



## **ARBUCKLE AREA COUNCIL**

### ***Pinewood Derby Rules***

PINEWOOD DERBY RULES

Adopted: April 2010, Last modified 13 September 2011

**These are the official Arbuckle Area Council Pinewood Derby rules. These rules shall apply to the Arbuckle Area Council pinewood derby races and supersede any rules the Council may have used in the past, any pinewood derby website you may have read, as well as the rules/construction instructions found in the Pinewood Derby kits. All cubs participating in the Council Pinewood Derby must adhere to these rules or they will not be allowed to participate in the event. Please familiarize yourself with these rules.**

**1. Length, Width and Clearance:**

- A. Maximum Overall Width (including wheels and axles) shall not exceed 2 3/4 inches. Maximum length shall not exceed 7 inches.
- B. Minimum width between wheels shall be 1 3/4 inches and minimum clearance between the bottom of the car and track shall be 3/8 inches so the car will clear the center guide strip on the track.
- C. The wheelbase (distance between the front and rear axles) may not be changed from the kit body distance of 4 1/2 inches (+ or - 1/8 inch). Use of the factory grooves for all axles is mandatory. All measurements will be determined to be correct if the car fits in the "Official Box" and the "door closes" and no part of the body is protruding beyond the box's starting pin. The box shall be approved by the Chairman for use in any/all pinewood derbies within the Arbuckle Area Council.
- D. After the cars have been officially inspected at the Pack Level race, *NO FURTHER MODIFICATION* (other than re-lubricating the axles) *MAY BE PERFORMED ON THE CAR!*
- E. The car may be no taller than 2 3/4 inches measured at its highest point.
- F. The entire car (all parts of the car) must stage ***BEHIND*** the starting pin.
- G. Cars must be made from an official Boy Scout official Kit.

2. **Weight and Appearance:**

- A. Weight shall not exceed 5 ounces. The reading of the official race scale will be considered final. The car may be hollowed out and built up to the maximum weight by the addition of wood or metal only, provided it is securely built into the body or firmly affixed (by the use of permanent glue, nails or screws )to it. No loose material of any kind is permitted on or in the car. Weights shall be "passive", i.e., non-moveable, non-magnetic, non-electric and non-sticky.
- B. No items may be secured to the car with any tape, spray adhesive, string...etc.
- C. Due to the potential health hazard, mercury shall not be used for adding weight.
- D. Details such as steering wheel, driver, spoiler, decals and painting are permissible as long as these details do not exceed the maximum length, width and weight specifications. Cars with wet paint shall not be accepted.
- E. The official scale shall be approved by the Chairman for use in any/all pinewood derbies within the Arbuckle Area Council.

3. **Wheels and Axles:**

- A. Only official BSA wheels (Black or **colored**) and axles may be used. Axles may be polished. Axle mold marks may be removed. Wheels may be lightly sanded to remove the mold projection on the tread surface (if present), this is the only allowed modification to the tread surface that is allowed. Beveling, tapering, thin sanding, wafering and /or lathe turning of the wheels are prohibited. Tread design on wheel (sidewall "tic marks") must not be removed. **Colored BSA wheels are offered at [www.scoutstuff.org](http://www.scoutstuff.org) or your local Scout Store and are legal for all races.**
- B. Wheel bearing, washers or bushings are prohibited. The car shall not ride on any type of springs. No weight may be added to the wheels. Spacers are allowed providing the wheels do NOT go beyond the overall width restriction(s).
- C. The car must be freewheeling with no starting devise or other propulsion.
- D. Wheels may not be concave, convex, nor have any ridges or groves.
- E. **At a minimum, 3 wheels must touch** when placed in the "Official Box" and starting gate on the track.
- F. All axles must be affixed in the precut axle slots in the BSA Pinewood Derby Block. **The use of "PRO" tools sold by BSA @ ScoutStuff.org or your local Scout store is/are authorized in the production of your kit.** This includes the pro-body tool (for drilling "pilot holes") pro-axle press, pro-rail rider...etc. **ALL "Pilot Holes" MUST BE INSIDE THE WHEEL SLOTS. YOU CAN NOT MODIFY THE DISTANCE OF THE AXLE SLOTS.**
- G. Reduction of the mass from the inside of the wheel (known as thinning or the creation of a "light" or "ultra light" wheel) is PROHIBITED. The following wheel tread thicknesses are provided: **Old style (mold projection on flat part of tread)** .076 inches (+/- .003 inch)...**New Style (3 circular mold marks on inside of wheel )** .063 inches (+/- .003 inches) we may use Digital Calipers if it appears that a wheel (or wheels) have been "thinned" to test these measurements.

