



Pack 90's Pinewood Derby Rules

1. General Rules & Regulations

- 1.1 Qualification to Race: All registered scouts from Tiger, Wolf, Bear, & Webelos 1 dens may design, build and enter cars that are eligible to participate in the 'Pack 90 Pinewood Derby' event.
- 1.2 Essential Materials: All cars entered must be constructed from the 'Official BSA Grand Prix Pinewood Derby Kit'.
- 1.3 Attendance: The Scout **MUST** register/enter his own car for competition. This means that the Cub Scout must be present at the 'Inspection and Registration' process to enter his car into competition.
- 1.4 New Work: Cars must be newly constructed each year. Modifications to previous year cars shall not be accepted.

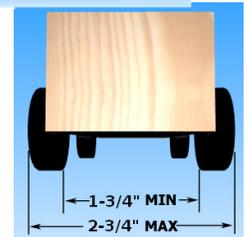
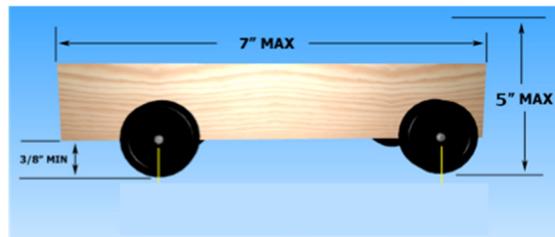
Failure to Pass Inspection

- a) The Pinewood Derby Race Committee is responsible to inspect and to disqualify any car that does not meet the rules as described herein.
- b) If a car does not pass inspection, the owner will be informed of the reason his car did not pass and may take it back for modifications. The car must be brought back no later than the close of registration/inspection for its final inspection.
- c) After cars pass registration/inspection, they will be impounded & stored by the Pinewood Derby Race Committee until race time.
- d) No cars may be altered in any way after they have been registered and only members from the Pinewood Derby Race Committee will be allowed to handle the cars.

2. Cub Scout Race Car Design Regulations

2.1 Overall Car Specifications:

- a) Maximum overall **WIDTH** (outside edge-to-edge of wheels) is $2\frac{3}{4}$ "
- b) Minimum **WIDTH** between wheels is $1\frac{3}{4}$ "
- c) Maximum **LENGTH** is 7"
- d) Maximum **HEIGHT** is 5"
- e) Minimum track clearance (bottom clearance between car and track) is $\frac{3}{8}$ "
- f) No part of the car can extend beyond the starting post. 'U' and 'V' shaped front ends are NOT allowed.
- g) Maximum **WEIGHT** can NOT be over 5.0 Ounces (141.75 grams)



2.2 Material:

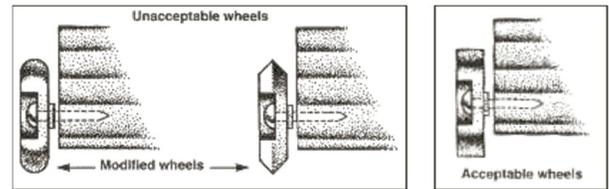
- a) Pinewood cars shall be constructed from the parts contained in the 'Official BSA Grand Prix Pinewood Derby Kit' (referred to herein as the kit) as sold by your local Scout Shops. This kit includes the wooden block, 4 plastic wheels and 4 metal nails to be used for axles.
- b) Materials from the kit may be supplemented but NOT replaced. The main body must be constructed from the wooden block from within the kit.
- c) "ADD-ONS" are not restricted as long as they meet with the rules and regulations as specified within this document.
- d) Special paint, decals, decorations, etc. are allowed.
- e) Unofficial kits will not be accepted. Pre-cut design bodies WILL NOT be allowed to register.
- f) Pinewood cars **MUST** use the wheels and axles that were provided by the kit.

2.3 Weight:

- a) Cars may weigh no more than five (5.0) ounces (141.75 grams). Total weight is determined on the official scale during the pre-race registration/inspection.
- b) Weight may be added to the car and will be considered part of the car for purposes of all measurements.
- c) The car may be drilled/hollowed out with weight securely added.
- d) No liquid weights are permitted inside or attached to the outside of the car's body.
- e) No weights may be added after the car has been registered, inspected and impounded.
- f) All weight must be securely fastened to the car using glue, nails or screws. 'Stick-On Weights' will be allowed, but the use of tape or tack spray will not be allowed.
- g) Weights shall be passive, meaning non-moveable and non-magnetic.

2.4 Wheels and Axles:

- a) All cars must be able to roll on all four (4) wheels that were provided within the kit.
- b) All four wheels **MUST** be in contact with a flat surface when the car is placed on it. Wheels should be aligned so that the complete surface of the wheel is in contact with the track (not cambered in or out).
- c) The wheels must be installed using the axle nails from the kit. No 'after market' wheels or axles are allowed. No shaving of the wheels outside to remove mass is allowed.
- d) Hubcaps/wheel covers are not allowed.
- e) The axles provided may be altered **ONLY** in a manner as to remove the metal mold imperfections near the nail head. The axles may be polished and lubricated.
- f) Axles may not be angled in the car's body in a manner that would cause the wheel to not run flat to the surface of the track.
- g) The axle head and shaft diameter may not be modified or reduced.
- h) The **SHAPE AND FORM OF THE WHEELS CANNOT BE MODIFIED OR RESHAPED**, however wheels may be sanded to remove molding burrs. Wheels may not be tapered or rounded.



