

# KONZA DISTRICT CORPORATE PINWOOD DERBY RULES

## I. GENERAL RULES:

- G-1. Qualification:** All participants must be preregistered in the Konza District Corporate Pinewood Derby to enter and participate in the pinewood derby race event.
- G-2. Essential Materials:** All participants will receive the "Official Grand Prix Pinewood Derby Kit(s)", item number 17006, (referred to below as the kit) as distributed by the Boy Scouts of America.
- G-3. Competitor Divisions:** The participants will compete in either the Classic Division or Outlaw Division.
- G-4. Attendance:** The participant or a representative must be present at "Inspection" to enter their car(s) into the race competition.
- G-5. Entries per Participate:** Participant can enter up to the number of cars preregistered for the pinewood derby race event.
- G-6. Inspection:** Each car must pass a technical inspection before it may compete. Technical inspection of cars occurs on a date prior to the race event.
- G-7. Failure to Pass Inspection:** The Inspection Committee shall disqualify cars which do not meet the rules as described herein. If a car does not pass inspection, the participant will be informed of the reason their car did not pass. Cars which fail the initial inspection may be modified on-site or off-site as long as the cars are turned in before the end of the inspection period.
- G-8. Impound:** No car may be altered in any way after it has been inspected. After a car passes inspection, it will be impounded and stored by the Corporate Pinewood Derby Race Committee until race day.
- G-9. Car Design Rules Interpretation:** Interpretation of the rules described are at the sole discretion of the Inspection Officials present during the Inspection process.
- G-10. Race-Day Rules Interpretation:** On Race-Day, the participant must make all questions of rules interpretations and procedures to the Corporate Pinewood Derby Chairman or Race Officials promptly. Decisions of Race Officials on questions of rules interpretations and procedure may be appealed to the Pinewood Derby Chairman. All decisions of the Pinewood Derby Chairman are final. Decisions of Race Officials on questions of fact (i.e., the result of a specific

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race) may not be appealed beyond the Starter and/or Finish Line Judges. Note: Unsportsmanlike conduct by any participant or spectator will be grounds for expulsion from the competition and/or the race area.

## II. CLASSIC DIVISION RACE CAR DESIGN STANDARDS

- S-1. Material:** Race cars can be constructed for this event from the parts contained in the Official Pinewood Derby Kit, item number 17006, (referred to below as the kit) as sold by the Scout Service Center, Salina, Kansas. The chassis must be constructed of wood, although not specifically the wood supplied with the Official Pinewood Derby Kit.
- S-2. Weight:** Race cars may weigh no more than **five (5)** ounces (total weight) as determined on the official scales during the inspection process.
- S-3. Wheels and Axles:** The car shall roll on the wheels from the kit or common after-market Official BSA branded Pinewood Derby plastic 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 and MUST be placed in the original 'axle grooves' as in the supplied wooden block or MUST use the same axle spacing as the original axle grooves' in the supplied wooden block. It must be obvious to the judges that the grooves, wheels, and the nails from the kit are being used. Pinecar (Hobby Lobby), Awana, and other pine style car kits, including wheels and axles from these non-BSA kits will not pass inspection for the race event. All wheels must exhibit the BSA Pinewood Derby lettering on the wheels to be legal. Bearings, bushing, springs, etc., and solid one-piece axles are NOT allowed.
- S-4. Size: Mandatory dimensions** for all race cars may be no longer than 7 inches, nor wider than 2-3/4 (2.75) inches, and overall maximum car height 3 inches, as determined by the official gages during the Inspection process. **Additional recommended dimensions for all race cars should be** underside clearance of at least 3/8 (0.375) inches and inside wheel-to-wheel clearance of at least 1-3/4 (1.75) inches. These recommendations are to ensure that the car will run on the racetrack and clear electronic timer. Adequate clearance is the responsibility of the race car builder and will be achieved if the car is within the dimensions recommended. Do not carve out the front of the car. The front center should be the forward most part of the car and flat, so that it may rest against the starting pin.
- S-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

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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. Weights added to the bottom of the car should be recessed into the car if possible. The braking system at the end of the track utilizes friction against the flat bottom of the car to stop its forward motion after the race. **WARNING: DO NOT use live ammunition (or anything that resembles live ammunition) for Weight.**

- S-6. Wheel Treatment:** Wheel treatment (hub and tread smoothing and polishing) may not result in substantial removal of mass nor in reducing the wheel width from the original kit wheels. Some of the original "tread marks" on the wheel face must remain intact, i.e. apparent to the inspector. Wheels may not be machined to a beveled condition and the portion of the wheel surface that contacts the track must remain parallel to the axle.
- S-7. Unacceptable Construction:** The following may NOT be used in conjunction with the wheels or axles: hubcaps, washers, inserts, sleeves, bearings, bushing, etc.
- S-8. Gravity Powered:** The race car 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 which may catch on the starting pin.)
- S-9. Lubricants:** Only dry lubricants such as graphite or powdered Teflon "white lube" will be allowed for lubricating the wheels. Lubricants must not foul the track. The cars should be lubricated when turned into the Inspection Officials.

### III. OUTLAW DIVISION RACE CAR DESIGN STANDARDS

- O-1. Material:** The chassis can be constructed of any choice of material.
- O-2. Weight:** Race cars may weigh no more than **eight (8)** ounces (total weight) as determined on the official scales during the inspection process.
- O-3. Wheels and Axles:** The wheels can be made from any material (no metal), size, or design as long as they do not damage the track. Any axle design is allowed. Bearings, bushing, springs, washers, hubcaps, inserts, sleeves, etc., and solid one-piece axles are allowed.

