

# NORWELA COUNCIL, BOY SCOUTS OF AMERICA

## Official Pinewood Derby Rules & Regulations

Each participating Cub Scout is to build a completely new car each year. The dimensions of the car must meet the below minimum and maximum standards. The cars will run on an aluminum or wooden track. The cars will be released from a starting point at the top of the track and race down the track with the use of natural gravity only. No motorized starters, enhancers or bearings will be used to give the car an unfair advantage. No car or any portion of a car including, but not limited to: wheels and axles, may be used from a previous derby's car. At the request of any judge or race official, the scout may be required to provide proof of a car being newly built.

**PARTS AND MATERIALS:** Official pinewood derby car kits, weights, wheels, axles and other optional accessories may be purchased from a BSA approved distributors, including Norwela Council Service Center, Cary Camp Trading Post, Aardvark Furniture, Hobby Lobby or [www.scoutstuff.org](http://www.scoutstuff.org). There are hundreds of websites that sell pinewood derby parts and accessories that claim to be BSA approved, please bring it to the attention of a race official for verification and approval prior to purchasing any items from these sites. We do not want to disqualify a scout's car for unapproved parts.

**WIDTH:** Maximum overall width allowable, including wheels, is 2 ¾ inches. After market side rails are permissible as long as they do not extend past the wheels.

**LENGTH:** Maximum overall length allowable is 7 inches. No portion of the car will be allowed to extend forward of the starting pin/gate. The furthest most point on the front of the car MUST make contact with the starting pin.

**CLEARANCE:** Minimum clearance under the body is 3/8 inch. This is measured by placing the car on a flat surface with the wheels mounted and measuring from the lowest point of the wood block to surface. This will prevent the car from bottoming out on the track. The minimum clearance between the inside of the wheels is 1 ¾ inches. While the wheels are mounted, measure the front wheels from the inside of wheel to its opposite front wheel. Repeat for rear wheels. This will prevent the cars' wheels from rubbing on the side of the track's center riser guide.

**WHEEL BASE:** Wheel base is to be approximately 4 ¼ inches. This is measured from the center of each axle, front to back.

**WEIGHT:** Weight cannot exceed 5.0 oz. (141.75 grams). The car may be hollowed out and built up to the maximum weight by additional wood, metal or any other SOLID material, provided they are securely attached to the body of the car. No loose material of any kind is permitted in or on the car. At no time can liquids be used as a weight as it will give an unfair advantage to that car by using inertia as an additional means of movement. Gravity is the only means of power that is permissible. Lead is permissible for weight provided that it is completely enclosed within the body of the car.

**MATERIAL:** The car body, wheels and axles must be from the official pinewood derby car kit (BSA Part #17006). The car may not ride on any type of springs. Details such as

decals, pin stripes, cockpit accessories and interior detailing are permissible as long as the car does not exceed the maximum weight and they are BSA standard products. Plastic and metal detail parts are allowed as long as they are securely attached to the body and chasses and do not exceed the maximum length, width and height.

**WHEELS:** Wheels must be from the official pinewood derby car kit (BSA Part #17006) or from the optional colored Cub Scout derby wheels & axle kit (BSA Parts #17553, 17554, 17555, 17556 and 17557). Wheels may be lightly sanded only to remove bumps, burrs and ridges. They may not be shaved or reduced in diameter or width. Wheels may not be beveled, tapered or in any other fashion modified from the original size and shape. Wheels may not be painted. Wheel covers, bearings, washers and bushings are strictly prohibited.

**AXLES:** The axles (round head nails) must be from the official pinewood derby car kit (BSA Part # 17006) or from the optional colored Cub Scout derby wheels & axle kit (BSA Parts #17553, 17554, 17555, 17556 and 17557). Axles may be polished using files, sandpaper, etc. or by using the pinewood derby high performance kit (BSA Part 16988) to remove burrs, scratches and ridges. The axles may not be machined or reduced in diameter anywhere along the axle shaft. One piece axles that extend the entire width of the car or any other substitute axles are not permitted.

**LUBRICATION:** Pinewood derby axle lubes (BSA Part #17106 and 17019) are permissible lubrications. Graphite lubricant will be allowed, however do not use an excessive amount. Graphite will stain most surfaces and could cause the cars to not travel down the track properly. Lubricant must be applied prior to inspection and registration of the car. No lubrication is permitted after registration or during the derby.

**DISQUALIFICATION:** A car or scout could be disqualified from the race if any of the following occur:

- Any use of improper material as outlined above, including, but not limited to, lubricant, wheels, axles or body. Adjustments or repairs made in accordance with what is stated in the "Inspection" paragraph will permit scout or car to remain in race.
- Using a Pinewood Derby car from a previous year
- Changing the car after registration, except for authorized repairs.
- Removing the registration sticker from the car
- Handling any car without permission of the judge(s) or race official(s)
- Not following the instruction of the judges(s) or race officials(s)
- Not following any other rule specified for the pinewood derby
- Any scout, parent, scout leader, sibling or other spectators that use any offensive language, act in an un-sportsman like manner, throw objects in anger or make any threatening gestures will be removed from the race event and not permitted to return. If the offender is a scout, the scout's car will be immediately withdrawn from the race and the scout will be asked to leave the event. The Pack Leaders will discuss disciplinary actions at a later time.