

# **2018 Alpine District Pinewood Derby - Official Rules**

*The Alpine District Pinewood Derby will be held on Saturday, April 14, 2018 at the Issaquah LDS Building - 1100 6th Ave SE, Issaquah, WA.*

## **Race Categories:**

**Current Cub Scout Race** – *this is for currently **registered** Alpine District Cub Scouts **in uniform**, their siblings and adult guardians. All cars must have been constructed within the last 365 days. Webelos who have recently crossed over to Boy Scouts must race in the open kid race. Scouts are not required to be present to race but must have one member of your pack present to check in their car.*

**Open Kid Car Race** – *for Cub Scout siblings and other racers under the age of 18 who have constructed a car within the last 365 days.*

**Open Adult Car Race** - *This category is for adult racers who have built a car within the last 365 days.*

*Entry fee is \$10 for each car entered to race and will be collected during the registration/inspection process. One car only per racer. Cash or check only.*

*All cars must be registered and inspected prior to the race. Registration and car inspection will only be held **BEFORE** the race from 8:30am – 9:30am. Be sure to arrive in time to get through the check in process. The race begins at 10:00 am **SHARP!***

*All Cub Scouts who are present must be in uniform during race.*

*All cars, regardless of being a scout, sibling or adult car, must follow the rules below.*

## **RULES**

*All cars entered must be constructed within the past 365 days. The scout advances, not a specific car. Feel free to retune your car or even build a whole new one! Many build a car for **DESIGN** at the Pack level and then build a new car for **SPEED** at the District level.*

1. The main body structure must be made of wood. The block may be shaped any way that is desired. The car design may be enhanced by the addition of other stable materials such as plastic or metal. Any additions must be firmly attached, non-moving, and meet car size specifications. No part of the car may protrude past the starting peg. There must be four wheels on the car but all four wheels are not required to touch the track.
2. Official BSA Pinewood derby wheels must be used; either those in the kit or colored BSA . The front most and rear most wheels must be positioned across the body from one another. The inside and outer hub of the wheel may be shaped.



**Wheel rule changes for 2018 (listed in red)**

Pinewood Derby replacement wheels (like those shown below).



**RAISED LETTER WHEEL (FRONT)**

**RAISED LETTER WHEEL (REAR)**

All markings must be intact on inside and outside of wheel as shown above:

- The fluting (small decorative dots on the edge) must remain visible around the entire circumference.
- The tread / contact surface must remain flat and parallel to the bore.
- **The wheel diameter must be no less than 1.16 inches**
- The width of the tread must not be less than **7.5mm**
- The following wheel modifications are NOT Allowed
  - o No Rounding of the wheel treads – they must remain flat.
  - **No removing material from the inside tread surface or the inside side wall surface**
  - No removing or reducing the letters or spokes or drilling additional holes.
  - No Grooving, H-cutting, V-cutting, Crowing, Tapering or Dishing
  - No Altering the wheel profile
  - No Drilling sidewalls
  - No Filling of any wheel surface with any type of material

The rules permit many wheel modifications so long as you observe the dimension limits and restrictions listed above.

Common legal modifications include but are not limited to:

- Truing the tread surface with sand paper, straight edge, or lathe to correct “out of round” wheels.
- Truing and shaping the inner edge of the tread surface.
- Narrowing the tread surface to 7.5mm to get straight edges.
- Applying wheel bore treatments such as polishes and wax to smooth the bore.
- Tapping the wheel bore.
- Truing and re-coning the tip of the inner hub.
- Removing the double step from the outer hub.
- Balancing the wheel by adding material such as glue or fingernail polish to the inside of the wheel.

Official BSA colored wheels may be used if they adhere to the rules above.



