



# OFFICIAL PACK 287 PINWOOD DERBY EVENT RULES AND PROCEDURES

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## **I. GENERAL RULES: (Applies to all Race Events)**

**G-1. Qualification:** All registered Pack 287 Tiger, Cub, and Webelos Scouts may design, build and enter cars that are eligible to participate in the "Cub Scout Race" event. Parents or guardians of Cub Scouts registered in Pack 287 may design, build and enter cars that are eligible to participate in the "Adult Race" event.

**G-2. Essential Materials:** All cars entered must be constructed from the "Official Grand Prix Pinewood Derby Kit" (referred to below as the kit) as distributed at the December Pack meeting. Additional kits may be purchased from the Race Committee. Contact Cub Master. (Official BSA kits may also be purchased from the Scoutfitter.)

**G-3. Competitor Categories:** All Tiger Cubs, Cub Scouts, and Webelos Scouts that are registered within Pack 287, and parents or guardians with registered sons may enter this Pinewood Derby. Cub Scouts will compete with others in the same Year Group (i.e. Tigers, Bears etc.). The first, second, and third place winners from each Year Group will advance to the Pack 287 finals. Adults and siblings will have a "Fun" race prior to the finals.

**G-4. Attendance:** The Cub Scout MUST enter his own car. This means that the Cub Scout must be present at "Inspection and Registration" to enter his car into competition. Exceptions should be brought up to the Race Committee.

**G-5. "New Work":** Construction of ALL entries MUST have begun AFTER last year's Pack 287 Pinewood Derby Races.

**G-6. Single Entry per Person:** Only one car may be registered by any person in the Pinewood Derby.

**G-7. Inspection and Registration:** Each car must pass a technical inspection before it may compete. Technical inspection and registration of cars is on the Friday prior to the Saturday race.

**G-8. Late Registration and Inspection:** All cars must be registered NLT 30 minutes prior to your scheduled race time or by 9:30 on race day, whichever comes first. Registration after your Year Group's race begins will not be permitted.

**G-9. Failure to Pass Inspection:** The Inspection Committee shall disqualify cars that do not meet the rules as described herein. If a car does not pass inspection, the owner will be informed of the reason his car did not pass. Cars that fail the initial inspection may be taken home for modifications and brought back for re-inspection. Minor modifications may also be made on site. Limited tools will be available.

**G-10. Impound:** No car may be altered or lubricated after it has been registered. After a car passes registration, it will be stored by the Pinewood Derby Race Committee until race time.

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**G-11. Car Design Rules Interpretation:** Interpretation of the rules described in G1 through G-11, and T-1 thru T-9 are at the sole discretion of the Inspection Committee Judges present during the Registration and Inspection process.

**G12. Race-Day Rules Interpretation:** On Race-Day, the Cub Scout must make all questions of rules interpretations and procedures to the Pinewood Derby Chairman or Race Officials promptly. Decisions of Race Officials on questions of rules interpretations and procedure may be appealed to the Pinewood Derby Chairman. All decisions of the Pinewood Derby Chairman are final.

## II. CUB SCOUT RACE CAR DESIGN STANDARDS

**T-1. Material:** Racecars shall be constructed for this event from the parts contained in the Official Grand Prix Pinewood Derby Kit (referred to below as the kit) sold by the BSA. Kits available at local hobby shops are NOT acceptable.

**T-2. Weight:** Racecars may weigh no more than five (5) ounces (total weight) as determined on the "official scale" during the pre-race check-in. Note: The official scale will be available at the Race Chairman's home. The scale will also be available at the January Pack Meeting prior to the race. Please call or email if you wish to check your weight prior to the event. The only OFFICIAL weight is the weight measured by the "official scale" at registration time. This weight may or may not match measurements taken at the Post Office or even with the same scale the week prior. Be prepared to make minor adjustments to your car's weight at registration time.

**T-3. Wheels and Axles:** The car shall roll on the wheels from the kit. The wheels shall turn about the axle nails from the kit. 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. It must be obvious to the judges that the grooves, wheels, and the nails and block from the kit are being used.

**T-4. Size:** Racecars may be no longer than 7 inches, no wider than 2-3/4 (2.75) inches, and no taller than 4 inches as determined by the official gages during the Registration and Inspection. Underside clearance of at least 3/8 (0.375) inches and inside wheel-to-wheel clearance of at least 1- 3/4 (1.75) inches is recommended, so that the car will run on the racetrack. Adequate clearance is the responsibility of the racecar builder. NOTE: We have a new track this year. The new track uses a center guide that the car straddles (see picture below). Please watch your clearances so your car will run on this track.

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**T-5. Weights and Attachment:**

Weight may be added to the car and 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. Weights shall be passive, i.e. non-moveable, non-magnetic, non-electric, non-sticky, etc.