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- O-4. Size: Mandatory dimensions** for all race cars may be no longer than 8-1/4 (8.25) inches from the front of the car to the center of the rear axle, nor wider than 2-3/4 (2.75) inches, and overall maximum car height 3 inches, as determined by the official gages during the Inspection process. **Additional** recommended dimensions **for all race cars should be** underside clearance of at least 3/8 (0.375) inches and inside wheel-to-wheel clearance of at least 1-3/4 (1.75) inches. These recommendations are to ensure that the car will run on the racetrack and clear electronic timer. Adequate clearance is the responsibility of the race car builder and will be achieved if the car is within the dimensions recommended. Do not carve out the front of the car. The front center should be the forward most part of the car and flat, so that it may rest against the starting pin.
- O-5. Weights and Attachment:** Weight may be added to the car and will be considered part of the car for purposes of all measurements. 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 added to the bottom of the car should be recessed into the car if possible. The braking system at the end of the track utilizes friction against the flat bottom of the car to stop its forward motion after the race. **WARNING: DO NOT use live ammunition (or anything that resembles live ammunition) for Weight.**
- O-6. Gravity Powered:** The race car 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 which may catch on the starting pin.) No motor assistance such as a fan shall be attached and operated on the race car.
- O-7. Lubricants:** Dry or wet lubricants will be allowed for lubricating the wheels. Lubricants must not foul the track. The cars should be lubricated when turned into the Inspection Officials.

### IV. CONDUCT OF THE RACES

Competition will consist of heat races within each division. Race Officials are responsible for the proper conduct of the races.

- C-1. Inspection Gages:** The pre-race inspection area will have the official scale and length box. That check-in equipment will be the official equipment for the race. (The same 5 oz. Master Weight used for scale calibration in pre-race inspection will also be available on race day. All cars on race day will already have been inspected and entered if qualified to race. Late entry cars may not be accepted on

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race day. Please stress this fact to all participants. They should turn in cars for the race early and be prepared to adjust their cars, if necessary, only if there is a track or car malfunction as described below.)

- C-2. Lane Assignment:** To equalize differences among track lanes, each car will race in each lane. The fastest total time of all heats for the car, determines its placing in the race. If a tie occurs, a run-off of the cars who tied will be conducted.
- C-3. Car Leaves Lane/Track:** If, during a race heat, a car leaves its lane/track, the race will be re-run because of possible human error. The cars will run in the previously assigned lanes.
- C-4. Car Leaves Lane/Track a second time without interfering with another car:** If, during a race heat, a car leaves its lane but proceeds down the track in a manner that does not interfere with its opponent, then the race will be called normally. If, during a race heat, a car leaves the track without interfering with its opponent, it shall be considered to have ended its heat at that point and will be awarded a time of 9.999 seconds. If more than 1 car leaves the track and does not interfere with any other car, the car traveling the least distance down the track will be considered last in that heat, 2nd furthest down the track next to last and so on.
- C-5. Car Leaves Lane/Track a second time and interferes with another car:** If the car leaves its lane/track and interferes with another car, the race will be re-staged and rerun. If the same car again leaves its lane/track and interferes with another car, that car will be judged last place for the heat, receive a time of 9.999 seconds, and the race will be re-staged and re-run without that car.
- C-6. Car Repair (Without Fault):** If, during the race, a wheel falls off or the car becomes otherwise damaged, no repairs will be allowed.
- C-7. Car Repair (With Fault):** If a car is damaged due to track fault, or damage caused by another car or person, then the Race Officials, at their sole discretion, may allow additional repair assistance to the Participant.
- C-8. Non-Finishers:** In any heat, regardless of whether the car leaves the track or not, a car not crossing the finish line will be awarded a time of 9.99 seconds. If, during a race heat, no car reaches the finish line on the track, the car which went the farthest in its lane shall be declared as the heat winner, the car traveling the second furthest, 2nd place, and so on and all cars will be awarded a time of 9.99 seconds.

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- C-9. Track Fault:** If a car leaves its lane, at their sole discretion, the Race Officials may inspect the track and, if a track fault is found which probably caused the initial violation, the Race Officials may order the race heat to be rerun after the track is repaired.
- C-10. The Race Area:** Only Race Officials may enter the track area.
- C-11. Rewards and Recognition:** Racers will be recognized as follows:
- a** A Traveling Trophy will be awarded to the overall fastest team. The fastest team will be calculated based on the fastest average time. The fastest team will also receive a small trophy that they keep.
  - b** Trophies will also be awarded for Best in Show and Fastest car for each Division.

### V. THE RACING ENVIRONMENT

- R-1. Finish Line Judging:** An impartial Finish Line Judge shall be stationed to observe each heat raced on the track. Heat finish judging is determined by the finish line sensor but may be challenged by the Finish Line Judge if an apparent malfunction of the equipment occurred. If the electronic finish line sensor is not functioning, the number of finish line judges will be increased to determine race placing and those judges have final authority of the order of finish of the cars based on a majority rule of the judges. If the track's electronic finish line sensor's result is challenged by the Finish Line Judge or there is not a majority decision as to the result of any heat race, the race will be re-staged and re-run.
- R-2. Finish Line Electronics Sensitivity:** Track Finish Line Electronics, if used, must trigger correctly if a lead pencil is passed  $\frac{3}{4}$  (0.75) inches above the track surface at a speed of 15 feet per second.
- R-3. Finish Line Clearance:** Track Finish Line Electronics and other track accessories, if used, must be no closer than 3 inches above the track.