



2010 Talakto District Pinewood Derby "Rules of the Road"



The intent of the Pinewood Derby is to strengthen the relationship between the Cub Scout and his parent(s) by the introduction of a construction project requiring planning, design and building techniques. The success of the project is in the construction of the car itself, not in the resulting races. The race will determine the fastest car in the fairest setting, but it will not necessarily reflect the most successful project. As the construction of the car strengthens the Cub's relationship with his parent(s), the race strengthens the Cub's character by accepting winning and losing gracefully. The Pinewood Derby race should be an enjoyable and fun family experience for all those participating. Remember, "Keep It Simple, Make It Fun!" The focus of this event is not to win at any cost, but for each Cub Scout to DO HIS BEST!

Spirit of the Race

1. All cars, whether entered in the Speed or Looks Competition must meet the same requirements as outlined below unless otherwise noted.
2. The Scout should play an active role in the design and construction of the car. It is understandable that a younger Scout will need more assistance from an adult and we encourage this along with explanations for the reason the wheels are sanded, axles are polished, etc.
3. Pinewood Derby cars used in any part of a previous competition cycle cannot be re-used, nor can the wheels and axles from such a car be transferred to a new car. The entire car must be a "new" build for each competition cycle (Pack Race/District Race in the same season).
4. No Cub may enter more than one car in the same category.
5. Pre-cut body kits sold by third party vendors are allowable on the condition sufficient modifications be made to the car such that it is no longer visually identical in geometry (shape) to the original piece. Cars made from unmodified pre-cut body kits do not meet the spirit of a father/son built Pinewood Derby car.
6. The portion of the car body into which axles attach or are inserted must be made from pine wood. Use of non-pine material in this area is prohibited. There is no firm guideline as to what percentage of the car must be pine wood.
7. Details, such as steering wheel and driver are permissible as long as these details do not exceed the maximum length, width and weight specifications.
8. During any race, if a car leaves its lane and interferes with another car or suffers any mechanical problems, the racer will be given a chance to repair the car, no times will be recorded and the race will be re-run. If the same car causes interference or breaks down again, the race will be re-run but without the offending car.
9. The Scouts first name, last name and Pack number must be written on the bottom of the car.



The Car

Construction

10. Car Dimension Requirements

Maximum car width (including wheels): 2- ¾ inches

Minimum width between wheels: 1-¾ inches

Maximum car length: 7.0 inches

Minimum clearance between bottom of car and track: 3/8 inches

Maximum overall car height: 4.0 inches

NOTE: All cars entered in the Speed Competition will be placed into a District provided wooden box made to the above dimensions. If the car doesn't fit into the box, it can't be raced. Thick coats of paint can disqualify a car if added onto a full 7" block.

NOTE: For cars entered in the Looks Competition only, there are no particular restrictions to height, width, or length (or even weight), but please keep it reasonable as we still have to put it on a display rack.

11. The maximum car weight is 5.00 ounces (141.7 grams) as measured on the official scale used by the District Inspection Committee during inspection.
12. The front of the car resting against the starting gate shall not be higher than 1" from the track surface or less than 3/8" in width in the center. This will ensure the car properly rests against the starting gate. Notching the front of the car is not allowed.
13. The car must be free-wheeling, with no starting devices. Sticky body areas, imbedded magnets or any other type of method for imparting forward motion to a car will be deemed a "starting device."
14. All weights must be permanently attached to the car (no moving weights allowed).
15. The car shall not ride on springs.

Wheels and Axles

16. Only official Cub Scout Grand Prix Pinewood Derby wheels and axles are permitted. Grand Prix Pinewood Derby wheels and axles that have been altered (smoothed, machined, polished, etc.) and re-sold by third parties are not allowed. Note that "wheel covers" and "hubcaps" are not allowed as they prevent inspection of the wheel hubs and axles.
17. Wheel bearings, washers, bushings and wheel spacers are prohibited.
18. The axle grooves provided in the block of wood do not have to be used. The wheel base may be extended but the wheels may not extend past the front or rear of the car body.
19. Only dry lubricant, such as Graphite, Graphite/Moly or Cub Scout Teflon Powder, may be used to lubricate the wheels. The use of liquid lubricants of any type is strictly prohibited.



20. Removal of molding flash from the wheel surfaces is allowed but excessive modification to a wheel that reduces mass and rotational inertia is not allowed. While the tread surface may be smoothed, any alteration to the tread width or shape is not allowed. The wheel tread surface may not be rounded, tapered, grooved or otherwise shaped. Wheel treads must run flat against the track surface. See Figure 1.

