



# Pack 165 Pinewood Derby Rules 2017



**Date:** January 14, 2017

**Location:** Round Rock Presbyterian Church

**Qualification:** Open to all scouts in Pack 165. Each scout is encouraged to build and enter a car!!!!  
An Open Race with the same rules is available for Pack 165 siblings, parents, and scouters.

**Awards:** There will be four divisions based on rank: Tiger, Wolf, Bear, and Webelos  
Trophies will be awarded to the 1<sup>st</sup>, 2<sup>nd</sup> and 3<sup>rd</sup> place finishers in each rank and the top three overall.  
There will be design awards for Scouts Choice and Judges Choice in each rank.

**The Pinewood Derby is a fun race for the scouts allowing the boys to have fun, be creative and learn new skills with the help of an adult.** As the boys progress through Cub Scouting their skills and creativity should increase.  
**Adult assistance should decrease as the Scouts progress from Tigers to Webelos.** This is time for our scouts to shine!

**Rules questions, please contact:** Stanley Wood ([swood@swood.org](mailto:swood@swood.org)) or Bo Griffin ([dwbogriffin@hotmail.com](mailto:dwbogriffin@hotmail.com))

## Registration, Voting, and Race Times:

Registration and check in for all ranks is from 6 to 8:30 pm on Friday January 13<sup>th</sup> at Round Rock Presbyterian Church.

Race:	Date:	Voting:	Race Time:
WEBELOS	Saturday, Jan 14	8:45-8:55 am	9:00 am
BEARS:	Saturday, Jan 14	9:30-9:40 am	9:45 am
OPEN RACE:	<i>(siblings, parents, and scouters)</i>		10:20 am
WOLVES:	Saturday, Jan 14	10:35-10:45am	10:50 am
TIGERS:	Saturday, Jan 14	11:10-11:20am	11:25 am
FINALS:	<i>(top three finishers from each Cub Scout rank)</i>		11:45 pm

## Tune-Up Workshops:

- **When:** Saturday December 17th and Saturday January 7<sup>th</sup> from 9am until noon
- **Where:** 1712 Possum Trot, Round Rock
- **What:**
  - Leaders and scouts with derby experience will be available to answer questions and provide assistance.
  - The official templates and race scale will be available to check dimensions and weight prior to check-in.
  - These workshops are intended to help get started or refine cars. They are not full car building sessions.
- Email [swood@swood.org](mailto:swood@swood.org) or [dwbogriffin@hotmail.com](mailto:dwbogriffin@hotmail.com) for more information.

## Inspection/Registration:

- Car registration and inspection takes place the evening before the race.
- Please ensure the number assigned to your car is on the completed car.
- Each Scout must bring his car to the inspection table during registration. If the car fails to meet any of the requirements listed in this document, the Scout will be given an opportunity to correct the problem up to the close of registration.
- Please review all the requirements below paying special attention to dimensions, weight, purchased parts, and modifications to wheels and axles.

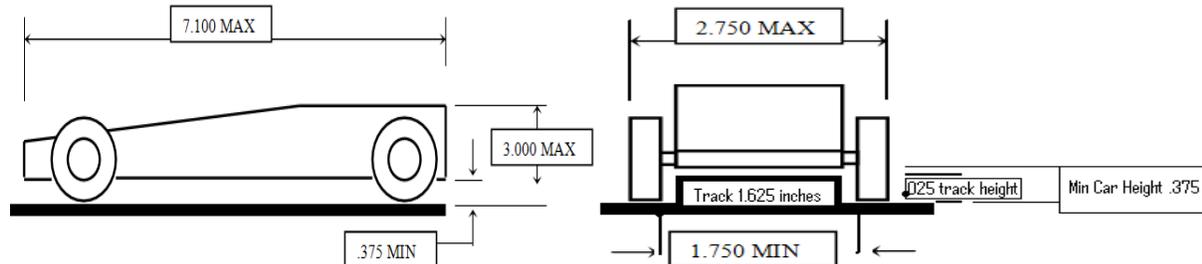
- Any participant (including parents) has the right to appeal to the Rules Committee for an interpretation of these rules. The Rules Committee, by majority vote, will be the final judge of these rules. If only one member of the Committee is present, they will have the final say.
- Each Scout may enter only one car in their official race.
- After inspection, each car will be registered and placed on pit row. From that point forward, only race officials may touch the cars.

## Car Dimension Requirements:

### I: Length, Width & Clearance:

- Maximum overall width (including wheels and axles) shall not exceed 2-3/4 (2.750) inches.
- Minimum width between wheels shall be 1-3/4 (1.750) inches at the axles.
- Minimum clearance between bottom of car and track shall be 3/8 (.375) inch.
- Maximum length shall not exceed 7.100 inches
- Maximum height between the track and the top of the car shall not exceed 3.000 inches.

\*\* NOTE: All dimensions will be verified by the official race templates. Failure to meet these specifications will result in disqualification.



### II: Weight:

The weight of the finished car shall not exceed 5.0 ounces. The reading of the official race scale is considered final. The official scale is calibrated with a labeled weight. As all scales differ, it is suggested the weight be easily modifiable at registration to help the car make weight.

