



CVC 30th ANNIVERSARY PINEWOOD DERBY RULES

GENERAL RULES

1. Are you 18 years or older? You can participate.
2. You may use a car constructed in a previous year, they must meet the construction criteria below.

Attention: The following Car Construction Rules are the rules that you should follow.



CAR CONSTRUCTION RULES (Applies to all cars, in all competition categories!)

1. All cars are to be constructed using the materials provided in BSA's Official Grand Prix Pinewood Derby Car Kit, to include official accessories also offered through BSA.
 - Adults may use any variety of accessories! This includes the BSA Pinewood Derby Car Add On Sheet, Red Dome Alert Light, Siren and/or Rocket Sound Wheel, Rocket Booster with Flashing Light, as well as any of the widely used weights and decals. When in doubt, if BSA sells it, and it's used as intended, the you can use it!
 - Use of the aforementioned accessories, or those the racer creates, are not to interfere with nor negate any other construction rule, and are to be included in determining length, width and weight of the car.
 2. The car length will not exceed 7 inches. Width will not exceed 2 ¾ inches.
 3. The car shall weigh no more than 5 oz. Weight adjustments may be accomplished at weigh-in to ensure all entrants are in compliance. All weights must be firmly secured to the car with no moving parts/components. Mercury may not be used.
 4. WHEELS AND AXLES:
 - a. The car will not ride on any type of springs and must be free-wheeling without any starting devices. Loose materials, wheel bearings, hubs, washers, and bushings are not permitted. Axles may be polished and smoothed but may not be ground, cut or otherwise turned so as to alter the original shape or size as provided.
- Note:** Axle guards are not permitted in the race. No solid/fixed axle that connects the same two wheels (both front wheels and both rear wheels) will be allowed.
- Axles are expected to have been checked at the unit level.
 - Only those axles provided may be used.
 - Please note, the Sound Wheels offered through BSA are intended to be attached as a “spare tire”. They are not intended to replace the wheels and axles provided in the Official Grand Prix Pinewood Derby Car Kit.
 - Only BSA approved wheels (no matter color) will be used for racing.
 - a. If the car design has a narrow body, make sure the area where the axles are inserted into the body remains 1-3/4" wide, or wheels will not fit over the guide strips of the track.
 - b. The car must have 3/8" clearance underneath the body for it to clear the track.
 - c. Wheels can be lightly sanded, as indicated in the instruction sheet that comes with the car kit to

- remove the seam created at fabrication. They may not be beveled, turned, thinned, drilled, or otherwise altered from the original manufactured shape which would otherwise create an unfair advantage by reducing friction or resistance.
- d. The only approved axle lubricant is the Pinewood Derby Axle Lube (available through BSA) or powdered graphite. Any other lubricant is unauthorized. If used, lubricant may only be applied: 1) prior to check-in, and, 2) during the race after any necessary wheel repairs.
5. Once checked-in, cars will not be altered or modified in any way.
 6. Strict adherence to these rules is essential. Any car found to be out of compliance will be disqualified.



CONDUCT OF THE DERBY

1. Once checked-in:
 - No one except the race officials will be permitted to handle the cars. Specifically, racers will not handle their car during the race, except to make approved in-race repairs. A limit of two in-race repairs will be allowed, if more is required, the car will be disqualified.
2. Cars will race once in each lane, the order of which will be selected at random by computer. Each car's average time, calculated by dividing the added race times from all race lanes by the number of lanes, will determine the finishing order.
 - ❖ Times are calculated to the ten thousandths of a second (.0001). In the unlikely event of a tie, the car with the single fastest time, in any lane, will be used to determine ranking order.
2. If any part of the car breaks during the race, the Racer shall be afforded the chance to repair the problem in the pit area, but no more than twice, under the supervision of an official, and the car rechecked to ensure it meets construction rules. The repair time will not exceed five (5) minutes. If after 5 minutes the car is not ready to race, it will be withdrawn from further competition. Accessories which are nothing more than cosmetic, which fall off during the race, are excluded from this rule and the Racers will not be given time to re-attach the accessory. However, the heat may be re-run if, in the opinion of the Senior Race Official, the accessory interfered with an otherwise clean race.
2. If a car jumps the track, runs out of its lane, interferes with another car, loses an axle, etc., the race will be Red Flagged, the car(s) in question and entire length of the track inspected for defects, followed by a Green Flag to re-run the heat. If the same car gets into trouble on the second run, every reasonable attempt will be made to identify and correct potential problems. Only after reasonable efforts have been exhausted, will the car then be disqualified from the heat.

OUTLAW RACE

1. Previous years' cars may be raced in the "Outlaw Class".
2. Cars should be made with the official BSA Pinewood Derby kit. Pre-cut car kits found at the scout office or craft stores may be used.
3. Cars must comply with the following specifications:
 - o **Weight:** Cars must weigh no more than **5.0 ounces** as measured on the official scale at the event.
 - o **Width:** The maximum width of the car, including wheels and axles, must not exceed **2-3/4 inches**.
 - o **Height:** The maximum height of the car must not exceed **3-1/2 inches**.
 - o **Bottom Clearance:** The distance between the bottom of the wheels and the bottom of the lowest point of the car other than the wheels must be at least **3/8 inch**.
 - o **Width Between Wheels:** The distance between the innermost edges of the left and right wheels must be at least **1-3/4 inches**.
 - o **Wheelbase:** There is no restriction on the distance between the front and rear axles.
4. The car design may be enhanced by the addition of other stable materials such as plastic or metal. Any additions must be firmly attached and meet car size requirements.
5. No part of the car may protrude beyond the starting peg or gate.
6. The following items are prohibited:
 - o Starting devices or propellants (A starting device is something that alters the rotation or spin of the wheel.)
 - o Electronic or lighting devices that interfere with the race electronics
 - o Liquids, wet paint, oil, sticky substance, or powders of any kind (other than dry axle lubricant)
7. No part of the car, other than wheels, may be capable of contacting any part of the track, other than the starting peg or gate.

Wheels & Axles

1. Wheel diameter must not exceed **32mm**.
 - Wheels must be constructed of plastic, rubber, or polyurethane.
 - Wheel treads may not be rounded, tapered, grooved, V-cut or H-cut.
 - The entire tread of each wheel must be parallel to the axle bore.
2. The wheels must be attached directly to the axles and spin freely.