Pony Express District Pinewood Derby Rules / Details

2015

GENERAL:

G-1. Scout Spirit: The Pinewood Derby is for the Cub Scouts and their cars.

G-2. Essential Materials: All cars entered shall be constructed from the **Official Grand Prix Pinewood Derby Kit** (referred to below as **the kit**) as sold by the Scout Service Center. Official BSA colored wheels may be substituted for the black wheels. (Kits may be purchased elsewhere if they are of the exact type specified above.)

G-3. Competitor Category: There will be a single race category and a single show category. Competitions will not be age-specific.

G-4. Attendance: Only the cars that placed in the top 3 in each category at the Pack Pinewood Derby may be entered. The Cub Scout does not need to be present to enter his car into competition.

G-5. "New Work": Construction of entries must not have begun before the current Cub Program Year (September 2014).

G-6. Events: There are two events: 1) Racing; and 2) Show. Each car can only be entered in a single event.

G-7. Single Car per Boy: A Scout may enter only 1 car.

G-8. Official Decisions: Derby Official decisions are final.

G-9. Timely Entries: All entries (Packs) must be entered by 6:45 PM (or be in line if a line exists at that time). **Late race entries will not be accepted**. Once all entries are entered in the computer, the Software program will randomly seed each car ensuring it runs on each of the available lanes. It is not possible to add additional cars!

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EVENT: Show Cars

Event Description:
Entrants will be judged on design, workmanship, detail, creativeness and craftsmanship with 1st, 2nd and 3rd places being awarded.

Qualification:
Each Pack may qualify 3 cars for the Show Category.

Technical Standards:
All Technical Standards apply except as follows:

A. No limit as to the height of the car.
B. Kit axles need not be used.
C. The car body may have moving parts

Conduct of the Competition:
All Cars being evaluated will be on display in the designated impound yard. Judges will inspect and rank cars. Decision of the Judges will be final.

Trophies will be awarded to 1st, 2nd and 3rd place winners. Impartial judges are appointed by the Event Chairman.

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EVENT: FASTEST CAR

Qualification:
Each Pack may qualify the three fastest cars based on the results of the Pack's 2015 Pinewood Derby.

Technical Standards:
The inspection judges at race-day check-in are responsible to evaluate each car's adherence to the technical standards. Their decision may be appealed to the inspection chairman and the event chairman, who, after consultation with the inspection team, the SCOUT, and his parent/assistant, shall render a final, binding decision.

T-1. Material: Race cars shall be constructed for this event from the parts contained in the **Official Grand Prix Pinewood Derby Kit** (referred to below as **the kit**) as sold by the Scout Service Center. Materials from **the kit** may be supplemented but not replaced; with the exception of the wheels. Official BSA colored wheels may be substituted for the black wheels.

T-2. Weight: Racecars may weigh no more than five (5) ounces (total weight) as determined on the official scales during race day inspection. Official scale will go to two (2) places after the decimal point (example 5.00). Cars meeting official weight cannot have weight added. Cars that exceed weight will be allowed to have an adult reduce the weight to meet the five ounce limit.

T-3. Wheels and Axles: The car shall roll on all 4 wheels from **the kit** (or official BSA colored wheels). The wheels shall turn about the axle nails from **the kit**. The axle nails shall be firmly affixed to the wood of the car body. The axle dimensions may not be changed substantially. The outside surface of the axle head (the non-contact surface) may not be changed substantially, such as, by filing down. **It must be obvious to the judges that the wheels and the nails from the kit are being used.**

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T-4. Size: Racecars may be no longer than 7 inches, nor wider than 2 3/4 (2.75) inches, nor taller than 5 inches, as determined by the official gages during race day inspection (the car has to clear the electronic timer). (Underside clearance of at least 3/8 (0.375) inches, inside wheel to wheel clearance of at least 1 3/4 (1.75) inches, and nose height of no more than 3/4 (0.75) inch is recommended, so that the car will run on the racetrack and trigger the finish line electronics. Adequate clearance is the responsibility of the racecar builder.)

T-5. Weights and Attachment: Weight may be added to the car and will be considered part of the car for purposes of all measurements. "Weight" is considered to be any material on the car that is not provided in **the kit**. All weight must be securely fastened to the car, e.g. by permanent glue, nails or screws, but not by "sticky substances", e.g. tape, or tack spray. Weights shall be passive, i.e. non-moveable, non-magnetic, non-electric, non-sticky, etc.

T-6. Wheels: Wheel treatment (hub and tread smoothing and polishing) may not result in substantial removal of mass or in reducing the tread (track contact) width from the original kit wheels. Wheel tread surface must be cylindrical. The wheel surface in contact with the track may not be cut, drilled, beveled or rounded. The words "Official B.S.A. Made in U.S.A." and other lettering on the wheels shall remain intact and clearly visible to the inspector. Some of the original "tread marks" on the wheel face must be intact, i.e. apparent to the inspector.

T-7. Unacceptable Construction: The following may NOT be used in conjunction with the wheels or axles: hubcaps, washers, inserts, sleeves, or bearings.

T-8. Gravity Powered: The racecar may not be constructed or treated in such a way that the track's starting mechanism imparts momentum to the car. (For instance, this provision disqualifies cars with sticky substances on the front of the car and protrusions that may catch on the starting pin.)

