardless of any other motorsport licence held, the Rookie must abide by DLRA licensing procedure and qualify for their 125 and 150mph licences. Any exception to this will be at the discretion of the Race Director or appropriate DLRA official on a case by case basis.

Once the rookie has completed their first pass to the satisfaction of the Starter, the sticker will be signed by them. As previously mentioned, the sticker must stay in place for the duration of the event. If the sticker is lost for any reason it should be reported to the Track 2 starter so that a new sticker can be issued. If the sticker is not in place and the driver / rider makes a run then an infringement will be logged against the driver and it will be decided whether any further runs will be made by that driver / rider.

Failure to attend the rookie meeting and then making runs without advising the Starter of rookie status will see the driver / rider excluded from the event and the Club President will be advised.

DLRA Rookie Orientation Booklet

Course Description – Track 2 (Former GPS Course)

Track 2 should be set up to allow for a length of 3 miles. Each mile is to be marked with a banner indicating which mile the Driver / Rider is at. The first mile is for accelerating and the second mile is where the timing lights are to be situated (the length of the timed section will be subject to the salt condition). The start line is mile 0. Drivers / Riders are to be instructed that they are to accelerate to either their top speed or nominated licensing speed up to the 2 mile marker whereupon they are to slow down. The 3 mile marker is also the turn off point for the return road. Drivers / Riders should turn off to the left for the journey back along the return road or alternatively, if they require towing/pushing back to the pits they are to pull off the track and stop at a safe distance from the track that will not cause the track to close.

It should be noted that there are limits imposed on the speeds of vehicles allowed on Track 2. They are up to 150mph for cars and 175mph for bikes. Drivers of cars capable of more than 150mph are expected to use Track 1 for licencing runs of 125mph and 150mph only. 175mph licence passes require a parachute pull to be observed by a DLRA official and this is not possible on Track 2. Riders of bikes are able to do their 125, 150 and 175mph licence passes on Track 2 and then progress to Track 1 for speeds in excess of 175mph. Drivers or Riders who violate these rules will be logged in the Incident Register and reported to DLRA officials.

In the case of an accident or mechanical failure divers / riders are to pull off to the **right** side of the track and await assistance from Northern Rescue. The Head Starter will close the track in this event. The Head Starter will also allow the Driver's / Rider's support crew to provide assistance or recovery as needed. If a support crew is allowed to head down the track, after receiving Head Starter's permission, they are to recover their vehicle in a timely manner and then proceed to the return road. They are to also radio to the Track 2 starter that they are clear of the track.

If a push start is required for any vehicle, the Head Starter is to be advised prior to the run. The push vehicle is to remain stationary until the Head Starter clears the vehicle to commence its run. Once the race vehicle is underway under its own power the push vehicle is to turn off the course to the left and either return to the pits or proceed down the return road to collect the race vehicle.

In the instance of any foreign object being lost from a vehicle, the Driver / Rider is to report it to the Head Starter as soon as possible in order for a sweep to be made of the track and the item to be recovered.

DLRA Rookie Orientation Booklet

Course Description – Track 1 (Former Long / Short Course)

Track 1 should be set up to allow for a length of 9 miles. Each mile is to be marked with a banner indicating which mile the Driver / Rider is at. The start line is typically at mile 1 although it can be varied to mile 0 for longer course vehicles (subject to prior arrangement). Timers are set up from the 3 mile marker through to the 6 mile marker and the remainder of the track is used to slow down.

Drivers / Riders are to nominate whether they are running a short course or a long course. This is required so that the timers and the rescue crews are aware of where the vehicle will end up.

Typically motorcycles will run a short course as they are able to get up to their maximum speed quickly and don't need many miles to slow down. There are turn off points at every mile after the 4 mile marker and experienced drivers / riders will be able to advise where they will be turning off the course. Drivers / Riders should turn off to the right for the journey back along the return road or alternatively, if they require towing/pushing back to the pits they are to pull off the track and stop at a safe distance from the track that will not cause the track to close.