3. Metal axles with a nail head are required.
  - You may use official BSA axles or after-market nail type axles from various vendors.
  - Modifications to the Axles are allowed that include straightening, sanding, polishing, grooving and canting.
  - Beveling & tapering of axle head is allowed. Axle wheel coverings are prohibited.
4. Lubricants you may use include but are not limited to: Graphite, Teflon, Nyoil, and Krytox.  
Over application of lubricant, which results in excessive shedding onto the track is not allowed.

## Measurements

1. The official race scale and measurement tool shall be considered final.
2. Weight of the car must not exceed 5.0 ounces. Any extra weight you have added must be securely attached **NO TAPING!**
3. Length of the car shall not exceed 7".
4. Width of car (including wheels and axles) shall not exceed 2  $\frac{3}{4}$ ".
5. Clearance between wheels must be 1  $\frac{3}{4}$ ".
6. Clearance underneath body of car must be  $\frac{3}{8}$ " so car will clear the center guide of the track.
7. Wheel-base (distance between the front and rear axles) may be extended beyond the cut slots if desired.
8. Height of car must not be over 4  $\frac{3}{4}$ " tall or it will hit the finish line.

## Prohibited

1. Wheel bearings, bushings are prohibited.
2. The car must not ride on any type of springs.
3. The car must be freewheeling, with no starting devices.
4. No loose material of any kind, such as lead shot, may be used.
5. Cars may not have any rockets, or other heat source.
6. Cars with wet paint or wet glue will not be allowed to race as it will ruin the track.

## Registration/Inspection Process

1. We recommend transporting your car to race day in a shoebox. Dropped cars are unfortunately a too common experience.
2. Each car must pass inspection by the official Inspection Committee before it will be allowed to race. The Inspection Committee has the responsibility to disqualify those cars that do not meet these specifications. Any car with anomalies noted on visual inspection may be subject to removal of the wheels to further inspect the axles and to measure the wheels.
3. Per the track rental company, each car is required to be numbered. The Inspection Committee will number each car during the inspection process. The number label will go on the top rear of the car.
4. In order to pass inspection, car measurements may need to be altered once weighed/measured by the

Inspection Committee. Come prepared with materials needed to alter the car in order to pass inspection. Tools and weights will not be provided during registration process.

5. Suggested items to bring are: superglue, sandpaper, a drill, a screwdriver, screws or other types of weights, extra wheels and axles.
6. Once cars have passed inspection they will be impounded and ultimately moved by race officials to the car holding area until start of race.
7. Only the race officials may touch cars once they are impounded.
8. PLEASE NOTE-Passing inspection at your pack race does not mean you will automatically pass inspection at the district due to differences in rules.

### During the Race

1. Race officials will handle cars by placing on track, removing from finish line, and returning to car holding area.
2. No cars may be altered in any way after registration. Damage repair may be allowed during the race only if it does not delay the race, but no modifications shall be allowed. A re-inspection may be required to continue once repairs have been made

### Awards

1. Awards will be given to the 1st, 2nd, and 3rd place scout finishers overall and by rank (Tigers, Wolves, Bears, and Webelos)
2. Awards will be given to the 1st, 2nd, and 3rd place finishers in the sibling and adult categories.
3. Awards will be given for the following design categories: Best Scout Theme, Most Patriotic, Best Design, Best sports theme and Most Realistic.



### Conduct

1. Cub Scouts and adults are expected to show "Scout Spirit" throughout the event. Good sportsmanship with a "Do Your Best" attitude is required.
2. "The Scout Law" and "Scout Oath" are the way of the day.
3. Participants must respect the rules, and respect each other at all times.
4. Acting in a "Un-Scout" like manner will result in being disqualified and asked to leave.
5. Race Officials are volunteers for this event, so please respect their decisions.
6. Arguing with Race Officials is considered non-sportsman like conduct.



IF THERE ARE ANY QUESTIONS REGARDING THESE RULES, PLEASE FEEL FREE TO CONTACT BOB AT [BALLISTICBOB4@GMAIL.COM](mailto:BALLISTICBOB4@GMAIL.COM)