

# **PACK 142 PINWOOD DERBY RULES**

## **January 2010 Edition**

### **I. GENERAL RULES:**

#### **G-1. Qualification:**

All registered Tiger, Wolf, Bear, and Webelos Scouts may design, build and enter cars.

#### **G-2. Essential Materials:**

All cars entered shall be constructed from the "Official Grand Prix Pinewood Derby Kit". Each kit contains a wooden block plus four nail axles and wheels. DO NOT USE ANY OTHER AXLES OR WHEELS! The pack has extras if anything should happen to yours. Additional kits may be purchased from Pack 142 or from the Scout Store.

#### **G-3. Competitor Categories:**

Scouts will compete within their den. The first place winner in each den will move on to the Pack Finals.

#### **G-4. Attendance:**

Scouts must be present for weigh-in and race day for their car to participate. Illness is the only exception to this rule. Scouts should be dressed in Class 'A' uniforms.

#### **G-5. "New Work":**

The car must be newly built for the current scouting program year. Cars constructed for a previous Pinewood Derby are not eligible to compete. Parental supervision in the construction of the car is encouraged but total parental construction is discouraged. Help your scout make this "their own."

#### **G-6. Single Entry per Person:**

Each Scout may only register one car.

#### **G-7. Inspection and Registration:**

All cars must be registered, weighed and measured at the inspection station followed by a single qualifying pass down the track. Any corrections to the car will require that it go back through the technical inspection and qualifying run.

**G-8. Failure to Pass Inspection:**

If 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 adjustments. The Inspection Committee shall disqualify cars that do not meet the requirements.

**G-9. Impound:**

Once a car has passed registration, inspection and made a qualifying run, it will be stored until race time. The car may not be altered in any way after it has been registered. Race officials will ensure that ALL cars receive graphite dry lubricant to the wheels and axles prior to the race.

**G-10. Car Design Rules Interpretation:**

Interpretation of the rules described in G-1 through G-9, and T-1 thru T-9 are at the discretion of the Inspection Committee Judges present during the Registration and Inspection process.

**II. SCOUT RACE CAR TECHNICAL DESIGN STANDARDS**

**T-1. Material:**

Materials from the kit may be supplemented but not replaced.

**T-2. Weight:**

All cars will weigh five (5) ounces (total weight). The official scale will be available every Tuesday night in January for weighing. The readings of the Official Race Scale will be considered final.

**T-3. Wheels and Axles:**

Wheels and axles (the 4 nails) must be those provided with the kit. Pre-cut axle slots must be used for installation of wheels and axles. Slots cannot be moved or altered. The axle nails shall be firmly affixed to the wood of the car body, and **MUST** be placed in the original 'axle grooves' in the supplied wooden block. 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 inches. **DO NOT BUY THE SINGLE AXLE!** It must be obvious to the judges that the grooves, wheels, and the nails from the kit are being used. The axles may be polished and lubricated (with DRY lube only-Graphite). Do NOT use TEFLON white-lube. Silicone and other forms of WET lube are prohibited as they may damage the plastic wheels and the Derby Track.

**T-4. Size:**

Maximum length shall not exceed 7 inches. Maximum overall width (including wheels and axles) shall not exceed 2-3/4 inches. Minimum clearance between the bottom of the car and track shall be 3/8 inches so the car will clear the center guide strip (weight added to the bottom of the car should be recessed into the wood). Minimum width between wheels shall be 1-3/4 inches so car will clear the center guide strip. The car's height is limited to that of the Finish Line scoring fixture. If the car is too high, it will be obvious at the time of the qualifying run and will need to be corrected, re-weighed and inspected. Adequate clearance is the responsibility of the racecar builder.

**T-5. Weights, Appearance and Attachments:**

Weight added to the car will be considered part of the car for purposes of all measurements. "Weight" is considered to be any material on the car that is not provided in the kit. All weight must be securely fastened to the car by permanent glue, nails or screws, but not by "sticky substances", like tape, or tack spray. Weights shall be non-moveable, non-magnetic, non-electric, non-sticky, etc. The car may be carved, sculpted, and/or sanded in order to enhance performance and/or appearance. Paints, decals, or decorations may be added to alter the appearance and/or aerodynamics of a car but must not exceed the weight limit. Glue may be used to adhere the axles to the car body. Wood putty, or a similar wood-like substance, may be used to repair damage. Front spoilers that extend in front of the body of the car are prohibited. Indented noses are prohibited.

