

Official 2021 Polaris District Pinewood Derby Rules

1. GROUND RULES

- 1.1 The race is open to all registered Polaris District Cub Scouts who have received approval from their Pack to race in the District finals.
- 1.2 No more than three (3) scouts from each Pack may participate in the District race.
- 1.3 Up to an additional two (2) scouts from each Pack may enter for Design judging only. These cars will not race.
- 1.4 If there is a discrepancy between these rules and the information included in the Official B.S.A. Pinewood Derby® Kit or Pack rules, these rules prevail.
- 1.5 Cars used for any previous District race may not be used in the current year's race.

2. CAR DIMENSIONS

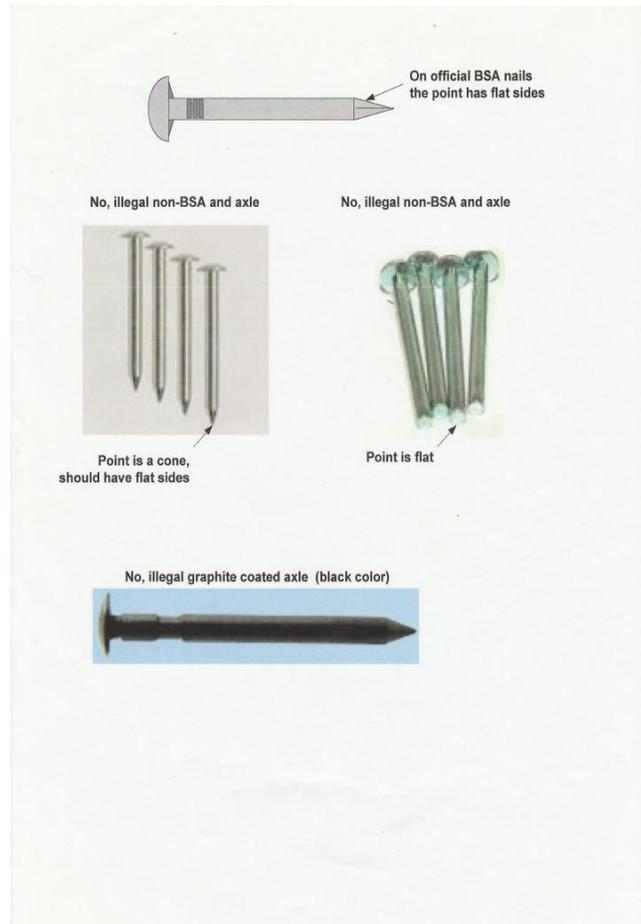
- 2.1 Maximum overall width shall not exceed 2-3/4" (2.750") including wheels, axles and any items mounted to the car.
- 2.2 Minimum width between wheels shall be 1-3/4" (1.750").
- 2.3 Minimum distance between bottom of car and track (clearance) shall be 3/8" (0.375"). This clearance also applies to any protrusion from the bottom of the car or items mounted on the car.
- 2.4 Maximum length shall not exceed 7", including wheels or other items mounted to the car.
- 2.5 Maximum height from the track shall be 3", including items mounted to the car.
- 2.6 Maximum wheelbase (distance from center of the front axle to center of the rear axle) shall not exceed 4-3/8" (4.375")
- 2.7 The front center of the car must contain a flat surface or horizontal protrusion for contact with the starting pin. This area must be at least 1/8" wide and in the region 3/8" to 1" above the track (e.g. bottom of car to 5/8" above the bottom of the car). No protrusions in the front of the car may extend beyond the starting pin.
- 2.8 **The Official District measurement at check-in will be considered final.**

3. CAR WEIGHT AND APPEARANCE

- 3.1 Weight shall not exceed 5.00 ounces (141.75 grams). **The Official District measurement at check-in will be considered final.**
- 3.2 The car may be built up to the maximum weight by the addition of other materials provided the weight is securely built into the body or firmly affixed to it. Tape may not be used to attach items to the car. No loose or liquid materials of any kind are permitted in or on the car.
- 3.3 Only B.S.A. Pinewood Derby® Kit, Catalog #17000 or #17006 or B.S.A. Pinewood Derby® Pre-Cut Wedge, Catalog #614417 may be used and the wooden block provided in the kit must be used as the main body of the car. A molded metal body or a metal body over a wood frame is not permitted. Purchased prefabricated cars are not allowed. Cars with a similar design to prefabricated parts such as "Pinecar" brand cars will be disallowed.
- 3.4 Details such as steering wheel, driver, spoiler, decals, painting, etc. are permissible so long as these details do not violate other specifications.
- 3.5 Cars with wet paint or wet glue will not be accepted for check-in. Soft or sticky substances are not allowed on the wheels or where the starting pin contacts the car.

