



## CONSTRUCTION OF AWANA GRAND PRIX CARS

### MANDATORY RACING SPECIFICATIONS

1. Overall car length shall not exceed 7", overall width shall not exceed 2 3/4", distance between the wheels shall be at least 1 3/4", and overall height shall not exceed 3"
2. Clearance to the bottom of the car when resting on its wheels must be at least 3/8" so it will not rub on the lane strip.
3. Car weight shall not exceed 5 oz. (as measured by the official Grand Prix scale). Weight may be added to lighter cars to bring them to 5 ounces, but the weight must be securely attached.
4. Wheel bearings, bushings, washers, and springs are prohibited.
5. The addition of decals, driver, steering wheel, car trim, accessories, and painting are permitted as long as they do not cause the car to exceed the maximum dimensions or weight.
6. Starting devices are prohibited. Cars must be freewheeling.
7. The assigned car number must be marked somewhere on the car. If you don't want it showing on your beautiful finish, it may be on the bottom of the car.
8. Wheels and axles from the AWANA kit must be used.
9. Wheels and axles may be lubricated with any dry type of lubricant, but excess lubricant must be wiped off, so as not to foul the track. Once a car is checked in, it no further lubrication will be allowed.
10. Wheels can be lightly sanded but must 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.).
11. The car must pass inspection by the AWANA Grand Prix Inspector at check-in time. If the car does not pass initially, it may be modified at the repair station as long as it passes by the end of the registration period.

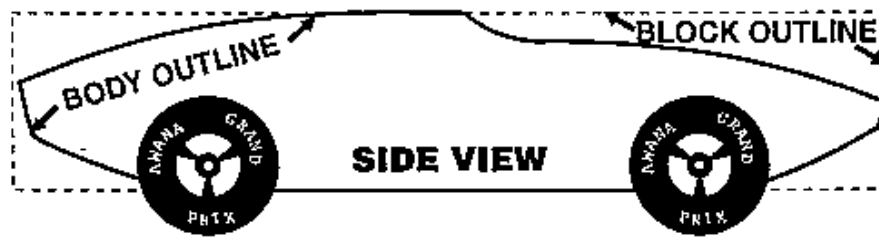
### CONSTRUCTION SUGGESTIONS AND HINTS

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.**

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! Some examples of race cars and other designs are shown below.

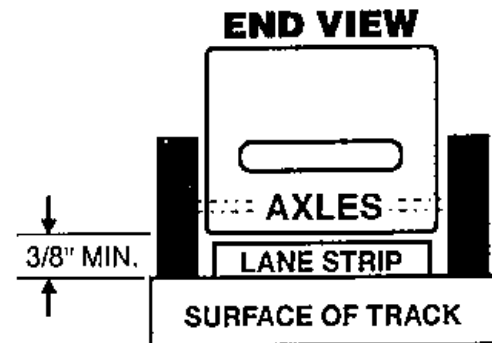


2. Outline your design on the wood block as shown. Rough cut the shape using a coping saw, jig saw, band saw, knife, or power sander (adult supervision is strongly recommended for this step!). Using successively finer grades of sandpaper, give the car its final shape and then smooth the surface. Before 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 be 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 these web sites:

Pinewood Derby SuperSite  
 The Pope's Place  
 Darin McGrew's Shape'N Race Derby  
 Derby Talk

<http://www.inetworld.net/bosworth/>  
<http://www.stanpope.net/>  
<http://www.rahul.net/mcgrew/derby/>  
<http://derbytalk.com/>