

The 1st TROOP 250 WOODCAR  
PATROL/TEAM CHALLENGE – RULES -



**Basic Race Rules:**

- This is a TEAM event...
- The design rules have been expanded from the traditional Pure Stock PWD Cub Scout Rules. See the attached rules for the changes.
- Each Patrol/Team is encouraged to design and work on their cars as a team. Individual car building is not encouraged. This is a Team event not an individual event!
- Each Patrol/Race Team is to have no less than 2 cars and as many as 4 total cars.
- The cars are to be built using the wood provided by the Woodcar Challenge.
- Teams are to purchase their own axles and wheels (recommended but not limited to the BSA wheels sold at the Scout Shop. Other wheels can be used as long as they meet the specifications listed in the WHEELS section of the rules.
- Each Car's time will be recorded after each time down the track.
- Cars will race on each lane of the 2-lane track.
- The overall winner of the event will be determined to be the Patrol/Team that has the fastest "fleet" of cars. (Best overall average time for the number of cars submitted.)
- Each Car Submitted must meet all of the design requirements as stated on
- Each Team/Patrol will have a common color/paint scheme for their cars Failure to have a Patrol/Team Color will result in a 1 second penalty for the cars not matching the Patrol/Team color/paint scheme.
- Each Team will submit their proposed color/paint scheme/theme for approval prior to working on their cars. The Woodcar Challenge official will approve colors so each Patrol/Team will have different colors for easy recognition when racing.
- Colors will be determined on a "first come, first serve" basis.
- No changes to the Patrol/Team colors after approval.
- At the end we will determine the Team which has the overall fastest car
- Each Patrol/Team will submit what they determine to be their "best" car and will race in a double elimination format until the winner is determined.

*A WOODCAR CHALLENGE TRAVELING TROPHY WILL BE AWARDED TO THE WINNING PATROL/TEAM.*

**OPTIONAL:**

- "Legends Race!" The overall fastest Patrol/Team will have the opportunity to "re-lubricate" their cars prior to a race with the Adult Leaders (If the Adult Leaders can get cars built☺) to determine the overall Team Champion for the Troop.

# The 1st TROOP 250 WOODCAR

## PATROL/TEAM CHALLENGE – RULES -

*We will be racing under Pro Stock Design Rules.*

**OVERVIEW:** *The Pro Stock Class is the design class for Advanced Builders. The Pro Stock class rules are more lenient than the Cub Scout PWD Pure Stock class. There is no maximum wheelbase restriction, and different wheel and axle makes are allowed.*

The cars **MUST** be considered **NEW** construction. No previously built or raced cars can be used  
(Example: No Pinewood Derby cars raced in the Pack will be allowed!)

### **BODY:**

**P1** The main body structure must be made of wood. (PWD kit, Supplied by Woodcar Challenge Sponsors or your own meeting the dimensional body specs)

**P2.** Body Specs:

- A. Width - Not to exceed 2 3/4 inches (7cm)
- B. Length - Not over 7 inches (17.8 cm)
- C. Weight - Not over 5 ounces on scale accurate to 1/10 ounce.
- D. Height- Not to exceed 2 3/4 inches (7cm)
- E. Center Rail Clearance – Cars must clear the center rail which is 1 3/4 inches wide by 1/4 inch tall along the entire center length of car.

**P3.** Body design may be enhanced by adding other stable materials such as plastic or metal. All additions must be firmly attached and conform to the size specifications.

**P4.** No part of the car body may protrude in front of the starting peg.

**P6.** The following items are PROHIBITED:

- A. Springs
- B. Starting devices or propellants
- C. Electronic or lighting devices
- D. Liquids, wet paint, oil, sticky substance, or powders of any kind (other than axle lubrication)
- E. Glass or excessively fragile parts
- F. Wheel bearings
- G. Loose objects on car
- H. Magnets

### **WHEELS:**

**P7.** Pro Stock wheels must conform to the following specifications:

- A. Maximum 31mm (1.22”) diameter
- B. Full contact tread surface of no less than 7.5 mm (.295”)
- C. Wheels must be constructed of plastic, rubber, or polyurethane

**P8.** There must be at least four wheels on the car, however it is not required that all four wheels make contact with the track surface.

**P9.** The wheels must be attached directly to axle and spin freely.

### **AXLES:**

**P10.** Axles must not be connected to any device that mechanically alters rotation and spin.

**P11.** Lubricants must be dry on the axle at race time. Wet, oily, or greasy axles are **not allowed**. Over-application of lubricant which results in excessive shedding onto the track is not allowed. Approved lubricants include (but are not limited to) graphite, Teflon, and Nyloil.

