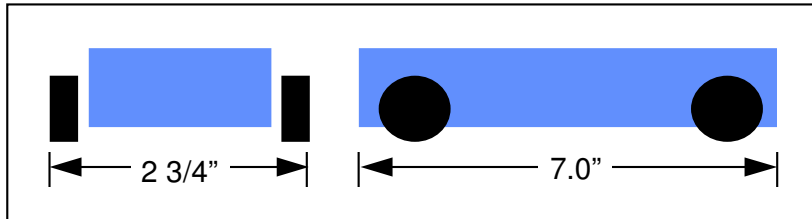


# 2011 Ft. Hamilton District Pinewood Derby rules



## Body:

The main body structure must be made of wood. Must use a BSA kit Block, attendance at a workshop (den/pack/district/council) is strongly encouraged.

Cars must be tuned or aligned by the racer, adult supervision is encouraged. Cars may not be sent to third party facilities for tuning or other performance enhancements.

## Car Specs:

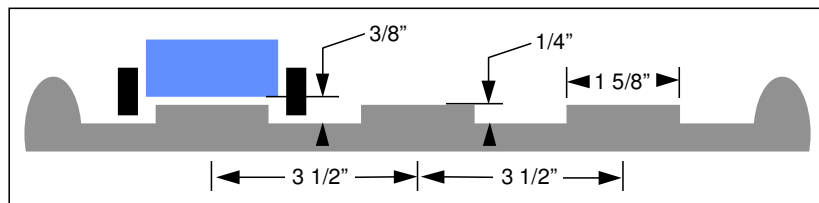
**A. Width** - Not to exceed 2 3/4 inches

**B. Length** - Not to exceed 7 inches

**C. Weight** - Not to exceed 5.0 ounces on scale accurate to the District Standard weight

**D. Height** - Not to exceed 3 inches

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



**F. Bottom Clearance** - No less than 3/8 inches from track surface. Fender flairs with less clearance are acceptable as long as the center rail width clearance is the same in rule E. Weights are preferred to be inset in the body or on top of the car to aid in a safe stop at the end of the track.

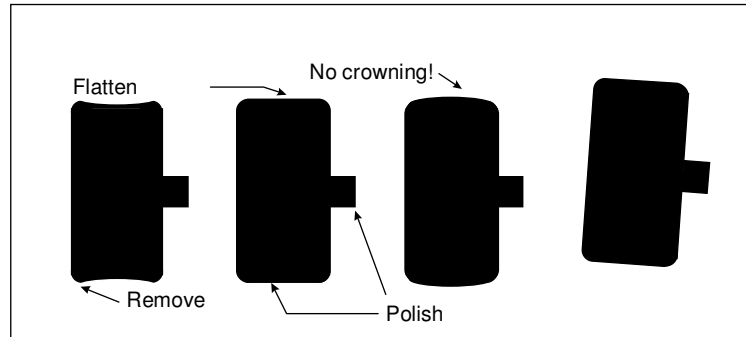
**G. Wheelbase** –All cars must have a wheel base no more than 4 1/2", with the two rear wheels being positioned directly across the body from one another and the two front wheels being positioned directly across the body from one another.

**H. Front End** – Depending upon the track, the front of the car may rest against a short starting pin. We therefore require 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.

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.

No part of the car body, wheels or attachments may protrude in front of the starting peg.  
The following items are PROHIBITED:

- A. Springs
- B. Starting devices or propellants
- C. Electronic or lighting devices that interfere with the race electronics.
- D. Liquids, wet paint, oil, sticky substance, or powders of any kind (other than axle lubrication)
- E. Glass or excessively fragile parts
- F. Bearings, bushings, washers, sleeves, hubcaps or inserts attached to or in contact with the axle, body or wheels.
- G. Loose objects on car
- H. Magnets
- I. No part of any car, or attachment to any car, that is metal, pointed, sharp, and/or jagged may be capable of contacting any part of the track.



#### **WHEELS:**

- A. Use only Official Scout Grand Prix wheels.

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. Outer wheel surface may be lightly sanded, shaved, or polished to remove surface imperfections and mold casting burrs, but must not be reshaped in any way in an attempt to lighten the wheel, minimize tread contact or alter aerodynamics. Tread surface must be flat and parallel to the wheel bore. Coning the hubs and truing the inside edge is allowed. Tread width may not be less than 7.5 mm. 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.

- B. Wheel Bore treatment is allowed including polishing and/or tapping. Wheel bores may not be filled and re-drilled to alter bore diameter or to achieve better fit with the axle.

