

# OFFICIAL RULES FOR THE PACK 002 PINWOOD DERBY

EFFECTIVE JANUARY 2008

## LENGTH, WIDTH & CLEARANCE

- A. Maximum length of a derby car shall not exceed 7 inches.
- B. Maximum overall width shall not exceed 2-3/4 inches
- C. Minimum width between wheels shall be 1-3/4 inches, so that car will clear the center guide strip.
- D. Minimum clearance between bottom of car and track shall be 3/8 inches, car must clear center guide strip without rubbing.
- E. The wheel-base (distance between the front and rear axles) may be altered in all manners including relocating front and rear axles.
- F. Maximum overall height, including design features should not exceed 5-1/2 inches due to the finish line display.

## WEIGHT & APPEARANCE

- G. While official BSA kits are supplied, cars may be constructed of any wood material including pre-cut blocks purchased from hobby retailers, or exotic woods so long as derby car conforms to all length, width, clearance and weight specifications.
- H. Weight shall not exceed 5 ounces (141.75 grams). The car may be built up to the maximum weight by the addition of wood, metal or plastic provided it is securely built into the body or firmly affixed to it. No loose materials of any kind are permitted on the car. **The reading of the official race scale will be considered final.**
- I. Weight material that constitutes potential health hazards such as mercury will not be permitted.
- J. Details such as steering wheels, driver, air intakes, spoilers, decals , painting and interior details are considered design features and are permissible in all manners so long as these details do not cause the derby car to exceed the maximum length or width specifications.
- K. No part of the car may extend fully past the starting pin at the starting gate. Because the starting gate pin sits at an angle it is possible some designs may result in portions of the body or wheel to extend past the near face of the pin. The most common design feature that will cause a front end to extend past the near face of the start pin is a pointed nose, irregular shape, or "Quick-Start" design.
  - a. Pointed noses should have flat areas of minimum of 3/8 inches to ensure proper contact with the starting pin.
  - b. "Quick-Start" front ends are a speed technique involving removing wood in the front of the derby car to create clearance space for the starting pin and attaching a high bar or similar feature at the front which rests against the starting pin. The intent of the device, to achieve a quick start by moving at the slightest motion of the pin, has been largely nullified by our powered starting gates, however there may be a slight advantage depending upon the design.
  - c. There is a multitude of variations in front-end design. **Questions of compliance with starting pin specifications raised on race day will be resolved by race committee and will be considered final.**

## **WHEELS & AXLES**

- L. **Only Official Boy Scout Grand Prix wheels and axles may be used.** Wheels and axles may be modified to reduce friction, except as specifically noted below:
- a. Wheel bearings, washers, or bushing are prohibited.
  - b. The derby car shall not ride on any type of spring
  - c. The car must be freewheeling with no starting device or other propulsion.
  - d. Wheels may be sanded to remove flashing and sharp edges.
  - e. Lathe turning to produce rounded or altered tread surface for the intent to reduce surface area of the tire where it contacts the track are prohibited.
  - f. Axles may be filed, sanded and polished to remove flashing and reduce friction, however only official BSA axles may be used.
  - g. Hub caps will not be allowed

## **LUBRICATION**

- M. Only dry lubricants, such as graphite or molybdenum, may be used. Oil and spray lubricants will not be allowed in the race area. Lubrication is not allowed within school grounds and must be performed outside or at home.

## **REPAIRS**

- N. All repairs on race day prior to and, in some cases, between races must be made in the pit area and supervised by a Pit Boss.
- O. Cars must be reweighed after making repairs.
- P. Derby car may not be lubricated after it has gone through the tech inspection.

## **GROUND RULES**

- Q. The Pinewood Derby is open to all Cub Scouts and Webelos Scouts registered in the pack, their siblings and Scout Leaders. Cub Scouts must be in uniform to race.
- R. Cars must have been built after last year's race and not reused from previous races.
- S. The race will be a series of three races conducted according to rank classification, with each car racing once in every lane, and results determined by cumulative total. In the event of technical failure in any heat, the heat will be rerun.
- T. First, second and third place derby cars from each rank classification will "race for the cup" in a separate championship series held at the completion of the classification races to decide overall race champion, second place and runner up. Cup races will be run according to random order, each derby car racing once in every lane and results determined by cumulative total.
- U. If a car leaves its lane and interferes with another car, the entire heat will run again. If the same car leaves its lane a second time and interferes with another car, the car will be disqualified.
- V. If a car suffers a mechanical problem, loses an axle, breaks a wheel etc. and a repair can be accomplished in a reasonable amount of time, the heat will be run again. If not, the car will be disqualified.
- W. Only race officials and car wrangles will be allowed to handle cars during the heats. Scouts with cars running in current rank classification heats will be allowed into pit road along the race area.

## **INSPECTION & DISPUTES**

- X. Each car must pass inspection by the official inspection team before it may compete. The inspection team has the right to disqualify those cars that do not meet these rules. Car owners will be informed of the violations and given an opportunity to modify the cars to meet these rules. Pit Bosses will be stations in pit areas with tools and extra parts to assist and perform repairs.
- Y. Any participant (including the parent of the participant) has the right to appeal to the race committee chairman for an interpretation of these rules. The race committee will supervise the qualification of all cars, adjudicate, and conduct the race. **All decision by the race officials are final.**
- Z. Un-sportsman like conduct by any participant or member of the audience will be grounds for expulsion from the competition and/or the race area.