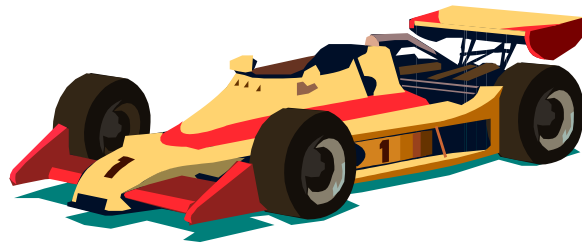


# CUB SCOUT PACK 323 PINEWOOD DERBY



**PACK 323 PINEWOOD DERBY 2012**

**SUNDAY, FEBRUARY 12<sup>TH</sup> AT  
WIXOM COMMUNITY CENTER  
REGISTRATION BEGINS AT 1:15 PM  
RACES BEGIN AT 2:00 PM**

**TIME TRIALS, WIXOM ELEMENTARY SCHOOL  
WEDNESDAY, FEBRUARY 8<sup>TH</sup>, 7:00 PM TO 8:00 PM**

## **Race Requirements:**

Registration - All cars must be registered prior to racing. The registration and inspection will be held on race day from 1:15 PM until 2:00 PM. It will take place at the Wixom Community Center in a separate area from the race area. All cars will be checked for compliance with the standard Pack rules and requirements. Tools and guidance will be available on Thursday, March 15<sup>th</sup> during the time trial event to make last minute changes in order to pass inspection. A "pit" area will also be available on Sunday for race day in the event other minor adjustments are necessary if a car doesn't pass inspection. The racers should be present at the time of inspection, but whoever brings in the car takes responsibility for any repairs. It is recommended that a parent of the racer be present. The inspection committee can explain the reason for a car's noncompliance and a disqualification if repairs are not feasible by 2:00 PM. Once passing inspection, the cars will be registered into the racing order. The Race Officials will then store the cars and bring them into the racing area at race time.

## **THERE WILL BE NO TEST RUNS ON SUNDAY!**

## **Derby Day:**

We will post the race heats prior to start of racing on a wall for all participants to review. Any racer called that is not present for his heat may be disqualified if he does not show before his age group match is completed. The area of the track will be partitioned off and will be off limits to all except Race Officials. Please help the officials to keep the children away from the track and the ready area where all the cars will be kept prior to racing. This will help to prevent the tragedy of a damaged car before a racer gets a chance to race. Every participant will race in at least six heats. The standings will be determined for that match. We will let the racers know the post time for the finals. The medals and certificates will be awarded by rank after the completion of each rank's heats.

## **Rules:**

These rules are a summary of the Standard rule that was included in each Pinewood Derby Car kit and through the handout of the Pack rules.

### **I. General Rules**

- A. Only cars made from the "Official Cub Scout Grand Prix Pinewood Derby Kit" will be eligible. These are the kits that were distributed at the December Pack Meeting. Cars made from other kits will be disqualified. Plastic and other car bodies may not be placed over the Pinewood block. In recent years we have become aware of Pinewood Derby cars being available via eBay – these are also prohibited – the objective is to be a Scout project along with the parent.
- B. The car must have been made for this year's Derby. Cars from previous years are not eligible.
- C. Each car must be registered and pass inspections by the Official Inspection Committee prior to 2:00 PM on race day. The inspectors have the right to disqualify any cars that do not meet the rules and specifications. The participant will be informed of the violation(s) and given the chance to modify the car, but it must be completed by 2:00 PM.
- D. Each participant may only race one car and must be present on Derby day to race. (Alternate racers may be designated in special circumstances, but the Race Officials must be notified before post time and the situation is subject to approval by the Race Committee.)
- E. Each participant (or parent of a participant) has the right of appeal to the Race Committee for an interpretation of these rules. The Race Committee, by majority vote of the members present, will be the final judge of these rules. In the case of a tie vote, the decision of the Race Committee Chairman will be final.
- F. Ungentlemanly or unsportsman like conduct by any participant, parent or member of the audience may result in disqualification and will be grounds for expulsion from the race area.

