



2010

Frontier District Pinewood Derby



DATES TO REMEMBER:

DEADLINE FOR EARLY BIRD REGISTRATION:
REGISTRATION FORM WITH PAYMENT* BY

FRIDAY - February 26th, 2010

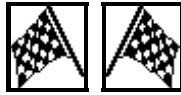
AND ONLY PAY \$3.00 A PARTICIPANT

*ALL REGISTRATIONS RECEIVED AFTER
February 26th WILL BE SUBJECT
TO THE RACE FEE OF \$5.00 PER PARTICIPANT!*

SO REGISTER EARLY TO GET THE DISCOUNT!

**All REGISTRATION FORMS must be accompanied with payment.
If payment is not with form, registration will not be accepted.**

**Day of the event:
Saturday, March 13th, 2010
Patriot Pontiac, Boyertown
*times to follow**



2010

Frontier District Pinewood Derby



PARTICIPANT REGISTRATION FORM

<i>Pack #</i> _____	<i>Location</i> _____
Cubmaster _____	Phone # _____
Committee Chair _____	Phone # _____

Tiger #1 _____	Phone # _____
Tiger #2 _____	Phone # _____
Tiger #3 _____	Phone # _____
Tiger #4 _____	Phone # _____
Tiger #5 _____	Phone # _____

Wolf #1 _____	Phone # _____
Wolf #2 _____	Phone # _____
Wolf #3 _____	Phone # _____
Wolf #4 _____	Phone # _____
Wolf #5 _____	Phone # _____

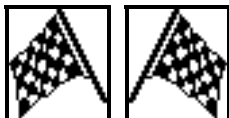
Bear #1 _____	Phone # _____
Bear #2 _____	Phone # _____
Bear #3 _____	Phone # _____
Bear #4 _____	Phone # _____
Bear #5 _____	Phone # _____

Webelos I #1 _____	Phone # _____
Webelos I #2 _____	Phone # _____
Webelos I #3 _____	Phone # _____
Webelos I #4 _____	Phone # _____
Webelos I #5 _____	Phone # _____

Webelos II #1 _____	Phone # _____
Webelos II #2 _____	Phone # _____
Webelos II #3 _____	Phone # _____
Webelos II #4 _____	Phone # _____
Webelos II #5 _____	Phone # _____

Frontier District Pinewood Derby Volunteer	
Name _____	Phone # _____

FORM MUST ACCOMPANY FEE OF \$5.00 PER RACER FOR REGISTRATION TO BE CONSIDERED TO : Hawk Mountain Council, B.S.A.
 5027 Pottsville Pike
 Reading, PA 19605



Frontier District Pinewood Derby



OFFICIAL PINEWOOD DERBY RULES

Please read these Rules and Instructions before building your car.

Cars should be built by the Cub Scouts with some adult guidance. Any technical assistance should be fully explained to the Cub Scout so that he can use that knowledge on future projects.

CAR SPECIFICATIONS:

- Width: - 2-3/4" - Length - 7" - Weight - Not over 5 Ounces
- Width between wheels - 1-3/4"
- Maximum height shall not exceed 3-1/2"
- Bottom clearance between car and track - 3/8"
- The wheelbase of 4-3/8"

RULES

Eligibility of Contestants and Cars

- Cars in the District Pinewood Derby must have been made for this race season.
- Scouts may not use a car made for a previous year's race.
- Tigers, Wolves, Bears, Webelos I's, and Webelos II's race by Rank.

Length, Width & Clearance

- Maximum overall width (including wheels and axles) shall not exceed 2-3/4"
- Minimum width between wheels shall be 1-3/4" so car will clear the center guide strip.
- Minimum clearance between the bottom of the car and track shall be 3/8" so the car will clear the center guide strip.
- Maximum length (including wheels) shall not exceed 7".
- Maximum height shall not exceed 3-1/2".
- Since the starting pins are round, the minimum width of the front of the car is 1/2 inch.
- The front end may be no more than 1/4 inch above the axle line.
- The wheelbase (distance between the front and rear axles, center to center) may not be changed from the kit body distance of 4-3/8".

Wheels and axles

- Only official BSA (Boy Scouts of America) wheels and axles may be used. This includes the color BSA wheel.
- Axles must not be connected to any device that mechanically alters rotation and spin, such as bearings, bushings, etc.
- The car may not ride on any type of springs.
- Axles may be lightly filed, sanded and polished. This light filing, sanding and polishing is the only axle modification allowed.

- The nail heads, from the axles, must be in full view.
- Wheels may be lightly sanded and polished. This light sanding and polishing is the only wheel modification allowed. No honing or cutting of wheels will be allowed. BSA markings and side tread must remain and may not be altered.

