

WHITE RIVER DISTRICT OFFICIAL PINewood DERBY RULES

NOTE: If the car does not pass inspection, you will have to provide your own equipment to rectify the rule infraction if time permits. The pack/district is not expected to provide any equipment or tools to modify cars.

I. General Rules

All cars must pass inspection by the assigned pack leadership according to the following rules. If there is a question regarding the rules below the pack leadership will vote to determine the outcome. If the car in question belongs to a child of the leadership, this leader will abstain from voting.

1. All scouts wishing to participate in the White River District Pinewood Derby must adhere to the following rules or their cars will not be allowed to participate.
2. All cars must use official BSA wood block, axles, and wheels.
3. If for any reason there is a question regarding changes to the car during the race, caused unintentionally or intentionally, the car will be examined and expected to pass inspection again. Any car that does not pass inspection during the racing will be disqualified.

II. Body Specifications

1. Maximum total weight limit is **5 ounces** according to the scales present at race inspection.
2. Maximum overall width of the car shall not exceed **2 3/4 inches**.
3. Maximum overall length of the car shall not exceed **7 inches**.
4. Minimum underside clearance shall be at least **3/8 inch**.
5. Minimum inside wheel-to-wheel clearance shall be at least **1 3/4 inches**.
6. Maximum wheelbase (distance between the front and rear axles) shall not exceed **4 1/2 inches**.

III. Car Design & Approved Construction Methods

1. The car design may be any of shape, theme, or construction as long as the design **DOES NOT** violate the dimensional or weight specifications.
2. Details such as: steering wheels, drivers, decals, painting, and interior details are permissible as long as these details are not an infraction of the other specifications listed. If applying any add-ons to the car, all must be securely fastened with glue or mechanical fasteners. **No loose materials of any kind are permitted. Tape is NOT allowed to attach add-ons or decorations.**
3. The car may be hollowed out, drilled, or modified and/or built up to the maximum weight by the addition of wood or metal. However, the material must be securely fastened to the car with screws, nails, or glue. **No loose materials of any kind are permitted. Tape is NOT allowed to attach weights.**
4. Any car found to have material taped to the car will fail tech inspection. If time permits the issue may be remedied and the car reinspected. **All materials on car must be permanently affixed. Taping coins or other materials to the car will not be allowed.**
5. Once a car is presented to race officials for tech inspection it will be impounded to the pit row and not returned unless it fails inspection.
6. Cars that are underweight may race as is.
7. The car shall not be allowed to ride on any springs.
8. The car must be freewheeling, without starting devices or pushing. **There cannot be any small divots, notches, or depressions on either end of the car.** This is considered to be an aid in starting the car.

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IV. Axles

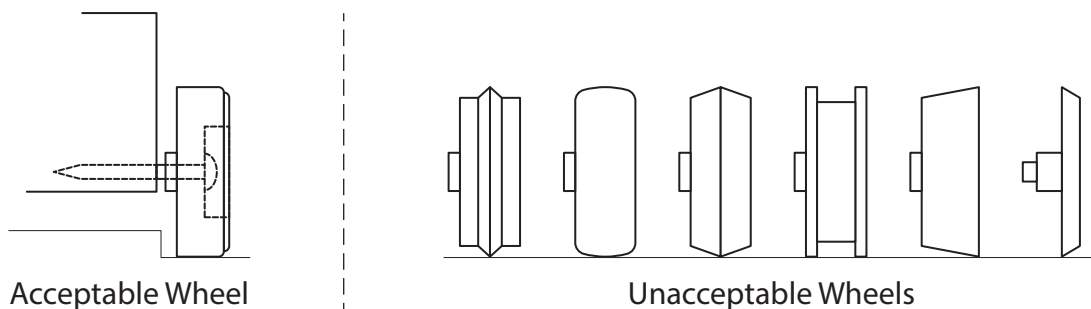
1. Only axles allowed are those in the Official Pinewood Derby Kit or official B.S.A replacements.
2. Axles may be polished and lubricated with powdered graphite. No liquid lubricants may be used.
3. Axles may be bent or inserted to can't the wheels.
4. Axles may be positioned to allow one wheel to NOT touch the track via adjustment, bent axle or placement as long as this DOES NOT violate any other specifications.
5. Precision machined axles are prohibited. This includes axles modified to reduce wheel hub friction by modifying the profile. Axles must be a continuous cylinder from the head to the point.
6. No single axles allowed.