### **II. Racing Specifications**

#### **A. Dimensions**

- 1. The overall length shall not exceed 7 inches.
- 2. The overall width, including the wheels, axles or decorations shall not exceed 2 ¾ inches.

3. The minimum width between the wheels must be 1 ¾ inches so the car will clear the center guide strip.
4. The minimum ground clearance between the car and the track surface must be 3/8 inch to insure that the car will clear the center guide strip. The ground clearance at the front end of the car shall not exceed ½ inch to prevent any car from hanging over the starting posts. *Due to a number of elevated designs, including a template kit that is sold by the Cub Scouts at the Council Trading Post, a bumper made from stiff, heavy gauge wire (like a paper clip) or a large headed screw may be necessary to hold the car in place.*
5. The wheelbase (distance between the front and rear axles) may not be changed from the original length of 4 ¼ inches that is precut in the kit. The groove provided in the kit shall be used, unless they were defected (not parallel to each other or perpendicular to the sides of the stock), but the space between the axles cannot exceed 4 ¼ inches.
6. Due to the type of starting gates and finish line mechanics used, extreme needle nose designs may be disqualified. These designs make it difficult for the starting pin (3/16-inch diameter) to hold cars in place. Likewise, the infrared finish line sensors will not be triggered accurately as car moves across finish line.
7. Cars may be no taller than 6 inches.

#### B. Weight

1. The total weight of the car **MUST NOT** exceed 5.00 ounces. No loose materials of any kind are permitted in the car. The car body may be hollowed out and built up to the maximum weight by adding wood or metal provided it is securely built into or firmly affixed to it. A few wood screws may be put into the bottom of the car so they can be easily removed during inspection.
2. Due to the potential health hazard, mercury is prohibited and lead should be avoided as well. The Boy Scouts of America sells zinc weights as an alternative. There are also sources for tungsten which of recent time has proven to be very handy.
3. Unconventional weight material such as bullet casings and live ammunition are prohibitive as well due to a variety of reasons.
4. No magnetic devices of any kind may be used as weight or used on the car in any way.

#### C. Wheels and Axles

1. Only the Official Grand Prix wheels and axles may be used. This includes the wheel and axles from the Grand Prix kit that was given to each Cub or the Grand Prix replacement wheels and axles that are available through the Official Scout Catalog or the Council Trading Post.
2. The wheels may be lightly sanded to remove any mold projections on the tread. The hub may be lightly reamed using a drill bit to remove any mold flash. *Beveling, tapering, thin sanding, wafering or lathe turning of the wheels is prohibited.*
3. The axles may be polished with emery cloth. They may not be chromed or have any other technical process applied to provide a smoother finish. *Axles may not be grooved.*
4. Wheel bearings, washers, bushings or hubcaps are prohibited.
5. Wheels may not be packed with any substance. The wheels must stay hollow as provided in the kit.
6. The car shall not ride on any type of springs.
7. The car must be freewheeling and gravity propelled with no starting devices or other means of propulsion.
8. All four wheels must touch and roll.

#### D. Lubrication

1. Only dry powdered lubricants, such as graphite, moly or Teflon may be used. Regular oils and silicon sprays are strictly prohibited. These liquid lubricants may injure the race surface of the track.
2. Cars may be lubricated prior to inspection. No further lubrication will be permitted after a car passes inspection and is garaged for racing.

#### E. Detailing/Appearance

1. Details such as a steering wheel, driver, spoiler, decals, painting and interior details are permissible so long as these details do not cause the car to exceed the maximum length, width, and weight specifications.
2. The cars should be a Cub Scout project, with a minimal amount of help and guidance from adults.
3. Cars cannot be accepted with wet paint.

