

# Bogue Tuchenha District

## OFFICIAL GRAND PRIX PINEWOOD DERBY

### Rules & Regulations

#### A. Eligibility Requirements

The Pinewood Derby is open to all Cub Scouts. Cars should be built by the Cub Scouts with some adult guidance. Any technical assistance should be fully explained to the Cub Scout so that he can use that knowledge on future projects.

1. Any vehicle determined to be in non-compliance of the following rules will not be eligible for (1) racing or (2) Show-N-Shine competitions. Reasonable effort will be made to allow participants to bring non-compliant vehicles into specification to be race and show eligible. However, the ultimate responsibility for compliance vests with the Scout-Parent team. All decisions of the Rules Committee regarding vehicle eligibility are final.
2. Only **official Cub Scout Grand Prix Pinewood Derby kits** (Part No. 17006) may be used to form the vehicle's base chassis. This is a pinewood derby event. Other decorative and/or performance improvements are allowed where they do not otherwise violate the rules or the **spirit of the competition**.
3. All vehicles must be constructed by the Scout-Parent team. Pre-constructed vehicles purchased from third-party vendors are prohibited and will be disqualified from both the racing and Show-N-Shine competitions.
4. Vehicles entered into prior year racing and/or Show-N-Shine competitions are prohibited from participation.
5. Cars entered into the District Pinewood Derby must be the same car that won the Pack Pinewood Derby.
6. The District Competition is open to the 1<sup>st</sup>, 2<sup>nd</sup>, and 3<sup>rd</sup> Place winners of the racing and Show-N-Shine divisions from each Pack in the Bogue Tuchenha District. Each Scout participant must be either a Tiger Cub, Cub Scout, or Webelos Scout registered and in good-standing during the current scouting year.

#### B. Vehicle Specifications

Wheel bearings, washers, and bushings are prohibited. The car shall not ride on springs. **Only official Cub Scout Grand Prix Pinewood Derby wheels, including the new multi-colored official wheels, and axles are permitted.** Only dry lubricant is permitted. Details, such as steering wheel and driver are permissible as long as these details do not exceed the maximum length, width and weight specifications. The car must be free-wheeling, with no starting devices. Each car must pass inspection by the official inspection committee before it may compete. If, at registration, a car does not pass inspection, the owner will be informed of the reason for failure, and will be given time within the official weigh-in time period to make the adjustment. After final approval, cars will not be re-inspected unless the car is damaged in handling or in a race.

### **Chassis:**

1. The minimum and maximum size specifications are:

Length: 7.0" maximum

Width: 2<sup>3</sup>/<sub>4</sub>" maximum

Bottom clearance: 3/8" minimum

Width between wheels: 1<sup>3</sup>/<sub>4</sub>" minimum

Weight: ~~5.000~~ **5.0** oz. maximum

2. The vehicle's wheelbase (distance between front and rear axles) must remain the same as the original kit (4-3/8"). However, the proximity of the front axles to the leading edge of the vehicle may be altered as part of the design process.

3. Vehicles must be designed so that no part of the vehicle extends past the starting pin centered in each lane.

### **Wheels and Axles:**

1. Wheels and axles must be official Cub Scout Grand Prix Pinewood Derby (CSGPPD) components. The safest way to ensure the use of official CSGPPD components is to purchase and use official Cub Scout Grand Prix Pinewood Derby kits (Part No. 17006) from an authorized Boy Scouts of America (BSA) vendor. **BSA sanctions only one (1) official wheel and one (1) official axle component for its Cub Scout Grand Prix Pinewood Derby competitions.** A race-eligible vehicle shall utilize four (4) BSA-sanctioned wheels and four (4) BSA-sanctioned axles. **"Speed axles", "grooved axles", "slotted axles" and one-piece "continuous axles" are expressly prohibited. The new multi-colored official BSA-sanctioned wheels are permitted, as well as the traditional black ones.**

2. The purchase of wheel and/or axle components from non-verifiable internet sources is done so at the risk and peril of each entrant. Vehicles employing the use of non-compliant wheel/axle combinations will be disqualified and prohibited from competition.

3. **Axle modifications:** Axles may be sanded and polished to remove mold imperfections along the axis and at the hub-axle intersection. The circumference of the hub cap ("head" of the axle) may not be modified, decreased, tapered, lathed or otherwise altered.

