
PACK 1776 PINWOOD DERBY

OFFICIAL RULES

Be Fast...or Look Good Trying

The Pinewood Derby is one of the most popular and successful family activities in Cub Scouting since 1953. Pinewood Derby Cars are small wooden models that Cub Scouts make with help from their families and race in competition. The cars are powered by gravity and run down a track. Every scout can design and build their own "grand prix" model car to enter in the race. Families are also invited to join the fun under Parent, Outlaw or Sibling Derby.

Qualifications

All registered Pack 1776 Lions, Tigers, Wolves, Bears, Webelos, Den Chiefs, and siblings may design, build and enter a car for the race.

Essential Materials

All entries in the derby will start with the "Official Grand Prix Pinewood Derby Kit" which includes the body, 4 axles, and 4 wheels. All nine pieces MUST be used before the car is allowed to race. The kits are distributed at our Pack 1776 meetings. Additional kits may be purchased for the pack or elsewhere if they are of the exact type manufactured for the BSA as specified.

Attendance

The Cub Scout, his parent, or another designated adult, MUST register the Cub Scout's car the day before the event, at a place and time announced by the Pack. You do not need to be present on race day to compete.

New Work

Construction of ALL entries MUST have begun DURING the current Scouting year. Previous Scouting year's cars are not acceptable.

Single Entry per Person

Only one car may be registered per named person for any and all events.

Inspection and Registration

Each car must pass a technical inspection before it may compete. Registration and inspections will be held one day before the event at a place and time announced by the Pack. Each registered car will receive a number at final check-in and will be impounded. No car may be altered in any way after it has been impounded.

Late registration is only permitted under extraordinary circumstances at the Racing Committee's discretion.

Failure to Pass Inspection

The Inspection Committee shall disqualify cars that do not meet the rules as described herein. If a car does not pass inspection, the owner will be informed of the reason his car did not pass. Cars that fail the initial inspection may be modified and re-inspected as long as it is within the inspection timeframe.

Impound

No car may be altered in any way after it has been registered. After a car passes registration the Racing Committee will store it until competitions begin.

Car Design Rules

The Cub Pack Racing Committee, at its sole discretion, reserves the right to modify these rules to ensure smooth conduct of the event. The Cub Pack Racing Committee Chair or Chairpersons are the final arbiter of these rules.

Material

Race cars shall be constructed from the parts contained in the Official Grand Prix Pinewood Derby Kit as sold by a Scout Shop or given by the Pack. Materials from the kit may be supplemented but not replaced.

Size

The maximum overall length of the car shall not exceed 7 inches.

The maximum overall width (including wheels and axles) shall not exceed 2 3/4 inches and a maximum height of 4 inches as determined by the official gauges during the Registration and Inspection process.

Underside clearance of at least 3/8 inches along the entire length of the car body and minimum inside wheel-to-wheel clearance of at least 1 3/4 inches is required to allow the car to clear the race track's center guide-strip.

The wheel-base (distance between front and rear axles) must be exactly 4 3/8 inches.

IMPORTANT NOTE: Wood blocks supplied in the official kits are often slightly longer than 7 inches to allow for final shaping and sanding. Be sure to check the final dimensions of your car carefully. Do not assume that the dimensions of the block supplied in the kit will automatically be legal.

Wheels and Axles

The car shall roll on the wheels from the kit. The wheels shall turn about the axle nails from the kit. The axle nails shall be firmly affixed to the wood of the car body.

The scout may cut new axle slots (or drill new axle holes) in the original block from the kit. The front axle to rear axle spacing of 4 3/8 inches must, however, be maintained. It must be obvious to the judges that the wheels, and the nails from the kit are being used.

The parent or scout must perform all polishing and finishing of wheels and axles. Commercially available pre-finished wheels and axles are not allowed except for Outlaw categories; scout's honor should apply.

Axle nails must be mounted parallel to the track surface. Tilted or canted axles that cause the car to run on the edge of the wheels are not allowed except in the Outlaw categories. Wheels must run flat on the track surface. At least three wheels must be in contact with the track surface at all times as the car rolls. Do not assume that the pre-drilled grooves meet the axle-to-axle spacing requirements or are straight across the body of the car.

