

## 2006 NORTHWEST DISTRICT PINWOOD DERBY RULES

**Date:** Saturday, March 25<sup>th</sup>, 2006

**Location:** Jefferson Jr. High, 5530 Whitmer Drive(south of Whitmer football stadium)

**Eligibility:** Cars and Contestants

- The 2006 competition is open to all 1st and 2nd place Northwest District Pack Champions in both the Speed and the Best Design categories. Alternates should be chosen in each category at the Pack level in the event a scout is unwilling/unable to race/show at the district level.
- Cars in this competition must have been constructed for this race season and must be constructed with parts contained in the BSA Official Grand Prix Pinewood Derby Car kit (#17006). Kits from previous years and from non-official retailers may contain parts that are not sanctioned and may be judged as ineligible.
- Scouts must be pre-registered to race/show by the registration deadline. (Note to parents: Your Pack takes care of this) There will be no exceptions to this rule as pre-registration allows prior compilation of a racing schedule and helps to facilitate appropriate time allotments for racing. Registration deadline will be Monday, March 13<sup>th</sup>, 2006. Scouts not registered in advance cannot participate. The registration fee will be \$4.00 per scout and must be paid for all scouts entered in either the speed and design competitions. Alternates will not pay a registration fee. Historically, the Pack has chosen to pay these fees for their competitors. Please include the registration fee with the enclosed form.
- Scouts must be in uniform to race.
- Scouts will compete against others in the same rank. Racing and Best Design judging will occur in five classes: Tiger(1st grade), Wolf(2nd grade), Bear(3rd grade), Webelos I(4th grade) and Webelos II(5th grade). In cases where the Cub Scout rank is indeterminate, enter the scout according to his grade in school.
- It is expected that the scout be present to enter his car in the competition. In the case of illness or a valid conflict, an absent scout may be represented by an authorized proxy defined as a sibling or a Cub Scout of similar age who is

not already competing in the same set of heats. Proxy authorization must be obtained prior to the race by the Northwest District Race Chairman.

- A car may be entered in one event only (Speed or Best Design).

### DERBY CAR SPECIFICATIONS

- These specifications will apply to both Speed and Best Design competitions.

#### *LENGTH, WIDTH and CLEARANCE:*

- Width—Maximum overall width, including wheels and axels, shall not exceed 2-3/4 inches.
- Minimum width between the wheels shall be 1-3/4 inches so the car will clear the center guide strip.
- Maximum length shall not exceed 7.0 inches (be advised that some kits contain blocks of pine which are longer and must be cut in advance to meet this standard).
- Minimum clearance between the bottom of the car and the racing surface shall be 3/8 inch to allow clearance for the center guide strip.
- Maximum height shall not exceed 2-3/4 inches. This specification will allow the car to pass under a timing device in an unrestricted fashion.
- Wheelbase (distance between the front and rear axels) may not be changed from the kit body distance of 4-3/8 inches.

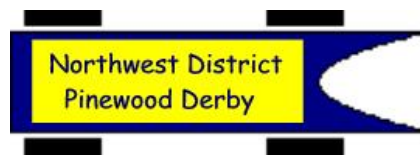
#### *WHEELS and AXLES:*

- Only wheels and axles from the official Pinewood Derby kit may be used. Beveling, routing, tapering, perforating or any other significant altering of the shape and performance of the wheels is prohibited. The tread may not be modified to enhance its performance and must be a completely flat surface. The tread width must not be narrowed beyond its original width.
- Axles and wheels may be lightly sanded and polished and still conform to race specifications.
- Wheel bearings, washers or bushings are prohibited. This includes wheelcovers or "hubcaps" which serve to keep the wheel hubs from contacting the car body and serve as a lubrication "well" or "tap".
- The car must be free-wheeling with no starting device or other propulsion such as adhesives, magnets, rubber bands, motors, jets, etc.
- Metal frame(s) and axle support(s) are prohibited. Axles must be mounted directly into the wood slots provided in the car body.

- Axles may not be joined together with any device and the four independent axels must be clearly visible in the slots provided in the bottom of the car.
- When placed on a section of racetrack and rolled, all four wheels must be visibly turning. Cars with one wheel permanently raised above the racing surface will be disallowed.