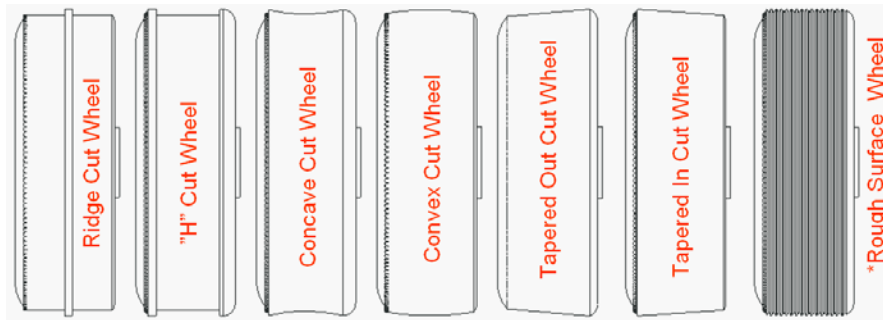


Figure 1 Examples of Illegal Wheel Tread Modifications

21. The wheel diameter cannot be machined or sanded past the ridge edge (bumps). Some portion of each bump must remain around the full wheel circumference. See Figure 2.

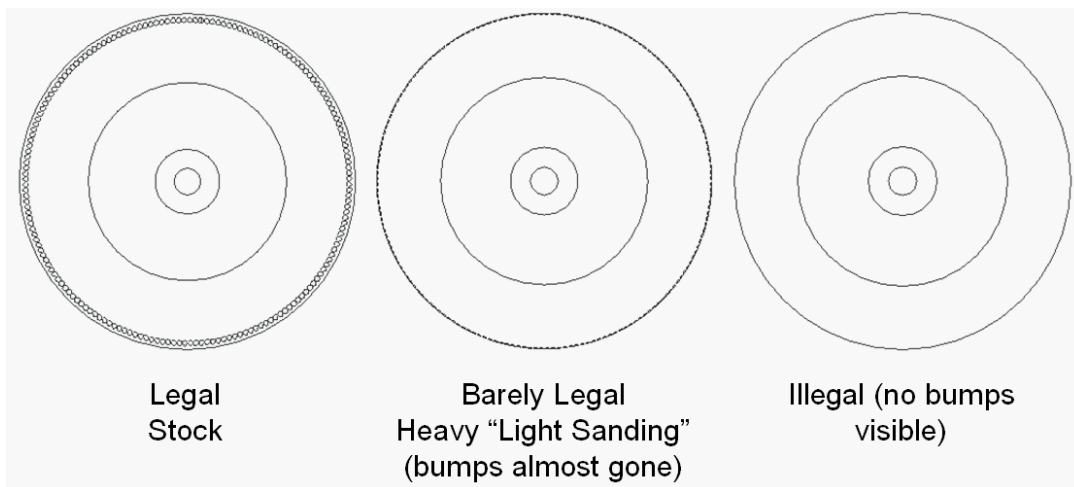


Figure 2 Examples of Legal and Illegal Sanding

22. Wheel bores may be polished but may not be enlarged, pocketed or grooved in any fashion. Minor wheel bore diameter increase resultant of sanding, polishing, burnishing or wheel break-in is permissible.
23. Axles may be de-burred and polished. They may not be altered to significantly reduce their diameter or to make grooves.
24. Axles may not be angled in the car body slots/holes so as to prevent the wheel from running flat on the track surface.
25. There must be at least four wheels on the car (left front, right front, left rear and right rear), however, it is not required that all four wheels make contact with the track surface.

Inspection

Each car must pass inspection by the District Inspection Committee before it may compete. If, at registration, a car does not pass inspection, the owner will be informed of the reason for failure, and will be given time within the official weigh-in time period to make adjustments to the car. After final approval, cars will not be re-inspected unless the car is damaged in handling or in a race.

If you are checking in cars for your Pack, three or more, please arrive during the first hour of the inspection period. After the first hour, you will be allowed to inspect two cars at a time then asked to reenter the line for the additional car(s).

Judge discretion applies to all issues both covered and not covered in these rules. Any dispute of these rules with regard to a specific car's eligibility to race in the District Race will be decided upon by no less than three members of the District Inspection Committee. The Committee's decision will be final.

No car shall be touched by non-race personnel once it has been passed through inspection. If for any reason a car is returned to its owner, it must be given a complete re-inspection to be re-allowed into competition. It shall become the discretion of the race judging officials if a car is allowed to be re-inspected and returned to the competition.

At the completion of the Speed Competition, any car may be subjected to a post-race inspection at the discretion of the Inspection Committee.



Qualifying for the District Race

Each Pack will be allotted a number of slots for the District Speed and Looks Competition. The number of slots allotted to each Pack will be based upon the number of Scouts registered in the Pack. The minimum number of slots allotted to each Pack for the Speed Competition is three (3). The minimum number of slots allotted to each Pack for the Looks Competition is three (3).

To qualify for the District Competition you must meet the following requirements:

Your car must meet the 2009 Talakto District Pinewood Derby "Rules of the Road" listed in this document.

You must be one of the top finishers in your Pack's Speed and/or Looks Competition (a car can qualify for both the Speed and Looks Competition). Cars may only enter the District category (or categories for dual entry cars) for which they have already placed at the Pack level competition verified by the Cubmaster's signature on the entry form.

