



# MIAMI VALLEY COUNCIL

## BOY SCOUTS OF AMERICA

### 2012 Sunwatch District Pinewood Derby Rules

#### Official Rules: Tiger, Wolf, Bear, Webelos and Arrow of Light Divisions.

Please review the rules carefully –

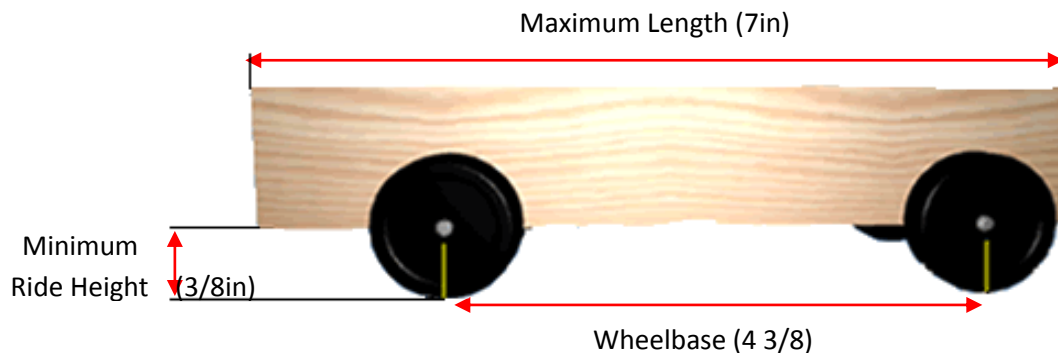
- Cub Scouts are encouraged to **DO THEIR BEST** and **HAVE FUN**.
- Cub Scouts must be present for their car to compete.
- All cars must meet the following inspection points:

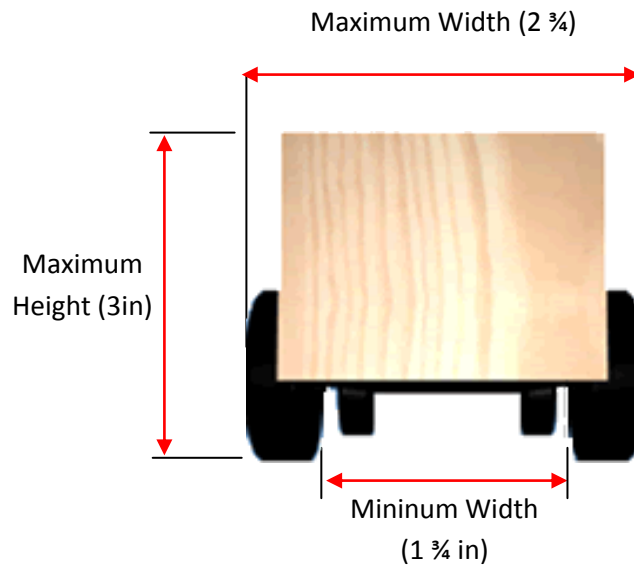
#### Body:

Cars should be built from the materials in the official Grand Prix Pinewood Derby kit sold by the Boy Scouts of America. If you need an additional kit or new wheels and axles (including the colored wheels), you may purchase these items at the Miami Valley Scout Shop or [www.scoutstuff.org](http://www.scoutstuff.org)

#### CarSpecs:

Maximum Width	2 3/4" (7cm)
Maximum Length	7" (17.8cm)
Maximum Weight	5oz (141.75g)
Maximum Height	3" (9.53cm)
Wheelbase	4 3/8" (11.11cm) from center of front axle to center of rear axle
Minimum Ride Height	3/8" (.95cm) from track surface – fender flairs with less clearance are acceptable
Minimum Distance from Center of Rear Axle to Rear of Car	1" (2.54cm) ±10%
Minimum Center Rail Width	1 3/4"





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.

The following items/modifications 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. Liquid lubricant is NOT allowed. Dry lubricant is allowed on the axles.
- 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.
- J. The front of the car cannot be grooved or slotted in any manner that extends any part of the car past the surface of the starting pin in which the nose of the car is resting upon.

### **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 after market 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.

No 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 as long as overall diameter is not reduced below .084 requirement.

Grooves are allowed, the depth of the groove(s) is not limited so long as the journal portion of the axle (the part the wheel rides on) is no less than the stated minimum diameter.

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.

### **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. After acceptance only race officials will handle the cars.

### **WEIGHTS:**

The drilling/removal of Lead (Pb) will NOT be allowed at 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.

### **BEHAVIOR:**

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

### **Who Qualifies For District:**

Once your Pack race is run, you may register your Overall Top 3 and your First Place Finisher in each rank (Tiger, Wolf, Bear, Webelos and Arrow of Light). Overall Top 3 are separate from First Place Finishers. Whichever rank your Top 3 are from, the 2<sup>nd</sup> Place Finisher in that rank would then move up to First Place. So, you may register a total of 8 scouts to represent your Pack at District.

### **Rules Interpretation and Clarification:**

Contact Dave Amstutz at 734-646-6431 or email [dmamstutz@gmail.com](mailto:dmamstutz@gmail.com)