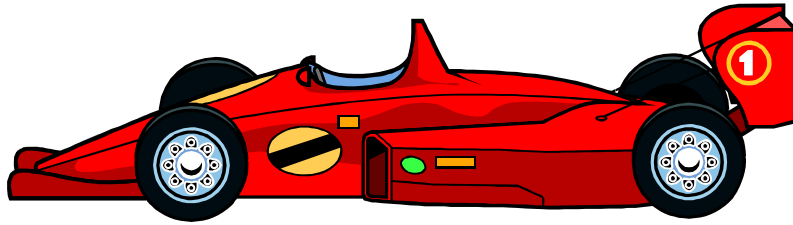


# ***Flintlock District Pinewood Derby 2008***



***March 15, 2008***

## **Design and Construction Rules**

These rules are a combination of those found in the pinewood derby car kit, those used by Pack 731 in North Reading (thanks John Intorcio!), and things we thought were good ideas. Your input on changes for *next* year is most welcome but we ask all to *Do Their Best* to abide by *these* rules for *this* year.

- A. The car must be newly built for the current Cub Scouting year. The Cub Scout should substantially build the car. Parental supervision in the construction of the car is encouraged.
- B. The body of the car must be made from the block of wood provided in an official B.S.A. Pinewood Derby Kit (Cat. No. P1622). Cars constructed from pre-shaped body kits are forbidden. The wheels must be placed in the slots provided – wheelbase modifications are not allowed. Wheels may not be designed to ride upon the center or side guide strips of the track. Loose pieces that intentionally fall off during a race are not permitted. If the front of the car is designed to gain an unfair advantage at the start or interferes with a fair start, the car will be disqualified.
- C. The axles of the car must be from the official B.S.A. Pinewood Derby Kit or an official Pinewood Derby wheel replacement kit (Cat. No. P1622A). Axles must be firmly attached to the car. The use of a flexible suspension system of any type is prohibited.
- D. The wheels of the car must be from the official B.S.A. Pinewood Derby Kit or an official Pinewood Derby wheel replacement kit. Wheels may not be altered in any way. Mold projection defects on wheel treads may be removed by sanding lightly. The wheels may not be sanded so as to alter their basic dimensions. The wheels must be attached to the car with the pins provided in the kit. No cars will be accepted in the Pack Pinewood Derby where bearings, washers, or spacers are used as part of the wheel assembly. The official wheel width is 0.34".
- E. Lubrication - only dry lubricating powder or the B.S.A. white lube T102/polytetra fluoroethylene may be used to lubricate the wheels. (Warning - other lubricants may damage the plastic wheels and keep them from turning freely.) The Pack will NOT provide lubricants. Once the car is impounded, it may NOT be re-lubricated except when a wheel is damaged or becomes dislodged during a race. Graphite must be applied in the designated locations or outside of the Scout House.

- F. The total weight of the car may not exceed 5.0 ounces. The maximum width of the car, including wheels, may not exceed 2.75 inches. The maximum length of the car may not exceed 7.0 inches. The maximum height of the car, when sitting level, may not exceed 2.75 inches, as determined by the official gauges during inspection. Underside "ground" clearance of at least  $\frac{3}{8}$  (0.375) inches and inside wheel to wheel clearance of at least  $1\frac{3}{4}$  (1.75) inches is required, so that the car will run smoothly on the Pack's race track which uses a center strip to guide the cars.
- G. The Race Director or Track Steward may disqualify any car that in their determination is not in compliance with the spirit of the Pinewood Derby race.
- H. All metallic attached objects that contain lead must be covered with paint or fingernail polish.
- I. A single, calibrated, electronic scale will be used to weigh all cars. Cars will not be accepted if their weight exceeds five (5.00) ounces by even the smallest resolution (0.01 ounces) of the scale.
- J. A wooden jig will be used to determine if the car complies with the length, width, height, and ground clearance limitations. The car must smoothly pass through the openings of the jig to be considered within specifications.
- K. A Cub Scout whose car fails any part of the inspection will, time allowing, be given the opportunity to make adjustments to the car. Cars will be re-weighed, re-measured, and re-inspected until they comply or until the scheduled inspection time expires.
- L. After the car has passed inspection, it will be "impounded" by race officials to await the race. Cars may not be handled (except by race officials) after inspection until they are scheduled to compete.
- M. Cars will be protected from handling by anyone except the race officials and the car owner. Cars may not be adjusted or modified after they are impounded.
- N. The racers name and the year of construction shall be indicated on the *bottom* of the car. Cars constructed for previous years are not eligible.
- O. A car number will be assigned as Scouts arrive. It will be placed on the car after weigh-in with an easily removable sticker.
- P. Track attendants will determine the *front* of the car based on the orientation of the number placed at check-in time. The Scout will be asked to identify the front of the car at check-in.

# Race Conduct Rules

The Track Steward and track officials are responsible for the proper conduct of the races. Decisions of track officials on questions of rules interpretations and procedure may be appealed to the Race Director. Decisions of track officials on questions of fact may not be appealed beyond the Race Director. Scouts AND PARENTS should also be familiar with these rules.

- A. Car Handling Responsibility: Track officials shall be responsible to stage all cars at the starting line. Scouts may be asked to retrieve their own car at the finish line and return it to the staging area.
- B. Lane Assignment: Lane assignment for each heat shall be determined by computer with a best effort made to allow each car to run one heat in each lane.
- C. Car Repair: If, during the race, a wheel falls off or the car becomes otherwise damaged, then the Cub may, to the best of his ability, perform repairs. The Cub may seek advice for repairing the car, but may receive no other assistance. If a car is damaged due to track fault or due to fault of another car or Cub, then the Track Steward, at his sole discretion, may allow additional repair assistance.
- D. Car Interference: If, during a race heat, a car leaves its lane and, in so doing, interferes with another racer, then the car at fault shall be declared to have lost the race heat. (However, see "Track Fault".) If, in the opinion of the Track Steward, the outcome of the race was materially affected, then the heat will be re-run with the non-offending cars.
- E. Car Leaves Lane: If, during a race heat, a car leaves its lane but proceeds down the track in a manner that does not interfere with its opponent, then the race will be called normally. (However, see "Track Fault".)
- F. Car Leaves Track: If, during a race heat, a car leaves the track without interfering with its opponent, it shall be considered to have ended its heat at that point. (However, see "Track Fault".)
- G. Track Fault: If a car leaves its lane, at his sole discretion, the Track Steward may inspect the track and, if a track fault is found which in his determination caused the initial violation, the Track Steward may order the race heat to be rerun after the track is repaired.
- H. 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.
- I. In the event of a failure of the timing mechanism or any other malfunction that causes the results of the heat to be indeterminate or unrecorded, the Track Steward may order the race heat to be rerun.