# *2021 LEHIGH DISTRICT PINEWOOD DERBY RULES*

***Overview:***

* Do your best and don’t worry if it’s not good enough; some of the most unlikely cars have won!
* The race car must have been built for and raced in this year’s Pack Pinewood Derby Race.
* Only the official BSA block of wood should be used. No pre-cut cars will be accepted.
* Anything done to a car to give an unfair advantage may be rejected by the Judges or Race Officials.
* Cars will be impounded by Race Officials after vehicle inspection and will be returned to the owner at end of the day’s racing.
* Have FUN!!

***Specifications, Requirements and Expectations***

***INSPECTION:*** Each car must pass inspection by the official inspection committee before it may compete. The car is to be held by the scout (NOT THE PARENT) as you prepare for inspection and throughout the race. The inspectors will disqualify those cars which cannot be made to meet the specifications described below. The owner will be informed of reasons for a failure and will be given time, within the official weigh-in time period, to make adjustments. The race committee will hold cars that pass inspection until the race. Cars will not be re-inspected unless the car is damaged in handling or in a race.

***JUDGES:*** The decisions of the judges and race officials on race day are final. Pinewood cars not meeting rule requirements will may be permitted to race but WILL NOT be eligible for trophies! Questions and polite discussion will be allowed up to the point of a decision by the judges and race officials. Failure to follow this expectation may lead to the disqualification of the car. At the discretion of the judges, persons may be ejected from the premises of the race for behavior they deem disruptive, un-sportsman-like, or un-scout-like.

***NEW CAR:*** A new car must be built each year. Pre-cut cars that can be purchased at hobby shops ARE NOT PERMITTED! Scouts must use the Grand Prix Pinewood Derby kit.

***ATTACHMENTS***: The car must be freewheeling and no starting devices of any type will be allowed. (Springs, magnets, other).

***AXLE CHANNEL:*** The channel or groove designed to hold the axle must not be filled‑in. The judge must be able to inspect the axle. If axles are loose, secure them with transparent glue.

***AXLES:*** Only official BSA axles and nails supplied with the kit are permitted. Axles must be mounted in the wood grooves only. The original slots for the axles must be used. No grooves can be added and no drilling of new holes. The axles may be glued in place with transparent glue. Polishing of axles will be allowed. They may be polished or lubricated but not machined or narrowed. Full length axles that can be purchased at hobby shops ARE NOT PERMITTED. No bushings, bearings, washers or other materials that are not supplied in the kit will be allowed in the wheel/axle area.

***DETAILS:*** Materials may be added to the official BSA block of wood but must not exceed the maximum dimensions. Details such as Steering Wheels, Driver Decals, Painting, etc. are permitted as long as these details do not exceed the maximum length, width and weight specifications. All weights or decorations must be firmly attached to the car. No loose materials or loose parts on cars will be allowed.

***HEIGHT:*** The bottom of the car must clear the guide strip (3/8 ") on the track. The car may not be more than 4” high, Watch your weights on the bottom of the car, if they are too far back they may hit the track.

***HUBCAPS:*** No type of hubcap is permitted. This includes decals.

***LENGTH:*** Overall length shall not exceed 7".

***LUBRICATION:*** Dry Lubrication only is permitted. No liquid or spray lubricants, dry graphite only. No re-lubrication of the axles will be allowed after the car is impounded.

***NOSE OF CAR:*** The nose must extend beyond the leading edge of the front wheel, however, no part of the car can extend past the starting pin / starting gate / peg. The front of the car must properly sit on the starting pin and the bottom front corner of the block should be on the pin.. No under cuts or “V” cuts in the front or modifications that may give an unfair advantage allowed. The front center should not come to a complete point. The nose should have at least 1/4 inch wide flat spot in the center of the front bottom to rest on the pin. Either end of the block can be the front, but it should be clearly marked with an arrow on the underside pointing down the track if it is not obviously apparent witch end is the front.

***SPRINGING:*** No wheel or body suspensions system will be allowed. The car shall not ride on any type of springs or suspension.

***WEIGHT:*** Weight shall not exceed 5.0 ounces (141.75 grams on the scale used at the event. 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 ‑provided that it is securely built into the body. Electronic balances will be used for the weight check. You will be able to adjust weight at sign-ins.

***WHEEL BASE:*** (Length) Length of wheel base (front axle to rear axle) must be within the limits of 4 1/2" maximum and 4 1/4" minimum (essentially, the distance provided by the grooves precut into the supplied wood block).

***WHEEL BASE:*** (inside) Min. Space between wheels 1-3/4 inches. Do not make the distance between the left and right wheels narrower than 1 3/4 " or the car will not run down the track.

***WHEEL BEARINGS:*** Bearings, washers, or other types of bushings are NOT permitted.

***WHEELS:*** Only BSA licensed Grand Prix Wheels may be used. Wheels must have “BSA” printed on them from the manufacturer. BSA - Black, Red, Yellow, Blue and Orange are only wheels permitted. Alterations to the wheels are not permitted – the wheels may not be cut, drilled, beveled or rounded. The shape must remain the same and must have the tread dots around the outside. Wheels may not be altered or redesigned except for sanding/removing the “plastic mold flash.” from the outside edge (No extra holes, wheel covers, metal/plastic bushings or other design modifications will be allowed). All 4 wheels must make contact with the track surface (this is tested by free rolling the car). Wheel surfaces must remain flat with full tread and cannot ride on edges or they WILL NOT pass inspection!

***WIDTH:*** Overall width shall not exceed 2 3/4 ".

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**Wheel Tread Example**



***Wheel surfaces must remain flat with full tread and cannot ride on edges or they WILL NOT pass inspection!***