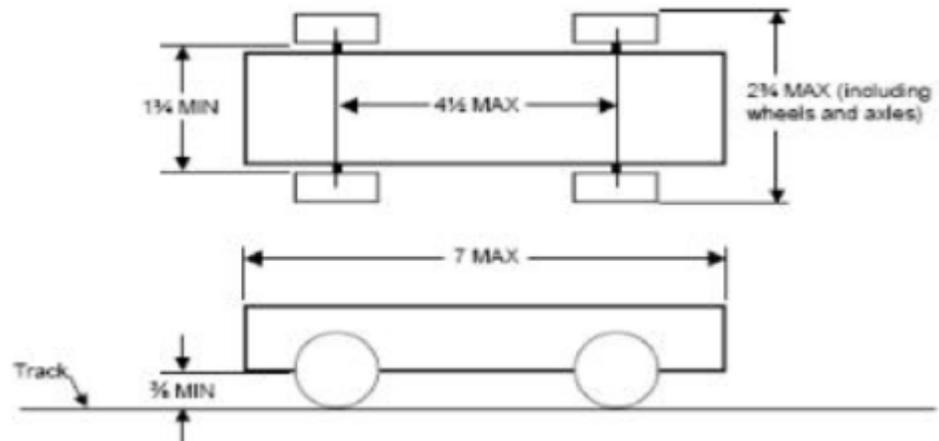


Pinewood Derby Rules

I strongly encourage everyone to read these rules even our veteran scouts as some minor changes exist from last year. After reading all the various hints and trick websites I want to make sure that some of the common yet questionable rules are clear. The most common issues that cause a car to fail inspection are improper weight, modified axles such that only 3 wheels touch or modified wheels. You can not bend the axles either.

1) LENGTH, WIDTH, AND CLEARANCE

- Maximum overall width including wheels and axles = $2\frac{3}{4}$ inches.
- Minimum width between wheels = $1\frac{3}{4}$ inches.
- Minimum clearance between bottom of the car and track = $\frac{3}{8}$ inches. If you put weights under your car, recess them into a hole in the underside of the car's body and make sure they are securely attached to the car.
- Maximum car length = 7 inches. This measurement includes any additional decorations added to the car such as wings and spoilers.
- Wheelbase (distance between front and rear axles) must be exactly $4\frac{1}{2}$ inches. You may shift the wheelbase but the spacing



must equal exactly 4.5 inches.

2) WEIGHT AND APPEARANCE

- Weight ≤ 5.00 ounces. The readings of the official race scales by the Inspection Team are final. The car may be hollowed out and built to the maximum weight by the addition of wood, metal, plastic, paint, or decals only, provided it is securely built into the body or firmly affixed to it. No loose materials of any kind are permitted in or on the car.
- Details and additions such as steering wheel, driver, spoiler, and decals are permitted as long as they do not cause the car to exceed the specifications identified in Section 1 of these Rules.
- Cars with wet paint or glue will not be accepted at registration or weigh-in.
- Mercury shall not be used for adding weight to the car.

3) WHEELS, AXLES, AND LUBRICATION

- Wheels - Only the wheels and axles provided with an official Cub Scout Pinewood Derby Car Kit can be used. *Official Cub Scout* Pinewood Derby wheels that are sold separately (i.e. colored wheels) may also be used.
- Four wheels must be used, one per axle – no more, no less. All 4 wheels must touch the 'ground'. you may not alter the angle of any wheels within the axle slot.
- Axles on the car may be polished to remove burs.
- Mold projections on wheel tread - The plastic wheels may not be cut, drilled, beveled, or rounded. You may lightly sand and remove the seam from the wheels. You may not shape the wheels in any way; this includes V or H-shaped tapers. Wheel alteration prohibited - use of any type of beveled, tapered, thin-sanded, wafered or lathe-turned wheels is prohibited. Any attempt to reduce the running surface of the wheel in this fashion will disqualify the car.
- Bearings, spacers, etc. prohibited - Use of bearings, bushings, spacers, or the like between the wheel and car body are prohibited. Wheels must come in direct contact with the car.
- Wheel coverings prohibited - A covering placed on a wheel rim that might hold graphite or lubricant around a nail axle head is not permitted.
- No mechanical propulsion - The car must be freewheeling with no starting devices, springs, or other methods of propulsion. No magnets are permitted anywhere on the car.
- Only dry powdered lubricants, such as graphite, may be used. Remember oils and silicone sprays may soften the wheels and are prohibited.

4) INSPECTION

- a) Each car must be registered, numbered, and pass inspection and weigh-in before it can compete in the Derby.
- b) The Registration and Inspection Team, appointed by the Cubmaster, may disqualify those cars that do not meet the Pinewood Derby Rules.
- c) The pit crew, in consultation with the scout, will attempt to modify the car to meet these Rules before the start of the race. If the modifications are successful, the car will be entered in the race.
- d) Once a car is inspected and registered, only Derby Committee officials will handle the car. The car will be secured in an "impound lot" until races begin.
- e) After you register your car you may not touch it to add more graphite or make any other adjustments.

5) RACING RULES

- a) Cars must be newly made for the 2017 Pinewood Derby. Derby cars raced in prior year's competitions are not permitted.
- b) All Scouts and Leaders must wear uniforms to the Derby in accordance with their pack's uniform guidelines.
- c) Heats will be determined by the "Dynamic" scheduling algorithm, which groups cars based on speed to maximize number of heat winners. Winners in each rank will be determined by overall time in four heats.
- d) Only Derby officials will be permitted into the track, registration, and judging areas. This rule will be strictly enforced up to and including disqualification.
- e) If there is a failure of the electronic finish, the heat will be rerun.