***WEIGHT and APPEARANCE:***

- Weight may not exceed 5.0 ounces. The readings of the official race scale will be considered final. Five (5.0) ounces will be determined by the official race scale on the day of the race. Every effort will be made to assure that the digital scale is reliable and accurate. The important point is that all will race according to the same standard. Please keep this in mind while weighing your vehicle on other scales.
- The car may be carved, sculpted or sanded in order to enhance its performance and/or appearance as long as the car continues to meet the size restrictions for the race.
- No loose materials of any kind are permitted on or inside the car.
- Additional materials may be added to the car for the following purpose(s) only:
  1. Weights may be added to increase the weight and/or alter the weight distribution of the car.
  2. Paints/decals/decorations may be added to alter the appearance and/or aerodynamics of the car.
  3. Glue may be used to adhere the axels to the car body.
  4. Wood putty, or a similar substance, may be used to repair minor damage to the car.
- Indented noses are prohibited. Cars like the one pictured below will "stage" further down the track and thus are not traversing the same distance as the other cars.



Front of car

- Wheels must not extend beyond the front of the car body.

***LUBRICATION:***

- Only dry powdered lubricants, such as graphite or white powder Pinewood Derby Car lubricant, may be used. Oils and silicone sprays can foul the track and are prohibited.

- A car may be lubricated just prior to inspection. This is the only time on race day that a car may be lubricated.

#### *GROUND RULES:*

- If a car leaves a track, the heat will be run again. If the same car leaves the track a second time, it will automatically lose that 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 that 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. Modifications must be successfully completed prior to the end of the race inspection period.
- Ungentlemanly or un-sportsmanlike conduct by any participant or member of the audience will be grounds for expulsion from the competition and/or race area.
- Track officials are responsible for the proper conduct of the competition. The decisions of these Officials on questions of rule interpretations and procedure may be appealed to the event Chairman, but the Chairman's decisions on all matters are final.

#### *CONDUCT OF THE RACES:*

The racing format will be a modified Stearns method consisting of several heats. An equal number of races will be run on each of 4 lanes to minimize any discrepancies between the racing surfaces of each lane. The car with the lowest average time shall be declared victor. In the event of a tie, a tiebreaker race will be held to determine the winner.

Car handling responsibility will fall solely upon the Scout who will be responsible for staging his car at the start, retrieving the car at the finish and returning the car to the pit area after the heat has been run. A scout with physical limitations may nominate a proxy subject to the approval of the race chairman.

#### *RACING SURFACE:*

The racing surface is an aluminum extruded track. Total racing distance will be approximately 34 feet and the starting pin used will be a 1/4" diameter rod extending at least 1" in height above the center of the guide rail on the starting line. The guide

rail is a raised aluminum strip 1-3/8 to 1-5/8" wide and 1/8" high extending the length of the track which the car will straddle on its course to the finish line. The starting gate will be approximately 48" above the floor. The slope will drop at approximately 30 degrees until the floor is reached and will then continue horizontally to the finish line. The finish line will be an optical sensor centered within each guide strip with will measure accurate time down to 1/10,000<sup>th</sup> of a second (0.0001 seconds). These results will be uploaded via a serial port to a computer that will determine the winner and project the results to large screens visible to the entire audience.

***CONDUCT OF BEST DESIGN COMPETITION:***

The Best Design competition awards this year will be determined by a popular vote. Each car entered in the District Championship competition will receive an official Best Design ballot. Votes will then be cast for the three cars, which the individual or family casting the ballot concludes are most deserving of the award. Design judging will occur with the cars displayed side by side in assigned places on a display table grouped with their competitors. Design awards will be presented at the completion of each race and will be based on, but not limited to, craftsmanship, novelty and creativity.

Only one vote per car per ballot is allowed. Ballots with less than 3 votes will not be counted.

***AWARDS:***

Trophies will be presented to the First, Second and Third places for Speed and to the First, Second and Third place finishers for Best Design competition for each rank of scout.

Grand Champion awards will also be presented to the overall champions in both the Design and Speed categories. A competition to determine these overall winners will be held at the conclusion of all of the rank competitions and will consist of a double elimination speed final and a side-by-side judge off for the design winners.

***QUESTIONS:*** Jerry Jenkins, Chairman  
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