



2025 Jaapeechen District Pinewood Derby **Rules**

These rules apply to the district races and are strongly encouraged for use in pack events. Racers from Packs not enforcing these rules are required to meet these standards to race in district finals!

Car

- The official pine wood block must be used. The block may be shaped in any way that is desired. Precut "Kit" and complete premade cars are NOT Permitted.² ONLY CARS BUILT FOR THIS YEAR MAY RACE.²
- Width shall not exceed 2-3/4 inches.
- Length shall not exceed 7 inches.
- Body to ground clearance shall not be less than 3/8 inch*. Bottom mounted weights must be recessed in the body to maintain minimum clearance.
- The minimum distance between the inside edges of the wheels shall not be less than 1 $\frac{3}{4}$ inches.
- Weight shall not exceed 5.00 ounces.
- Height shall not exceed 4 inches.
- Axles, wheels, and body shall be from the materials provided in the kit or like materials from Replacement Kits provided by the BSA. Nail ends MUST BE visible. Both the pointed and flat ends. Weights shall not cover axle slots!
- All 4 wheels shall be attached and in their appropriate axle slot. Not all 4 wheels are required to contact the track.
- Wheels shall not be sanded to improve operation. The decorative bumps must be present on the sides of the wheels. You may remove seams and imperfections from the wheels.
- Axles may be polished or modified. No additions to axle may be made.
- Axle grooves are preset on the block and should not be modified. These grooves determine the wheelbase of the car. Corrections to the grooves for the axle orientation are permitted.
- No modifications may be made to the block altering the predetermined wheelbase of the car.
- Wheel bearings, washers, and bushings are prohibited.

- No lubricating oil may be used. Axles may be lubricated with powdered lubricant such as but not limited to graphite or silicone. **Application of powdered lubricant to be done outside of race venue.**
- The car shall not ride on any kind of spring.
- The car must be free-wheeling, with no starting devices.
- No additional device shall be used to maintain lane orientation. These include, but are not limited to, rail riding drag aids
- The derby car shall be designed in such a manner that no part of the car shall extend past the contact face of the launch gate.

Race Format

- Racing is done with cars running an equal number of times in each lane of track.¹
- Races may be run in computer generated (normal) order (*preferred*) or back-to-back. In “Normal” order scouts will be randomly placed against other racers throughout the round, NOT four races and done.
- Race order should be posted (*recommended but not required*)
- Scoring for the initial round is to be done by cumulative time.
- If there are sufficient racers per den a final round will be conducted.
 - Final round is the eight cars with the lowest cumulative time, for each grouping.
 - Final round scoring is Swiss style head-to-head best of three runs. Highest seed, lowest cumulative time, picks lane for first race. The cars are reversed in lane order for subsequent rounds.

Track

- The track is to be wood or metal and designed to specifications outlined in the “Cub Scout how to Book”*
- Track set-up to be done by sponsoring pack
- Track inspection to be done by District representative, or designee.

Pit Crew

- Pit Crew members *may* have Scouts racing but are not permitted a position that handles cars in any fashion. They may have other non-handling positions. (i.e. Announcer, computer operation, event coordinator)
- Recommended minimum Pit Crew members
 1. Car inspector (2.) 1 for weight and one for car specifications.
 2. Paddock Crew (2.) Transport cars from inspection station to impound area. During race one to hand out cars and one to collect cars.
 3. Racing official (computer operator) *should have good working knowledge of computer software in use.*
 4. Starter. Places cars on track and opens starting gate.
 5. Flagman. Removes cars from track.
 6. Announcer / M.C. Calls scouts to on deck circle and helps maintain fluidity of races.

Car Inspection

- Car inspection to be done at race check in as follows:
 1. The car weight and dimension check. If the vehicle fails, the scout is given the option to modify the car to meet specifications or race as is. **Cars not meeting specification shall not be eligible for the final round** but shall be permitted to race in the initial round. If there are not enough cars per den for a final round, cars not meeting specifications shall not be awarded any of the top 3 positions. If there are 3 or fewer cars in a den, then a car that does not meet specifications shall be awarded the lowest position. **Cars that will not clear the race gate due to height SHALL NOT be permitted to race. Cars that drag metal of any type on any part of the track shall not be permitted to race.**
 2. Car is to be issued number and recorded as passing inspection.
 3. Car is to be impounded until race. **No work can be done to car once it is registered and impounded.**
 - If the car loses a wheel, or is otherwise damaged, the racer shall have **five (5)** minutes to make repairs. If requested an adult may supervise the repairs.
 - Cars shall be returned to scouts upon the completion of the final round. Early distribution of cars not in the final round is at the discretion of the sponsoring pack.
 - A Repair/Modification Area should be set up for Scouts to make their cars meet requirements. Racers may add powdered lubricant over the repair catch basin.
 - **No Check-in after race begins** due to computer limitations.
 - Provisional late registration at the discretion of the district representative or designee.

