

2012 Abnaki District Pinewood Derby Rules

The purpose of the Pinewood Derby is to provide a positive experience for the child, the parents, the Pack, and the Chartered Partner with the emphasis on THE CHILD

GENERAL:

The race is open to all registered Cub Scouts in the Abnaki District, including Webelos having recently crossed over the Boy Scouts. In these rules the Scouts will be referred to as "Drivers", parents/guardians will be referred to as "Pit Crew".

The top five finishers from each individual Pack Pinewood Derby are eligible to compete in the District Pinewood Derby. If a racer cannot attend the District Derby the driver may have another scout race his car or an alternate driver may be chosen to represent the pack or district. This will be left to the respective Pack's to decide. Adults will not be allowed to race a car in the event that the youth cannot attend the event.

All cars competing in the 2012 District Pinewood Derby must have been made for a 2012 Pack Pinewood Derby. Cars made for any previous year pinewood derby are not acceptable. Cars that were purchased completed may not be used. Cars may not be sent to third party facilities for tuning or other performance enhancements.

CAR SPECS:

Pinewood derby cars will be built from an Official BSA Grand Prix Pinewood Derby Kit. Replacement parts must be purchased as unmodified BSA parts; modified wheels and axles from other suppliers are prohibited. Decorative items such as steering wheels, drivers, spoilers, decals and interior details are permissible as long as the finished car meets the rules and specifications. Cars should not advertise alcohol or tobacco.

A. Body - The main body structure must be made of the wood block from the official kit.

B. Width - Not to exceed 2 3/4 inches

C. Length - Not to exceed 7 inches

D. Weight - Not to exceed 5.0 ounces

E. Height - Not to exceed 4 3/4 inches

F. Center Rail Width Clearance – Must clear center guide rails, typically no less than 1-3/4 inches minimum.

G. Bottom Clearance - Must clear center guide rails, typically no less than less than 3/8 inches from track surface.

H. Wheelbase – The use of the pre-cut axles locations in the official pinewood car block is recommended but not required. The use of axle holes is allowed, however the nominal wheelbase of 4 3/8 inches with a dimension of 15/16 inch from one end of the block and a dimension of 1 11/16 inches from the other end of the block must be maintained. The axles on the finished car will be no further than 6 1/16 inches from either end of the block with the two front wheels positioned directly across the body from each other and the two rear wheels positioned directly across from each other.

I. Front End – Depending upon the track, the front of the car may rest against a short starting pin. Therefore it is required that the front bottom of the car which rests on the pin is no higher than 1" above the track. The front end must be at least 1/2 inches wide in the middle. No part of the car can extend beyond the starting pin.

J. Miscellaneous -

The following items are PROHIBITED:

- Starting devices, or propellants of any kind
- Electronic or lighting devices that interfere with the race electronics.
- Liquids, wet paint, oil, sticky substance, or powders of any kind (other than axle lubrication)
- Glass or excessively fragile parts
- Springs, bearings, bushings, washers, sleeves, hubcaps or inserts attached to or in contact with the axle, body or wheels.
- Loose objects on car
- Magnets
- Metal, pointed, sharp, and/or jagged parts or attachment that may contact any part of the track.

WHEELS:

Only Official BSA Grand Prix wheels are allowed. The purchase of colored or replacement wheels is allowed provided they are unmodified official BSA parts. The purchase of polished or machined wheels from other suppliers is

prohibited. Outer wheel surface may be lightly sanded or shaved to remove imperfections but must not be reshaped in any way in an attempt to lighten the wheel, minimize tread contact, or alter aerodynamics. Coning the hubs and truing the inside tread edge is allowed. A minimum wheel diameter of 1.170" and width of 0.360" must be maintained and will be measured at check-in. All lettering, both inside and outside, must remain and be visible. The fluting and other BSA markings on the outside wheel area must remain visible. Tread surface must be flat and parallel to the wheel bore. You may add material to the inside of the wheel to aid in balancing (glue, fingernail polish, tape) of the wheel, but no material may be removed. You may not reduce the diameter of the bore. Please note: There are aftermarket modified wheels that are LIGHTENED. This is usually done by turning the wheels on a lathe and removing material from the inside of the wheel. These wheels are NOT allowed and EASILY RECOGNIZED at inspection. Cars with these wheels will not be permitted to race.

The following are PROHIBITED:

- Rounding of wheel edges
- Grooving, H-cutting or V-cutting
- Altering of wheel profile
- Drilling sidewalls
- Hollowing, sanding, or otherwise removing or modifying material from inside the wheel
- Wheel covers or hubcaps

There must be at least four wheels on the car, however, it is not required that all four wheels make contact with the track surface. Each wheel must be mounted on an axle, on the outside of the car, in the vertical position, at no more than a 45 degree angle. Each wheel must be attached directly to the car by an axle and spin freely. No part of the car, or any attachment to the car, may be capable of coming into contact with the track other than the wheel(s).

AXLES:

Only Official BSA Grand Prix axles are allowed. The purchase of replacement axles is allowed provided they are unmodified official BSA parts. The purchase of polished or machined axles from other suppliers is prohibited. Axles must not be connected to any device that mechanically alters rotation and spin.

LUBRICATION:

Approved lubricants include (but are not limited to) graphite, Teflon, Nyloil, and Krytox. Over-application of lubricant which results in excessive shedding onto the track is not allowed. Cars will be lubricated before registration/inspection. No other lubricating will be allowed once the car has passed inspection.

INSPECTION:

Each car must pass inspection by the Official Inspection Committee before it may compete. After acceptance only the drivers may handle the cars. Once cars have been registered, weighed, and inspected, they will remain in the custody of the Pack and District Race Officials until the end of the competition. Any driver (including a member of the pit crew) has the right to appeal to the race officials for an interpretation of these rules. The race officials, by majority vote, will be the final interpreters of these rules. However, an interpretation of the rules at the pack level does not necessarily ensure a similar interpretation at the district level. All rulings by the Race Officials at each level of competition will be considered final. The Pack or District Inspection Team will weigh all cars at registration. The readings of the Official Race Scale at each event will be considered final. It is possible scale measurements will differ between the Pack and District Pinewood Derbies. Drivers and their pit crews must be prepared to adjust weight to meet the readings of the Official Race Scale at each level of competition.

REPAIRS:

If a car suffers a mechanical problem (loses an axle, breaks a wheel, etc.) prior to a race the driver or his pit crew will have up to five minutes to fix the car. If a car suffers a mechanical problem after a race, the driver or his pit crew will have five minutes or until the next race to fix the car. If repairs cannot be made in this time frame, the car will be disqualified.

BEST OF SHOW:

Each Pack will determine a "Best of Show" (BOS) car to send to the District Pinewood Derby. All BOS cars are required to meet the same rules and regulations as stated above, and have raced in a 2012 Pinewood Derby Race. Although a BOS car need not qualify for the District races, if the car does qualify as a top racer, they can still compete in the District race.