



BOY SCOUTS OF AMERICA®
GATEWAY AREA COUNCIL

Official Scouting Pinewood Derby Rules

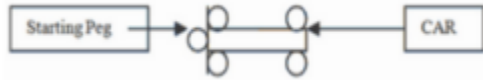
1. All cars must pass the following inspection to qualify for the race:
 - * Width shall not exceed 2-3/4 inches.
 - * Length shall not exceed 7 inches.
 - * Weight shall not exceed 5 ounces. 143.4 grams measured on Official Race Scale.
 - * Overweight cars may be reduced to 5.0 ounces before they can officially be entered.
2. Axles, wheels, and body shall be from the materials provided in the kit or BSA approved equivalents.
3. Wheels may be sanded, polished, and lubricated. The lettering on inside and outside of wheel must remain and they must retain stock outside profile. The "tread" must remain intact and no holes drilled in sidewall.
4. Accessories such as driver, fenders and other detail items may be added as long as they remain within the specified rules.
5. Axles, wheels, and body must be from the materials provided in the kit.
6. Wheel bearings, washers, and bushings are prohibited.
7. Only dry lubricants may be used. (lubricate prior to arrivingNO graphite or silicone authorized in the Mall)
8. The car shall not ride on any kind of spring.
9. The car must be free-wheeling, with no starting devices.
10. No loose materials of any kind are allowed in the car.
11. The wheelbase may not be extended; use the pre-drilled holes. Standard wheelbase is 4 3/8 inches from center of front axle to center of back axle. Original block measurements must remain intact (Distance to wheel grooves from each other and from front or back of block). Precut axel grooves must be used.

Body Specifications

- Center Rail Clearance – Cars must clear the center rail which is 1 3/4 inches wide by 1/4 inch tall along the entire length of the car. **The main body of the car must be constructed from a block of pinewood from a BSA kit.**
- Body design may be enhanced by adding other stable materials such as plastic, metal or details. All additions must be firmly attached and conform to size specifications. No loose materials will be allowed on the cars.



- No part of the car's body, wheels, or attachments can extend beyond the starting peg on the track what so ever. Additionally the wheels may not extend beyond the rear of the car or past the front of the car – the length is not to exceed 7 inches.



Prohibited Items that can NOT be used:

- Magnets, springs or suspension systems of any type.
- Starting devices finish line devices, propellants, or propulsion systems
- Liquids, Wet paint, Oil of any kind or Sticky substances
- Glass or excessively fragile parts
- Electronic or lighting devices (if lights are on the car they must be turned off)
- Bearings, bushings, washers, sleeves, hubcaps or inserts attached to or in contact with the axle, body or wheels.
- Solid one piece rod style axles
- Axles and wheels attached to any device that mechanically alters rotation or spin.

Wheels

Only Official BSA Wheels are allowed (either new style & old style) all markings must be intact on inside and outside of wheel. Colored BSA approved wheels may be used. No “Anawa” style wheels.

Legal:



Not Legal:



Outer wheel surface may be sanded, shaved, lathed or polished to remove any imperfections, true roundness, remove mold castings and burrs, but cannot be reshaped in any way to minimize tread contact or alter aerodynamics. The fluting (small decorative dots on the edge) must remain visible around the entire circumference.

- o The tread / contact surface must remain flat and parallel to the bore.
- o The width of the tread must not be less than 7.5mm
- o No removing or reducing the letters or spokes or drilling additional holes.

The following wheel modifications are NOT Allowed:

- * No Rounding of the wheel treads – they must remain flat.
- * No Grooving, H-cutting, V-cutting, Crowing, Tapering or Dishing
- * No Narrowing of the tread surface or Altering the wheel profile
- o No Drilling sidewalls
- o No Filling of any wheel surface with any type of material

* Coning the hubs, truing the inside edge of the wheel, and removing the outer hub step down is allowed.

* Wheel Bore treatment is allowed including polishing and / or sanding.

* Wheel bores may not be filled and re-drilled

* There must be at least four wheels on the car, however it is not required that all four wheels make contact with the track surface. o Each wheel must be mounted on an axle, on the outside of the car, on the vertical side of the car. o Each wheel must be attached by an axle and spin freely

Axles

• Nail type axles as found in the Official Pinewood Derby kit are to be used.

• Modifications to the Axles are allowed that include straightening, sanding, polishing, canting, grooving, beveling & tapering of axle head as long as the Diameter of the Axle is not reduced the Diameter may not be less than .084 inches (2.13mm).

• Axles must be mounted using the precut slots. Lubrication

• Only Dry Graphite may be used as a lubricant for wheels (No Graphite is allowed inside Valley View Mall Facility. If any Graphite is applied, it may be done in your vehicle in parking lot prior to entering competition)

• No oil lubricants are allowed which include nyoil, krytox

Race Operations and Miscellaneous Rules

* All Cars MUST pass inspection before being allowed to race based on the rules and specification stated above or they will not be allowed to race until the issue is resolved.

* An approved inspected car will then be checked in and not be touched by anyone but the race officials until the cars are released by Race Officials. If a car loses a wheel, or is otherwise damaged during a race, the racer shall have 5 minutes to make repairs in our "Pit Garage".

* All lubrication of wheels must take place prior to final inspection check in – using DRY Graphite Only.

* Officials have the Right to Disqualify Any Car, which does not meet all of the stated rules and specifications. The Officials Decision is Final.

* Appealing a decision – if a Race Official makes a ruling and you wish to appeal it – all Officials will be assembled and based on majority rule the decision will be upheld or overturned.

* Each Cub Scout will have an assigned number for their car. Minimally, the number must be visible on the top surface of the car. It is not required to use the numbers from the kit.

* If Car is Dq'd by Race Official, you may be able to run in Unlimited Division.**