**T-6. Wheel and Axle Treatment:**

Wheel treatment may not result in substantial removal of mass or in reducing the wheel width from the original kit wheels. Some of the original "tread marks" on the wheel face must remain intact, i.e. apparent to the inspector. Wheels must remain flat across the entire width. 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 that contacts the axle is prohibited. ALL 4 wheels must come in contact with the track.

**T-7. Unacceptable Construction:**

The following may NOT be used in conjunction with the wheels or axles:

- a. Hubcaps
- b. Washers
- c. Inserts
- d. Sleeves

- e. Bushings
- f. Bearings
- g. Solid or full--width axles
- h. The car shall not ride on springs
- i. Only the wheels supplied with the kit may be used
- j. Lifting one wheel to avoid track contact is prohibited.

**T-8. Gravity Powered:**

The racecar may not be constructed or treated in such a way that the track's starting mechanism imparts momentum to the car. For instance, this provision disqualifies cars with sticky substances on the front of the car and protrusions that may catch on the starting pin. The car must be freewheeling, with no starting devices.

**III. CONDUCT OF THE RACES**

Competition will consist of heat races within each rank and at the Pack level.

**C-1. Car Handling Responsibility:**

Race Officials will stage cars on the track as well as collecting and returning cars to the staging area following each heat.

**C-2. Lane Assignment:**

To equalize differences among track lanes, each car will run a race in each lane.

**C-3. Car Leaves Lane or Track:**

If a car leaves its lane or the track the race will be re-staged and rerun. If the same car again leaves it's lane, that car will be judged last place, and the race will be restaged and re-run without that car.

**C-4. Car Repair:**

If, during the race, a wheel falls off or the car becomes otherwise damaged in handling or in a race, then the SCOUT may, to the best of his ability perform repairs with the assistance of his adult partner or a pit crewmember. The participant will be given five (5) minutes to repair the

car. If a car is damaged due to track fault, or another car or person, then the Track Master, may allow additional repair assistance and time. Only the damaged portion of the car may be modified. Race officials shall inspect any car that is serviced during the race.

**C-5. No Finishers:**

If, during a race heat, no car reaches the finish line on the track, the car that went the farthest in its lane shall be declared as the heat winner.

**C-6. Track Champion:**

The top car from each den will be impounded until the start of the Final Heats.

**C-7. Track Fault:**

If a car leaves its lane, at his sole discretion, the Track Master may inspect the track and, if a track fault is found which probably caused the initial violation, the Track Master may order the race heat to be rerun after the track is repaired.

**C-8. The Race Area:**

Only race officials may enter the track area. This rule will be strictly enforced.

**C-9. Rewards and Recognition:**

Racers will be recognized as follows:

- a. Every participating Scout will receive a Pinewood Derby patch.
- b. Trophies will be awarded to the winner and ribbons will be awarded to second and third-place finishers in each den.
- c. Track Champion trophies will be awarded for first, second and third place.

Before the Derby begins all registered participants will vote for the following awards:

Cub Pride Trophy	Most Comical Trophy	Best Paint Job Trophy
Most Original Trophy	Most Awesome Trophy	Best Of Show Trophy

#### **IV. SPECIAL NOTES TO ALL CONCERNED**

This project is a parent and son event, and is recommended as such by the National Boy Scouts of America. The Pinewood Derby Committee STRONGLY SUGGESTS that each parent emphasize this idea with your son.

#### **Sportsmanship:**

Two things the Pinewood Derby requires each participant to learn are:

- 1) Certain skills are necessary to build a car.
- 2) Certain rules must be followed.

Even more important is how we act and behave while participating in the Pinewood Derby or any group activity. This is called sportsmanship. **The first thing to remember** about sportsmanship is that everyone's skills are a little different. You may be good at something like singing or drawing, but not as good at something else like basketball or computers. Parents have different skill levels, too. You can always be a good person, whether or not you have good car-building skills. Remember, you and your friends are individuals first and racers second. This idea is often called having respect for others.

**The second thing to remember** is to follow the rules. Without rules, there would be no Pinewood Derby. You will never know if you are really good at doing something unless you follow the rules. This is often called being honest.

**The third thing to remember** about good sportsmanship is that there are winners and losers in every competition. You accept this when you choose to compete. There may be times when you win and feel happy, and times when you lose and feel unhappy. Being a winner is easy, and losing is sometimes hard. If you win, you must not brag or gloat. If you lose, you must not feel jealous or bitter. To be a good sportsman, you must be able to say, "I did my best" and be satisfied with the results. You must also be able to appreciate and feel happy for someone else when they run a good race or build a neat car.