

Berrien County Youth Fair Pinewood Derby Car Construction Specifications

Material and Size

1. Only the wheels, axles, and car body that come with an Official Pinewood Derby Kit or the Official Replacement Axles/Wheels can be used on the car (the new colored wheels are an acceptable substitute). Cars must have been constructed within the last six months by the scout presenting the car to race officials.
2. No loose or flexible materials of any kind are permitted in or on the car. The car may be hollowed out and built up to the maximum weight by the addition of wood, metal, or similar materials provided it is securely built into the body or chassis.
3. Length and Width - 7- $\frac{1}{4}$ " long by 2- $\frac{3}{4}$ " wide.
4. Clearances - The car must be less than 3" in height and must roll freely without binding while straddling a strip of width 1- $\frac{3}{4}$ " and height $\frac{3}{8}$ " when rolled on a level plane surface.
5. Wheelbase may be changed from the pre-cut slot distances in the kit block. No portion of the wheels may extend past the front edge or rear of the car.
6. The car nose must have a flat portion at least $\frac{1}{2}$ " long in the center where it contacts the starting pin. The lowest point of the front end may not be higher than $\frac{1}{4}$ " above the axle line in order to correctly contact the starting pin.

Weight and Appearance

1. Weight of the total car shall not exceed 5.0 ounces or 141.747 grams as read on the official race scale. The readings of the official race scale will be considered final.
2. Detail such as steering wheel, driver, decals, and painting is permissible on the car body as long as this detail is rigid and does not cause the car to exceed the official maximum weight.
3. Car must be complete and ready to race when presented to the inspection team. Wet paint or glue is not allowed. Once car has passed inspection, it will be placed in "Quarantine" at which point no further modifications are allowed.

Wheels and Axles

1. Only official BSA wheels and axles must be used.
2. Wheel bearings, spacers, or bushings are prohibited.
3. The car shall not ride on springs nor have any propulsive force other than gravity.
4. The tread surface of the wheels may be modified only for the purpose of removing mold marks. The tread surface may be smoothed down flat and parallel to the axle such that the diameter of the wheel is not less than 1.170". Wheel width should remain as manufactured and is not to be less than .360" in width. All BSA markings must be present and undisturbed on both the outside and the inside of all 4 wheels.
5. The inside of the axle nail head and adjacent shaft may be smoothed to remove burrs. The diameter of the axle may not be reduced to less than 0.085" at any point where the wheel bore could touch the axle.
6. All four axles must be parallel to the racing surface.
7. All four wheels must contact with the track.

Lubrication

1. Solid powders or flakes (e.g., graphite or Teflon) may be used but only if absolutely no excess is visible.
2. Self-lubricating wheel assemblies are prohibited.
3. All lubrication is to be done before check-in.

In the event there is an issue not covered specifically by these rules, The Race Committee will convene and make a ruling. **Decisions of the Race Committee will be final.**