Wheel Treatment

Wheel treatment (hub and tread smoothing and polishing) may neither result in substantial removal of mass, nor reduce the wheel width or diameter from the original kit wheels.

Some of the original "tread marks" on the wheel face must remain intact, i.e. apparent to the inspector ("Tread marks" are the small zigzag lines visible at the very outer edges of the wheel when it is viewed parallel to the axle line). Wheels may not be machined or sanded to a beveled condition. At least 80% of the original wheel width must contact with the track surface, and the portion of the wheel surface that contacts the track must remain parallel to the axle. The hub through which the axle nail passes cannot be shortened. The area between the hub and contact surface of the wheel cannot be drilled or otherwise opened.

Weight

Scout racecars may weigh no more than five (5.0) ounces (total weight) as determined on the official scales during the pre-race check-in.

Weight may be added to the car and will be considered part of the car for purposes of all measurements. "Weight" is considered to be any material on the car that is not provided in the kit. All weight must be securely fastened to the car, e.g. by permanent glue, nails or screws, but not by "sticky substances," e.g. tape or tack spray (stick-on weights are permitted). Weights shall be passive, i.e. non-moveable, non-magnetic, non-electric, non-sticky, etc.

Lubricants

Only dry lubricants such as graphite will be allowed for lubricating the wheels. Lubricants may not foul the track. Lubrication shall occur prior to impounding by the car owner only.

The Race Event

Competition will consist of Lane Rotation Method within each rank level, where each car runs on every lane to insure fairness. Top finishers from each rank (Tiger, Wolf, Bear, Webelos I and II combined) will advance to a Final round using the same Lane Rotation Method to determine the Grand Champion.

Parent and Siblings category will not participate in this Final round. The Derby Committee is responsible for the proper conduct of the races and may modify the race method as determined by time constraints for the event.

Car Leaves Lane

If, during a race, a car leaves its lane but proceeds down the track in a manner that does not interfere with its opponent, then the race will be called normally. If the car leaves its lane and interferes with another car, the race will be re-staged and re-run. If the same car again leaves its lane and interferes with another car, that car will be judged last place, and the race will be re-staged and re-run without that car.

Car Repair

If, during the race, 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.

If a car is damaged due to track fault, or damage caused by another car or person, then the Race Committee, at its discretion, may allow others to assist.

No Finishers

If, during a race, no car reaches the finish line on the track, the car that went the farthest in its lane shall be declared as the heat winner.

The Race Area

Only race officials may enter the track area and pick up the cars. This rule will be strictly enforced.

The Racing Environment

Pack 1776 uses one of the officially recognized Pinewood Derby competition tracks. The four lane aluminum surfaced tracks have a racing surface of approximately 28 feet with a drop of approximately 4 feet.

Each electronic finish line sensor will be connected to a computer that will collect and display results on a large projection screen at the base of the track. We will be using either GrandPrix Race Manager to manage the race results.

Sportsmanship

Racing in a Cub Scout Derby is fun, and an opportunity for your scout to learn craft skills, the rules of fair play, and good sportsmanship—things he needs to be successful in life. Before the race, we encourage you to speak with your son about these points:

- 1) Learn Craft Skills. Everyone's skills are different. You may be better at some things but not as good at others. This doesn't make you good or bad, talented or not. The purpose of the Pinewood Derby is for you to learn new skills. Do your best; learn from your mistakes and success and don't forget to have fun!
- 2) Play Fair. You will never know if you are really good at building a Derby Car unless you follow the rules and play fair. This applies to all aspects of your life, including school, friends and sports. Be honest in what you do!
- 3) Sportsmanship. There are winners and losers in every competition. You accept this when you chose to compete. When you win and feel happy, do not brag or gloat. When you lose and feel unhappy, do not feel jealous or bitter. To be a good sportsman, you must be able to say, "I did my best," and be satisfied with the results. Learn to appreciate and feel happy for another scout when he runs a good race or builds a neat car.