

Official Pack 952 Pinewood Derby Race Rules

I. REGISTRATION AND ELIBIGILITY

- a. Races are open to all registered Cub Scouts, siblings and parents.
- b. Entrants will be expected to complete a registration form including a Photography Release (covering pictures taken of cars and general event pictures) to be signed by a parent or guardian.
- c. Each car entered must have been predominantly crafted by the individual entrant or parent/child team. Entry of a car that has been purchased from a third-party or made-to-order by a third party is strictly prohibited and, upon discovery, subject to immediate disqualification.
- d. An Entrant may only enter 1 car in his Division. Additional cars in excess of this limit may be entered in the Open Category so long as the entrant does not exceed the 2-car limit in any of these Divisions.
- e. Each car entered will be assigned a unique registration number. This number is designed to classify cars into Divisional groupings for purposes of record-keeping convenience only. Registration numbers are not to be interpreted as rankings of any kind or as indications of sequence or priority for any particular event.
- f. After passing inspection, cars are quarantined in a pre-race area, in which case cars may not be removed from the roped off area or handled by the Entrant without prior arrangement or specific permission from a Key Staff Member.
- g. All cars competing for awards must satisfy the Construction Rules as set out in Section II herein.
- h. A new car must be built every year, except for the Open division.

II. CONSTRUCTION RULES

a. **Dimensions and General Specifications** (*applies to all Divisions without exception*)

1. Maximum **LENGTH**, including any attachments to the car body, shall not exceed 7".
2. Maximum **WIDTH** overall (including wheels and axles) shall not exceed 2 ¾".
3. Maximum **HEIGHT**, including any attachments to the car body, shall not exceed 4" so that car will pass under overhead portion of timing apparatus.
4. Minimum **width** between wheels shall not be less than 1 ¼".
5. Throughout the 1 ¾" wide center area of the car positioned above the center guide strip or rails, the minimum distance between the bottom of the car and the plane of wheel contact with the track surface itself shall be 3/8". Hinged scoops that reduce the minimum clearance will not be allowed. This clearance distance also applies to any protrusions or weights extending from the bottom of the car in this area.
6. Wheelbase may be modified provided that the car's overall length, including wheels and any accessories or extensions from the body, does not exceed 7".
7. The car must be free-wheeling with no starting device or other propulsion.
8. No hazardous materials may be used. Propellant, incendiary or explosive materials are absolutely prohibited.
9. Note: Races may be optically timed. A sharply pointed car may be subject to a slight timing disadvantage because, at the moment it crosses or trips the sensor, its point may not exactly align with the central location of the optical sensor or mechanical switch used to record the finish time in that car's lane. Similarly, a pointed-car design may not align well with the release gate or pin, which may be rounded.

b. Weight and Appearance (*applies to all Divisions with exceptions as noted*)

1. Weight shall not exceed 5.0 ounces. The readings of the Official Race Scale(s) will be considered final. Cars may be hollowed out and built up to the maximum weight by the addition of other materials or objects provided that such are securely built into the body or attached securely enough to prevent falling off or becoming separated from the car during normal race activity. (*Normal Race Activity refers to the traditional Pinewood Derby event. This does not include collision or impact-type events.*)

2. Only BSA Official Pinewood Derby Kits may be used. (*Pinecar and other partially-finished or pre-shaped construction kits may be used for Tiger Rank and Open Division entries only.*)

3. Mercury shall not be used. It is a health hazard.

4. Details such as steering wheel, driver, spoiler, exhaust pipes, roll bars, decals, painting, and other interior and exterior detail are permitted as long as they cannot become separated from the car during normal race activity and as long as the car, together with any detail attachments, still satisfies length, width, clearance, and weight specifications.

5. Cars with wet paint or wet glue will not be accepted.

6. After a car passes inspection, its registration number will be attached using a small adhesive backed label or sticker which shall be located on the rear portion of the car for easy visibility in identifying the car and indicating its proper direction of travel.

c. Wheels and Axles (*applies to all Divisions with exceptions as follows: Open entries are exempt from all requirements under this section.*)

1. The only wheels and axles allowed are from the BSA Official Pinewood Derby Kits.

2. Wheel bearings, spacers or bushings are prohibited.

3. The car shall not ride on any type of springs.

4. Only the tread surface and width of a wheel may be altered. The tread surface may not be modified to produce any configuration other than flat and parallel with respect to the axis of the axle bore. The tread width may be altered only from the side facing the body of car and may not be less than .275". The wheel diameter may not be less than 1.150" nor greater than 1.200". Lightly sanding and/or polishing the tread of the wheel to remove imperfections and/or mold marks will not normally reduce the diameter below this minimum. Should it prove impossible to remove imperfections or true a wheel without reducing its diameter to less than the specified minimum dimension, another approved wheel should be substituted.

