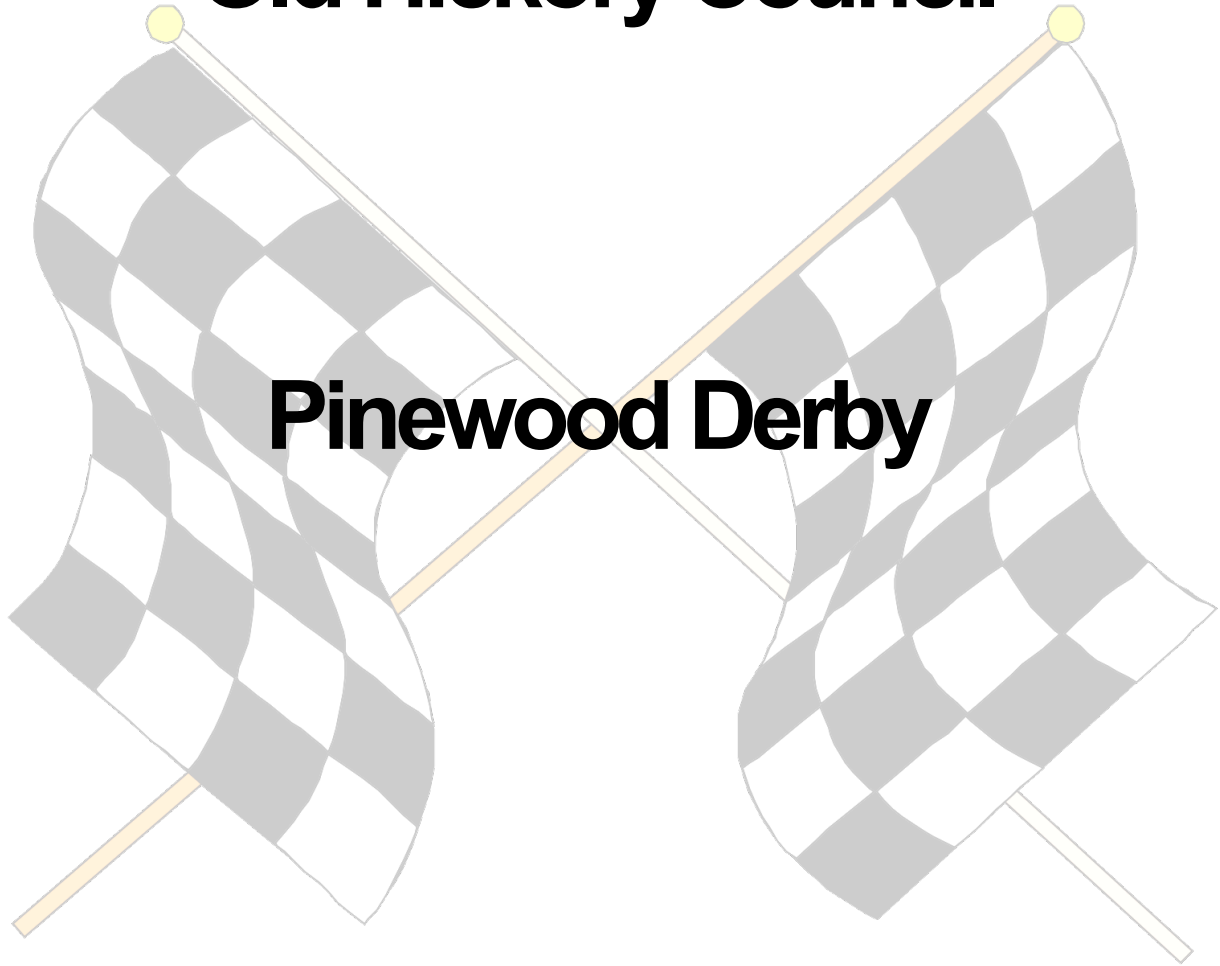


# Seven Rivers District Old Hickory Council



## Pinewood Derby

### **RULES & REGULATIONS...**

*IF you have Fun and help others to have Fun,  
then we are all WINNERS!*

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# 1 RACE DAY RULES, REGULATIONS, AND INFORMATION

Competition will consist of heat races at the District level. Track officials are responsible for the proper conduct of the races.

## 1.1 Inspection Gages

- a.) The race-day "Pit Stop" area will have the official scale and length box.
- b.) The check-in equipment used during the Inspection and Registration of racers shall be the official equipment for the race.