**T-6. Wheel Treatment:** You must use the kit-supplied wheels and axles. Hobby store wheels cannot be used. Extra wheels are available. Contact the race Chairman. Wheel treatment (hub and tread smoothing and polishing) may not result in substantial removal of mass nor in reducing the wheel width from the original kit wheels. Wheels may not be machined to a beveled condition and the portion of the wheel surface that contacts the track must remain parallel to the axle (see illustration below):



**T-7. Unacceptable Construction:** The following may NOT be used in conjunction with the wheels or axles: hubcaps, washers, inserts, sleeves, and bearings.

**T-8. Gravity Powered:** The race car 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.)

**T-9. Lubricants:** Only dry lubricants such as graphite or powdered Teflon "white lube" will be allowed for lubricating the wheels. ***Lubricants may not foul the track.***

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### III. CONDUCT OF THE RACES

Competition will consist of heat races within each Year Group, and a series of final heats at the Pack level. Track officials are responsible for the proper conduct of the races.

**C-1. Inspection Gages:** The race-day "Pit Stop" area will have the official scale and length box. That check-in equipment will be the official equipment for the race.

**C-2. Race Day Lubrication:** All lubrication must be complete prior to registration.

**C-3. Car Handling Responsibility:** Scouts shall be responsible to present their own cars at the "Pit Stop" area registration, and at the starting line for staging. If, in the opinion of the Trackmaster, a scout's physical limitations prevent him from fully complying with this requirement, the scout may nominate an assistant of approximately the same age who serves subject to approval of the track chairman. In any case, the scout shall participate up to his limitations.

**C-4. Lane Assignment and Placement:** Our track has three lanes. To equalize differences among track lanes, each car will race once in each lane. The cars average time of these three races, as recorded by the Race Management Software, will be the "official time" for that car. Cars will be assigned to individual heats by the race management software within each Year Group.

**C-5. Pack Championship Race:** The fastest three cars from each Year Group will advance to the Pack Championship Race. These cars will race once in each lane and the times averaged as stated in C-4.

**C-6. Rewards and Recognition:** The most important values in Pinewood Derby competition are parent/son participation, good sportsmanship and learning how to follow rules. The Awards Committee is responsible for recognizing and encouraging these qualities in addition to traditional racing awards.

#### **Speed Awards:**

- a.) Every participating Scout will receive a participation award.
- b.) First, second and third place ribbons will be awarded for each race.
- c.) First, second and third place Medals will be awarded for each Year Group.
- d.) First, second and third place trophies will be awarded for the Pack 287 Championship race.

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**Design Awards:** Cars may be entered into consideration for any of the listed design award categories. A car may win in only ONE category, but may enter several or all. Please indicate your preference at registration time. Design awards will be given at both the Year Group and Pack level for the following categories:

- a) Most Realistic: For cars that are intended to look like, or modeled after racecars (most car like).
- b) Scout Theme: For cars displaying a traditional "Scouting" theme.
- c) Patriotic: For patriotic themes including community, space, military, fire, police, EMS etc.
- d) Crazy: For the wildest, out of this world design.
- e) Most Original Theme: For totally original cars not fitting into any of the above categories (such as movies, animals etc.)

#### **IV. THE RACING ENVIRONMENT**

**R-1. Track Length and Drop:** The track shall have a racing surface (starting line to finish line distance) of approximately 38 feet with a drop of approximately 4 feet.

**R-2. Track Slope:** The track slope shall decrease from approximately 30 degrees at the starting line to approximately 0 degrees at the finish line.

**R-3. Lanes:** The track consists of three lanes. Each lane has curbs on the in of the car wheels to keep the cars on track.

**R-4. Starting Mechanism:** The "starting line" shall consist of vertical pins of approximately 1/4- inch diameter, extending approximately 1 inch above the track surface and approximately centered in the each lane.

**R-5. Race Management:** The pack uses race management software to schedule the races, keep track of run times, give lane assignments, manage registration and determine winners. The track has electronics called "finish line sensors" that feed into the computer and the software to record each car's run.

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## **V. PARENT'S RACE and SIBLINGS RACE**

**(... or "Why should the scouts have ALL the fun?")**

A parent's and sibling's race will be held between the Year Group races and the Finals. The purpose of the Parents Race event is to have a little fun and allow the parents to show off their Derby Car skills. All parents' cars must conform to the same standards as the boy's cars. A Siblings race will also be held so they can show their scout brother how it's done. Prizes (ribbons) will be given for these races.

Any parent, guardian or sibling of a Cub Scout who is registered in Pack 287 may enter these races.

We would also kick things off with a "Classic" car race. This race is an exhibition race for cars built by the parents when they were scouts. These cars should be raced without modification, keeping with the rules and standards in place "back then". We will

## **V. ADMINISTRATIVE INFORMATION**

### **Race Committee:**

Contact Race Chairman or Cub Master

### **Important Dates:**

- \_\_\_ January – Pack Meeting, Pre-Inspection (starting at 6:45PM at pack meeting)
- \_\_\_ January – Registration and Inspection from 6:45 to 8:30PM (night before the race)
- \_\_\_ January - Race Day. Races begin at promptly at 9:00AM (Saturday race date)