### III. Racing Procedures

#### A. Starting

1. At inspection, each car must display an official number. The car will be assigned a unique number from within their rank class. The numbering convention used will be the rank designation first and the cub's number second. These numbers will be used to assign heats.
2. The starter will announce the rank and names of the drivers for each race by lane number. The software we use for racing results will track each car through the 6 lanes. When there are more than 6 cars in one class the cars will only be on the track for six heats.
3. To ensure the proper delivery of the vehicle to the racetrack, the front of the car must be labeled. The label or arrow may be placed on the underside of the vehicle. This will assist the starter in positioning the car to go down the track correctly. The cars orientation may not be changed once the car has run its first heat.
4. The starter will place the cars in the starting positions and the drivers will move to a selected area at the finish line. When drivers and finish line official are ready, the starter will start the race.

#### B. The Heats

1. The track timer will record the finish times for each of the six cars. The finishing places will be displayed through the large display by showing the order of the finish, first through sixth. Each car races six heats, once in each lane, using a round robin start stagger. If more than 6 cubs are within a rank group, the cars will be rotated in and out of the races until all cars have raced on each of the six lanes.
2. If a car leaves the track or runs out of its lane, the heat will be run again. If the same car leaves its lane a second time, it automatically is given an additional 1-second penalty for that heat.
3. If a car interferes with another car, the heat will be restarted. If it happens again, that car is removed and given a 1-second penalty to the highest time of the heat. The heat is then run again.
4. If a car suffers a mechanical breakdown and can be repaired in a reasonable amount of time, the heat will be rerun. If it happens again, it takes the highest time plus 1-second. If it cannot be repaired in a timely manner, that car takes the highest time plus a one second penalty anyway. A Race Committee official shall be the judge of what a "reasonable amount of time" is.

#### C. The Results

1. Upon completion of the heat, the runners will return the cars to the staging/display area, once the car is no longer participating in subsequent heats.
2. When all the heats of a match are complete, the results of the heats are then totaled in order to determine the top three- (3) finishers in each Cub Scout rank.
3. Upon completion of the rank group matches, the winners will be announced. The top three in each Cub Scout rank will then compete for the overall Pack Championship.
4. When the Pack Championships have been determined, the results will be announced, as well as to winners for other categories. Prizes will be awarded at the next Pack Meeting.

**THE MOST IMPORTANT RULE OF ALL:  
HAVE FUN!!!**

## Pinewood Derby Resources

### Web Sites

<http://www.scoutorama.com/derby/>

<http://home.simplyweb.net/bosworth/howto.htm>

<http://www.abc-pinewood-derby.com/design-pinewood-derby-car.htm>

<http://www.scoutstuff.org>

Many more resources can be found using Mr. Google.

### Books

Pinewood Derby® Designs and Patterns Book (Item: 34130) – available for \$12.95 can be found at:

<http://www.scoutstuff.org/pinewood-derbyr-designs-and-patterns-book.html>

Pinewood Derby® Speed Secrets (Item: 30538) – available for \$12.95 can be found at:

<http://www.scoutstuff.org/pinewood-derby-speed-secrets.html>

### Stores

Nankin Hobby – along with Scout Uniforms they carry a vast array of Pinewood Derby® supplies

- 33350 West 9 Mile Road, Farmington, MI 48336-4406 – (248) 919-0040
- 35101 Ford Road, Westland, MI 48185 – (734) 722-5700

Michaels – Has decals, paint, and other supplies. (Note: Michaels also sells kits that are not sanctioned by the cub scouts. These kits will not be allowed to race. )

Boy Scout Council Stores –

- Waterford Center – 1100 County Center Drive West, Waterford, Michigan 48328-1903
- Dauch Center – 1776 West Warren Avenue, Detroit, MI 48208-2215

Dunham's sports – Carries pinewood derby car kits, extra wheels, weights, and decals.

***If your car is damaged or ruined during the course of building – check with your Den Leader or the Cubmaster for assistance.***