

# **Official G.A.D. Pinewood Derby Race Rules - 2003**

## **I. REGISTRATION AND ELIBIGILITY**

- a. Races are open to all registered Golden Arrow District Cub Scouts and their parents and siblings. Scouts from other Districts may register and run cars in the Open Division for time only (III.c.)
- b. At registration, Entrants will complete a registration form including a Photography Release (covering pictures taken of cars and general event pictures) to be signed by a parent or guardian.
- c. Each car entered will be charged a registration fee determined and published in advance. A limited number of complimentary guest registration vouchers may be issued in advance by the District and may be accepted in lieu of the registration fee.
- d. Entry of a car that has been purchased from a third-party or made-to-order for the Entrant is strictly prohibited and subject to immediate disqualification upon discovery. Cars must be predominantly crafted by the individual entrant, Cub Team, or parent/child team.
- e. Cars may be entered as Team Cars in the Team Car Division if they represent the combined efforts of two or more cubs in the same Den or Pack.
- f. An Entrant may enter up to 2 cars in his or her Division. Additional cars beyond 2 shall be entered in either the Semi-Pro or Open Divisions so long as the entrant does not exceed the 2 car limit for the Semi-Pro Division. Cars entered in the Open Division do not compete for awards (See also section III.k.)
- g. Cars entered and raced in previous GAD District races are not allowed to compete for awards.
- h. Each car entered will be assigned a unique registration number. This number is designed to classify cars into Divisional groupings for purposes of recordation convenience only. The number assigned is not to be interpreted as a ranking of any kind. It may or may not be the same as a run sequence number used during any given event.
- i. After inspection, cars will be quarantined in a pre-race Paddock area. Cars may not be removed from the Paddock Area or handled by the Entrant without prior arrangement or specific permission from the Paddock Manager.
- j. All cars competing for awards must satisfy the Construction Rules as set out in Section II herein.
- k. Cars failing to satisfy the Construction Rules may run in the Open Division for time only.
- l. Siblings' cars, other than those entered by other registered Cub Scouts in the same family, and cars entered by parents or grandparents may run in the Semi-Pro or Open Divisions only.

## **II. CONSTRUCTION RULES**

### **a. Applicability**

1. All the rules governing the dimensions and construction of cars for the Cub Scout Rank Divisions are also applicable to the Semi-Pro, Team Car, Pack Challenge and Cubmaster Challenge Division except as noted in Section II.d.8 below.
2. All the rules governing the dimensions and construction of cars for the Cub Scout Rank and Semi-Pro Divisions will be applicable to their respective Masters' Divisions.

### **b. Length, Width, Height and Clearance**

1. Maximum overall width (including wheels and axles) shall not exceed 2 3/4".
2. Minimum width between wheels shall be no less than 1 3/4" so car will clear center guide strip.
3. Throughout the 1 3/4" wide center area of the car positioned above the center guide strip, the minimum distance between the bottom of the car and the track surface itself (not counting the center guide strip) shall be 3/8" so that the car will clear the center guide strip. This distance also applies to any protrusions or weights extending from the bottom of the car in this area.
4. Maximum length shall not exceed 7", including accessories.

5. Maximum height, including accessories, shall not exceed 4" so that car will pass under overhead portion of timing apparatus.

**c. Weight and Appearance**

1. Weight shall not exceed 5.0 ounces. The readings of the Official Race Scale will be considered final. The car may be hollowed out and built up to the maximum weight by the addition of other materials provided they are securely built into the body or firmly affixed to it. No loose or movable materials or objects of any kind are permitted in or on the car. (*If it rattles, it's out.*)
2. Only B.S.A. Official Pinewood Derby Kits nos. 1622, 17006, 17003, 17007, 7610 or the "Stock Car Kit Special Edition" may be used.
3. Mercury shall not be used. It is a health hazard.
4. Details such as steering wheel, driver, spoiler, decals, painting, interior and exterior detail are permitted as long as they are not loosely attached and as long as the car satisfies length, width, clearance, and weight specifications.
5. Cars with wet paint or wet glue will not be accepted.
6. After a car passes inspection, its registration number will be attached to it using a small adhesive-backed label or sticker which shall be located on the upper rear portion of the car for easy visibility so that Race Handlers can readily identify the correct car and its proper direction of travel.