Weight and Appearance

- Weight shall not exceed 5 ounces. The readings of the Official Race Scale will be considered final.
- The car body may be carved, sculpted, and/or sanded in order to enhance performance and/or appearance.
- No loose materials of any kind are permitted on or inside the car.
- Additional materials may be added to the car for the following purposes only:
 1. Weights may be added to increase the weight and/or alter the weight distribution of a car.
 2. Paints/decals/decorations may be added to alter the appearance and/or aerodynamics of a car.
 3. Glue may be used to adhere the axles to the car body.
 4. Wood putty, or a similar wood-like substance, may be used to repair minor damage to a car.

Lubrication

- Only dry lubricants graphite, Teflon, etc. are allowed.
- A car may be lubricated before inspection and should be done outside the race hall. This is the last time when lubrication is permissible before racing. Specifically, cars may not be lubricated while competing in a set of heats.

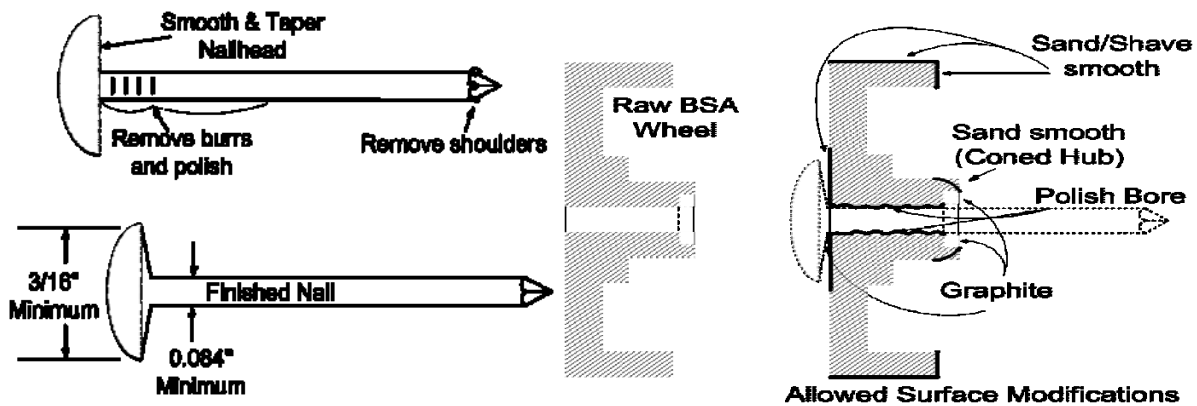
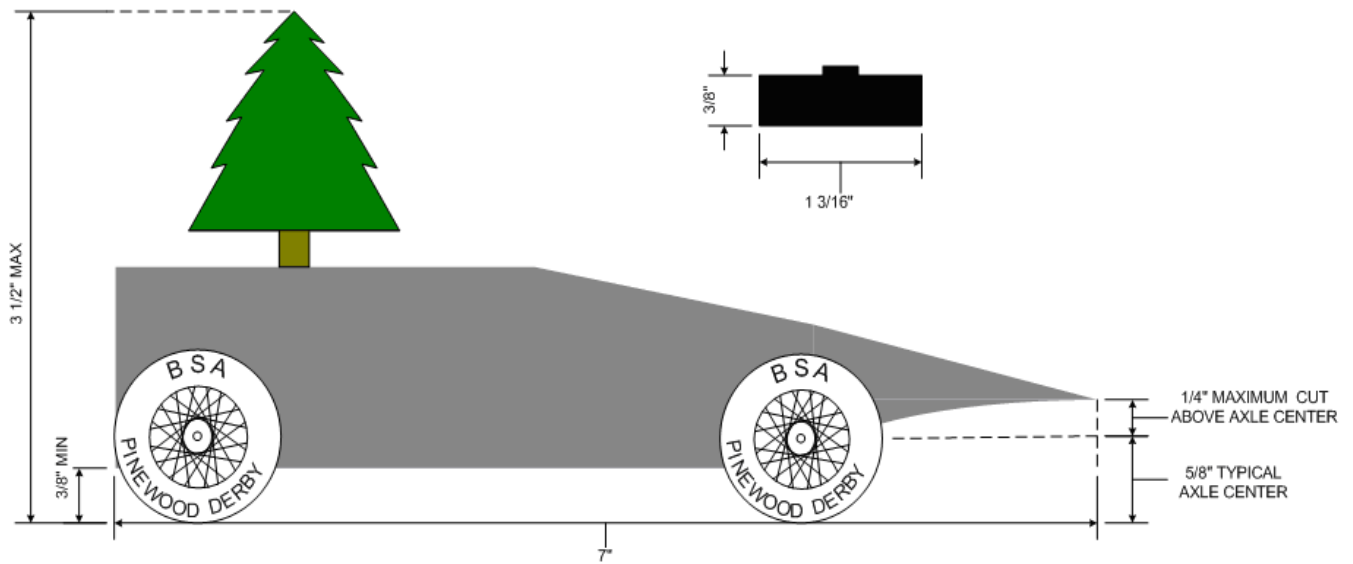
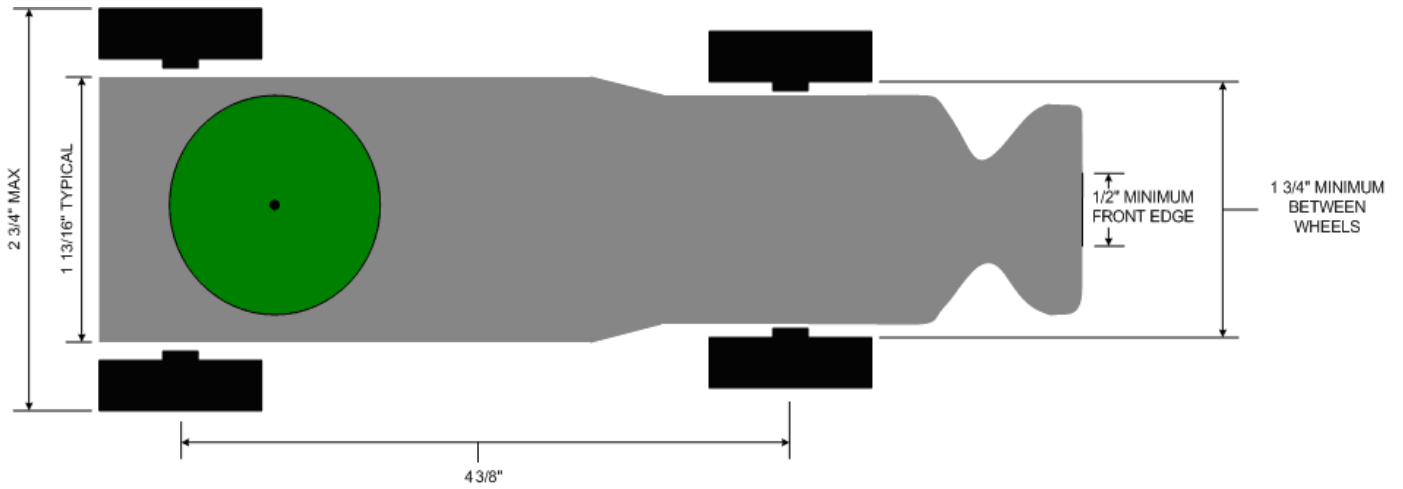
Ground Rules

