

L&C 2017 Pinewood Derby Rules

Racing Divisions

- Division I – Cub Scouts
- Division II – Youth 18 & Under (Open)
- Division III – Adult (Open)
- Division IV – Boy Scout (Open)
- Division V – Powder Puff (Girl Scouts, Brownies, and Daisies)
- Division VI – Pack Leader Showdown (Open)

Lubrication Policy

Divisions I & V – Graphite ONLY

~This Division is open to any Cub Scout (Lion, Tiger, Wolf, Bear, and Webelos, including Scoutreach Cub Scouts) and Girl Scouts. No qualification needed. ~Cars in this division but car must have been made to run in this racing season.

Open Divisions (II, III, IV, and VI) – Graphite or Oil Allowed

~Family, Friends, Boy Scouts, etc.

~More than one car is allowed in this division.

~Wheels that have been lightened are allowed.

Body Specifications

- The main body structure must be made of pinewood
- Width – not to exceed 2 ¾ inches (7cm)
- Length – not to exceed 7 inches (17.8cm)
- Height – must have clearance under Finishing Gate – not to exceed 6 ½ inches
- Weight – not to exceed 5.0 ounces
- Body design may be enhanced by adding other stable materials such as plastic, metal or details. All additions must be firmly attached and conform to size specifications. No loose materials allowed on cars.
- No part of the car's body, wheels, or attachments can extend beyond the starting peg on the track.
- Wheelbase – Can be extended. – Standard wheelbase is 4 3/8 inches from center of front axle to center of back axle. Any wheelbase can be used. If axle holes are drilled, a groove or inspection hole must be provided to view nail points under car. Solid axles are not allowed.

Wheels

- Only Official BSA Wheels are allowed (either new style & old style) all markings must be intact on inside and outside of wheel. You may use the Official BSA Colored wheels. No Pine Car Wheels.
- Outer wheel surface may be sanded, shaved, lathed or polished to remove any imperfections, true roundness, remove mold castings and burrs, but must not be reshaped in any way to minimize tread contact or alter aerodynamics.
 - The fluting (small decorative dots on the edge) must remain visible around the entire circumference.
 - The tread / contact surface must remain flat and parallel to the bore.

- The width of the tread must not be less than 7.5mm
- No removing or reducing the letters or spokes or drilling additional holes.

CUB SCOUT GRAPHITE DIVISION BSA WHEEL RULE WILL BE STRICTLY ENFORCED.

Altering of wheels and nails IS ALLOWED IN OPEN CLASS DIVISION as well as LEADERS DIVISIONS.

- The following wheel modifications are NOT Allowed
 - No Rounding of the wheel treads – they must remain flat.
 - No Grooving, H-cutting, V-cutting, Crowning, Tapering or Dishing
 - No Altering the wheel profile
 - No Drilling sidewalls
 - No Filling of any wheel surface with any type of material
 - No Shaving or cutting the inside edge of the wheel to lighten allowed
- Coning the hubs, truing the inside edge of the wheel, and removing the outer hub step down is allowed in the OPEN CLASS Division only. The inside edge of the wheel cannot be modified or shaved in the Cub Scout Division (NO LIGHTENED WHEELS in Cub Division!)
- Wheel Bore treatment is allowed including polishing, sanding and / or tapping. Wheel bores may not be filled and re-drilled.
- 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 – one wheel may be lifted from the track surface.
 - Each wheel must be mounted on an axle, on the outside of the car, on the vertical side of the car.
 - Each wheel must be attached by an axle

Axles

- Nail type axles as found in the Official Pinewood Derby kit are to be used.
- Modifications to the Axles are allowed that include straightening, sanding, polishing, canting, grooving, beveling & tapering of axle head as long as the Diameter of the Axle is not reduced the Diameter may not be less than .084 inches (2.13mm).
- Axles can be mounted by drilling Axle holes or inserted into the slots on car. If holes are drilled a slot or inspection hole needs to be made in order to view the nail tips.
- Graphite ONLY in CUB DIVISION. Graphite and Oil allowed in OPEN Divisions.