V. Wheels

1. Only official BSA wheels may be used, including other official BSA colored wheels not supplied in the standard kit.
2. You may not use washers or hubcaps or insert sleeves or bearings into the wheels.
3. Plastic flashing left from the manufacturing process may be removed and the wheel surfaces lightly polished including the tread, inside of the hub, the end of the hub and exterior of the hub where the axle rides.
The manufactured shape must be retained.
4. The inside of the wheels must clearly read "Made in USA, Official BSA."
5. NO grinding, sanding, machining, or removing significant material from the inside or outside of the wheels is allowed with the intent to reduce wheel weight.

Absolutely no other wheel changes or modifications will be allowed.

NOTE: This list is not all inclusive of all possible modifications but an outline of the "spirit" of the rules. Wheels that are found to be overtly modified will be disallowed. If found to be overly modified, new wheels may be installed, and the car reinspected.



NOTE: This issue has been a very controversial issue in the past. Be prepared for a rigorous inspection.

All decisions regarding modification will be final and not open for discussion. If concerned, bring extra wheels and the car will be re-inspected.

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VI. Lubrication, Repairs & Modifications

1. Lubricating with powdered graphite of the car axles must be done before the car is presented for tech inspection. Once the car has been registered in the race, and has passed inspection by the race officials, it will immediately go to pit row. No lubricating or modifications will be allowed between race heats. Repairs can only be made by permission or by request of a race official. Cars must remain in pit row when not racing, only being removed when their number is called for by race officials, or by special permission of a race official. If a car is found missing from pit row without permission, the car will be disqualified.
2. If a car is modified anytime after being registered, the car is considered illegal, and will be disqualified.
3. Final standings for each age group will remain unofficial until all cars that place have been re-inspected for weight and checked in the tech box.
4. If a car is found to have taped weight affixed to it during the race, it will be immediately disqualified and removed from competition.
5. No liquid weight is allowed on the car.
6. If a car loses a wheel or jumps out of its lane, the heat will be rerun if the scout and adult partner are able to repair the damage in less than 5 minutes, otherwise the car in question will be awarded last place in the heat. The scout and partner may continue trying to fix the car in pit row between heats in the presence of race official. No tape will be allowed, and no other lubing or modifications will be permitted. If not repaired by the time his next heat is called, the scout will forfeit that heat, and will be awarded last place.
7. If the car jumps the track three times during a heat, or has caused another car to be damaged, it will be disqualified.
8. "Rail-Runners" are allowed but will be run at your own risk. Cars that are designed to run the center rail can jump the center rail at a higher rate and thus can be a risk to run.

Cars will be inspected on these specifications.

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| 1. Car does not exceed 5 ounces. | 12. The scout is an official registered member of the White River District. |
| 2. Car width does not exceed 2 3/4 inches. | 13. Car has no aid in starting. |
| 3. Car length does not exceed 7 inches. | 14. Do axles appear to be ones supplied with kit? |
| 4. Car underside clearance is at least 3/8 inches. | 15. Do you see any grooves, bearings, sleeves, etc. on axles or inside wheels? |
| 5. Cars inside wheel-to-wheel clearance is at least 1 3/4 inches. | 16. Is there any indication of grease or oil as lubricant? (Only dry graphite permitted) |
| 6. Cars wheelbase (front axle to rear axle) does not exceed 4 1/2 inches. | 17. Is tread pattern still visible on outside corner of the wheel? |
| 7. Inside of wheels must clearly read "Made in USA, Official BSA." | 18. Is tread area still flat and square to outside of wheel? |
| 8. Car does not have any loose/unglued weights or other pieces. | 19. Does tread area look excessively thin compared to stock wheel? |
| 9. Cars wheel shape is still intact and has not been modified in a manor to reduce it's weight. (See sample of unacceptable pictures in the rules). | 20. Has inner hub (where wheel rubs on car body) been severely altered? Should be slightly rounded or chamfered, but still square to tread, and not machined smaller in diameter. |
| 10. Car does not have any single axles. | |
| 11. Only official BSA block of wood, axles and wheels have been used in manufacturing car. | |