All of the timing equipment is set up from mile marker 3 and there is typically a 400m timed section from the 3 mile marker as well as a full mile from the 3 mile to the 4 mile marker, then 4 to 5 and finally 5 to 6. The timing equipment is marked by a witch's hat and is also nearby the mile indicator banners. Drivers / Riders should be aware that this is where the equipment is and steer well clear of it.

Driver's / Rider's are also to indicate if they are doing a licence run. Car drivers will have done their 125mph and 150mph licences on Track 2 and must then perform their 175mph licence run with chute pull. It is very important that notification is given of every licencing pass as if it is not given it must be performed again. After the 175mph licence, cars must then progress to the 200mph and 250mph licence if possible. If a vehicle is on a record run but below the licence thresholds they must advise the Starter.

Motorbikes that are faster than 175mph are allowed to run on Track 1. As per the above notes for cars they must either be running for a record if it is between 175mph and 200mph or they will then have to qualify for their 200mph licence and then the 250mph licence or their record attempt. Drivers or Riders who violate these guidelines for licencing or record attempts will be logged in the Incident Register and reported to DLRA officials.

In the case of an accident or mechanical failure divers / riders are to pull off to the **right** side of the track and await assistance from Southern or Northern Rescue. The Head Starter will close the track in this event. The Head Starter will also allow the Driver's / Rider's support crew to provide assistance or recovery as needed. If a support crew is allowed to head down the track, after receiving Head Starter's permission, they are to recover their vehicle in a timely manner and then proceed to the return road. They are to also radio to the Starter that they are clear of the track.

If a push start is required for any vehicle, the Head Starter is to be advised prior to the run. The push vehicle is to remain stationary until the Head Starter clears the vehicle to commence its run. Once the race vehicle is underway under its own power the push vehicle is to turn off the course to the right and either return to the pits or proceed down the return road to collect the race vehicle.

DLRA Rookie Orientation Booklet

In the instance of any foreign object being lost from a vehicle, the Driver / Rider is to report it to the Head Starter as soon as possible in order for a sweep to be made of the track and the item to be recovered.

Crew Preparation

The crew's role is to prepare the driver / rider and the race vehicle for a safe pass. It helps for each team to go over everyone's role before getting to the start line.

Jobs to be performed at the pits may include:

- Driver / Rider gear – do you have it all in the car for at the start line?
- Kill switch lanyard is present (for motorcycles only)
- Making sure the vehicle is fuelled up
- Checking restraints – are they set up for the driver that is next in the car? Are the wrist restraints the right length for the driver? If these are wrong, they take a fair amount of time to change on the line while everyone is waiting for you to go and they stress the driver
- Ensure the driver can reach all controls in the vehicle with the restraints done up
- Fire bottle pins and parachute pins, who is in charge of removing these?
- Going over instructions / procedures for the track to be run on. Does the driver know when to slow down and where to turn off?

Jobs to be performed at the start line may include:

- Crew Chief – organises the rest of the crew
- Dressing the driver / rider – making sure they are fully dressed when they are at least 3rd in line to go.
- Strapping the Driver in to their harnesses
- Making sure the vehicle is suitably warmed up
- Pulling the fire bottle and parachute pins so they are ready to be activated by the driver / rider. Showing the driver that they are removed.
- Putting up the window net (where fitted)
- Providing shade for the driver / rider
- Cleaning the windshield
- Making sure there are no foreign objects in the vehicle that could blow around or come loose in an accident

Some crews use a check list to prepare for every run so that nothing is left to chance and their approach is consistent. It is also worthwhile having a check list for pit procedures so that maintenance is correctly performed.

