

# Stock Pinewood Derby - Rules



# Garden City Drags



## **I. Eligibility – Registration**

- This is open to anyone 18+ years old
- **Pre-race registration is required.** You can register by contacting Stacie Cline at stacie.cline@scouting.org or calling 406-490-3848. Cost to enter a car is \$20

## **II. Body Specifications**

- **Width** – not to exceed 2 ¾ inches (7cm)
- **Length** – not to exceed 7 inches (17.8cm)
- **Height** – Must have clearance under Finishing Gate – not to exceed 5 inches
- **Weight** – not to exceed 5.0 ounces – **143.4 grams measured on Official Race Scale**
  1. Overweight cars may be reduced to 5.0 ounces (143.4 grams) or below before they can be officially entered, at the Race Day Check-in
- **Center Rail Clearance** – Cars must clear the center rail which is 1 5/8 inches wide by ¼ inch tall along the entire length of the car.
- **Wheelbase** – Cannot be extended. – Standard wheelbase is 4 3/8 inches from center of front axle to center of back axle. Wheels must be directly across from one another. Axles should be placed in axle slots on official pinewood derby block.
- **Body Design** – may be enhanced by adding other stable materials such as plastic, metal, or details. All additions must be firmly attached and conform to size specifications. No loose materials will be allowed on the cars.
- **No part of the car's body, or attachments can extend beyond the starting peg on the track what so ever.** – the length is not to exceed 7 inches.

## **III. Prohibited Items that can NOT be used**

- No magnets, springs, propellants, or propulsion system, no wet paint or sticky substances, no glass or excessively fragile parts. Electronic or lighting devices must be turned off during race. No bearings, or any device that mechanically alters the rotation or the spin of the wheels.

## **IV. Wheels**

- **Only Official Wheels are allowed - all markings must be in-tact on inside and outside of wheel.** You may use Official BSA Colored wheels
- **Outer wheel surface may be sanded, shaved, lathed or polished to remove any imperfections, true roundness, remove mold castings and burrs, but must not be reshaped in any way to minimize tread contact or alter aerodynamics.**
  - The fluting (small decorative dots on the edge) must remain visible around the entire circumference.
  - The tread / contact surface must remain flat and parallel to the bore.
  - The width of the tread must not be less than 7.5mm
  - No removing or reducing the letters or spokes or drilling additional holes.

- **The following wheel modifications are NOT Allowed**
  - No Rounding of the wheel treads – they must remain flat.
  - No Grooving, H-cutting, V-cutting, Crowing, Tapering or Dishing
  - No Altering the wheel profile
  - No Drilling sidewalls
  - No Filling of any wheel surface with any type of material
- **Coning the hubs, truing the inside edge of the wheel, and removing the outer hub step down is allowed.**
- **Wheel Bore treatment is allowed including polishing, sanding and / or tapping.**
  - Wheel bores may not be filled and re-drilled
- **All 4 wheels must touch the track surface**
  - Wheels may not be mounted at an angle to the wood block
  - Wheels may not be reversed – wheels must run in standard position

#### V. Axles

- **Nail Type official kit Axle must be used**
  - Modifications to the Axles are allowed that include sanding, polishing.
  - No grooving, beveling or tapering the axle or axle head

#### VI. Lubrication

- **Powdered Graphite Only**

#### VII. Race Operations and Miscellaneous Rules

- **All Cars MUST pass inspection before being allowed to race based on the rules stated in I. through VI.**
  - An approved inspected car will then be checked in and not be touched by anyone but the race officials until the cars are released by Race Officials.
  - All lubrication of wheels must take place prior to final inspection check in
  - Officials have the Right to Disqualify Any Car, which does not meet all of the stated rules and specifications. The Officials Decision is Final.
    - 1. *Appealing a decision – if a Race Official makes a ruling and you wish to appeal it – all Officials will be assembled and based on majority rule the decision will be upheld or overturned.*
- **Each Car will race multiple times in different lanes**
  - Each race is timed with electronic equipment.
  - In the event the equipment fails, the race(s) will be re-run.
  - The slowest time will be dropped and the average of the remaining times will determine the results for each racer – **Composite Time**
  - In the event of a tie(s) a run-off will be run between any of the Cars needed to fill the slots for the finals race using the same method of running once in each lane and taking the average of the fastest 3 times.
- **During Races**
  - If a car jumps the track and interferes with another car, then the race will automatically have to be re-run.
    - 1. *If the same car jumps the track again, then it is disqualified (after interfering)*
  - If a car jumps the track and does not interfere with another car, and finishes the race it will not be re-run.
  - If a car jumps the track and does not interfere with another car, but does not cross the finish line a time of 9.9999 seconds will be assigned to that car's race.
  - If an item affixed to a car falls off during a race, and in the opinion of the race official the car is still able to race, repairs will not be allowed.
  - If a car suffers a mechanical failure or is unable to finish, the individual will be allowed 3 minutes to make the repair under the supervision of a race official. No weight can be added as part of the repair action. If the car is unfit to race after the 3-minute period, or becomes disabled after further racing, it will be disqualified and taken out of the race. No other modifications are allowed – such as re- lubing, only the repair to the item(s) can be performed.

- *Any car that is discovered to be illegal during the competition by a Race Official will be disqualified from competition.*

