



Rookie Orientation Booklet

DRY LAKES RACERS AUSTRALIA

Version 4

DLRA Rookie Orientation Booklet

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Introduction

Welcome to Land Speed Racing, Australian style!!!

This booklet has been put together for Entrants and their crews to give them some vital information 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 have entered Speed Week, 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 greater majority 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 is mandatory for Entrants, but any one is welcome to help, and facilities have been put in place to allow this to happen. If all teams gave a couple of hours 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.

We have rules to keep you and all the other people who come to Speed Week safe and to ensure fair competition. Lake Gairdner is a National Park and all South Australian Road Rules apply.

All Entrants / Officials = ZERO Drug & Alcohol Tolerance

Please take the time to read the pamphlets that will be in your entry pack.

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About the DLRA

The Dry Lakes Racers Australia was formed as a club in 1989 by 15 foundation members and conducted its first event at Lake Gairdner in 1990 with just 8 entries and a total of 25 people attending. The DLRA became an Incorporated body in South Australia in 1991.

The style of racing and the rules for racing were based upon those of the Southern California Timing Association and there remains a close relationship between these two organisations to this day.

The DLRA is a non-profit organisation with all fees collected going towards running land speed events and servicing members. We do retain a small amount of savings to tide us over from one year to the next.

Speed Week

The Dry Lakes Racers Australia Inc conduct the annual Speed Week, timed speed trials at Lake Gairdner in South Australia. The dates for Speed Week will change from year to year as the optimum dates are selected based upon historical weather conditions and the phases of the moon. Just like the sea, the water table under the salt is affected by the lunar cycles.

The DLRA is required to obtain permits and pay fees to the Department of Environment and Water who are the custodians of the lake and the Gawler Ranges Aboriginal Corporation who are the traditional owners and provide observers during Speed Week.

Membership

Membership is open to anyone, there is a joining fee and an annual subscription.

Speed Week Entry

To compete at Speed Week, Entrants must be a current financial DLRA member and be of good standing. You must hold a State License for driving a car or riding a motorcycle, or a competition license with another racing organisation. There are no age limits, but rather an assessment of your experience and you may be subject to an Interview or Test or Medical Inspection.

When submitting your Speed Week Entry Form, it must be complete, any omissions and it will be returned to you. You need to nominate your Member Number, Entry Number, Volunteer Nomination, Vehicle Make and Model, Engine Capacity, DLRA Class, Induction and Fuel Type, and vehicle colour.

There can be multiple Entrants sharing the same vehicle, they still fill out the same entry form but as a "Secondary Entrant" and pay a lesser amount as the vehicle has already been inspected, but they will still have to get their personal safety gear inspected.

The same vehicle can be entered in a number of different classes, and there is a special "Additional Class" Entry form for this. The entry fee remains the full amount as each class change requires a complete re-inspection of the vehicle.

Technical Inspection

Entrants must have all of their safety gear presented at technical inspection.

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 extinguisher (min 2.5kg) in support vehicle
- Vehicle mounted, UHF radio in support vehicle, on Ch 10 UHF
- Roof mounted amber flashing light
- Hydrocarbon spill kit [absorbent for fluid spills]
- Flat edge shovel and a good broom

Car Driving apparel

- Race suit and under garments
- Helmet
- Gloves
- Race boots
- Head sock
- HANS Device

Motorcycle Riding Apparel

- Leathers
- Helmet
- Boots
- Gloves
- Lanyard

At Technical Inspection a Rookie sticker will be placed on your 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 Entrant is new and may be nervous or may have overlooked some aspect of their preparation. They will take the extra time if necessary, to prepare the Entrant for their run.

After your successful Rookie run make sure you get it signed by the observing Official at the Start Line.

Rookie Orientation Meeting

There is a Rookie Orientation meeting at the start line of Track 2 directly after the Entrants Briefing and Volunteers Orientation at Technical Inspection on the Sunday Afternoon.

