



CONSTRUCTION OF AWANA GRAND PRIX CARS

MANDATORY RACING SPECIFICATIONS for classes—Cubbies, Sparks, T&T, Trek/Journey:

T-1. Material: Race cars shall be constructed for this event from the parts contained in the Official Awana Grand Prix Kit (referred to below as the kit) as sold by Awana Clubs International. Materials from the kit may not be replaced, but “Add-On's” may be used.

T-2. Weight: Race cars may weigh no more than five (5.0) ounces (total weight) as determined on the official scale during the inspection and registration periods. The official scale will be available at the workshops, pre-race registration and during race day registration. Refer to the list of important dates for scale availability.

T-3. Wheels and Axles: The car shall roll on the wheels from the kit. The wheels shall turn about the axles from the kit. The axles shall be firmly affixed to the wood of the car body, but use of the pre-made 'axle grooves' is not required. It must be obvious to the judges that the wheels and the axles from the kit are being used.

T-4. Wheel Treatment: Wheel treatment (hub and tread smoothing and polishing) may not result in substantial removal of mass or in reducing the wheel width from the original kit wheels. Wheel shape may not be altered from the original condition (i.e. rounded, beveled, cupped, etc.).

T-5. Unacceptable Wheel/Axle Construction: The following may NOT be used in conjunction with the wheels or axles: hubcaps, washers, inserts, sleeves, bearings.

T-6. Size: Race cars may be no longer than 7 inches, nor wider than 2-3/4 (2.75) inches, nor taller than 3 inches in overall height, as determined by the official gages during registration. Underside clearance of at least 3/8 (0.375) inches and inside wheel to wheel clearance of at least 1-3/4 (1.75) inches is required, so that the car will run on the race track.

T-7. Weights and Attachments: Weights and attachments may be added to the car and will be considered part of the car for purposes of all measurements. Weights and attachments are considered to be any material on the car that is not provided in the kit. All weights and attachments must be securely fastened to the car, e.g. by permanent glue, nails or screws, but not by "sticky substances", e.g. tape, or tack spray. Weights and attachments shall be passive (i.e. non-moveable, non-magnetic, non-sticky, etc.).

T-8. Gravity Powered: The race car may not be constructed or treated in such a way that the track's starting mechanism imparts momentum to the car. (For instance, this provision disqualifies cars with sticky substances on the front of the car and protrusions that may catch on the starting pin.)

T-9. Lubricants: Only dry lubricants such as graphite or powdered Teflon "white lube" will be allowed for lubricating the wheels. *Lubricants may not foul the track*, so all excess lubricant shall be wiped off. There will be a “Lubrication Area” set up at the race for application of all lubricants, as these can be quite messy. Once the car passes inspection and is impounded, no further lubrication will be allowed.

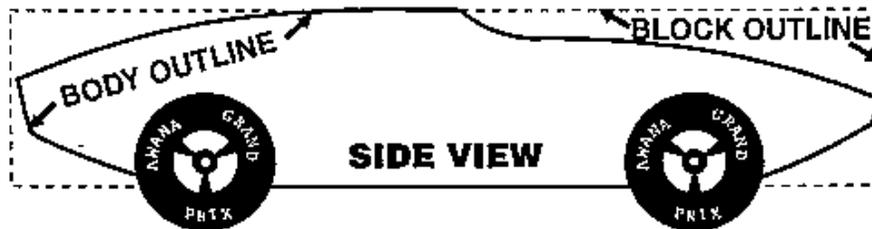
For the Open Class the rules are as follows:- Size: Race cars may be no wider than 2-3/4 (2.75) inches, Underside clearance of at least 3/8 (0.375) inches and inside wheel to wheel clearance of at least 1-3/4 (1.75) inches is required, so that the car will run on the race track.

The Car may not leave the track. All else goes. The open class is an outlaw race. Please be aware some cars may be propulsion propelled. **Our track this year is wooden, please nothing that will damage the track.**

NOTE: AWANA Clubs International strongly urges the participation of both parents/guardians and clubbers in constructing the car. **The clubber should be allowed to do as much of the construction as possible.**

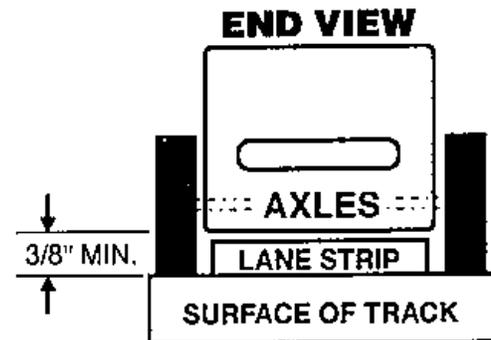
CONSTRUCTION SUGGESTIONS AND HINTS

1. Draw the car design on paper first. You may select a specific design from a magazine, brochure, or newspaper, or come up with your own. Cars may be built to look like real race cars or another creative design. Design judging will be based on how well your car resembles what it is meant to be, as well as how well it is constructed and finished. Use your imagination
2. Outline your design on the wood block as shown. Rough cut the shape using a coping saw, jig saw, band saw, knife, or power sander (adult supervision is strongly recommended for this step!). Using successively finer grades of sandpaper, give the car its final shape and then smooth the surface. Before painting, add a couple coats of sanding sealer, let it dry, and sand with very fine sandpaper.



3. Cars should be carefully painted to compete for design awards. The quality of the car's finish may be determined by the number of paint coats and proper drying time between coats (hint: don't wait until the day before the race to paint your car). Put your assigned number somewhere on your car by hand painting or using decals. If you don't want it incorporated in your design, put it on the bottom of the car. **DO NOT** put any numbers other than your assigned number on your car. You may also use the AWANA Grand Prix decals provided with your kit or other commercially available decals to enhance your design. Waxing or coating with a clear, high-gloss overcoat can further improve appearance.

4. The AWANA Grand Prix track is designed so that the lane strips keep the cars in their proper lanes. Use only the wheels and axles furnished in the kit. The axles may be polished, if desired. The tread surface of the wheels may be lightly sanded, if desired, but must not be modified to a different shape (e.g., they may not be cut down to be narrower or beveled). Be careful when sanding wheels as too much friction can melt the plastic. Slots for the axles have been pre-cut in the wood block. You may use them or drill your own. If you reposition or camber the axles, make sure the distance between the wheels is at least 1 3/4" and the bottom of the car is at least 3/8" above the ground so it will not rub on the lane strip and slow the car. Insert the axles into the wheels and tap them into the slots or holes. Do not tap in too far or the wheel will bind on the car body.



5. Winning speed cars usually weigh the maximum 5 ounces. Once cars are carved, they usually weigh only 2 to 3 ounces (make sure you include wheels and axles). Weight may be added by drilling a hole in the bottom of the car and pouring in melted lead (**UNDER ADULT SUPERVISION!**) or by securely attaching commercially purchased or homemade weights with screws or glue (stay within size limits, including ground clearance). No loose or moving weights are allowed. If a car is a little too heavy, drill out some wood from the bottom. If a little too light, add screw(s) to the bottom (countersunk) or other small weights. These fine adjustments can be made on the day of the race at the pit area. Once a car has been officially weighed and accepted, no additional weight may be added.
6. For additional information on how to make a better looking, faster race car, or just to get car design ideas, check out this web site:

Darin McGrew's Shape'N Race Derby <http://www.rahul.net/mcgrew/derby/>