2.5 Size:

- a) Cars may be no longer than 7 inches, as determined by the official gauges during the registration/inspection process.
- b) Cars may be no wider than 2 ³/₄ inches, as determined by the official gauges during the registration/inspection process.
- c) Underside clearance of at least 3/8 inch and inside wheel-to-wheel clearance of at least 1 ³/₄ inch is recommended so that the car will run on the racetrack.
- d) Adequate clearance is the responsibility of the car builder.

2.6 Lubricants:

- a) The wheels and axles may be lubricated with **POWDERED GRAPHITE** only. No liquid lubricants will be allowed. Liquid lubricants will ruin the racetrack.
- b) Lubrication will only be allowed prior to registration. Once inspection is complete, no additional lubrication will be allowed.
- c) If wheel or axle repairs are necessary during the race, only the replacement part may be re-lubricated under the supervision of a race official.

2.7 Unacceptable Construction:

- a) The following may **NOT** be used in conjunction with the wheels/axles:
 - Hubcaps
 - Washers
 - Inserts
 - Sleeves
 - Bearings
- b) No loose material of any kind is permitted in or on the car.

2.8 Gravity Powered:

- a) The car may not run on any type of springs.
- b) The car must be freewheeling with no starting devices.
- c) No external source of power, magnets, engines, jets, compressed air, or propulsion systems other than gravity may be used.

3.0 Race Day Rules, Regulations, and Information

Competition will consist of heat races within each Den Rank and a Grand Final heat. Race Committee members are responsible for the proper conduct of the races. The decisions of the Race Committee members are deemed final.

3.1 Check-in & Racing:

- a) The Cub Scout is expected to be there on race day.
- b) If due to illness or other valid reason, and the scout is unable to attend, an adult may represent the scout with the approval of the Race Committee.

3.2 Inspection Gauges:

The race-day 'Inspection and Car Registration' area will have the official Pack scale, gauge, and other measuring tools necessary to inspect the cars.

3.3 Car Leaves Lane:

- a) If, during a race heat, a car leaves its lane but proceeds down the track in a manner that does not interfere with its opponents, then the race will be called normally.
- b) If the car leaves its lane and interferes with another car, the racer will be given 2 minutes to inspect and/or repair the car, re-qualify and the race will be re-staged and re-run.
- c) If the same car leaves its lane again and interferes with another car, that car will be judged last place and disqualified from any future races. The race will be re-staged and re-run without that car.

3.4 Car Leaves Track:

- a) If, during a race heat, a car leaves the track without interfering with its opponents, the racer will be given 2 minutes to inspect and/or repair the car, re-qualify and race will be re-staged and re-run.
- b) If the same car again leaves the track without interfering with its opponents, that car will be judged last place and the race will be called normally.

3.5 Car Repair (without Fault):

- a) If, during the race heat, a wheel falls off or the car becomes otherwise damaged, then the SCOUT may, to the best of his ability, perform repairs with the assistance of his adult partner.
- b) The scout and adult partner shall be allowed 2 minutes to perform repairs and re-qualify for racing. This time may be extended upon the approval of Trackmaster.
- c) The car shall be re-qualified for racing in accordance with the Rules within this document.

3.6 Car Repair (with Fault):

- a) If a car is damaged due to track fault, or damage caused by another car or person, then the Trackmaster, at his sole discretion, may allow additional repair assistance and time to the scout.
- b) The car shall be re-qualified for racing in accordance with the Rules within this document.

3.7 Race Area:

Only members of the Race Committee will be allowed to enter the track area.

4.0 Rewards and Recognition

The most important values in Pinewood Derby competition are parent/son participation, good sportsmanship and learning how to follow rules. The Race Committee is responsible for recognizing and encouraging these qualities in addition to traditional racing awards.

Racers will be recognized as follows:

- Every participant will receive a Participation Ribbon
- Placing Medals will be given to the 1st, 2nd and 3rd place finishers at each Den Rank (Tigers, Wolves, Bears, and Webelos 1)
- Trophy awards will be given for the overall 1st, 2nd, 3rd and 4th place finishers.
- Trophy awards will also be given for the following categories:
 - **Best in Show:** This award is presented to the scout for the car with the best original idea. All scouts participating within the races vote this award. There will be a 1st, 2nd and 3rd place trophies.
 - **Best Car Design:** This award will be presented to the top three scouts' cars for the best car design. The Race Committee votes this.
 - **Special Awards:** There will be some special awards given out for *Best Woodwork*, *Best Paint Job*, *Best Scout Car*, and *Most Creative*. The Race Committee votes these.