4. **Lubrication:**

- A. Only dry powered lubricants, such as graphite, may be used.
- B. Cars may be lubricated before inspection. **NO further lubrication will be permitted during the race.**

5. **Ground Rules:**

- A. The Arbuckle Area Council race is open to Cub Scouts car that placed 1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup> place for their Rank in their respective District pinewood derby race(s).
- B. Cars must have been made for this current year's race. Cars made in previous years are not permitted to race again.
- C. Each Scout will bring his car to the table for inspection and registration. Only the Cub Scout may enter his car. The car will be tagged using the current tagging/tracking system in place. No car will be allowed outside the racing area after registration. **After the car has been inspected and is accepted for the competition, the car will be "quarantined". No one may touch, move or manipulate the car in any manner except for the cub or track official and only when his name is called to enter the track area.**
- D. Each car will race two times. After the first race, the cars will change lanes and race again. A car must win twice to be the winner of the heat. After each heat, the driver will return his car to the table.
- E. The Cub Scout (or race official) will place his car on the track at the starting line. **Three of the 4 wheels MUST touch the track (see 3E).** The scout or the starter may position the car on the track.
- F. If a car jumps off the track or interferes with another car, the race will be run again after the track is checked for a problem. If the same car jumps off the track a second time, it will automatically lose the heat.
- G. If, during a race, no car reaches the finish line on the track, the car which went the farthest in its lane shall be declared the heat winner.
- H. If a car suffers a mechanical problem, loses an axle, breaks a wheel etc..., and a repair can be accomplished within **5 minutes** in the race area, then the race will be run again. If not, the car will automatically lose the heat.
- I. There will be two judges. Both judges must agree on the winner of the race or it will be run again.
- J. ***Ties – A tie is when both cars have run 1 heat each (one run down the track, no matter the lane(s)) and BOTH cars have won an individual heat.*** To determine the next heat (and probably the final heat to determine the winner of this race), the track starter or a member of the Pinewood derby staff shall do a coin toss. The winner of the 2<sup>nd</sup> heat that caused the tie will call "heads" or "tails" while the coin is in the air. The winner of the coin toss shall select his lane to race the next heat. A tie is NOT when both cars cross the finish line at the exact same time and subsequently triggers both lane lights to light up. In that case the heat will be re-run with both cars in the exact same lane as the previous run.

- K. At no time will there be any modifications to the cars (like lubing..etc) after they have been inspected with the exception of paragraph "5H" above. Only the cub or the track starter may touch the cub's car during the District or Pack Races.
- L. Only Race Officials and Scouts racing will be permitted into the registration and track area. No other adults or boys are allowed within the track area or to handle any Scout's car. The rule will be strictly enforced by IMMEDIATE DISQUALIFICATION or LOSING OF THE CURRENT HEAT (the Track Chairman will chose).
- M. These rules have been created so that no one cub can gain a technical advantage over another.
6. **Inspection and Disputes:**
- A. Each car must pass a "**STRICT**" inspection by the Official Inspection Team before it may compete. The Inspection Team has the right to disqualify those cars, which do not meet these rules. Car owners will be informed of the violation and given an opportunity to modify the car to meet these rules. **ALL rules in Paragraphs 1, 2, 3 and 4 will be STRICTLY ADHERED TO.**
- B. Any participant (including the parent of the participant) has the right of appeal to the Race Committee for an interpretation of these rules. The Race Committee, by majority vote, will be the final judge of these rules. In case of a tie vote, the decision of the Race Chairman will be final.
- C. Ungentlemanly or un-sportsmanlike conduct by any participant or member of the audience will be grounds for expulsion from the competition or race area.
- D. A Race Official will be present at weigh in and inspection.
- E. **IF a deadline for registering the cars is provided, it will be strictly adhered to. No cars will be registered after the deadline. Please leave with ample transportation time to meet this deadline.**

**THANK YOU FOR RACING  
WITH US TODAY!**