4. WHEELS AND AXLES

- 4.1 The only wheels and axles allowed are from the B.S.A. Official Pinewood Derby® Kits, Catalog #17000 or 17006, or Official Pinewood Derby® wheel and axle replacement kits Catalog #17553 thru #17557, Catalog #647826, Catalog #647053 thru #647056. Purchased pre-tuned wheels, and purchased pre-tuned axles are not allowed. Axle points must be visible. Note: if you are using axle guards you may be required to remove them so the inspectors can view the axle points.
- 4.2 Wheel bearings, spacers or bushings are not allowed.
- 4.3 The car may not ride on any type of springs or suspension.
- 4.4 The car must be gravity-powered and freewheeling, with no starting device or other propulsion.
- 4.5 Lightly sanding and polishing the tread of the wheel to remove burrs is acceptable so long as the wheel diameter, tread profile and tread width is not altered. The tread of the wheel must remain a flat surface that is parallel to the axle. Decorations, details, tread, or text molded on the front or back of the wheel may not be removed. External wheel hub area may be painted for appearance.
- 4.6 Materials may not be removed or added to the wheels except as stated in 4.5 and 5.1.
- 4.7 The underside of the axle head may be ground or sanded to remove burrs. Polishing of the axle is allowed so long as it does not alter the axle diameter.
- 4.8 No wheel covers (i.e. hubcaps) are permitted.
- 4.9 Cars must have four wheels. Tread surface of all four wheels must sit flat on a flat surface and roll together when the car is pushed. No “3 wheelers”



5. LUBRICATION

- 5.1 Only dry powdered lubricant such as graphite or BSA High Speed Pinewood Derby® Graphite (Catalog #17019) may be used. Liquid oils, lubricant sprays and excessive lubrication are prohibited as they may interfere with other cars and/or cause damage to the track equipment.
- 5.2 Lubricant “wells” in the body of the car or in the wheels may not be used.
- 5.3 No lubrication shall be applied inside the building. To avoid messes, all lubrication must be done outside.

6. RACE PROCEDURE

- 6.1 Once a car has been checked in on drop-off day, the car will be numbered and impounded. The car may not be handled again by the race participant until returned after the competition.
- 6.2 Races are timed by an electronic timer and results recorded using PC software, but the race results are decided by the race officials. Their decision is final.
- 6.3 If the timing equipment or the track malfunctions, the heat may be re-run at the discretion of the race officials.
- 6.4 If a car jumps the track, the heat is re-run. If the car jumps the track a second time it is disqualified.
- 6.5 If there is any damage to a car during the competition that would not allow the car to participate in further races, the race officials may attempt to make minor adjustments to make the car race ready.
 - 6.5.1 If a repair is deemed unreasonable by the race officials, the car will be disqualified.
- 6.6 Each car will be run at least once in each lane of the track. The winners will be determined by the lowest total time of all heats (e.g. fastest average time).
- 6.7 Race times will be measured and calculated to the thousandths of a second (millisecond). Ties are possible and may result in multiple winners. There will be no runoffs.

7. INSPECTION AND DISPUTES

- 7.1 Each car must pass inspection by the Official Inspection Team before it can compete. The Inspection Team has the right to disqualify cars that do not meet these rules.
- 7.2 The scout information form provided along with the car will contain a waiver that allows the inspection team to make minor adjustments to the car to conform to the rules. These adjustments include, but are not limited to, adjusting the weight of the car, adjusting the wheels to ensure that they all touch the ground and adding graphite to the wheels.
 - 7.2.1 If the car requires major modifications to conform to the rules, it will be disqualified without any modifications.
 - 7.2.2 If the car does not conform to the rules even after making small adjustments, the car will be disqualified.
 - 7.2.3 If the scout chooses not to make adjustments or does not provide a choice on the scout information form, no adjustments will be performed on the car.
 - 7.2.4 If a car is disqualified, at the discretion of the Race Committee the car may be allowed to run but cannot win race awards at the competition.
- 7.2 Any participant (including the parent of a participant) has the right of appeal to the Race Committee for an interpretation of these rules. The Race Committee, by majority vote,

will be the final judge of these rules. In case of a tie vote the decision of the Race Committee Chairperson will be final.

- 7.3 Although it is not necessary for the Pack to impound the car, all scouts must use the same car at the District race as the car entered in the Pack race. Previous year cars and new cars built for the District race are not allowed. Modifications necessary to meet the District rules are allowed.