**NOTE:** Please stress this fact to all Cub Scouts. They should be prepared to make adjustments to their cars if necessary.

**HINT:** If you are unable to check the weight of your car on the official scale prior to registration, then it would be a good idea to be slightly under weight on any other scale you are using. It is typically easier to add weight than it is to remove weight.

## 1.2 Race Day Lubrication

There will be a lubrication table set up at the race. In the interest of fairness, only one lubrication is allowed before the beginning of the first heat race and then once again before the beginning of the first race of the Grand Finals.

## 1.3 Car Handling Responsibility

- a.) Scouts shall be responsible to present their own cars at the "Pit Stop" area for lubrication.
- b.) Cars will be staged on the tracks by the "Starter Team."

## 1.4 Lane Assignment

Lane assignments shall be determined by the racing software used to manage the race.

## 1.5 Car Leaves Lane

- a.) 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.
- b.) If the car leaves its lane and interferes with another car, the racer will be given 2 minutes to inspect and/or repair car, re-qualify and the race will be re-staged and re-run.
- c.) If the same car again leaves its lane and interferes with another car, that car will be judged last place and the race will be re-staged and re-run without that car.

## 1.6 Car Leaves Track

- a.) If, during a race heat, a car leaves the track without interfering with its opponent, the racer will be given 2 minutes to inspect and/or repair car, re-qualify and the race will be re-staged and re-run.

- b.) If the same car again leaves the track, that car will be judged last place and the race will be re-staged and re-run without that car.

#### **1.7 Car Repair (Without Fault)**

- a.) If, during the race, a wheel falls off or the car becomes otherwise damaged, then the SCOUT may, to the best of his ability perform repairs with the assistance of his adult partner or Pit Crewmember.
- b.) The Racer and Pit Crew shall be allowed 2 minutes to perform repairs and re-qualify for racing. This time may be extended upon the approval of the Track master.
- c.) The car shall be re-qualified for racing in accordance with Rules above.

#### **1.8 Car Repair (With Fault)**

- a.) If a car is damaged due to track fault, or damage caused by another car or person, then the Track master, at his sole discretion, may allow additional repair assistance and time to the Cub.
- b.) The car shall be re-qualified for racing in accordance with Rules above.

#### **1.9 Call to Race**

- a.) Competitors will be called by their Car Number prior to each heat.
- b.) When his Car Number is called, each SCOUT will present himself to Starting Team.
- c.) If the Cub does not respond, his name will be called a second time.
- d.) If the Cub has not presented himself in time for his heat, he will be judged as placing last for that race heat.
- e.) If no competitor is present, the Race Commissioner may, at his sole discretion, allow for a substitute scout of the same Rank to present for the race.

### **1.10 Track Fault**

If a car leaves its lane, at his sole discretion, the Trackmaster may inspect the track and, if a track fault is found which probably caused the initial violation, the Trackmaster may order the race heat to be rerun after the track is repaired.

### **1.11 The Race Area**

Only Race Officials and Current Heat Racers may enter the track area.

This rule will be strictly enforced.

### **1.12 Failure to Pass Inspection**

- a.) The Inspection Committee shall disqualify cars which do not meet the rules as described herein.
- b.) If a car does not pass inspection, the owner will be informed of the reason his car did not pass.
- c.) Cars which fail the initial inspection may be taken for modifications and brought back no later than the close of registration for final inspection and registration.

### **1.13 Impound**

- a.) After a car passes registration, it will be stored by the Pinewood Derby Race Committee until race time.
- b.) No car may be altered in any way after it has been registered.

### **1.14 Car Design Rules Interpretation**

Interpretations of the rules described within this document are at the sole discretion of the Inspection Committee Judges present during the Registration and Inspection process.

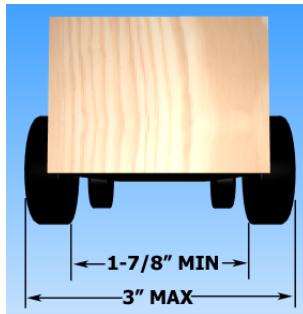
### **1.15 Race-Day Rules Interpretation**

- a.) On Race-Day, the Cub Scout must make all questions of rules interpretations and procedures to the Pinewood Derby Race Commissioner or Race Officials promptly.
- b.) Decisions of Race Officials on questions of rules interpretations and procedure may be appealed to the Pinewood Derby Race Commissioner.
- c.) All decisions of the Pinewood Derby Race Commissioner are final.
- d.) Decisions of Race Officials on questions of fact (i.e. the result of a specific race) may not be appealed beyond the Track master and/or Finish Line Judges.