Track Orientation

There is a track orientation session run by one of the DLRA Officials and ALL rookie Entrants and their crews MUST attend in a vehicle fitted with a UHF radio tuned to Ch 10. After the Rookie Orientation at Start Line Track 2, crews will drive down the course with the DLRA Official who will point out important course features via the UHF radio. Crews will be able to familiarise themselves with mile markers, turn out area and the return road.

Rookie Run

All rookies must make their first run on Track 2. There will be a dedicated session on the Monday morning on track 2 for Rookie runs.

Note: You must have attended a Rookie Briefing before you make your Rookie run.

For your Rookie run you will be observed by DLRA Officials and assessed on your ability to take direction, have control of your vehicle and make your run down the track, turn out. You will be told by the Official at the Start Line how fast you are expected to go. If you have done all these things correctly, make sure to get your Rookie Sticker on your helmet signed by the observing Official back at the Start Line.

Note: These runs are timed but cannot be used for the purposes of licensing.

The Rookie 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 Race Director so that a new sticker can be issued. If the sticker is not in place and the Entrant makes a run then an infringement will be logged against the Entrant and a decision made as to whether any further runs will be made by that Rookie.

It's in your best interests to be there for the Sunday Briefing and the Monday morning Rookies run. We do run supplementary briefings and Rookies runs on the Monday and Tuesday, but at a time that suits the Race Director and other Officials because by then we are all busy running a race meeting.

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NOTE: It is the Entrants responsibility (and their support crew) for their own preparation for a run. Start Line Assistants will perform basic checks, but overall responsibility remains with the Entrant and their crew.

But don't rush or panic, if you're not ready, just let the Starter know and they will call up the next vehicle in the Start Line queue

Failure to attend the rookie meeting and then making runs without advising the Starter of Rookie status will see Entrant excluded from the event and the Race Director and Clerk of Course will be advised.

Licensing System

The DLRA runs a graduated licensing system.

Once you have successfully completed your Rookie run, you can move on to start making your license passes.

To satisfactorily attain a license, you must complete a run at a speed as close to the next faster category + / - 5 mph.

For a licensing run to be valid, the Starter must be informed that the run is for licensing purposes prior to leaving the start line so that the entrant can be observed.

Where appropriate, for cars the licensing run will include a parachute test. Where this applies, these will be conducted on category D passes and above.

Entrants upgrading their license are restricted to using Track 2 for license grades below 150 mph for cars and 175 mph for bikes.

175mph, 200mph, 250mph and 300mph license runs will be made on Track 1.

The categories are as follows:

Category E Current and valid State license

Category D 125 to 149 MPH

Category C 150 to 174 MPH

Category B 175 to 199 MPH

Category A 200 to 249 MPH

Category AA 250 to 299 MPH

Unlimited 300 MPH and faster

Regardless of any other motorsport licence held, the Rookie must abide by DLRA licensing procedure. Any exception to this will be at the discretion of the Race Director or appropriate DLRA Official on a case by case basis.

Record runs

Once you have completed your rookie runs, and made your licencing passes, you are qualified to run against a DLRA Australian Record.

A DLRA Australian Record is the average of 2 consecutive runs over the same mile, on the same track.

A record pass is recognised if you run an average speed 0.001mph greater than the current record.

It is also possible to make a record attempt while you are doing a licence pass.

Record attempts can be made on Track 1 or Track 2.

All records are documented in the DLRA Rule Book.

If you are a Rookie Entrant, you **MUST** perform your rookie runs on track 2 before attempting any record runs.

Volunteering

Every Entrant (or a crew member, working on their behalf) must volunteer for at least one shift during Speed Week.

We simply could not run the event without our volunteers and many hands make light work.

There are jobs from Set Up the Thursday before Speed Week right the way through to Pack Up on the Friday for all different types of skill sets.

Shifts are normally for Morning or Afternoon and you don't just walk away from your job and you are there to see it through

There is provision for you to nominate your volunteer job on the Speed Week entry form. Failure to complete any part of the Entry Form will see it returned to you.

