

Heritage Trails Pinewood Derby Car Building Rules: 2023

Read the rules and specifications found in your kit. In addition to the included rules, Heritage Trails will observe the below rules as well. Remember that the Scouts are to design and build the cars with the help of a parent.

Race Car Rules and Specifications:

1. **Width:** The overall width of the car with wheels shall not exceed 2 3/4 inches.
2. **Length:** The overall length of the car shall not exceed 7 inches from front to back for all parts of the vehicle.
3. **Weight:** The weight of the car shall not exceed 5 ounces. No loose materials of any kind are permitted in the car. The car may be hollowed out and built up to the maximum weight by the addition of wood or metal only, provided any additional material is securely attached to the body.
4. **Wheel bearings:** Washers, bushings and hubcaps are prohibited.
5. **Wheels:** All cars must have four (4) wheels and axles; however only three are required to make contact with the track. Wheels must be straight across the tread. No wheel shaving is allowed. Graphite may be used on the wheels. Only official BSA wheels of any color may be used. They are included in the Pinewood Derby Kit.
6. **Axles:** Only official BSA axles (nails) included in the kit may be used. They are included in the Pinewood Derby Kit. The axle base may be changed if desired.
7. **Springing:** The car shall not ride on any type of springs or similar devices.
8. **Decorations:** Decorations such as the steering wheel, driver, decals, painting, and interior detail are permissible as long as they are securely fastened and do not violate and of the other rules or interfere with any of the other racing cars on the track.
9. **Attachments:** The car must be freewheeling, with no starting devices. The car body cannot have any moving parts that would aid performance. Potential energy from gravity is the only source of power acceptable. It is prohibited to have a device on the car that shifts a measureable amount of weight along the axis of movement.
10. **Lubrication.** Only non-liquid wheel lubricant is allowed. Graphite is acceptable. Once a car has been inspected and impounded, no further lubrication can be added to the car for the remainder of the derby.
11. The car must have been made during the current year (the year in which the derby is held).
12. Pre-built cars purchased from stores, internet sites, etc. are prohibited. Cars must be built by the scout/ parent team.
13. **You must use the axles, wheels, and body of wood that is provided in the official BSA Pinewood Derby kit.**
14. The car should have at least 3/8" clearance underneath the body, so that it does not drag against the center guide rail on the track.

15. If your design does not have a distinct front and back, you must specify which is the “front” during check-in of your car on race day.
16. All cars **must** go through an official inspection on race day and need to pass inspection before they are allowed to compete. Opportunity to correct a failed race car will be provided until the close of inspection. Cars that do not pass inspection by the close of inspection will be disqualified and not allowed to compete. Any objections, challenges or questions of the rules will be handled civilly by the Pinewood Derby Chairperson. Good sportsmanship, patience and cooperation are expected.
17. The Chairperson/Lead Inspector will have final say on whether a car qualifies or not. The name of this person shall be posted prior to the race at the inspection table and must remain on location during the duration of the races.

Race Divisions:

Lions

Tigers

Wolves

Bears

Webelos

AOL

Outlaw – This division is open to siblings and parents. The only rules are as follows:

- The weight of the car shall not exceed 5.0 ounces.
- The cars have to be powered by gravity only.
- No liquid lubricates are allowed.
- Car must be made for current year.
- Car design may not interfere with other cars on the track.

Demolition Derby – See separate sheet for Demolition Derby Rules.