The following wheel modifications are PROHIBITED:

- A. Rounding of wheel edges
- B. Grooving, H-cutting or V-cutting
- C. Altering of wheel profile
- D. Narrowing the tread surface
- E. Drilling sidewalls
- F. Hollowing, sanding, or otherwise removing or modifying material from inside the wheel
- G. Filling of any wheel surface with any type of material

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. Each wheel must be attached directly to the car by an axle and spin freely. No part of the wheel may overlap the center guide rail by more than 1/8 inch.

The two rear wheels and the two front wheels must be positioned directly across the body from each another. Staggered wheelbases are not allowed.

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. Neither part of the car, nor any attachment to the car may be capable of coming into contact with the track other than the wheel(s).

**AXLES:**

BSA Nail type axles are required with an overall diameter of no less than .084 inches for each wheel. Some polishing and/ or modification is allowed. Axles must not be connected to any device that mechanically alters rotation and spin.

Axles must be mounted into the wood sections of car. Drilled holes or slots can be used. Minimal Flattening to nail head

Over-application of lubricant which results in excessive shedding onto the track is not allowed. Approved lubricants include

Dry graphite

**INSPECTION:**

Each car must pass inspection by the Official Inspection Committee before it may compete. The Inspectors will disqualify any car not meeting these rules. Any adult or scout may appeal the findings of the Inspectors to the Race Committee Chairperson, whose decision is final.

Cars may be disqualified if they are determined by the race officials to not meet these requirements.

**WEIGHTS:**

The drilling/removal of Lead (Pb) will NOT be allowed inside the race venues or at check-in time due to the toxicity of the material. All Lead (Pb) must be completely sealed and safe from all possible contact with the youth. PLEASE avoid Lead (Pb) in cars this year!

**REPAIRS:**

Any car losing wheels or any part that prevents it from running cannot be repaired after the inspection and weigh in.

EXCEPTION: Race officials may authorize repairs when damage is caused by collision with another vehicle or object.

The Cub Scout is in charge of making all car repairs. Guidance is allowed and encouraged. Ideally repairs can be done before the next heat that the car is in starts. After the car is repaired Officials will run the race again. If the car cannot be repaired before it's next race starts, that race will also be delayed until the end of the races.

All repaired cars subject to inspection by inspection committee.

**BEHAVIOR:**

GOOD SPORTSMANSHIP AND BEHAVIOR IS EXPECTED. Race Officials may ask anyone not following this rule to leave.

**QUESTIONS:**

EMAIL [pwdrules2011@yahoo.com](mailto:pwdrules2011@yahoo.com)

Questions may be addressed to the Race Officials.

**Guidelines & Sportsmanship Notes**

The Pinewood Derby is a parent-son project. Please feel free to give guidance and minimal assistance to your Scout as he builds his Pinewood Derby car. This is a chance for your son to be part of a team (he and you), and to enjoy the spirit of friendly competition with his peers. Also for your Cub Scout to enjoy the satisfaction of building his own car from the kit provided.

A special note to all parents and scouts: Together, please read the following article on sportsmanship.

While everyone will be trying to win, it's always a good idea to start out by remembering the Cub Scout Motto, "Do Your Best," and some of the basic ideas behind good sportsmanship.

Two things the Pinewood Derby requires each participant to learn are:

- 1) the craft skills necessary to build a car, and
- 2) the rules that must be followed.

Even more important, though, is how we act and behave while participating in the Pinewood derby or any other group activity. This is called sportsmanship.

The first thing to remember about sportsmanship is that everyone's skills are a little different. You maybe good at something like singing or drawing, but not as good at something else like basketball or computers. Parents have different skill levels, too. This doesn't mean that you are a good person one time and not good another time. You can always be a good person, whether or not you have good car-building skills. Remember, you and your friends are individuals first and racers second. This idea is often called having respect for others.

The second thing to remember is to follow the rules. Without rules, there would be no Pinewood Derby. You will never know if you are really good at doing something unless you follow the rules. This is often called being honest.

The third thing to remember about good sportsmanship is that there are winners and losers in every competition. You accept this when you choose to compete. There may be times when you win and feel happy, and times when you lose and feel unhappy. Being a winner is easy, and losing is sometimes hard. If you win, you must not brag or gloat. If you lose, you must not feel jealous or bitter.

To be a good sportsman, you must be able to say "I did my best" and be satisfied with the results.

You must also be able to appreciate and feel happy for someone else when they run a good race or build a neat car.