Once you have volunteered for a job, that job is your responsibility, if for some reason you don't come, or you leave early or whatever you need to find someone to do that job. If all else fails, let the Clerk of Course at the Registration van know so that we can try and find someone to cover that job. The worst outcome is that we do not have some one to cover that job.

Failure to do your duty will lead to your results not being published and further consequences the next time you want to enter Speed Week.

Rookies make sure you don't volunteer for a job on the Monday morning as you will be busy making your Rookie Run on Track 2.

To nominate, just got to <https://www.dlra.org.au/volunteers/>

Course Description – Track 2

Weather and surface conditions pending, Track 2 should be 4 miles long.

There will be 2 mile of run up, a mile of timed speed and a mile to slow down.

Each mile is to be marked with a numbered banner.

Timing beams are located at 2 mile, 2 ¼ and 3-mile.

Entrants will accelerate to either their top speed or nominated licensing speed by the 2-mile marker and maintain that speed for the full timed mile.

As soon as practicable after the 3 mile entrants should slow down and turn off the track to the left onto the return road, they must pass behind the clearance flags for the track to be considered clear by the Track 2 Starter and the next vehicle permitted to run down the track.

Track 2 speed limits for cars is 150mph and 175mph for motorcycles.

Track 2 is ideal for lower speed vehicles and completing licensing runs.

Cars can make practice parachute pulls on Track 2, but the 175mph licence pass which requires a parachute pull will only be observed on Track 1.

If a push start is required for any competition vehicle, the Track 2 Starter is to be advised prior to the run. The push vehicle is to remain stationary until the Track 2 Starter clears the vehicle to commence. Once the race vehicle is underway, under its own power, the push vehicle is to turn off the track to the left and return to the pits / spectator area and wait to collect the race vehicle.

In the case of a vehicle fire or serious incident where medical and/or fire and rescue crews are required an entrant should try to pull off to the **right** side of the track, this action will alert the emergency crews. The Track 2 Starter will close the track. The Track 2 Starter will give direction to the Entrants support crew. If the support crew is required to recover a vehicle they must do so in a timely manner and attempt to proceed to the return road.

If a vehicle breaks down the primary responsibility for retrieval is with the support crew. They should be on standby, listening to Ch10 for any instructions from the Race Director.

In the instance of any foreign object being lost from a vehicle, the Entrant or Crew is to report it to the Chief Starter / Race Director as soon as possible in order for a sweep to be made of the track and the item to be recovered.

Entrants and crew who violate these rules will be logged in the Incident Register and reported to DLRA Officials.

Course Description – Track 1

Track 1 is 9 miles long.

There is 2 miles of run up, 4 timed miles and another 3 miles to slow down

Each mile is to be marked with a numbered banner.

There are designated track exits to the right on the half mile after the 3-mile marker.

Timing beams are located at 2-mile, 2 ¼ mile, 3-mile, 4-mile, 5-mile and 6 mile.

Track 1 is comprised of 2 courses;

- a short course being 3 mile long, and
- a long course which can use up to the full 9 miles.

Cars over 150mph and motorcycles over 175 mph will use the short course.

Entrants who have a “Long Course Qualified” sticker on their vehicle can nominate which mile they will go to. This information will be relayed to the Starter and emergency crews, so they know where the vehicle is likely to stop.

Typically, motorcycles will run short course as they are able to get up to their maximum speed quickly and don't need many miles to slow down.

When exiting the track, Entrants should turn out to the right at the designated exits and do not stop until they have passed the clearance flags. If their vehicle stops before the clearance flag, the track is closed and everyone is waiting for you.

Once past the clearance flag, Entrants can then proceed back to the pits via the return road.

Support vehicles can drive from the Start Line along a dedicated track to meet them at this point. If the Entrant is making a long course run, consideration should be made to have 2 support teams, one at the Start and one where they complete their run.