Running the race

- Scouts MUST be present to race. Exceptions are at the discretion of the district representative or designee.
- At NO time is anyone to enter the paddock area or to handle the cars other than the Pit Crew.
- Scouts will be called by name or number to an on-deck area. Scouts shall be presented their car by the Pit Crew immediately before their race.
- If the presented car is not the scout's car the scout shall, at that time, inform the pit crew member that the car is the incorrect car. The pit crew member shall then, with visual assistance from the scout, retrieve the correct car and present it to the scout for verification.
- Scouts shall present cars to the Starter. ONLY the Starter may place cars on the track. Scouts are not to place their cars on the track!
- It is at the discretion of the district representative or designee whether the scout will take their car from the pit crew member and hand it to the starter, or if the pit crew member has the scout verify their car and after verification the pit crew member shall hand the car directly to the starter.
- Scouts will proceed to the finish area of the track.
- The Starter will release the cars.
- Once the race is determined to be a good race and times are recorded, The Flagman shall hand scouts their cars. Scouts are not permitted to remove their cars from the track!
- Scouts shall then return their car to the Paddock area where a member of the Pit Crew will return the cars to the impound area. Scouts are not to place their cars on impound tables!
- Once the first round is completed, there will be a short break to determine racers for the final round.
- In the event of a crash during the running of a heat.

- A.** A crash shall be but is not limited to the following: loss of a wheel, car becoming high centered on guide rail, car leaving the designated lane.
- B.** Cars that crash are cause for rerunning the heat. One (1) attempt shall be made to rerun the heat. If a car crashes on the rerunning of the heat, it shall be recorded as last place for the heat with the maximum time per the computer. The offending car shall be run in a different lane during a 'test' run with no other cars on the track. Cars crashing during three (3) consecutive runs (2 heat attempts and a test run) shall be deemed not fit to race and shall be disqualified to protect not only the straying car but those scheduled to run against it. Racers of unfit cars shall be given five (5) minutes to make repairs. One (1) retest shall be made. Failure to maintain a successful run during retest shall disqualify the car from further competition.

Final Round

- All the final round racers will be called to the on deck area. This may be done by scouting level (Webelos, Bears ET c.) or all at once at the race crew's discretion.
- The racers for each grouping will be seeded 1 thru 8 based on the cumulative time, with racer 1 having the lowest cumulative time and racer 8 having the eighth lowest cumulative time of the top eight.
- This round is the best of three races.
- The following sequence is to be run for each scouting level.
- The first round of the finals is as follows:
 - A. Racer 1 vs. Racer 8
 - B. Racer 2 vs., Racer 7
 - C. Racer 3 vs. Racer 6
 - D. Racer 4 vs. Racer 5
- The Second Round is:
 - E. First place in race A vs. First place in race D
 - F. Second place in race A vs. Second place in race D
 - G. First place in race B vs. First place in race C
 - H. Second place in race B vs. Second place in race C
- The Final Round is:
 - I. Second place in race F vs. Second place in race H
 - J. Second place in race E vs. Second place in race G
 - K. First place in race F vs. First place in race H
 - L. First place in race E vs. First place in race G

Final Standings

1. First place in Race L
2. Second place in Race L
3. First place in Race J
4. Second place in Race J
5. First place in Race K
6. Second place in Race K
7. First place in Race I
8. Second place in Race I

In the event of computer failure, the race may be run on a contingency format.

This requires the Starter and two (or three) Pit Crew members to be at the track. The winner is determined by the two crew members at the end of the track. In a split decision the starter, or if available a third Pit Crew member breaks the tie. Once a decision is made by the three Pit Crew Judges, it is final.

Swiss style non elimination is preferred.

This format is greatly improved by having a card for each racer on which points and opponents are recorded.

In this format, racers run in lanes one OR two only. Racers are given 1 point for each win and no points for a loss. Lane position is determined at random.

Round one

Order is determined by putting the cars in alphabetical order and splitting them in half, paring the first car from the upper pile to the first card from the lower pile and so forth.

Round two and on

Order is determined by random draw of racers with the same point total. If racers have raced one another paring should be made. Effort should be made to ensure racers alternate lanes.

Rounds should be continued until there are 8 in the highest group. At that point the above mentioned round 2 should be used,

Less fun for the Scouts, but also acceptable is double elimination.

The final decision on any rules interpretation is at the discretion of the District Representative or designee. Their decision is final and no appeal may be made.

¹ Equal runs in each lane may not be achieved in the contingency format.

² This rule is not enforceable at the race. It is self enforced by scouts to reinforce 'honesty'

* 3/8" clearance is defined in the "Cub Scout Leader How to Book" (33832A ISBN 0-8395-3832-4 © 2001 Boy Scouts of America 2007 Printing) on track design (Page 6-29).