

Rules and Rule Clarifications

INSPECTION Each car must pass an inspection by the Inspection Committee before it may complete. The inspectors have the right to disqualify any cars which do not meet the rules and specifications outlined above. If a car does not pass inspection, the owner (Cub Scout) will be informed of the reason for failure and will be given a time within the official registration period to make adjustments. The inspection tools used by the Race committee are official and final. It will not matter what any other scale/tape measure/micrometer/ etc. reads, the inspection tools used the day of the race are official. This ensures every car is inspected to the same standards. If the scale reads 5.01 oz., then the car is overweight and will not pass inspection. If the wheel gage slips over the wheel easily, then the wheel/car will not pass. The wheel gauge is sized one-thousandth of an inch smaller than the printed measurement. So if, for example, a wheel measures exactly 1.170, it will not fit into the 1.170 OD gauge and will pass inspection (because it complies with the 1.170 minimum OD specifications). If the Derby car does not fit correctly into the inspection box it will not pass inspection due to size specifications. All efforts to assure the accuracy of the inspection tools are taken prior to the race and will not come into question.

EXTENDED WHEEL BASE/ CAR BODY: The axel grooves provided in the block of wood can be, but do not have to be used. There are several problems with restricting builder to just slot positions. Wheel camber is not guaranteed horizontal, and the slot separation can vary up to $\frac{1}{2}$ " in different kits. The wheelbase may be extended, but the wheels are not to extend past the front or rear of the car body. Depending upon the track, the front of the car may rest against a short starting pin. It is therefore recommended that the front of the car which rests on the pin is no higher than $\frac{1}{4}$ " above the axle line. A flat nose is required for fair starting and finish line sensing.

LUBRICANT: Dry powdered graphite and/or oils may be used., but you are not required to use any lubricant. Both lubricants perform similarly in friction reduction. A myth from the earlier days of PWD racing, namely, is that oils can damage the polystyrene wheels. Actually, only aromatic liquid compounds (containing "ene" in the name) like benzene, toluene, xylene, naphthalene, etc. show damage to polystyrene. But nevertheless, the oil stigma persists, causing some local race officials to outlaw oils. Actually, non-aromatic oils are much easier to use and less messy than graphite and molybdenum dry lubricants. Plus there is no way a thin film of oil can be seen on inspection. So if a car enhancement can't be inspected, there is no sense having a rule prohibiting it.

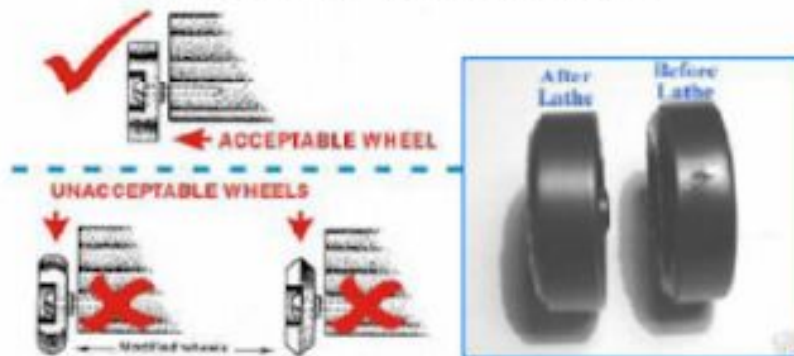
WEIGHT: Maximum allowable weight is 5 ounces. The scale used the day of the race and weight recorded will be considered "OFFICIAL". Even though a car may have weighed at or under 5 ounces using the same scale at a previous race, we are concerned with the weight on the current race day. Once a car meets weight it will be impounded and weight is not allowed to be added. If the car is over-weight you will be allowed a limited number of opportunities, as determined by the Race Committee, to remove the excess weight and re-weigh the car.

WHEELS / AXELS: All wheels must have the raised BSA – PINEWOOD DERBY letters on the outside surface of the wheel. The wheel surface contact area may not be rounded, beveled or shaved. (See illustrations). The wheel itself may be made round by sanding, lathing, filing, etc. so that it rolls in a more uniform manner. The BSA wheels will be inspected if necessary with a metal template to ensure they are not violating these specifications.

GENERAL: Each year the Cub Scout must construct a new car and cars are not to be used from previous years. The Cub Scout should play an active role in the design and construction of the car. It is understandable that a younger Scout will need more assistance from an adult and we encourage this along with explanations for the reason the wood is sanded, axles are polished, etc. and help with the use of power and/or hand tools. Rules: Any participant (including parents of the participant) may appeal to the Race Committee for interpretation or clarification of the rules. The Race Committee Chairman shall be the final judge of these rules. Un-gentlemanly or unsportsman like conduct by a participant or spectator will be grounds for expulsion from the competition and/or the race area. These Rules, as with any rules, cannot be all encompassing and must be tempered in certain circumstances. In all incidences fair play will prevail in order to allow the Cub Scout the chance to race his car, have fun and learn good sportsmanship. Any changes in the rules will be towards this goal and may be modified at any time.

ALL DECISIONS MADE BY THE RACE OFFICIALS ARE FINAL

PICTURES & NOTES



Wheels may be sanded or lathed to remove imperfections and flattened but may not be reshaped or shaved.



Only official Pinewood Derby wheels and axils may be used. Do not cover Axle. The head of nail must be viewable.

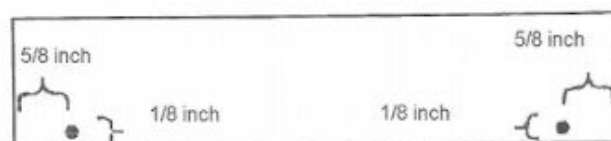
Wheels will be inspected for lettering; raised lettering may not be sanded off.



Axle imperfections can be removed and axels may be polished.



The axle slots may be used or the wheelbase may be extended by drilling new axle holes.
Suggested axle hole placement below.



WHEEL PROFILE EXAMPLES

What is and is not acceptable when preparing your Pinewood Derby Car wheels for the race? The graphic shown below demonstrates the correct shape for your wheels to use when coming in contact with the track – ***flat and squared off at the edges***.