### III: Shape:

- The official BSA block may be cut or shaped so long as it fits within the dimensions above and meets the requirements below for the starting gate.
- The starting gate is a round metal pin that extends upward from the center of each lane. The pin will fall forward at the beginning of each heat. Cars will be staged behind this pin, resting against it before each race.
  - Cars must have at least 1/2 inch of flat profile at the front center to enable proper staging of the car. Cars with round or pointed front ends may slide to one side or the other, resulting in slower starts.
  - Cars may not have a front-end configuration that allows any part of the car to be in front of the gate.
  - Cars may not include magnets, adhesives, or other means to be propelled by the gate as it drops

## Other Requirements:

### IV: General Requirements:

- Only official BSA Pinewood Derby blocks, nails, and wheels may be used.
- Each car must be newly built by the scout for the race season. Build of the submitted car is not to begin until the Pack distributes cars in the fall. No cars or parts of cars from prior years may be used. The car may be built any time after the beginning of the school year
- Each scout must build his car using an official BSA Pinewood Derby block, wheels, and axles.
- One BSA Pinewood Derby kit will be provided for each scout. Additional parts are available from the Scout Shop. Official BSA wheels are allowed in any color.
- Pre-cut or shaped blocks are not allowed. The blocks must be cut or shaped by the scout with assistance from an adult where appropriate.
- “Speed axles”, “prepared wheels”, and other parts which were modified or machined prior to purchase are not allowed, even if they originated as BSA parts.
- Any car identified as having purchased speed parts or having been professionally built will be disqualified.
- Cosmetic accessories are allowed including “wraps” for the car, pre-shaped weights, fenders, and other visual accessories like action figures, lego men, lights, etc.
- Cars must be free-wheeling, with no starting device or means of propulsion.

### V: Appearance:

Details such as steering wheel, driver, spoiler, decals, painting, etc. are all permissible as long as all of the size and weight specifications are met. Paint and glue must be dry when submitted for inspection or the car will not be accepted. Parts and decorations must be secured properly to the car so it may be handled and raced without breakage and to avoid damage to the track or other cars.

### VI: Lubrication:

- Dry powdered lubricants such as graphite or Teflon are recommended.
- Wet lubricants are permitted only if used sparingly and there is no dripping or oil residue on the outside of the wheels or car.
- Lubricants must be applied prior to bringing the car to the derby site to avoid creating an extra mess at the church. **No lubrication is allowed at the Derby site.**

### VII: Wheels: Important, please read these very carefully. If your wheels are not as listed below your car will be disqualified.

- Only official Scout wheels with “BSA PINEWOOD DERBY” molded on the outside may be used. These words must remain unmodified.
- No wheel bearing or bushing inserts are allowed.
- The “bumped” edge must remain intact and unmodified, no exceptions. (see photo - you are looking at the dots that appear as bumps)



The serrated edge shown in the right picture must remain unmodified. The bumps that appear as dots can't be removed or modified in any way.

- No “hub caps” that cover the outside of the wheel are allowed.
- The center bore and outer tread surface of the wheels may be sanded or polished for smoothness.
- Wheels and tread must be maintained at full width. No razor/thin wheels, grooved, or H tread wheels are permitted. No wheels modified so only a thin portion touches the track are permitted. Wheel diameter is based upon the judge’s visual inspection.

- Material may be removed from the front, back, or middle of the wheel as long as the above requirements are met. Drilling out material from the spokes, adding additional holes, and reducing the size of the center bore are all allowed.
- At least four wheels must be used.

### **VIII: Axles / Nail:**

- Only nails from official BSA Pinewood Derby car or wheel kits may be used.
- The head of the nail may be reduced.
- The nail may be de-burred and polished.
- Free-floating washers on the nails are prohibited.
- The distance between the front and rear axles may be changed from that of the standard derby car kit.
- At least three of the four wheels must touch the track. (One wheel can be off the ground)

### **Special Awards and Voting:**

Two special awards will be given for each rank group. One of these is voted by the scouts of that rank, and the other by adult judges. Cars winning the Scouts Choice voting will not be eligible for Judges Choice.

### **Race Process:**

- Only race officials may handle the cars during competition (from registration until the car has finished all racing).
- If a car suffers a mechanical problem, loses an axle, breaks a wheel, etc. the scout and an adult will be given five minutes to attempt a repair before the heat is re-run. If the repair cannot be completed within 5 minutes, the car will forfeit the heat. Repairs must be done in the pit area. Any car that has been repaired must be re-inspected before re-entering the race. Lubricant may not be reapplied during or after repairs.
- If a car jumps off the track, the heat will be run again. If the same car jumps off the track a second time, it will forfeit the heat.
- An electronic timer will be used at the finish line to determine finishing order. If the timer malfunctions or a technical problem occurs, the heat will be re-run.
- Winners will be determined based on points accumulated from each car's finishing order in a series of heats.
- Any ties in the accumulated points will be broken by the race manager software using the following criteria:
  - Head-to-Head Results
  - Results Against Common Opponents
  - Total Time
- Only adult and Boy Scout race officials are permitted in the track area.
- Cub scouts should be present while their car is competing. If a Scout leaves during racing and/or judging, the Scout must appoint someone who does not have a car entered **in the same classification** to be present when his car is racing or is being judged. Cars without a representative may be pulled from competition.
- Good sportsmanship and behavior is expected. Race Officials may ask anyone not following these rules to leave.
- The focus of this event is not to win at any cost, but for each Scout to DO HIS BEST and have fun!
- Advancing or winning cars will be announced throughout the derby.
- When a car has been eliminated from competition, it will be placed in a designated area marked "PICK UP"
- Cars in the Open Class race are not eligible to advance to the Finals.