**NOTE:** *Unsportsmanlike conduct by any participant or spectator will be grounds for expulsion from the competition and/or the race area.*

### 1.16 Overall Car Specifications

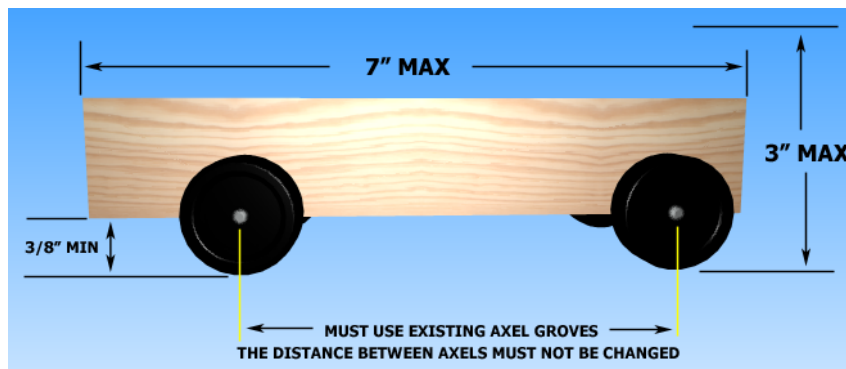
- a.) Maximum Overall Width (outside edge-to-edge of wheels): - 3"
- b.) Minimum Width between wheels - 1-7/8"



**Figure 1 - Inside & Outside Wheel Specifications**

**NOTE:** Typical track Guide Rails are 1-5/8" wide. The block of wood is 1-3/4" wide. Some race regulations specify 1-3/4" as the minimum requirement. This would only leave you 1/8" total space or 1/16" per side of your car down the track. The 1-7/8" requirement here offers you 1/8" on each side of your car to allow for any track irregularities and minimize the amount of time your wheels would rub on the Guide Rails.

- c.) Wheelbase – The distance between axels must NOT be changed.
- d.) Maximum Length - 7"
- e.) Maximum Height – Not to exceed 3"



**Figure 2 - Length, Height, Wheelbase, & Clearance Requirements**

- f.) Minimum Track Clearance - Bottom clearance between car and track - 3/8"

**NOTE:** Even though the lane strips are only 1/4" high. The extra clearance is to allow the car to go from the sloped portion of the tract to the flat portion without dragging.

g.) Front of Car - No part of the car can extend beyond the starting post and the front of the car must be no higher than 1/2" where it contacts the starting post.

h.) Maximum Weight - Not over 5.00 Ounces (141.75 grams)

### **1.17 Material**

- a.) Race cars shall be constructed for this event from the parts contained in the Official Grand Prix Pinewood Derby Kit (referred to below as the kit) as sold by the local Scout Shop.
- b.) Molded metal bodies over wooden frames are beyond most parent/son team and are therefore not acceptable.
- c.) Materials from the kit may be supplemented but not replaced.
- d.) "ADD-ONS" are not restricted as long as they meet with the rules and regulations as specified within this document.
- e.) Special paint, decals, decorations, etc. are allowed.
- f.) Unofficial kits will not be accepted. The "Pine Car" Pre-Cut Design bodies WILL NOT be allowed to enter the District Race.

### **1.18 Weight**

"Weight" is considered to be any material on the car that is not provided in the kit.

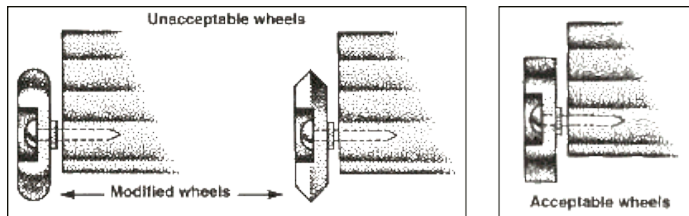
- a.) Race cars may weigh no more than five (5.00) ounces (141.75 grams) total weight as determined on the official scales during the pre-race check-in.
- b.) Weight may be added to the car and will be considered part of the car for purposes of all measurements.
- c.) The car may be hollowed out and built up to the maximum weight by the addition of solid materials such as wood or metal provided it is securely attached or built into the body chassis.
- d.) The weight MUST NOT be taped on (i.e., masking tape, duct tape, scotch tape...). Heavy duty double back tape such as that used by the ones sold by the BSA - Stick-On Weights (WW7603).
- e.) No liquid weights are permitted inside or attached to the outside of the car body.
- f.) No weights may be added after the car has been registered and impounded for the Pack race.
- g.) All weight must be securely fastened to the car, e.g. by permanent glue, nails or screws, but not by "sticky substances", e.g. tape, or tack spray.
- h.) Weights shall be passive, i.e. non-moveable, non-magnetic, non-electric, non-sticky, etc.

