

Pack 881

Pinewood Derby

Rules and Specifications

Follow these basic rules and you should be ok.

Basic Guidelines

- 1) *The car shall be newly built for the current Cub Scouting year.*
- 2) *BSA wheels and axels must be used. No exceptions.*
- 3) *Weight shall not exceed 5 ounces. No exceptions.*
- 4) *Do not turn in cars with wet paint.*
- 5) *All four wheels must make full contact with the track.*
- 6) *Check your car in on Tech Day to make sure it passes inspection!*
- 7) *The Pinewood Derby is a gravity race. As such, all cars are expected to be self-powered in a traditional downhill race style – no motors, sails or shifting weights for propulsion.*

Your Cub Scout, with some adult guidance, should build the car in accordance with the basic BSA rules and those of Pack 881 below. Each registered Cub Scout will receive an official Pinewood Derby Kit from the Pack with plenty of time to build his car. Parents and siblings may purchase a kit and participate in the Open Division race.

Check-In Day

- *Each car must pass inspection by the Official Race Committee on Check-In Day before it may compete,*
- *The scale used at the race is the official scale, and all cars meet weight on the official scale.*
- *If a car does not pass inspection, the racer will be informed of the problem and given time to fix it. Tools will be available on site to correct problems.*
- *All cars will be issued a number once it passes inspection. The number will be a small adhesive dot or decal placed on the rear section of the car. Doing so will ensure easy identification as well as proper direction of travel.*
- *After technical inspection the car will be impounded until race day.*

Build Day

For those families needing access to tools to cut cars the Pack will host a build day at least two weeks prior to the race. Youth will be able to bring their block of wood and stencil their design to be cut.

Detailed Guidelines

- Car Body** The body of the car *should* be made from wood provided in the official BSA Pinewood Derby Kit. Pre-carved bodies such as Pine Car Kits are strongly discouraged and exceptions will be made on a case by case basis.
- Width** Overall width shall not exceed 2.75 inches. The minimum width between the wheels is 1.75 inches. This will allow the car to fit on a center guide track.
- Length** Overall length shall not exceed 7.00 inches.
- Wheelbase** The wheelbase must be 4 5/16 inches as supplied and pre-drilled.
- Clearance** The minimum ground clearance is 3/8 inches. This prevents contact between the car body and the track during the race and allows it to compete on a center guide track.
- Weight** Total weight shall not exceed 5 ounces rounded to the tenths place. The Post Office or supermarket will weigh your car but an “official” scale will be used at check-in.
- Weights** Derby car weights are acceptable to bring the car to 5 ounces. Weights shall be passive, i.e. non-movable, non-magnetic, non-electric, non-sticky, etc. All weights must be securely fastened to the car by permanent glue, nails or screws, but not by sticky substances such as tape or tack spray. This is to prevent sticky substances from getting onto the track surface and affecting race conditions.
- Height** The car shall not exceed 3 ½ inches in height in order to pass through the finish line.
- Shape** The car may be carved to any desired shape provided it meets the above specifications. The car can be built up using additional wood plastic or metal. The nose of the car must be approximately ½ inch in width at the center line to properly rest on the start gate and no part of the nose may protrude beyond the start gate to ensure an even start.
- Details** All details such as steering wheel, driver, decals, painting and adding of materials are encouraged as long as these details are

securely attached to the car and do not exceed the maximum length, width, height and weight specifications.

Design Scouts are encouraged to design their car not only for speed but creativity. The car can be shaped to look like an animal, army tank, fire engine, pick-up truck etc. Design category awards will be awarded on race day.

Wheels, Axles and Lubrication

These components are the heart of fair play in this contest. The materials in the kit conform to the basic specification.

Axles The axles of the car must be from the official BSA Pinewood Derby Kit or an official Pinewood Derby Wheel Replacement Kit or BSA high performance kit. Axles must be firmly attached to the car. No suspension system of any other type is permitted.

Wheels The wheels of the car must be from the official BSA Pinewood Derby Kit or an official BSA Pinewood Derby Wheel Replacement Kit or BSA High Performance kit.

- Mold projection defects on wheel treads may be removed by sanding lightly.
- May not be crowned, they must be flat and cannot be narrowed.
- The official wheel width is 0.415 inches and they must have a flat tread surface of at least 5/16 inches.
- The decorative dots on the wheel sidewall or the words "BSA Pinewood Derby" may not be removed.
- No bearings, washers, bushings or spacers are to be used as part of the wheel assembly or within the wheel cavities.
- No wheel covers are allowed on the inside or outside of the wheel.
- No graphite, Teflon or other coating is permitted on the exterior flat tread portion of the wheel.
- All wheels must make full contact with the track at all times.

Lubrication Only dry lubricant is permitted. This rule is important to keep the track in good race condition for all racers.

Warning Other lubricants may damage the plastic wheels and keep them from turning freely and possibly damage the track.

Race Conduct

Good sportsmanship and fair play is expected. A race format will be used to ensure all racers are treated equally.

- *Cheer for all racers. They have all worked hard to do their best.*
- *Any unsportsmanlike conduct by the racer or the parent will be grounds for immediate disqualification.*
- *The racers and race fans shall not interfere in any way with disqualifications.*
- *There shall be no interference with the timers, timing table or race equipment during the race.*
- *Race officials will place cars on the track.*
- *The Cubmaster, Assistant Cubmaster or Derby Committee Chair, may disqualify any car that in their determination, the car, racer, sibling or parent are not in compliance with the spirit of the Pinewood Derby race.*

Decisions of the Judges are Final

Special Considerations

Any car that cannot pass inspection and/or is disqualified prior to the race may be allowed to participate in the events, but will not be eligible for race awards. The car may still receive a category award.

Do your best and have fun!

Awards

Awards will be distributed at the conclusion of all races.