T-9. Lubricants: Only dry lubricant is permitted (i.e. powdered graphite).
T-10. Staging: The entire car must stage behind the starting pin. There must be flat surface of at least ¼'' (.25 inch) width on the front of the car for the starting pin. A dot with a 'F' may be placed on the front underside to designate front of car.

T-11. Body: The car body may have no moving parts.

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Conduct of the Races:

Track officials are responsible for the proper conduct of the races. Decisions of track officials on questions of rules interpretations and procedure may be appealed to the event chairman. Decisions of track officials on questions of fact may not be appealed beyond the track chairman. The conduct of the race officials, scouts and parents must be in the spirit of Scouting.

Scouts AND PARENTS should also be familiar with these rules.

C-1. Inspection Gauges: A team at the inspection area using scales and gauges approved by the Chairman will conduct all inspections. Please stress this fact to all members of your Pack: They should be prepared to make adjustments to their cars if necessary. Repair area will be provided.

C-2. Impounding: Once the car has passed inspection and received its number sticker, the car will be placed on the table provided, and no lubrication or efforts to improve the car will be allowed until the racing is complete.

C-3. Car Handling Responsibility: Adult Pit Crew members will place the cars on the track for racing.

C-4. Lane Assignment: The Software program shall determine lane assignments for each heat.

C-5. Car Repair: If, during the race, a wheel falls off or the car becomes otherwise damaged, then the SCOUT (or a fellow Scout in the SCOUT's absence) may to the best of his ability perform repairs. The SCOUT (or fellow Scout) may seek advice for repairing the car, but may receive no other assistance. If a car is damaged due to track fault or due to fault of another car or SCOUT, then the track chairman, at his sole discretion, may allow additional repair assistance.

C-6. Car Interference: If a car leaves the track, runs out of its lane, interferes with another car, loses an axle, etc. the heat will be rerun. If the car gets into trouble on the second run, the contestant is disqualified and automatically loses the race. If, on the second run, another car is interfered with, the heat will be run a third time but without the disqualified car.

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C-7. Track Fault: If a car leaves its lane, at his sole discretion, the track chairman may inspect the track and, if a track fault is found which probably caused the initial violation, the track chairman may order the race heat to be rerun after the track is repaired.

C-8. No Finishers: If, during a race heat, no car reaches the finish line on the track, the car that went the farthest in its lane shall be declared as the heat winner. The racers slowest time will be entered for that race to account for averaging by the Software program.

C-9. Appeals: **The Cub Scout** must make all questions of rules interpretations, procedure and fact to the track officials promptly. A station at each track will be designated for this purpose.

C-10. Opponent Assignment: Scouts will be grouped by random by the Software program to assure the Scouts car will have one race in each of the lanes provided. Each car will race the number of times per lane available.

The Racing Environment:

R-1. Track Length and Drop: The track shall have a racing surface (starting line to finish line distance) of at least 28 feet with a drop of approximately 4 feet.

R-2. Track Slope: The track slope shall decrease from approximately 30 degrees at the starting line to approximately 0 degrees at the finish line.

R-3. Lanes: The track will have at least 3 lanes. Each lane will consist of a lane guide approximately 1 1/2 (1.50) inches, but certainly less than 1 3/4 (1.75) inches, wide and approximately 1/4 (0.25) inches, but certainly less than 3/8 (0.375) inches, high, centered on a smooth surface no less than 4 inches wide. Each racecar shall straddle such a guide during its heats.

R-4. Starting Mechanism: The "starting line" shall consist of vertical pins of approximately 1/4-inch diameter, extending approximately 1 inch above the track surface and approximately centered in each lane. The starting mechanism shall be of the "spring open" type that moves quickly enough that no car's motion is impeded once the gate starts opening.

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R-5. Finish Line Sensor Location: All tracks will have electronic finish lines for timing purposes; the "finish line sensors" shall be in alignment with the corresponding starting line pin centered in its lane.

R-6. Finish Line Judging: Two impartial finish line judges, assigned by the track chairman, shall be at station to verify each heat. The track's electronic finish line sensors will be the “Official Result”. If the finish line judges agree that the electronics called the wrong car as winning the heat or that obviously incorrect times are posted, they shall advise the track chair to inspect the operation, effect necessary repairs, and rerun the heat.

R-7. Lane Selection: If the track has more lanes than needed, the track chairman shall select the most evenly matched lanes for use by the racers. Because tracks frequently change their characteristics due to details of setup, the determination will be made after the track has been set up and made ready for racing on race day. Every scout will have one heat in each lane to eliminate an “Unfair” advantage.

R-8. Chart Assignment: The Software program will maintain a race chart and a result chart of each race. (See R-12.)

R-9. Finish Line Electronics Sensitivity: Track Finish Line Electronics must trigger correctly if a lead pencil is passed 3/4 (0.75) inches above the track surface at a speed of 15 feet per second.

R-10. Finish Line Clearance: Track Finish Line Electronics and other track accessories, if used, must be no closer than 3 inches above the track.

R-11. Competition Format: The “Software” program for each track will control Competition. Each competitor will race once in each lane. The winner will be the car with the lowest overall average of the races per the Software program. The Software program determines heat assignments so that each competitor will have (1) one race in each lane.