4. **Wheel modifications:** Wheels may be lightly sanded and polished to remove mold projections on the tread surface. This is the only wheel modification allowed. The tread surface must be kept flat. **No "V" or "H" tread surfaces are permitted.** Tapering, rounding, or thinning the tread surface is prohibited. **All wheels must have the beaded "tread-indicator" present around the outer sidewall circumference to be race-eligible.** The inside and outside sidewalls cannot be modified. All outside sidewalls must display the "BSA Pinewood Derby" raised lettering and spoke design. Modifications to the inside wheel hub are not permitted. **Tapering, rounding, or thinning of the inside wheel hub through lathing**

**techniques is expressly prohibited and shall be deemed a purposeful violation of the rules and spirit of competition.**

5. The use of wheel bearings, washers or bushings is prohibited. However, strategically-placed decals or stickers on the vehicle to minimize frictional forces are permitted.

6. Vehicles must be freewheeling and must not employ the use of starting devices, magnets, or other artificial means of propulsion or acceleration.

### **C. Race Day Registration, Final Vehicle Preparation**

1. All participants in both the racing and Show-N-Shine events must register their vehicles during the allocated registration period on day of the competition.

2. Vehicles should be in their final preparation condition at the time of registration. Once a vehicle passes inspection and is registered, it cannot be returned to the Scout-Parent team participation for additional alteration or preparation.

3. Vehicles that fail to meet qualification specifications at the time of registration may make pre-registration modifications to the vehicle in order to meet the compliance requisites. Such modifications will only be allowed to the extent they do not delay the commencement of racing ceremonies or otherwise require an amendment to the racing bracket slot assignments.

4. Vehicles removed from the registration area **MUST** be re-inspected and weighed.

5. Only powdered graphite-type lubricants may be used to assist in racing performance. All such lubricants must be applied to the vehicle outside the building to prevent markings to surfaces and floors from acts of carelessness or accidental overfilling.

6. No lubricating oils may be used on vehicles.

7. Vehicles may only be lubricated prior to inspection and registration. Once a vehicle passes inspection and is registered, no further lubrication will be permitted for the duration of the day's racing events.

8. Vehicles that are non-compliant with the specifications provided herein will not be registered for participation in the racing event.

9. **Cosmetic additions (steering wheel, driver, spoiler, etc.) to the vehicle are permissible as long as these details do not result in a breach of the vehicle's maximum length, width, and weight specifications.**

10. No loose materials of any kind are permitted on or in the vehicle. Any parts or components that come loose during the race may be removed.

### **D. Competition**

1. The front center of the vehicle will rest against a starting pin at the beginning of the race. The entire vehicle must be behind this pin at the start of the race. No part of the vehicle may extend beyond the starting pin prior to the start of a race.

2. Only Scout participants will be allowed to place their respective vehicles in the starting gate location. Parents may offer verbal advice to assist in starting line

preparations, but are prohibited from physically handling the vehicles once a vehicle is accepted through the registration process.

3. Vehicles will remain in an impound area after acceptance by the official inspection team and may not be touched by anyone during this time, except by the vehicle owner immediately prior to an announced racing heat. A vehicle may be removed from the impound area **only after it has been eliminated** from racing competition.

4. Only race officials and participating Scouts will be permitted in the registration and track area. This rule will be strictly enforced. No one may step over the track. There will be one (1) warning and then race disqualification for repeat offenders.

### **Racing Protocol:**

1. The race results will be determined by an automated point system utilizing computerized electronic timer/gate system and computer software approved by the district committee. If this type of automation is not available, the district pinewood derby committee will employ a double-elimination format. The brackets will be determined by a computer, which will be operated by the race committee.

2. Once the registration period is closed and the computer sets the brackets, the brackets cannot be re-opened to allow for late entries. **DO NOT BE LATE** or the car will not be allowed to race. Several announcements will be made prior to registration being closed.

3. Each boy will place his own vehicle on the starting line and then walk to a designated seating area to view the race at the Finish Line.

4. The track comes equipped with an electronic Finish Line that will determine sequencing of finish. In the event of an electronic malfunction, three (3) judges shall be present at the Finish Line to declare the sequencing of finish.

5. If a vehicle jumps off the track, the heat will be run again. If the same vehicle jumps off the track a second time, it will automatically lose the heat.

