## **Cub Scout Pack 47**

# **Pinewood Derby Rules**

The purpose of the rules is to provide a reasonable and level playing field for all contestants. Our rules closely follow the BSA District Rules. If your car conforms to our rules, then it should also qualify under the District Rules. Please read and heed the rules!

The footnotes at the bottom of the page might help clarify any confusion about the rules. If you still have uncertainty about what is allowed, please contact the Steve Romero.

#### **Eligibility of Contestants and Cars**

- Cars in the current year competition must have been made for this race season. Cars or parts of cars such as wheels or axles, from previous years may not be used.
- All cars must successfully pass weigh-in and inspection no later than the day of the weigh-in to be qualified to compete.

### Length, Width & Clearance (See Attached Inspection Report)

- Maximum overall width (including wheels and axles) shall not exceed 2-3/4" Minimum width between wheels shall be 1-3/4" so the car will clear the center guide strip.
- Minimum clearance between the bottom of the car and track shall be 3/8" so the car will clear the center guide strip
- Maximum length (including wheels) shall not exceed 7"
- Maximum height shall not exceed 3"
- The wheelbase (distance between the front and rear axles, center to center) may not be changed from the kit body distance of 4-3/8" i
- The front edge of the car must be behind the starting peg. (100% of the car must be behind the starting peg.)

#### Wheels and axles

- Car bodies must be from the block of wood in the BSA Pinewood derby kit
- Axles must be placed at a 90 degree angle in the slots provided in the bottom of the body. Either end of the car can be the front.
- Only the wheels and axles from the official Cub Scout Grand Prix Pinewood Derby kit may be used. ii
- Axles and axle heads may be filed or sanded to remove flashing and burs, then polished to reduce friction. No dimension changes or reshaping can be made. This light filing, sanding and polishing is the only axle modification allowed. <sup>iii</sup>
- The outside circumference of the wheels can be sanded to remove surface imperfections, but the treads and words "BSA Pinewood Derby" must remain flat and visible. The hub may not be changed or modified in any fashion. iv
- Weight shall not exceed 5 ounces. The readings of the Official Race Scale will be considered final.
- The car may be carved, sculpted, and/or sanded in order to enhance performance and/or appearance.
- No loose materials of any kind are permitted on or inside the car.

- Additional materials may be added to the car for the following purposes only:
  - 1. Weights may be added to increase the weight and/or alter the weight distribution of a car.
  - 2. Paints/decals/decorations may be added to alter the appearance and/or aerodynamics of a car.
  - 3. Glue may be used to secure the axles to the car body.
  - 4. Wood putty, or a similar wood-like substance, may be used to repair minor damage to a car.

#### Lubrication

- Only dry powdered lubricants, such as graphite or white powder Pinewood Derby Car Lubricant, may be used. Oils and silicone sprays are prohibited.
- A car may be lubricated before weigh-in. This is the only time when lubrication is permissible. Specifically, cars may not be lubricated while competing in a set of heats.

#### **Ground Rules**

- 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 automatically lose the heat.
- If a car leaves its lane and interferes with another car, the heat will be run again. If the same car leaves its lane a second time and interferes with another car, the heat will be run again without the interfering car. The interfering car will automatically lose the heat.
- If a car suffers a mechanical problem and a repair can be accomplished within 5 minutes, the heat will be run again. If not, the car will automatically lose the heat.

#### **Inspections and Disputes**

• Each car must pass inspection by the Official Inspection Team before it may compete. The Inspection Team has the right to disqualify those cars, which do not meet the rules. Car owners will be informed of the violations and given an opportunity to modify the car to meet these rules.

<sup>&</sup>lt;sup>2</sup> The official kit block has pre-cut slots which are correctly spaced. If desired, these slots may be pre-drilled

<sup>&</sup>lt;sup>3</sup> Wheels and axles not from the official kits are prohibited. Wheels and axles which have been modified by other parties also are prohibited, even if they are from the official kit.

<sup>&</sup>lt;sup>4</sup> Beveling, rounding, tapering, thinning, perforating, or any other significant altering of the shape or performance of the axles or axle heads such as "speed axle" modifications is prohibited.

<sup>&</sup>lt;sup>5</sup> Beveling, rounding, tapering, thinning, perforating, or any other significant altering of the shape or performance of the wheels or wheel hubs is prohibited. Modification of the cylindrical inner wall of the wheel which contacts the axle such as tapping threads into the hub is prohibited.

<sup>&</sup>lt;sup>6</sup> Wheel bearings, washers, or bushings are prohibited. This includes "wheel covers" which serve to keep the wheel hubs from contacting the car body. It also includes "hub caps", or anything else that might serve as a lubrication "well" or "tap". The car shall not ride on any type of springs. The car must be free-wheeling with no starting device or other propulsion, such as adhesives, magnets, rubber bands, motors, jets, etc. Details such as steering wheel, driver, spoiler, decals, painting and interior details are allowed as long as these details do not exceed the maximum length, width, height, and weight. Metal frames and metal axle supports are prohibited. Axles must be mounted into the wood.



# PINEWOOD DERBY INSPECTION & REGISTRATION FORM

OFFICIA	AL USE
CAR ID#:	
EYE TEST:	
EXAM:	
DRIVE TEST:	

RACER	: PACK: DEN: RANK:	
CAR NAME and/or DESCRIPTION:		
INSPECTION REPORT		
PASS	☐ PRELIMINARY ☐ FINAL	
	Maximum Overall Width - 3"	
	Minimum Width Between Wheels - 1-7/8"  —1-7/8" MIN—— 3" MAX————————————————————————————————————	
Maximum Length - 7"		
	Maximum Height – Not to exceed 3"	
	Minimum Track Clearance - Bottom clearance between car and track - 3/8"	
Wheelbase – The distance between axels must NOT be changed.  Car uses the existing Axle Grove.		
7" MAX  3" MAX  Must use existing axel groves  The distance between axels must not be changed		
	<b>Front of Car</b> - No part of the car can extend beyond the starting post and the front of the car must be no higher than 1/2" where it contacts the starting post.	
	OFFICIAL MATERIALS USED - WHEELS, AXLES, & WOOD	
	PARTS SECURELY ATTACHED - ALL PARTS SECURELY ATTACHED TO CAR	
	WHEEL CONTACT - All four wheels MUST be in contact with a flat surface when the car is placed on it.	
	WHEEL SHAPE - THE SHAPE AND FORM OF THE WHEELS CANNOT BE MODIFIED OR RESHAPED, however wheels may be sanded to remove molding burrs. Wheels may not be tapered or rounded.	
	Maximum Weight - Not over 5 Ounces (141.75 grams)	

DATE: \_\_\_/\_\_\_ INSPECTED BY: \_\_\_\_\_