**NOTE:** The official scale will be available during the Pack Construction Night as well as during registration. Please refer to Appendix A for important dates and times.

**HINT:** If you are unable to check the weight of your car on the official scale prior to registration, then it would be a good idea to be slightly under weight on any other scale you are using. On race day, it is easier to remove excess weight by drilling holes in the bottom of the car than it is to add weight.

### 1.19 Wheels and Axles

- a.) All cars must have 4 (four) wheels. The car shall roll on all four (4) of the wheels from the official kit.
- b.) The wheels shall turn about the axle nails from the official kit. It must be obvious to the judges that the grooves, wheels, and the nails from the kit are being used.
- c.) Only official BSA wheels and axles may be used as replacements.
- d.) The wheel base (distance between the axles) must not be changed from the standard locations of the official car kit.
- e.) Hubcaps/wheel covers are not allowed.
- f.) 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.
- g.) **THE SHAPE AND FORM OF THE WHEELS CANNOT BE MODIFIED OR RESHAPED**, however wheels may be sanded to remove molding burrs. Wheels may not be tapered or rounded.



**Figure 3 - Example of Rule Breaking Modified Wheels**

- h.) 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.
- i.) Some of the original "tread marks" on the wheel face must remain intact, i.e. apparent to the inspector.



### **1.20 Size**

- a.) Race cars may be no longer than 7 inches, as determined by the official gages during the Registration and Inspection.
- b.) Race cars may be no wider than 2-3/4 (2.75) inches, as determined by the official gages during the Registration and Inspection.
- c.) 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 race track.
- d.) Adequate clearance is the responsibility of the race car builder.

### **1.21 Lubricants**

- a.) The wheels and axles may be lubricated with DRY POWDERED GRAPHITE.
- b.) Lubricants may not foul the track.
- c.) There will be a lubrication table set up at the race.
- d.) In the interest of fairness, only one lubrication is allowed before the beginning of the first heat race and then once again before the beginning of the Grand Finals.
- e.) If wheel or axle repairs are necessary during the race, the replacement part may be re-lubricated under the supervision of a race official.

### **1.22 Unacceptable Construction**

- a.) The following may NOT be used in conjunction with the wheels or axles:
  - Hubcaps
  - Washers
  - Inserts
  - Sleeves
  - Bearings
- b.) No loose material of any kind is permitted in or on the car.

### **1.23 Gravity Powered**

- a.) The race car may not be constructed or treated in such a way that the track's starting mechanism imparts momentum to the car.
- b.) Cars with sticky substances on the front of the car and protrusions which may catch on the starting pin shall be disqualified.
- c.) The car shall not run on any type of springs.
- d.) The car must be freewheeling with no starting devices.

## *Sportsmanship:*

The first thing to remember about sportsmanship is that everyone's skills are a little different.

You may be good at something like singing or drawing, but not as good at something else like basketball or computers. Parents have different skill levels, too. This doesn't mean that you are a good person one time and not good another time. You can always be a good person, whether or not you have good car-building skills. Remember, you and your friends are individuals first and racers second. This idea is often called having respect for others.

The second thing to remember is to follow the rules.

Without rules, there would be no Pinewood Derby. You will never know if you are really good at doing something unless you follow the rules. This is often called being honest.

The third thing to remember about good sportsmanship is that there are winners and losers in every competition.

You accept this when you choose to compete. There may be times when you win and feel happy, and times when you lose and feel unhappy. Being a winner is easy and losing is sometimes hard. If you win, you must not brag or gloat. If you lose, you must not feel jealous or bitter. To be a good sportsman, you must be able to say, "I did my best" and be satisfied with the results. You must also be able to appreciate and feel happy for someone else when they run a good race or build a neat car.

Remember, the main "Purpose" of this event is to have FUN! If you have fun and help others to have fun, then we are all winners!