

# Southern Missouri District Official Pinewood Derby Rules

(Revised 4-4-07)

To provide for consistency, the following guidelines are suggested for all pinewood derbies held in the district.

1) Allowed Car Kits

Cars may be made from either the Royal Ranger Pinewood kit (preferred) or an official Boy Scout of America car kit with nail axles. All stock wheels and screws or nails must be used for their intended purpose. After market purchased wheels will not be allowed.

2) Size Restrictions

All cars entered into competition, including workmanship, must fit on and roll down the track without interfering with any other car. All cars (except the unlimited class) shall not exceed the following dimension:

- a) A car will not be more than 7-1/2" in length.
- b) A car will not be more than 2-3/4" in width.
- c) A car will not be more than 3" in height.
- d) There must be a minimum of 3/8" clearance from the bottom of the tires to the lowest part of the body, whether it is the wood block, weights, decorations, etc.

3) Weight Restrictions

The maximum allowed weight of the car (except for the unlimited class) shall be 156 grams (156 grams = 5-1/2 ounces). Additional weight can be added to bring the total weight of the car up to 156 grams but the added weight must be an integral part of the car. Weights must be permanently attached to the car by screws, glue or other secure method. Weight cannot be simply "set" or "taped" on the car.

4) Lubrication of Wheels

Only dry power lubricants are allowed, except for Commander, Unlimited and National classes. A designated lubing station will be provided.

5) Restricted Items

The following features and practices are considered illegal. No car will be allowed to race if the following features or practices are used:

- a) Bearings, bushings, or any metal contact on the axles or wheel hubs.
- b) Starting or propulsion devices (only gravity powered cars are allowed).
- c) Reusing cars or parts from previous years (a new car must be made each year).
- d) Solid or straight axles (the axles from the approved kits must be used).
- e) No part of the car shall project in front of the starting gate (dowel).
- f) Using lubricants other than dry powder lubricants.
- g) The original wheel shape (provided in the allowed car kits) cannot be noticeably altered. However, the wheels may be smoothed and polished to remove casting seams and lumps only.

6) Registration Procedure

All cars will be inspected for the proper measurements, weight, and adherence to the rules during the registration process. Each car will be given a number at the time of registration and affixed to the car. Each person can enter one car in each class that they qualify for. All lubing, repair, or weight adjustments shall be performed before the car is registered. The participant will not be allowed access to the car once the car has been registered.

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## 7) Racing Class Divisions

There are nine possible racing divisions fewer may be run:

- A) Ranger Kids (Kindergarten, 1<sup>st</sup> & 2<sup>nd</sup> grade)
- B) Discovery Rangers (3<sup>rd</sup>, 4<sup>th</sup>, 5<sup>th</sup> grade)
- C) Adventure Rangers (6<sup>th</sup>, 7<sup>th</sup>, 8<sup>th</sup> grade)
- D) Expedition Rangers (9<sup>th</sup>, 10<sup>th</sup>, 11<sup>th</sup>, 12<sup>th</sup> grade)
- E) Commander (see description below)
- F) Missionetts (girls in Missionetts up to 12<sup>th</sup> grade)
- G) Unlimited Class (see description below)
- H) Open Class (see description below)
- I) National Rules Class (see description below)

## 8) Unlimited Class Description

This class is just what the name implies, a class where you can use all your ingenuity and imagination. Most of the rules from Page 1 are waived but the following rules will apply:

- a) The car must be made from one of the approved car kits (see # 1 on page one) and all of the kit parts except the wood block must be used for their intended purpose.
- b) The car must not weigh more than 908 grams (32 ounces).
- c) All size restrictions (see # 2 on page one) are waved. Cars must fit at the starting gate.
- d) The car must fit on the track and run on the track without interfering with other cars.
- e) Reusing cars from previous years is not allowed (a new car must be made each year).
- f) Solid or straight axles are not allowed (the axles from the approved kits must be used).
- g) No part of the car shall project in front of the starting gate.
- h) Starting or propulsion devices are not allowed (only gravity powered cars are allowed).
- i) Stock wheels may be reshaped; bearings and/or bushings may be added.
- j) Any clean lubricant may be used. Cars showing oily residue will be disqualified.
- k) All other Southern Missouri District Official Rules will apply.

## 9) National Rules Class Description

This class is intended to allow participants to make cars that will be competitive at the National Pinewood Derby held at Camporama every four years. Cars must comply with the official Pinewood Derby Race Book, which may be obtained from GPH.

## 10) Open Class Description

This class is open to any person not eligible to race in classes A through F listed in section 7 above. All Southern Missouri District Rules listed on Page 1 will apply. There may be more than one Open Class depending on the number of entries (such as unchartered churches, etc).

## 11) Commander Class Description

This class is open to all chartered Ranger Commanders. All Southern Missouri District Rules will apply except for the following: Stock wheels may be reshaped and modified as desired and any clean lubricant may be used. Cars showing oily residue will be disqualified.

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## 12) Racing Rules

- a) A heat will be re-run if the car falls off the track, interferes with another car or if any added weight or part of a car comes off during the heat. If the same car has the same problem during the re-run, the car will be disqualified from racing. No heat will be held up while repairs are made.
- b) In most cases an electronic timing system will be used to monitor and record the race times for each car on each heat. Each car will be raced on each lane that is being utilized and the time of all heats will be averaged together to obtain a final score. The cars will be ranked from fastest to slowest based on the final speeds.
- c) Any objections to the heat (such as your car being raced backwards) must be made immediately after the heat starts and before the heat scores are accepted into the electronic timing system.

## 13) Workmanship & Design Competition Rules

- a) Each participant may enter one car in workmanship for each class they enter. It does not have to be the same car entered in the race, however this must be specified at registration. The car must meet all the same qualifications as the car that will be raced (qualifications depend on which class is being entered).
- b) The cars will be judged in three areas
  - 1. Originality (0 to 20) – the idea of the artist himself. Judges will take into account how much creative thought went into the design of the car.
  - 2. Workmanship (0 to 50) – the skill of the workman in cutting, carving, sanding, and detailing of the car. A deduction of 15 points must be applied if a precut car kit has been used. Judges will take into account if the ornaments on the car were made by the owner or just something that was purchased and attached to the car.
  - 3. Color and Appearance (0 to 30) – the use of color and outward appearance. Judges will take into account the overall appearance, the texture of the paint, the paint selection, and the painting quality.
- c) The judges will not converse while performing their judging. If necessary judges may converse after the initial judging to allow them to select the ranking of the first three cars.
- d) The judges will indicate their scoring results on the Workmanship Judging Sheet. The score sheets will be given to the officer in charge as soon as the judging is complete.

## 14) Special Rules for Unchartered Churches

It is desired that all participants in the competition be from Chartered churches. Uncharted churches may compete, but all entries must be in the Open Class. Depending on the number of entries in the Open Class, a special Open Class division may be made just for the unchartered churches. In addition, unchartered churches are ineligible to receive trophies. In lieu of trophies, medallions, and/or ribbons (or other award to be determined) will be awarded.