

BUILDING A BILLYCART???

If you are considering building a Billycart for an event such as the Victorian Billycart Championships we advise you read the following information before you start construction of your project.

Our event is focused on a fun day for the family and in many cases the building of the Billycart brings as much fun and enjoyment as racing it. There are however some important considerations that need to be made before attempting construction for a particular event or indeed a series of events.

- **RULES, REGULATIONS, TRACK LAYOUT AND RACING SURFACE**
- **CONSTRUCTION MATERIALS & EQUIPMENT REQUIRED**
- **YOUR HANDS ON ABILITIES**
- **LEVEL OF COMPETITION & PRESENTATION**
- **LINKS**

RULES, REGULATIONS, TRACK LAYOUT AND RACING SURFACE.

The first thing you must do is read the rules and regulations for the particular event you are going to enter. Further it is important to know what kind of surface you will be racing on, very few events describe this so you would be advised to ask.

For example if you build your Billycart with ball bearing wheels and the racing surface is spray seal you will not roll very well on it.

Some events allow for a minimum of three wheels on a Billycart some require a minimum of four.

Some events use starting ramps as we do. So your Billycart needs to be built so as it is able to run of a ramp without dragging any bodywork on the ground and slowing you down.

All events require bakes; most require that the brake be activated without removing hands from the steering.

It is also important to know the layout of the track you will be racing on, The Victorian Billycart Championships is run on a straight track aprox 200m long. However there are some events that are run on tracks with corners and so more considerations need to be made if the event you are entering involves cornering.

For example a three wheel Billycart has much less cornering stability than one built with four wheels

CONSTRUCTION MATERIALS & EQUIPMENT REQUIRED

Ok so now you have a good idea of the rules and regs for the event you can start to plan and build your project.

Billycarts traditionally were made from wood, beer boxes and whatever wheels could be gathered from anywhere. There are still some Billycarts made from wood however most these days are steel constructions, usually sections of bike frames or in some cases complete new fabrications.

The choice is yours as to what materials you use but you will need to consider what equipment you have or what access you have to the right equipment for the construction you choose.

Some things to consider before starting your project!!!

Constructions materials

Wheel types and diameters

Wheelbase length (dimension from centre of front wheels to centre of rear wheels)

Track width (dimension from centre of each wheel from side to side)

Brakes

Steering geometry

If you are not sure on a design for you have a look through the links here and you will see plenty of different designs and constructions, once you choose a design you like you are ready to build.

Remember to assess your design against the regulations of the event before you start any construction.

One of the most important factors of billycart racing is rolling resistance; for this reason most Billycarts these days use pneumatic tyres. In addition to this very small wheels are not advisable either as they create more rolling resistance than larger diameter wheels.

Again this is a personal choice, which will be determined by your ability to obtain, and what you see as fitting in with your design.

So if you choose to use wood for your Billycart construction you will need some basic woodworking equipment like a saw, hammer, nails, screw gun, screws, square, pistol drill, good tape measure and some assembly tools like spanners, screwdrivers, pliers etc.

If you are going to go with a steel construction you will need a grinder with cutting and grinding wheels, welder, square, drill, a good tape measure, and some assembly tools like spanners, screwdrivers, pliers etc.

If you don't have all or any tools or equipment for either type of construction you may be able to ask your local builder or engineering shop to get the basic chassis built for you.

The best way to approach it if you have not had any hands on experience is to ask around your local tradespeople, family or friends who may have some experience.

YOUR HANDS ON ABILITIES

Your hands on abilities are an important factor when building a Billycart which will probably be driven by someone else, usually a child.

No one wants to see a structural or any other failure and someone get hurt. Remember your Billycart must pass a scrutineering inspection by the organisers of the event before you can race.

So if you don't feel confident with all or any part of your construction get some help from your local tradespeople, family or friends.

The last thing organisers of an event want to do is refuse entry to anyone, however if the construction or operation of the Billycart does not meet the scrutineering standards this will happen.

So plan and execute carefully and avoid disappointment.

LEVEL OF COMPETITION & PRESENTATION

The level of competition you want to enjoy will depend on how much time, effort and money you put into building your Billycart.

As with any activity like this there will generally always be some people who have the technical knowledge and the time to build exotic Billycarts that are very competitive. Don't let this put you off, the day is about fun for the family and anything can happen.

If you are still keen on being at the front and don't have lots of resources all you need to do is stick to some basic principles and you will be somewhere near it. They are:

Good pneumatic tires that will inflate to 80-90psi

Reasonable diameter wheels (minimum) 12" (300mm)

Accurate wheel alignment during construction

Good aerodynamic body shape

If these basic principles are implemented your Billycart should be quite competitive and you will have lots of fun along the way.

The presentation of Billycarts is important to some but seemingly not to others, again this is a personal choice as to how you want yours to look. There is usually an award for the best presented Billycart at most events so if looks are more your go then make yours pretty and see what happens.

Have a look at the Victorian Billycart Championships Photo Gallery and through the links here and you will see all sorts of presentations which might give you some ideas as to how you want yours to look.

LINKS

The links below will give you a good insight to Billycartring in Australia, most have some photo galleries, technical information and information on other events.

Good Luck and we hope to see you at The Victorian Billycart Championships.

<http://www.dedwards.id.au/David/Billicarts/Billicarts.html>

<http://www.dedwards.id.au/David/Billicarts/Billicart%20Theory/Theory.html>

<http://southerntasbillicart.com/>

<http://billicartgallery.com/>