

L H District Pinewood Derby Rules and Regulations

rev 5f. 1-2008

The purpose of the rules is to provide a reasonable and level playing field for all contestants. If your car conforms to these rules, then it should also qualify under the District Rules. Please read and heed the rules!

The footnotes at the bottom of the page might help clarify any confusion about the rules. If you still have uncertainty about what is allowed, please contact the Derby Committee.

Eligibility of Contestants and Cars:

- Participants must be a registered and active Tiger, Wolf, Bear or Webelos Cub Scout at the time of the Pinewood Derby. In case of illness or a valid conflict, an absent scout may be represented by an authorized agent.¹
- Each scout may enter only one car in the competition. Several cars may be constructed but only one may be registered and raced.
- Cars must be built using only the **BSA Official Grand Prix Pinewood Derby Kits**.
- The car must have been built during the current year (the school year in which the Derby is held). Cars that have competed in a previous year are not permitted.

Length, Width & Clearance:

- Maximum overall width (including wheels and axles) shall not exceed 2-3/4"
- Minimum width between wheels shall be 1-3/4" so car will clear the center guide strip.
- Minimum clearance between the bottom of the car and track shall be 3/8" so the car will clear the center guide strip.
- Maximum length (including wheels) shall not exceed 7".
- The wheelbase (distance between the front and rear axles, center to center) can be no less than 4 3/8" and no greater than 4 1/2".²
- Maximum height shall not exceed 4".³

Wheels and Axles:

- Only the metal "nail" type axles provided in BSA official Grand Prix Pinewood Derby kit may be used.⁴
 1. Axles may be lightly filed, sanded and polished. This light filing, sanding and polishing is the only axle modification allowed.⁵
 2. Wheel bearings, washers, bushings, and hubcaps are prohibited.⁶
 3. The car shall not ride on any type of springs.⁶
 4. All four wheels **MUST** touch the ground / track at time of testing.
- Only wheels provided in BSA official Grand Prix Pinewood Derby kit are allowed. Light sanding and polishing is the only wheel modification allowed.⁷
 1. Only wheels provided in the **BSA Official Grand Prix Pinewood Derby Kits** are allowed. All wheels must be used. All four Wheels **must** touch the ground. Wheels may be lightly sanded to smooth out molding imperfections on the tread area. This light sanding is the only modification allowed. Beveling, tapering, thin sanding, grooving or lathe turning of the wheels is prohibited. (See Attached sheet for examples.) Outside wheel diameter should be no less than 1.180 inches. Ready-made modified wheels are not allowed.⁷

Weight and Appearance:

- Weight shall not exceed 5 ounces or 141.8 grams. The readings of the Official Race Scale will be considered final. (5 ounce = 141.747615 gram)
- The car may be carved, sculpted, and/or sanded in order to enhance performance and/or appearance.
- No loose materials of any kind are permitted on or inside the car.
- Mercury shall not be used for weight, as it is a potential health hazard.
- Additional materials may be added to the car for the following purposes only:
 1. Weights may be added to increase the weight and/or alter the weight distribution of a car.
 2. Details such as steering wheel, driver, spoiler, decals, painting and interior details may be added to alter the appearance and /or aerodynamics of the car as long as these details do not exceed the maximum length, width, height or weight specifications.
 3. Glue may be used to keep the axles in the car body.

4. Wood putty, or a similar wood-like substance, may be used to repair minor damage to a car.

Lubrication:

- Only dry powdered lubricants, such as graphite or white powder Pinewood Derby Car Lubricant, may be used. Oils and silicone sprays are prohibited.
- Lubrication will not be allowed after the car has been weighed in or during the race.

Ground Rules:

- If a car jumps off the track, the heat will be run again. If the same car jumps off the track a second time, it will automatically lose the heat.
- If a car leaves its lane and interferes with another car, the heat will be run again. If the same car leaves its lane a second time and interferes with another car, the interfering car will automatically lose the heat.
- If a car suffers a mechanical problem and a repair can be accomplished within 5 minutes, the heat will be run again. If not, the car will automatically lose the heat.
 1. Lubrication will not be allowed during the race.
- All rulings by the Race Marshal are final.

