

2025 Pack 216 Official Pinewood Derby Rules and Race Format

1. Except as noted in “a” and “b” below, cars must be constructed from the official BSA Pinewood Derby Kit (item #17006), using the included wood block, wheels, and axles.
 - a. In lieu of the wood block provided in the official kit, a pre-cut body sold by the National Scout Store may be used (items # 659753, 659754, 659761, 659762, 656989).
 - b. Additional wheels and axles (item # 17553), and colored wheels (items # 647053, 647054, 647055, 647056, 647826, 660377), may be obtained from the National Scout Store.
 - c. All of the wood in the kit need not be used.
 - d. **BSA Grand Prix Pinewood Derby wheels and axles that have been altered and/or resold by third parties are prohibited.**
2. **Cars must be built within the current Scout year.**
3. **Cars must be built by the Scout and the Scout’s parent/guardian.** The Scout should do as much as is age appropriate and with the adult partner assisting with the rest.
4. Weight: 5.00 ounces or less. The Official Scale is FINAL.
 - a. If our official scale reads 5.001oz, that means the car is over the allowed weight.
 - b. If our scale reads 4.999oz or 5.000oz, the car is within spec.
5. Length: 7” maximum, typically 2.75” minimum. Cars should clear the track center guide, about 3/8” minimum on the underside.
6. Height: ~4” maximum, width ~3” maximum.
 - a. Height and width is not enforced very strictly and will only be a problem if the car is so large that it interferes with the track or with other cars.
7. Car wheels must be at least 1 5/8” apart, side to side, to straddle the center guide and may not be canted or turned at angles.
8. Cars must be gravity powered only. No power assisted devices such as motors, engines, fans, compressed gases, rubber bands or magnets are allowed.
9. No additional items may be added to the wheels or axles such as washers, springs, bearings, bushings, O-rings, etc.
10. **You cannot modify the size, shape, dimensions, angle, camber of wheels or weight of the wheels.** You may lightly sand the wheel, the axle, and the inner hub (the part of the wheel that touches the car body) **to remove molding burrs or imperfections.** Wheels will be inspected to verify that they have not been modified using machinery,

such as lathes, CNC machines, etc. **Wheels obtained from third parties are not allowed.**

11. Axles may be filed, polished, grooved – as long as BSA axles from the official car kit are used and the work is done by the Scout and/or their parent/guardian. **You cannot bend axles. Third party axles are not allowed.**
12. Dry lubricants, such as graphite (like item # 17019), may be used to lubricate the wheels. Oil-based lubricants, such as Krytox, may be used provided there is **no excessive residue present at time of inspection**. Lubrication of wheels shall not be performed after inspection and registration.
13. No part of the car body, wheels or attachments may protrude in front of the starting peg, which is in the center of the track.
14. It is NOT required that all four wheels make contact with the track at the same time.
15. No moving or loose parts may be incorporated into the construction of the car. The car design may be enhanced by the addition of other stable materials such as plastic or metal. Custom parts such as a driver, windshield, pipes, header, roll bars, and other details are permissible, provided they do not cause the car to exceed the maximum length, width, height and weight specifications. Any additions must be firmly attached.
16. The car's wheelbase may be changed, so long as the wheels do not exceed the specified maximum length of the car.
17. At the Derby, the Scout must be present to register his car into competition. The Scout does not have to be there for the actual race.
18. Any car not meeting the stated rules when inspected at the Derby will have the opportunity to change the car to meet the specifications. Inspectors have the right to disqualify cars which do not meet official specifications.
19. After the car has passed inspection, the car may be handled only by the Pinewood Derby Committee. After the Pinewood Derby, the Cubmaster will notify you that the car may be picked up. Removal of your car prior to this time shall disqualify you from the event.
20. Decisions of the Judges and Derby Committee are FINAL. If, ahead of the race, you have any questions about the rules, please contact Cubmaster David Sheffield through GroupMe.
21. Sportsmanship, fair play, ability to race within the stated rules and Scouting spirit are the tone of the day.

Race Format

Registration:

- Registration is Friday night.
- Late Registration is Saturday morning.

Inspection:

- Each car will be inspected for compliance with the Pack 216 Official Pinewood Derby Rules.
- Following inspection and registration, the car will be placed in *parc ferme*. The Scout / Adult may not touch the car until instructed to do so following the race.
- Failed inspections - Any car failing inspection will have the opportunity (and assistance) to address and try again. (Note that time to address failed inspections is limited on Saturday morning.)

Testing:

- Cars may be tested on the track during registration.
- Any testing should be completed prior to inspection.
- All testing will be performed by race officials.

Racing:

- Races will be conducted by Den. (Open Class, Outlaw, and any exhibition races will be conducted between Den races.)
- Each car will race once on each lane of the track for a total of three runs.
- Race officials will move the cars from *parc ferme* to the track.
- Cars will be placed on the track in groups of three and will race (as randomly determined by the race software)
- Each car will race once on each lane of the track.
- The three runs will be averaged (by the race software) to determine finishing order for Den and Pack awards.

Awards

Awards will be presented for:

- The three fastest cars in each Den.
- The three fastest cars in the Pack.
- Best in show as voted by the Scouts.
- The three best brick (LEGO)-themed cars as voted by the Scouts.

Open Class Race

What: A race for anyone not racing in the Scout race. Cars must comply with the Scout rules.

When: Between Den races.

Who: Anyone (youth or adult) not racing in the Scout race.

Outlaw Race

What: A no-holds-barred outlaw race.

When: Between Den races.

Who: Anyone can participate (adults & kids)

Rules:

- Weight not to exceed 5 pounds.
- Must clear the track center guide.
- No part of the car body, wheels or attachments may protrude in front of the starting peg, which is in the center of the track.
- No internal or external combustion.
- No compressed gas.
- Must be determined safe for the audience and the track.

Award: Bragging rights and name added to the Pack's Outlaw trophy.