When they present to the Starter, Entrants are required to advise the Starter;

- Entrant Number
- If they are doing a licencing run. (and if there is a parachute pull to be observed)
- If it's a Long Course Run, the mile that they anticipate stopping at.
- If it's a Record Run.

If a push start is required for any competition vehicle, the Track 1 Starter is to be advised prior to the run. The push vehicle is to remain stationary until the Track 1 Starter clears the vehicle to commence it's run. Once the race vehicle is underway under its own power the push vehicle is to

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turn off the course to the right and either return to the pits or proceed down the return road to collect the race vehicle.

With permission of the Race Director, cars capable of speeds less than 150mph and motorcycles capable of less than 175mph can still make a record attempt on Track 1. As an example, this may be because of the gearing of the vehicle requires additional miles to attain speed required.

In the case of a vehicle fire or serious incident where medical and/or fire and rescue crews are required an entrant should try to pull off to the **left** side of the track, this action will alert the emergency crews. The Track 1 Starter will close the track. The Track 1 Starter will give direction to the Entrants support crew. If the support crew is required to recover a vehicle they must do so in a timely manner and attempt to proceed to the return road.

If a vehicle breaks down the primary responsibility for retrieval is with the support crew. They should be on standby, listening to Ch10 for any instructions from the Race Director.

In the instance of any foreign object being lost from a vehicle, the Entrant or Crew is to report it to the Chief Starter / Race Director as soon as possible in order for a sweep to be made of the track and the item to be recovered.

Entrants and Crew who violate these guidelines for licencing or record attempts will be logged in the Incident Register and reported to DLRA officials.

Crew Preparation

It is strongly recommended for Entrants to have a support crew. If you are an individual, look to buddy up with your neighbour in the pits or another Entrant you see is on their own.

The Support Crew's role is to prepare the Entrant and the race vehicle for a safe pass. It helps for each crew to go over everyone's role before getting to the start line.

Jobs to be performed at the pits may include:

- Entrant safety 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 Entrant that is next in the car? Are the wrist restraints the right length for the Entrant? 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 Entrant
- Ensure the Entrant 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 Entrant 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 Entrant – making sure they are fully dressed when they are at least 3rd in line to go.
- Strapping the Entrant into 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 Entrant. Showing the Entrant that they are removed.
- Putting up the window net (where fitted)
- Providing shade for the Entrant
- 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.

Entrant comfort

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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 Entrant 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 the volunteers and Officials at the end of the day, provision of encouragement and liquid refreshment at the canteen makes them happier the next day on the line.

Entrant 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 Entrant 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.

Start Line Procedure

As a Rookie, you will start on making your runs on track 2 before progressing to the Track 1. When your vehicle is three back from the actual Start Line, you should be in the vehicle strapped in 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.

After the run

Once your run is finished you need to leave the track for the return road as soon as practicable. Once the course is cleared the next Entrant can have a go. If there is a problem that does not require an emergency crew you can pull off to the right (on Track 1) and proceed to the return road. Once at the return road you can stop and wait for your crew or proceed 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. Then proceed back 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/ Race Director 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 inspected 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 Inspectors 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. Entrant 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.

Lost

It's a big lake, and even though the tracks are well marked, it's still easy to get lost out there. The number one piece of advice is STOP. Just stop and stay with your vehicle.

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.

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- Sitting up in the wind to slow down can cause a loss of control.

References

- Information for Rookies - <https://www.dlra.org.au/rookies.htm>
- Rookie Orientation - <https://www.dlra.org.au/rookie-orientation.htm>
- Advice for competitors - <https://www.dlra.org.au/competitors.htm>
- Technical Inspection - <https://www.dlra.org.au/technical-inspection.htm>
- DLRA Rule Book - <https://www.dlra.org.au/rulebook.htm>
- DLRA Competition License - <https://www.dlra.org.au/licence.htm>
- Entry Form - <https://www.dlra.org.au/entryform.htm>
- Track Layout and Marking - <https://www.dlra.org.au/track.htm>
- Compliance - <https://www.dlra.org.au/compliance.htm>