

# Pack 516 - Pinewood Derby

## Car Specifications

- **Width:** Not to exceed 2 3/4", narrow bodied cars wheel width must be 1 3/4" up to 2 3/4"
- **Length:** Not more than 7 inches
- **Weight:** Not over 5 ounces – the reading of the official scale will be considered FINAL!
- **Bottom clearance:** 3/8 inch between car and track
- **Height:** Maximum height is 5 3/4 inches (to be able to clear timing box at finish line)
- **Wheel Base:** The distance between the front and rear axles may not be changed from the kit body distance of 4 1/2 inches
- **Note:** The portion of the car touching the starting gate must be the same portion of the car that trips the timing light at the finish line.

## Rules

1. The Pinewood Derby Races are open to all registered Pack 516 Cub Scouts. Adults & Siblings may also build a car to race for fun – rules are the same as for the scouts. The pack provides one derby car kit for each registered scout – additional kits may be purchased at the Scout Shop and possibly Pack Derby Workshops.
2. The wood, axles and wheels supplied in the Official Grand Prix Pinewood Derby Kit must be used. NO KIT CARS WILL BE ALLOWED, as this goes against a core principle of the derby. ONLY WOOD, AXLES, AND WHEELS SUPPLIED IN THE KIT MAY BE USED.
3. Only cars made from BSA kits may race. All parts of the car must be "new" (body, wheels, axles, etc.) No reworking a previously built car or modifying existing cars or using aftermarket wood, axels, or wheels even those marked BSA approved.
4. Each car must pass inspection prior to competition. Once checked in, neither scout nor parent may handle or modify the cars in any way until races are completed.
5. If a car fails inspection the owner will be informed of the reason the car did not pass. Cars that fail inspection may be taken away from the inspection table to the repair table for modifications and inspected again after corrections have been made.
6. All cars must be checked in prior to their assigned race time.
7. A Scout does not have to be present to race his car (e.g. sports conflicts, etc).
8. NO LIQUID LUBRICANTS (i.e. WD-40, 3-in-1, etc.). We will ONLY accept the BLACK Graphite DRY POWDER Lubrication, NO WHITE!!!
9. No washers, bushings, or other foreign material can be used between the wheels and the body of the car.
10. No moving parts except for wheels.
11. Insert axles into the car body only in the pre-cut axle grooves.

12. The diameter or thickness of the axle cannot be reduced. However, you can polish it. Some axles may be rough and require some polishing or buffing in order to smooth the axles and remove burrs.

13. Mold protrusions may be removed from the plastic wheels and the wheel surface may be sanded and polished. However, wheels may not be filed, shaved down or otherwise "lightened" in any way. No 'V' or 'H' shaped or filed / rounded edges are allowed.

14. No weight material can be placed in or on the wheels themselves.

15. The car shall not ride on any type of springs and must be free-wheeling. All 4 wheels must be touching the ground when level.

16. No force other than gravity may contribute to the forward motion of the car (e.g. no liquid mercury weights, etc.).

17. Anything that falls off a car after it is checked in cannot be replaced. Exception: wheels can be replaced if they fall off during a race, but this will not be cause to rerun the race.

18. If an item falls off of the car and impedes the progress of another car, the car losing the item will be disqualified from that heat. (counts as a 4th place finish), and the heat will be rerun with the remaining cars.

19. All cars MUST adhere to these rules – cars that don't conform will be disqualified.

20. Good sportsmanship/behavior is expected by all participants and audience – anyone not following this rule may be asked to leave.

21. Any issue arising not specifically covered by the above rules will be resolved at the sole discretion of the Race Director. His ruling is final!

**Don't forget Rule #1: Let's all have some FUN !!!**

## Hints / Tips / Suggestions

- Make sure to check in your car early to give yourself time to make adjustments if necessary.
- Be careful putting weights on the bottom of the car -- make sure the car will clear the center strip of the track.
- Make sure all car parts are secure and will not fall off during a race.
- A repair table will be available for modifications and repairs prior to inspection in the concession hallway. A shoebox works well for transporting the car and accessories to the race to help avoid incidental damage