- If a car jumps off the track, the heat will be run again. If the same car jumps off the track a second time, it will automatically lose the heat.
- If a car leaves its lane and interferes with another car, the heat will be run again. If the same car leaves its lane a second time and interferes with another car, the heat will be run again without the interfering car. The interfering car will automatically lose the heat.
- If a car suffers a mechanical problem and a repair can be accomplished within 5 minutes, the heat will be run again. If not, the car will automatically lose the heat.
- If a car becomes damaged, a parent or guardian will be allowed into the pit area to make repairs. Once a car has been repaired, it will be re-inspected and re-weighed.
- No participants or parents or guardians will be allowed into the racing pit area. Once a car has been inspected and weighed, participants will not have access to the car again until the car has finished racing and is returned to the participant.

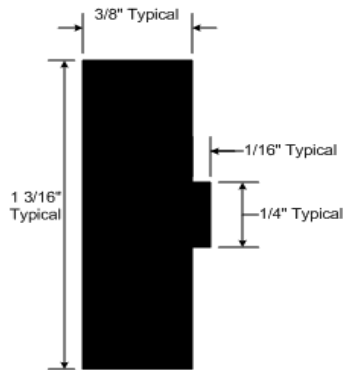
Inspections and Disputes

- Each car must pass inspection by the Official Inspection Team before it may compete. The Inspection Team has the right to disqualify those cars, which do not meet the rules. Car owners will be informed of the violations and given an opportunity to modify the car to meet these rules.
- Ungentlemanly or unsportsmanlike conduct by any participant or member of the audience will be grounds for expulsion from the competition and/or race area.

Sample layout of a car with dimensional guidance



Kit Wheel



Acceptable Wheel



Trued and smoothed with the rough edges smoothed and coned hub

Unacceptable Wheel Profiles



Shaved thin to reduce mass



Shaved and a Single Point of contact left to reduce friction (commonly called V profile)



Shaped for Only Two Points of contact left to reduce friction (commonly called H profile)



Rounded to reduce friction