6. If a vehicle leaves its lane and interferes with another vehicle, the heat will be run again. If the same vehicle leaves its lane for a second time and interferes with another vehicle, the heat will be re-run without the interfering vehicle, which will automatically lose the heat.

7. If a vehicle suffers a mechanical problem (i.e., loses an axle, breaks a wheel, etc.) and a repair can be accomplished in a reasonable time, the heat will be re-run. If not, the vehicle will automatically lose the heat. **Only the Scout of the vehicle is allowed to make any necessary repairs; his parent may verbally supervise repairs (in the presence of a race official), but shall not otherwise physically assist in the repair process.** The judges will determine the length of time that is reasonable for the repair.

8. **Un-Scout-like or unsportsmanlike conduct by any participant, parent or member of the audience will be grounds for expulsion from the competition and/or race area.**

9. **Any participant, including parents, has the right to 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 Committee chairperson will be final.**

10. Because only a Scout may physically handle his vehicle for placement in the starting position for each race, any Scout who is absent from the competition at the time of his announced race start will be unable to compete during that particular race heat and will be recorded as finishing last in said race heat.

**Show & Shine Protocol:**

1. The Show-N-Shine portion of the competition will be voted on by the Scouts. Each Scout that enters a vehicle into either the racing or Show-N-Shine portions of the competition will be allowed two (2) votes. Each of the two (2) votes shall be written on the same ballot and each vote shall be for **different** Show-N-Shine competition vehicles. Any ballots having the same vehicle voted upon twice shall be accepted, but shall only count as a single vote for the nominated vehicle.

2. The vehicle that receives the most votes will win 1<sup>st</sup> Place in the Show-N-Shine competition. The vehicle that receives the second most votes will win 2<sup>nd</sup> Place, and the vehicle obtaining the third highest vote total will win 3<sup>rd</sup> Place. **Scouts must be physically present at the time of award presentation to be eligible for 1<sup>st</sup>, 2<sup>nd</sup> or 3<sup>rd</sup> Place Show-N-Shine awards.** In the event of an absentee award winner, 1<sup>st</sup>, 2<sup>nd</sup> and 3<sup>rd</sup> Place awards will be determined and awarded by a count of the highest three (3) vote-getters present at the time of presentation.

3. Before the Scouts are given their voting ballots, they will be allowed to view all of the vehicles once. After Scouts are given their ballots, they will be allowed to view all of the vehicles once again before casting their votes.

4. A Scout may vote for his own vehicle, but cannot vote for the same vehicle twice. Each Scout shall write the numbers of his top two (2) vehicle selections on the ballot and draw a circle around his favorite vehicle candidate.

5. In the event of a tie for any of the top three Show-N-Shine positions, the first tie-breaker shall be determined by the race committee chairman.

**E. Code of Conduct**

The Basis of the Code of Conduct is the Cub Scout Oath and Law that every Scout knows from memory. Scouts show that they live by the Oath and Law by their personal actions and behavior.

1. Parents, guests, siblings and Scouts are to demonstrate appropriate control and personal responsibility while attending this and all Scouting activities.

2. The Bogue Tuchenha District has a Zero Tolerance for unsafe or dangerous acts, including un-sportsman-like conduct, fighting, hitting, tripping, shoving, throwing objects, hazing, etc.

3. Use or possession of any alcoholic beverages, tobacco, or illegal drugs is strictly prohibited. If found the police will be notified immediately.

4. The use of profanity or any harmful insults will not be tolerated.

Violation of the above by parents, guests, siblings and scouts will result in immediate disqualification of the racer and the group will be escorted from the premise.

# OFFICIAL GRAND PRIX PINEWOOD DERBY KIT

Please read these Rules and Instructions before building your car.

The Pinewood Derby is open to all Cub Scouts. Cars should be built by the Cub Scouts with some adult guidance. Any technical assistance should be fully explained to the Cub Scout so that he can use that knowledge on future projects. Because it is difficult to establish how much help was given in building the car, some Packs have a separate Pinewood Derby Race for adults.

## **IMPORTANT:**

The Race Committee should decide on rules and race procedures, then have them printed and distributed to all participants at least two weeks before the race.

