

Turtle Derby Rules and Regulations

WIDTH:

Overall width including wheels is not to exceed 7 centimeters or 2-3/4 inches. The minimum distance between the wheels is 4.5 cm or 1-3/4 inches

WEIGHT:

Overall weight is not to exceed 142 grams or 5 ounces

CLEARANCE:

Clearance between the chassis and the track should be 0.95 centimetres or 3/8ths of an inch.

RESTRICTIONS:

Wheel Bearings, washers and bushings are prohibited. The car shall not ride on springs. Details and attachments may be added providing they are securely fastened and do not exceed the maximum length, width, and weight specifications. The car must be free-wheeling and may only be propelled by the force of gravity. Kub Kars are subject to inspection by and official inspection committee to determine eligibility.

KUB KAR BUILDING GUIDELINES:

Mark your chosen design on the top and the sides of the block. Carefully carve or cut to the desired shape. Sand smooth. Paint, stain, and/or finish as desired, preferably with water based treatments. Insert axle through the wheel and force into slots provided. The wheels should spin freely. Racers may wish to lubricate axles and wheels using (dry) powdered graphite.

PERFORMANCE TIPS AND HELPFUL HINTS:

To build a fast car, there are several important details to consider:

First and foremost, is the wheel alignment, which is necessary to obtain a straight, smooth run, thereby reducing wheel friction on the guide track rails. Next in importance is reducing the wheel and axle friction. This is accomplished by applying a dry lube to the areas along the axle and wheel bearing points. Also, you may want to remove any burrs that might occur on the axle or wheel itself.

Apply several coats of sanding sealer, then sand entire car with a fine grade sandpaper. Give the model at least two coats of fast-drying paint. When the paint is completely dry, sand with fine sandpaper, apply a final coat of paint, and allow to dry thoroughly. Rub entire Truck with a rubbing compound. Apply a coat of auto wax and rub to a high gloss finish.

One can carve out the inside of the Kub Kar and insert metal washers or bolts to bring the weight of the car to its maximum. Some feel that if one places the car weight to the end of the car, the stored potential energy in the race will make a faster car.

Lubrication is the key in many designs. Powdered Graphite is one type, although there are many other liquid lubricants that may gain an advantage. Do not use regular oil or silicone, since this may soften the plastic. This must be done prior to registering your Kar. Once you registered your Kar it cannot be altered except by race officials in the case of repairs.

One can slightly file or bevel the bearing surface of the wheel to reduce the amount of friction touching the car surface. Check if the axles have 'spurs' near the axle head. Grind away the 'spur' metal.

It is strongly recommended that one refrain from using weights which contain toxic levels of lead.

Details are important. Take into consideration the following: 1. Wheel alignment, 2. Axle and wheel lubrication and honing, 3. Weight distribution, 4. Car design, 5. A high gloss finish.

LIST OF MATERIALS IN A KUB KAR KIT:

1 Block of wood 17.8cm (7 inches) long, 4.5 cm (1-3/4 inches) wide, 3.2cm (1-1/4 inches) high

5 Black plastic wheels, 3.2cm (1.4 inches) in diameter

5 Steel pin axles

1 Decal sheet

1 Kub Kar designer ribbon

1 Kub Kar Kit instruction sheet

CONSTRUCTION RULES:

1. All specifications outlined in the Kub Kar kits must be followed (i.e. Weight max, size, etc.)
2. All Kars entered must be NEW and NOT used from previous years.
3. All Kars must have the entrants' name on the bottom.

RACE DAY RULES:

1. Registration times to be determined – they will be posted on Gala Day's website and on schedule of events flyers and posters.
2. Each car must be registered and weighed in. Kars may not exceed 143g. If Kar is overweight, it will be returned to the entrant for adjustments to be made.
3. Each entrant must be present when submitting their Kar.

4. At registration each entrant will be given a number to be placed on their Kar. Once a Kar is registered, it may not leave and return to race (no exceptions).
5. No lubricants can be applied once the Kar has entered the event. Anyone caught applying lubricants after the Kar has been registered will result in a disqualification from the event.
6. No work is to be done on the Kars after submission, with two exceptions:-
 - During weigh-in, loose parts, weight, and any other obstructions may be removed.
 - A damaged Kar may be put back together (e.g. A wheel falls off) authorized officials in the designated 'pit stop' area must do all repairs.
7. Each Kar will be raced in each lane. Total times are calculated with the fastest overall being the winners.
8. Trophies to be determined.
9. Race levels to be determined.
10. Entrants are not permitted to pick up any Kars except their own. Anyone who damages another Kar will be disqualified.
11. Inside the track area is out of bounds to EVERYONE, except those directly involved in the running of the races (Turtle Derby committee).
12. The decision of the judges and the Turtle Derby committee will be final and any official complaint(s) from the youth, parents, or other, must be made in writing to the race commissioner.
13. Please keep in mind the Turtle Derby is intended to as a fun yet competitive event. If you have questions or concerns, please speak quietly to a race official. Keep in mind, we are all volunteers.