5. Materials, other than permanent paint decoration or lettering highlights, may not be removed or added to the wheels except as stated above or as in II.c.7. below.

6. The backside (wheel side) of the axle heads may be ground or filed to remove burs. Axle shaft diameter may not be less than .085" at any point that contacts or could contact the interior of the wheel's axle bore. Simple polishing of the axle should not reduce its diameter below the allowable level.

7. No wheel covers (i.e. hubcaps) are permitted unless their function is for decoration only and not to measurably alter the weight or performance of the wheel. Decorative wheel covers that hide the ends of the nail-axles must be removable for inspection purposes. In particular, no covers designed to provide a reservoir for lubrication materials may be employed.

d. Lubrication (*applies to all Divisions without exception*)

1. Only dry powdered lubricants, such as graphite, may be used. Excessive lubrication is prohibited as it may damage equipment or floors.

2. All lubrication residues must be wiped clean from any external body or wheel part(s) prior to inspection.

III. DIVISIONS, EVENTS, & AWARDS

- a.** For purposes of award presentations and ranking, separate Divisions are maintained for entrants as follows: Tiger, Wolf, Bear, 4th grade Webelos, 5th grade Webelos, Overall (for the fastest 3 cars in each Cub Scout rank), and Open Category (for entries by siblings, family members, Boy Scouts, and for additional cars entered by an individual Cub Scout in excess of his Rank entry allowance - cars have more liberal compliance requirements in this Division).
- b.** As soon as possible prior to any race, a complete listing of prize categories and awards being offered shall be made available for general distribution or through electronic means. The Race Committee reserves the right to grant additional awards or prizes to any Entrant or car on any basis at any time, based on ad hoc or exceptional criteria.
- c.** Awards will generally be given to Cubs by Rank and/or by standing overall among all Cub Rank divisions in each event. Race organizers reserve the right to limit, substitute, or withhold awards in categories, ranks, or divisions on the basis of too few entries. Generally there must be at least 3 more cars entered than awards granted in each award category.
- d.** Awards in certain selected events and/or Divisions may be based on subjective criteria (most creative, best workmanship) As such, they are not subject to review or challenge. The decision of the judges in such events is final.
- e.** Awards based on objective criteria (elapsed time, proximity to target, etc.) may be challenged during the event only on the basis of measurement error or competing car or spectator interference.
- f.** No more than one place award per event shall be awarded to the same entrant for cars entered in any one Division. This does not preclude, however, an Entrant's receiving a Division place award and an overall place award(s) for the same car, or receiving multiple awards for the same car in different Events.

IV. INSPECTION AND DISPUTES

- a.** Immediately after registration, each car will be weighed and inspected for rules compliance at one or more Inspection Stations.
- b.** Each car must pass inspection before it can compete. Official inspectors have the right to disqualify any car that fails to comply with these rules. Entrants will be informed of the specific issues of non-compliance and given an opportunity to modify their car(s) to bring them into compliance and to resubmit their car(s) for re-inspection as long as registration remains open. If an Entrant's car cannot be brought into compliance for its intended Division, Inspectors may reclassify the car for entry in the Open Divisions as long as it satisfies the compliance requirements for those Divisions.
- c.** The owner of a car suffering mechanical problems which prevent it from completing an official timing run will be given the opportunity to repair the car and submit it for a new timing run. Repaired cars must be re-inspected prior to being re-run.
- d.** Any car observed to be leaving visible marks on track or guide-strip surfaces or otherwise considered likely by Inspectors or Race organizers to cause damage to track or timing apparatus may be suspended from further race activity.
- e.** Ungentlemanly or unsportsmanlike conduct by any participant or member of the audience will be grounds for expulsion from the competition and/or the race area.
- f.** Any protest of a car's compliance with the Construction rules or of its Divisional classification must be filed with Race organizers before registration closes in order to allow time for re-inspection or re-classification, as appropriate.
- g.** All rules will be interpreted in consideration of the Scout Oath and Scout Law.
- h.** Any participant or their guardian may appeal to the Race organizers for interpretation or clarification of these rules. Any decision by the Race organizers as to clarification or revised interpretation will be considered binding and final.

i. All disputes as to rules conflicts, interpretation, or the specifics of any race event shall be referred to the Arbitration Committee for final determination.

V. GENERAL RACE CONDITIONS

- a. Only designated Race Handlers shall be allowed to handle cars during timing runs used to determine time standings unless specifically authorized or directed by the Race organizers.
- b. Proper positioning of any cars will be limited to correct direction of car and reasonable alignment of car to track.