NO GROOVED AXLES IN CUB SCOUT DIVISION

*****WARNING*** WE WILL DO POST RACE INSPECTION*****

WHEELS AND AXLES MAY BE PULLED AFTER FINAL RACE OF DAY! CAR WILL BE DISQUALIFIED IF FOUND TO BE USING GROOVED AXLES IN CUB SCOUT DIVISION DURING POST- RACE INSPECTION.

Prohibited Items that can NOT be used

- Magnets, springs or suspension systems of any type.
- Starting devices, finish line devices, propellants, or propulsion systems
- Wet paint, or sticky substances
- Glass or excessively fragile parts
- Electronic or lighting devices (if lights are on the car they must be turned off)
- Bearings
- Solid one piece rod style axles
- Axles and wheels attached to any device that mechanically alters rotation or spin

Race Operations and Miscellaneous Rules

- All Cars MUST pass inspection before being allowed to race based on the rules and specification stated above.
 - An approved, inspected car will then be checked in and not be touched by anyone but the Race Officials until the cars are released by Race Officials.
 - All lubrication of wheels must take place prior to final inspection check in and before Final Race (see below)
 - Officials have the right to disqualify any car, which does not meet all of the stated rules and specifications. The Race Officials' decision is final.
 - Appealing a decision – if a Race Official makes a ruling and you wish to appeal it. All Race Officials will be assembled and based on majority rule the decision will be upheld or overturned.
- Each car will race once in every lane (6 times)
 - Each race is timed with electronic equipment.
 - In the event the equipment fails, the race(s) will be re-run.
 - The slowest time will be dropped and the average of the remaining 5 times will determine the results for each racer – Composite Time
 - In the event of a tie(s) a run-off will be run between any of the cars needed to fill the 12 slots for the finals race for each Division using the same method of running once in each lane and taking the average of the fastest 5 times.
 - Fastest Cars in each Division will eventually advance to Finals Race
 - Each Division Finals run separately
- During Races
 - If a car jumps the track and interferes with another car then the race will automatically have to be re-run.
 - If the same car jumps the track again, then it is disqualified (after interfering)
 - If a car jumps the track and does not interfere with another car, and finishes the race it will not be re-run.
 - If a car jumps the track and does not interfere with another car, but does not cross the finish line a time of 9.9999 seconds will be assigned to that car's race.
 - If an item affixed to a car falls off during a race, and in the opinion of the Race Official the car is still able to race, repairs will not be allowed.
 - If a car suffers a mechanical failure or is unable to finish, the individual will be allowed 3 minutes to make the repair under the supervision of a Race Official. No weight can be added to the car as part of the repair action. If the car is unfit to race after the 3 minute period, or becomes disabled after further racing, it will be disqualified and taken out of the race. No other modifications are allowed – such as re-lubing; only the repair to the item(s) can be performed.

- Any car that is discovered to be illegal during the competition by a Race Official will be disqualified from competition.

ALL CARS WILL BE RETURNED AT THE COMPLETION OF ENTIRE RACE

Awards

- Trophies will be awarded as follows:
 - Division I – Cub Scouts: First, Second, and Third Places for each Pack level (Webelos I and II are combined)
 - Division II – Non-Scout Kids 18 & Under (Open): First, Second, and Third Places
 - Division III – Adult (Open): First, Second, and Third Places
 - Division IV – Boy Scout (Open): First, Second, and Third Places
 - Division V – Powder Puff for Girl Scouts, Brownies, and Daisies: First, Second, and Third Places
 - Division VI – Pack Leader Showdown Trophy (Open): First Place
 - Overall Fastest Cub Scout Car: First Place
- Additionally, only the Cub Scout Division I entries will be eligible to win design awards in the following categories (voted on by the present Cub Scouts)
 - Best Workmanship
 - Best Paint Job
 - Most Patriotic
 - Most Creative
 - Best Scouting Theme
 - Best Overall Design
 - Most Realistic Looking
 - Most Original Design
 - Overall Fastest Cub Scout Car