Inspections and Disputes:

- Each car must pass inspection by the Official Inspection Team before it may compete.
- If a car does not pass inspection (too long, too heavy, altered wheel, or the like), the owner will have an opportunity to bring the car into compliance. If the car cannot be brought into compliance before race time the car will be disqualified.
- No car may be altered in any way after it has been registered (this includes lubrication). Damage repair shall be allowed during the Derby at the discretion of the Race Marshal, but no modifications shall be allowed.
- After passing inspection, no car shall be re-inspected unless repaired after damage in handling or in a race.
- Ungentlemanly or unsportsmanlike conduct by any participant or member of the audience will be grounds for expulsion from the competition and/or race area.

Rewards and Recognition:

- The most important values in Pinewood Derby competition are parent/son participation, good sportsmanship and learning how to follow rules.
- Every participating Scout will receive a Participation Ribbon or Certificate.
- Trophies will be awarded to the first, second and third place finishers in the District.

Footnotes:

¹ An authorized agent is defined as a sibling or a Cub Scout of similar age who is not already competing in the same set of heats.

² The official kit block has pre-cut slots which are spaced between 4 3/8" & 4 1/2". If desired, these slots may be straightened up or pre-drilled before they are used. Use of the pre-cut slots, however, is not required. The cars wheelbase can be no less than 4 3/8" and no greater than 4 1/2".

³ This restriction is due to the height of some District finish gates.

⁴ Wheels and axles not from the official kits are prohibited. Wheels and axles, which have been modified by other parties also, are prohibited, even if they are from the official kit.

⁵ Beveling, rounding, tapering, thinning, perforating, or any other significant altering of the shape or performance of the axles or axles heads is prohibited.

⁶ Wheel bearings, washers, or bushings are prohibited. This includes "wheel covers" which serve to keep the wheel hubs from contacting the car body. It also includes "hub caps", or anything else that might serve as a lubrication "well" or "tap". The car shall not ride on any type of springs. The car must be freewheeling with no starting device or other propulsion, such as adhesives, magnets, rubber bands, motors, jets, etc. Details such as steering wheel, driver, spoiler, decals, painting and interior details are allowed as long as these details do not exceed the maximum length, width, height, and weight. Metal frames and metal axle supports are prohibited. Axles must be mounted into the wood.

⁷ Beveling, rounding, tapering, thinning, perforating, or any other significant altering of the shape or performance of the wheels or wheel hubs is prohibited. Modification of the cylindrical inner wall of the wheel, which contacts the axle, is prohibited. All four wheels MUST touch the ground / track. Some participants try to get the car to run on 3 wheels to reduce friction the will not be allowed.

The Wheels Check

Only official Grand Prix racing wheels provided in the **BSA Grand Prix Pinewood Derby Car Series Kits** are allowed. All wheels must be used. Wheels may be lightly sanded to smooth out molding imperfections on the tread area. This light sanding is the only modification allowed. Beveling, tapering, thin sanding, grooved or lathe turning of the wheels is prohibited. Outside wheel diameter should be no less than 1.180 inches.

There are few molding marks or seams to spoil the rolling ability of the wheels. However, the builders are permitted to correct for minor imperfections as long as it doesn't reduce the wheel diameter or round off the edges of the wheels. Some enthusiastic participants, however, continue this correction process until the wheel no longer resembles the original. Lathes, milling machines and other machine-shop tools can really do a fine job of improving the wheel's performance. But that takes the car-building process out of the hands of the youth. It is unreasonable to assume that most Cub Scouts or even their parents will **all** have access to a machine shop with a lathe, milling machine and CNC routers. So it's fair to create a rule that states machining of the wheels will not be permitted.

There are companies that sell after market wheels that are machined from official BSA wheels to produce special faster versions. These wheels will not be allowed.

Here are some examples of wheels that will not be permitted. Remember beveling, tapering, thin sanding, grooved or lathe turning of the wheels is prohibited. Outside wheel diameter should be no less than 1.180 inches. **Do not alter the shape of the wheel.**

<p>STANDARD WHEEL</p>					
		Rounded Wheel	V Wheel	Cupped Wheel	Reduced Diameter
H Wheel	Rib Wheel	Speed Wheel	Slanted Out	Slanted In	Knife Edge