**d. Wheels and Axles**

1. The only wheels and axles allowed are from the B.S.A. Official Pinewood Derby Kits nos. 1622, 1622A, 7610, 17003, 17006, or 17007 or from the "Stock Car Kit Special Edition".
2. Wheel bearings, spacers or bushings are prohibited.
3. The car shall not ride on any type of springs.
4. The car must be free-wheeling with no starting device or other propulsion.
5. Only the tread surface and width of a wheel may be altered. The tread surface may not be modified to produce any configuration other than flat and parallel with respect to the axis of the axle bore. The tread width may be altered only from the side facing the body of car. The tread width may not be less than .275". The wheel diameter may not be less than 1.150" nor greater than 1.200". Lightly sanding and/or polishing the tread of the wheel to remove imperfections and/or mold marks will not normally reduce the diameter below this specified minimum. Should it prove impossible to remove imperfections or true-up a wheel without reducing its diameter to less than the specified minimum dimension, another approved wheel should be substituted.
6. Materials, other than permanent paint decoration or lettering highlights, may not be removed or added to the wheels except as stated above or as in II.d.9. below.
7. The back side (wheel side) of the axle heads may be ground or filed to remove burrs. Axle shaft diameter may not be less than .085" at any point that contacts or could contact the interior of the wheel's axle bore. Simple polishing of the axle should not reduce its diameter below the allowable level.
8. Wheels in the Semi-Pro Division may be reshaped but must still originate from wheels or wheel sets identified in II.d.1. Rules II.d.5 and II.d.6. do not apply to the Semi-Pro Division.
9. No wheel covers (i.e. hubcaps) are permitted unless their function is for decoration only and not to substantially alter the weight or performance of the wheel. Decorative wheel covers that hide the ends of the nail-axles must be removable for inspection purposes. In particular, no covers designed to provide a reservoir for lubrication materials may be employed.
10. Wheelbase may be modified provided that the car's overall length, including wheels and any accessories or extensions from the body, does not exceed 7".

**e. Lubrication**

1. Only dry powdered lubricants, such as graphite, may be used. Excessive lubrication is prohibited as it may damage equipment or floors.
2. All lubrication residue must be wiped clean from any external body or wheel part(s) prior to inspection.

**f. Special Note**

Races may be optically timed. A sharply pointed car may be subject to a slight timing disadvantage because, at the moment it crosses or trips the sensor, its point may not exactly align with the central location of the optical sensor or mechanical switch used to record the finish time in that car's lane. Similarly, a pointed-car design may not align well with the release gate or pin, which may be rounded.