## **CAR SPECIFICATIONS:**

- Width: - 2-3/4" - Length - 7" - Weight - Not over 5 Ounces
- Width between wheels - 1-3/4"
- Bottom clearance between car and track - 3/8"

## **RULES:**

Wheel bearings, washers, and bushings are prohibited. The car shall not ride on springs. Only official Cub Scout Grand Prix Pinewood Derby wheels and axles are permitted. Only dry lubricant is permitted. Details, such as steering wheel and driver are permissible as long as these details do not exceed the maximum length, width and weight specifications. The car must be free-wheeling, with no starting devices. Each car must pass inspection by the official inspection committee before it may compete. If, at registration., a car does not pass inspection, the owner will be informed of the reason for failure, and will be given time within the official weigh-in time period to make the adjustment. After final approval, cars will not be re-inspected unless the car is damaged in handling or in a race.

## **BUILDING INSTRUCTIONS:**

Check the grooves to ensure that each is at a perfect 90-degree angle to the car body. A car with untrue axles tends to steer to one side or the other, causing it to rub up against the side of the lane strip, slowing it down. You can check the groove angles by using a square, a protractor, or even a piece of paper. Lay square on block to check for squareness and alignment of slot. Use two hacksaw blades side by side to redress the slots. Use the edge of the square as a guide.

## **NOTE:**

If the car design you chose has a narrow body, make sure the area where the axles are inserted into the body remains 1-3/4" wide, or wheels will not fit over the guide strips of the track.

## **PAINTING AND WHEEL ASSEMBLY:**

Apply several coats of sanding sealer; then sand entire car with a fine-grade sandpaper. Give model at least two coats of fast drying paint, in your choice of color. When paint is completely dry sand with a fine sandpaper, apply a final coat of paint and allow to dry thoroughly. TO FINISH, rub entire car with a rubbing compound. Details such as windshield, driver, racing numbers, etc., should be added now. For a super finish apply a coat of auto wax and rub to a high gloss. Pre-lubricate axles and wheels using dry powdered lubricant. Do not use regular oil or silicone spray, since it may soften the plastic. Slide wheels over axles, then gently tap them into the car body grooves with a 1/4" dowel or similar object to within 1/32" of car body. (See Figure 4). Make sure wheels turn freely.

Comments from USSSP:

Now, do you see where it says, in the paragraph on Painting & Wheel Assembly, "**Slide wheels over axles, then gently tap them into the car body grooves**"? That's the "rule" you're looking for. It says, in effect, USE THE SLOTS PROVIDED FOR THE AXLES AND WHEELS. It doesn't say to use them if you feel like it or make others if you'd like. It says use the existing body grooves. Period. This means you don't have to write some sort of "Pack rule" on this—You can use what's already printed. I still have my own Pinewood Derby car. It's now more than 50 years old! It never won a race, but it still reminds me of when my Dad and I built it—TOGETHER! My sons still have their cars, and the newest of these "next generation" cars is now 15 years old! And what do my sons remember? Not whether they won or lost, but how they built their cars with *their* Dad! That's what this is all about, and any Cub family that thinks that the object is winning doesn't "get it."

The Cub Scout program is all about strengthening the relationship between the Cub Scout and his parents, and about is about doing things (not just passive observation). The most important thing that happens when it's Pinewood Derby time is that the boy and his dad (or alternate adult male role model) get to do something special together—build a Pinewood Derby car! What happens after that is just "details." But, these details can be important, too. Packs sensitive to boys' natural competitive spirit as well as their feelings make sure that there's more than just a single "race" and a single winner. There are winning cars at the Den level as well as the Pack level, and not just for speed -- there are winners for design, like "coolest," "funniest," "most colorful," "most radical design," and on and on. No, this won't necessarily make every Cub Scout's car a "winner," and that's really OK, because it encourages higher achievement "next year." But, there should definitely be lots of winners. Now, there's a theory "out there" that says "everybody should 'win' something," but you have to understand boys' motivations—if "everybody" gets a ribbon or prize, boys don't see this as "everyone wins;" they see it (though they may not tell you this in so many words) as "there are NO real winners." Every boy wants HIS car to be the fastest, and so long as the track is objective and fair, every boy can see the simple fact that some cars are faster than others. That's just a fact. Boys CAN live with that! And "self esteem pep talks" aren't really necessary, because they often are more about the parent than the boy. And now a little secret: I still have my own Pinewood Derby car, that I made when I was a Cub Scout (I won't tell you exactly how old it is, except this hint: It's probably older than YOU!). I haven't saved it all this time because it was a winner (it never won a single race!) – I saved it because I remember how I BUILT IT WITH MY DAD.