Driver / Rider comfort

It is generally very hot out at Lake Gairdner and sitting in a hot car in a fire suit or on a bike in leathers is not comfortable. Crews should provide an umbrella for shading the driver / rider plus have water available for them if required. Starters also feel the heat so provision of grid girls with umbrellas and water for their comfort is also encouraged. Also, don't forget them at the end of the day, provision of encouragement and liquid refreshment at the canteen makes them happier the next day on the line.

DLRA Rookie Orientation Booklet

Driver / Rider Instructions

Driving a race vehicle at high speeds for the first time is stressful and there is a lot to remember. Go over the instructions and procedures with your driver / rider several times. Make sure they know which way to turn out in an emergency and where to turn out after a normal run. Be aware that due to the layout of the courses, this can be different from course to course. If in doubt ask the starter or one of the assistants.

Line Procedure

As a rookie, you will start at Track 2 before progressing to Track 1 based on your vehicles capabilities. When your vehicle is three back from the front of the line you should be in the vehicle strapped in and ready to start it. If you are a motorcycle rider, you should be in your leathers with your helmet on. It is beneficial to have spent a LOT of time in or on your vehicle to be completely familiar with the switches and controls on it. You should be able to find everything with your eyes closed. It is also worth noting that Driver's/Riders must be in control of their vehicle at any time that it is running. Violation of this rule could see the Driver/Rider reported to the Race Director.

After the run

As per the details for Track 2 above, once your run is finished you need to leave the track for the return road straight away. Once the course is cleared the next driver can have a go. If there is a problem that does not require an emergency crew you can pull off and head for the return road. Once at the return road you can stop and wait for your crew or head back under your own steam. If you don't have a crew and need assistance then it would be best to pull up where possible and have Southern Rescue check things out and call for a tow/push. You are then able to return to the pits for any between runs maintenance or checks and have another go.

It is worth saying again to check your vehicle out between runs to make sure all is well and nothing has come loose. If you notice anything that may have come off, please advise the Starter or any other official with a radio as soon as possible so the track can be checked.

Things that can go wrong

Many things can go wrong on a run and not all of them are emergencies. If in doubt, pull your vehicle up and let the Rescue crews check things out.

Fire

In the event of a fire it is important to stop safely, shut off the engine and activate the fire system. It is also important to get out of the vehicle and get away. The rescue crews will arrive, put out any residual fire and check things over.

Engine blows up

Losing an engine can also cause a fire in addition to leaving parts on the course. Pull up and let the rescue crews check out the vehicle and the course will need to be checked for parts as well.

Losing control

If you get into a spin, pull your parachute (if in a car) and stop safely as soon as possible. You must then get off the course and the vehicle must be scrutineered again to check for damage before you can race again. The starter will enter your vehicle details onto an incident register and will check with the scrutineers that the vehicle has been inspected before it can run again. Spin outs can cause serious damage even if the vehicle does not crash.

If you find the vehicle hard to control, you need to stop in the safest way possible first before you consider exiting the course. Driver / Rider safety is more important than the number of runs achieved in a day.

Loss of visibility

As per above, if you lose visibility of the course, it is best to stop the vehicle in the safest way possible and then work out where you have ended up. The rescue crews will point you in the right direction.

Race vehicle feels strange

This may be inexperience or something may be wrong. If in doubt stop the vehicle and exit the course. Check the vehicle over before making another attempt.

Motorcycle specific issues

- Tire spin at high speed can and will cause tire failure.
- Stopping should be done cautiously and smoothly. Using the brakes too harshly can cause a loss of traction and control.
- Sitting up in the wind to slow down can cause a loss of control.

Record runs

Once you have completed your rookie runs and licencing passes you are allowed to run against a record. A record pass is recognised if you run a speed greater than the current record. It is also possible to be running against a record while you are doing a licence pass. Record runs are now able to be achieved on either Track 2 or Track 1 with the DLRA's official timing system.

If you are a rookie driver / rider, you **MUST** perform your rookie runs on Track 2 before running for records on either Track 2 or Track 1.