### **III. EVENTS, AWARDS, & CATEGORIES**

- a. The traditional "Downhill" Pinewood Derby event will always be held, regardless of the number of cars registered. Other events, such as "Giant Slalom" (new for 2003) may be cancelled at the sole discretion of the Race Committee for reasons of insufficient entries only. If 50 or more cars are entered, an event may not be cancelled. New events may be added at any time without prior notice.
- b. All entries shall participate in the "Downhill" event. Participation in other events is optional, however, all cars shall race in all events unless they are specifically withheld from a particular event at registration by choice of the Entrant.
- c. For purposes of award presentations and ranking, separate Divisions are maintained for Entrants by Cub Rank (Tiger, Wolf, Bear, 4<sup>th</sup> Grade Webelos, and 5<sup>th</sup> Grade Webelos); and by Semi-Pro, Masters Cub, Masters Semi-Pro; Team Car, Cubmaster Challenge, and Pack Challenge. An Open Division is available for cars that do not meet construction rules, do not fit in any other Division, are entered by guests or visitors from outside the District, or are being run for experimental or testing purposes. Additional Divisions may be created at the discretion of the Race Committee. Cars in the Open Division race for time only and do not compete for awards, ranking, or badges.
- d. Entrants who have previously won 1<sup>st</sup> place trophies or awards in any given event in a Golden Arrow District race will compete in either the Masters Cub or Masters Semi-Pro Divisions for that event only.
- e. As soon as possible prior to any race, a complete listing of prize categories and awards being offered shall be made available for general distribution or through electronic means. The Race Committee reserves the right to grant additional awards or prizes to any Entrant or car on any basis at any time, based on ad hoc criteria and/or exceptional conditions.
- f. Team Cars will be ranked only against other Team Cars and will not participate in individual awards whether by Division or on an overall event basis.
- g. Team Cars may be run together with Individual entries or separately at the discretion of the Race Committee and will qualify separately for Team Car Awards.
- h. Awards will generally be given to Cubs by Rank (Tiger, Wolf, etc.) and/or by standing overall in each event. The Race Committee reserves the right to limit, substitute, or withhold awards in categories, ranks, or divisions on the basis of too few entries. Generally there must be at least 3 more cars entered than awards granted in each award category.
- i. Awards in certain selected events and/or Divisions will be based on subjective criteria and not subject to review or challenge. The decision of the judges in such events is final.
- j. Awards based on objective criteria (elapsed time, proximity to target, etc.) may be challenged during the event only on the basis of measurement error or competing car or spectator interference.
- k. No more than one place award per event shall be awarded to the same entrant for multiple cars entered in any Division. This does not preclude, however, an Entrant's receiving a Division place

award and an overall place award(s) for the same Car, or receiving multiple awards for the same car in different Events.

- I. Awards such as "Cubs' Choice" Appearance-type awards may be judged by popular consensus ballot. Ties will be resolved in the sole discretion of the Race Committee. Other awards, such as "Pace Fleet" purchase awards will be determined by the Race Committee or by a specially designated awards committee.

#### IV. INSPECTION AND DISPUTES

- a. Immediately after registration, each car will be weighed and inspected for rules and construction compliance at one or more Inspection Stations.
- b. Each car must pass inspection by the Inspection Committee before it can compete. The Inspection Committee has the right to disqualify any car that does not meet these rules. Entrants will be informed of the violations and given an opportunity to modify their car(s) to meet these rules. Entrants will be permitted to resubmit cars for reinspection no more than once and in no event later than 15 minutes after registration closes. If an Entrant's car cannot be modified to meet the rules, Inspectors may permit the car to run in the Open Division for time only. (III.c.) If the Entrant decides not to run the car in the Open Division, registration fees paid for the car will be refunded.
- c. Any car that is observed to be leaving visible marks on track or guide-strip surfaces may be suspended from further race activity by race officials.
- d. Any participant or their parent has the right of appeal to the Arbitration Committee for interpretation or clarification of these rules. The Arbitration Committee, by majority vote, will be the final judge of these rules. In case of a tied vote, the decision of the Arbitration Committee Chairperson will be the official decision.
- e. Ungentlemanly or unsportsmanlike conduct by any participant or member of the audience will be grounds for expulsion from the competition and/or the race area.
- f. Any protest of a car's compliance with the rules must be filed with the Arbitration Committee prior to competition. Any protest of a car's classification can be filed at any time.
- g. All rules will be interpreted in consideration of the Scout Oath and Scout Law.

