

# Pack 1776

## Pinewood Derby Tip #1

### Know the Rules!

Stay within the rules! Pack 1776 follows the Blackhawk 500 (regional race) rules:

#### General

- Only one car may be registered per scout.
- Building of the car must have begun during the current scouting year.
- The car must be registered, pass inspection and impounded during the registration period prior to competing. No further modification or lubrication of the car is allowed after impounding.
- Only cars powered by gravity are permitted.
- All work (including improvements to wheels, axles, and car body) must be done by the scout and a parent/guardian (Akela). The intent is to have the scout build as much of the car as reasonably and safely as possible. The use of pre-shaped car bodies, machined wheels or pre-lathed axles acquired from the Internet or other sources is not allowed. Akela's include grandparent's, uncles, etc.

#### Specifications

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- Width: 2.75" or less (including the wheels)
- Length: 7.00" or less
- Height: 4.00" or less (including all trim items)
- Under car clearance: 0.375" (3/8") or more (so nothing hits the track)
- Inside wheel-to-wheel clearance: 1.75" or more
- Axle-to-axle spacing: 4.40" +/- 0.125" (extended wheelbases are not allowed)
- Car weight: 5.00 ounces or less
- No part of the car can extend past the starting pole when in the start position

#### Materials

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- Axles, wheels and body MUST be from the materials provided in the Official Grand Prix Pinewood Derby Kit. It is permissible to purchase extra car bodies, axles, wheels, etc. provided they are "from the kit." "From the kit" means unmodified items that would be found "as is" inside the standard Pinewood Derby box. Unmodified colored wheels are permissible since they come from the same molds as the black wheels. Currently, unmodified wheels and axles sold by Revell that have the BSA logo on the packaging are permissible (they are made in China) since the BSA approves these products.

- Only dry lubricant is acceptable. This means Ny-Oil and other liquid lubricants are not allowed (they stain the track and give an advantage to those who spend more \$ for these liquid products). Examples of permissible dry lubricants include graphite (found in all hardware stores) and graphite molybdenum blends.
- Additional trim items are allowed provided the car doesn't exceed the maximum weight and size provided in the rules.
- No loose materials (weights, characters or trim) are permitted. Please attach these items so they will not fall off the car during the race.

#### Wheels & Axles

- Axle nails must be mounted parallel to the track surface. Wheels must run flat on the track surface. No canting is allowed. Axle treatment is allowed (i.e. deburring & polishing).
- Wheel treatment is allowed (hub and tread smoothing/polishing) but it may not result in substantial removal of mass, or reduction in wheel width or diameter. At least 80% of the original wheel width must contact with the track surface. The wheel hub cannot be shortened or the diameter opened.
- The car must run on three or four wheels.
- Wheel hub caps, washers, inserts, sleeves, and bearings are NOT permitted.
- The car may not ride on springs or other suspension.

Question: Can I purchase black, yellow, blue, orange and red wheels from the Scout Store or elsewhere?

*Answer: Yes, provided these are BSA wheels that have not been modified in any way (lathed, polished, shaved, etc.). If you wish, you can then modify the wheels yourself in accordance to the Pack 1776 and Blackhawk 500 rules.*

Question: Can I purchase a pre-drilled and pre-shaped car, or lathed axles or wheels off the Internet?

*Answer: No! These items were modified before you bought it. The car is subject to disqualification.*

Question: Can spoilers, fenders, cockpits and drivers, etc. be added to the car?

*Answer: Absolutely! Your scout should be creative.*

Question: Is sanding the wheels necessary?

*Answer: Sanding and/or lathing wheels was necessary to have a fast car in the "old days" (pre-2009). The old molds created a raised mold mark on the wheels that caused them to "bump" down the track. The new wheels do not have these mold marks and are much lighter (faster). Many Pinewood experts believe the BSA improved the molds to help eliminate cheating (too many people were buying modified wheels). All wheels now sold come from the new molds. Most people no longer modify these wheels, although you are welcome to do so provided modifications are made within the rules.*

Question: Does baking the car in the oven make it go faster, and is it permissible?

*Answer: We all saw this in the Down and Derby movie. Baking helps reduce the moisture content in wood, making it lighter. Some people believe making the car body lighter allows you to add more weight in the rear of the car, which will make it go faster. Some people believe reducing moisture from the wood does no good, since the wood will eventually regain some moisture possibly warping a very thin car. Either way, baking the block of wood does not violate any rule and is permissible. If you do bake, please do so at a low temperature for safety reasons!*

Question: Is store bought "skins", decals, designs, etc. allowed?

*Answer: Yes, since these are considered decorative items. If you want a Hershey Bar car, go right ahead and paste that candy bar wrapper on your car! If you want to use a psychedelic skin, it is permissible. Almost any decoration is permissible, providing it is secured to the car.*

Question: Can I enter more than one car, one for a design award and another to race?

*Answer: No, only one car can be entered per scout. However, you can enter another car in the sibling division.*

Question: Can siblings (brothers and sisters) race a car? Can parents also race?

*Answer: We have a sibling division that races after the Cub Scouts. No trophies are awarded, but the race is a lot of fun with bragging rights at stake.*