



2023 Two Rivers District Pinewood Derby

Saturday, March 4th, 2023

AB Graham 8025 US-36, Conover, Ohio 45317

Championship

Open

Registration: 10:30 Registration: 12:30

Race: 11:30 Race: 1:15

Once your Pack race is run, the top 3 finishing cars will need to be quarantined by the unit (plus the 4th place car as an alternate, if desired) and not released to the Cub Scout until

check in at the district Championship race. Please have your 3 racers for the Championship race register as a group. To register your pack for the Championship race, please go to miamivalleybsa.org, register your pack, pay the **\$15 registration fee**. An open race will also be run.

Scouts must be present for their car to compete.

Please let the youth do as much work on the car as possible. All cars must pass inspection to qualify for the race.

The inspection points are as follows:

- a. The car must have been made during the current school year (the year in which the District Derby is held).
- b. Width - overall width shall not exceed 2.75" (2-3/4 inches). Minimum track width (space between insides of wheels) must be at least 1.875" (1-7/8 inches)
- c. Length - overall length shall not exceed 7 inches. (Note: check your length, cars out of the box are sometimes over 7 inches.)
- d. Height - overall height shall not exceed 3 inches.
- e. Weight - Shall not exceed 5 ounces on our scale.
- f. Wheel bearings, washers, bushings or hubcaps are prohibited.
- g. No solid axles, only the official Grand Prix Pinewood Derby kits with nails for axles can be used. Wheel base cannot exceed 4.375" (4-3/8 inches) Center to Center of axle.
- h. The car shall not ride on any kind of springs.
- i. Dry Lubricant only. No Liquid Lubricant allowed.
- j. Wheels can be sanded to remove surface imperfections, but the treads must be left flat. Wheels cannot be any smaller than 1.170" diameter. You cannot remove any significant amount of plastic - inside or outside of wheel. Only the Official BSA Pinewood Derby Wheels are acceptable. Cars with modified wheels will be disqualified.
- k. Must have a .375" (3/8 inch) clearance under the car body. Any low hanging weights must be moved to another part of the car or recess into the bottom of the car to pass the .375" clearance.
- l. Any details added must be within length, width, and weight limits.
- m. No loose materials of any kind are allowed on the car. If anything falls off during or after a race, it stays off.

The following items/modifications are PROHIBITED:

- a. Springs
- b. Starting devices or propellants
- c. Electronic or lighting devices that interfere with the race electronics.
- d. Liquids, wet paint, oil, sticky substance, or powders of any kind (other than axle lubrication)
- e. Liquid lubricant is NOT allowed. Dry lubricant is allowed on the axles.
- f. Bearings, bushings, washers, sleeves, hubcaps or inserts attached to or in contact with the axle, body or wheels.
- g. Loose objects on car
- h. Magnets
- i. No part of any car or attachment to any car that is metal, pointed, sharp, and/or jagged may be capable of contacting any part of the track.

- j. The front of the car cannot be grooved or slotted in any manner that extends any part of the car past the surface of the starting pin in which the nose of the car is resting upon.

WHEELS:

- a. Use only Official Scout Grand Prix wheels. All lettering, both inside and outside, must remain and be visible. The fluting and other BSA markings on the outside wheel area must remain visible. Outer wheel surface may be lightly sanded, shaved, or polished to remove surface imperfections and mold casting burrs, but must not be reshaped in any way in an attempt to lighten the wheel, minimize tread contact or alter aerodynamics. Tread surface must be flat and parallel to the wheel bore. Coning the hubs and truing the inside edge is allowed. Tread width may not be less than 7.5 mm. You may add material to the inside of the wheel to aid in balancing (glue, fingernail polish, tape) of the wheel, but no material may be removed.
- b. Wheel Bore treatment is allowed including polishing and/or tapping. Wheel bores may not be filled and redrilled to alter bore diameter or to achieve better fit with the axle.

There must be at least four wheels on the car, however, it is not required that all four wheels make contact with the track surface. Each wheel must be mounted on an axle, on the outside of the car, in the vertical position. Each wheel must be attached directly to the car by an axle and spin freely. No part of the wheel may overlap the center guide rail by more than 1/8 inch. The two rear wheels and the two front wheels must be positioned directly across the body from each another. Staggered wheelbases are not allowed. Please note: There are aftermarket modified wheels that are LIGHTENED. This is usually done by turning the wheels on a lathe and removing material from the inside of the wheel. These wheels are NOT allowed and EASILY RECOGNIZED at inspection. Cars with these wheels will not be permitted to race. No part of the car nor any attachment to the car may be capable of coming into contact with the track other than the wheel(s).

AXLES:

BSA Nail type axles are required with an overall diameter of no less than .084 inches for each wheel. Some polishing and/or modification are allowed as long as overall diameter is not reduced below .084 requirements. Grooves are allowed; the depth of the groove(s) is not limited so long as the journal portion of the axle (the part the wheel rides on) is no less than the stated minimum diameter. Axles must not be connected to any device that mechanically alters rotation and spin. Axles must be mounted into the wood sections of car. Drilled holes or slots can be used.

INSPECTION:

Each car must pass inspection by the Official Inspection Committee before it may compete. The Inspectors will disqualify any car not meeting these rules. Any adult or scout may appeal the findings of the Inspectors to the Race Committee Chairperson, whose decision is final. After acceptance only race officials will handle the cars.

WEIGHTS:

The drilling/removal of Lead (Pb) will NOT be allowed at the race venues or at check-in time due to the toxicity of the material. All Lead (Pb) must be completely sealed and safe from all possible contact with the youth. PLEASE avoid Lead (Pb) in cars this year!

REPAIRS:

Any car losing wheels or any part that prevents it from running cannot be repaired after the inspection and weigh in. EXCEPTION: Race officials may authorize repairs when damage is caused by collision with another vehicle or object. The Cub Scout is in charge of making all car repairs. Guidance is allowed and encouraged. Ideally repairs can be done before the next heat that the car is in starts. After the car is repaired Officials will run the race again. If the car cannot be repaired before its next race starts, that race will also be delayed until the end of the races.

If you have any questions about rules or the derby, please email Sarah Lewis at sarahjaylewis@gmail.com