#### V. RACE ADMINISTRATION

- a. **Management and Committees**
  1. **The Race Chairman** (or Co-chairman) is (are) appointed in advance by the District Director and serves until he or she resigns or is replaced by a new Chairman/Co-Chairmen appointed by the District Director.
  2. **The Race Committee** shall be composed of the Race Chairman and/or Co-Chairman of the event who may be from the same Pack or Troop and no fewer than 4 additional members, each representing separate Packs not already represented in the position of Race Chairman or Co-Chairman.
  3. **The Inspection Committee** shall be composed of volunteers and appointed by the Race Chairman and/or Co-Chairman.
  4. **The Arbitration Committee** shall be composed of volunteers and appointed by the Race Chairman and/or Co-Chairman. It shall include a senior member of the Inspection Committee as well as a senior member of the Race Committee other than the Race Chairman or Co-Chairman in addition to two other members not connected with any other Event-related Committee. All disputes as to rules conflicts, interpretation, or the specifics of any race event shall be referred to the Arbitration Committee for final determination
- b. **Race Methods, Judging, and Interference**

1. Only designated Race Handlers shall be allowed to handle cars during races, unless specifically authorized or directed by the Race Committee.
2. Proper positioning of the cars will be limited to correct direction of car and reasonable alignment of car to track.
3. Cars will be generally race on an "as-registered" basis in the order in which they are brought to the pre-race, paddock area, irrespective of their Divisional classification. Cars from different Divisions may be run together in the same heats. Race results will be posted continuously, or displayed electronically, as they are recorded by race management software.
4. Winning positions in elapsed-time events are by place order determined by the average of a car's times obtained by running once in each available lane. For example, with two lanes operational, each car will run once in each of the two lanes and the two runs times will be averaged. With 3 lanes operational, each car will run once in each of the three lanes and the three times will be averaged. Cars without heat times for one or more operational lanes will still have an average but will not be eligible for place order recognition. A lane may be shut down at the discretion of the Race Committee for reasons including but not limited to mechanical defect. *(For example, a lane might be closed down because of sticky residue left over from something that might have been spilled on the track.)*
5. If a car (or part of a car) leaves its lane and interferes with another car, no times are stored for any car in the same heat, and the heat will be re-run. If the same car causes interference again, the heat will be run again but without the offending car. That car will not receive a time for that lane. A heat is considered to be one trip down the track.
6. If the car left its lane, didn't interfere with another car and manages to cross the finish line in its intended lane, the heat is valid for all cars. If the car left its lane, didn't interfere with another car but doesn't cross the finish line in its own lane, the times for the other cars are stored and one additional heat is attempted for the car having the problem. If this additional attempt fails, the car will not receive a time for that lane.
7. If a car experiences mechanical problems during a heat but crosses the finish line in its own lane, the time received for that lane is valid as long as it didn't cause interference with another car. If the car doesn't cross the finish line, no time will be stored for that car only on that lane.
8. The owner of a car suffering mechanical problems will be given the opportunity to repair the car. Repaired cars will be inspected as per Section II. The Race Committee has the option of continuing the heats without the car and then running the car in its remaining lane(s) when the repair is complete.

## VI. IMPORTANT NOTICE

- a. Each Pack in the District is encouraged to adopt these rules as a minimum standard to enable any Entrant's car to be eligible for any race at Pack or District levels.
- b. Any question regarding these rules may be submitted in writing to the District Director for clarification. At his discretion, the Director may refer the matter to a rules analyst or committee for review or response. A written response from the Director or his designee(s) will be provided to the individual(s) requesting clarification provided that substantially the same issue has not been the subject of a previous clarification. All clarifications shall be attached to and made a part of these rules wherever and however these rules are posted or recorded and shall be made available for general review during race events at the race locations.
- c. For additional information contact Golden Arrow District Pinewood Derby Co-Chairman Arpad Lamell (713-728-5857) and Don Callender (713-689-2621), G.A.D. Derby Chairman Emeritus Richard Stanley (713-666-5558) Pinewood Derby Technical Director Dr. John Jobe (281-431-2017) or G.A.D. Director Jeff Hutchinson (713 659-8111).