

# The Pack 73 2007 Pinewood Derby will be held on Feb 2,3 '07

(updated 12/13/06)

## Dates:

- Weigh-in:** Friday Evening, 2/2/2007, **SOUTH SCHOOL Cafeteria**  
- Tigers-Wolves-Bears Starting @ 7:00 pm - 9:00 pm  
- Webelos starting @ 8:00 pm - 9:00 pm
- Derby:** Saturday, 2/3/2007, **SOUTH SCHOOL Cafeteria**  
- **Arrive by 7:15 am**  
- **Racing Begins 7:30 Sharp**
- Location:** SOUTH SCHOOL Cafeteria

## News:

- Cars may not exceed 5.5 inches of height! New track hardware requires a maximum height limit.
- Please read all rules (there are some changes)
- Try to have your scout do as much of the work on the car as possible.
- Additional Derby Car Kits are available (locally) from the Pack for \$4.00
- We need volunteers for running the derby – referees to concessions to activities
- Use this URL to a helpful design worksheet [www.andoverpack73.org/Documents/P73-PWD\\_Worksheet.pdf](http://www.andoverpack73.org/Documents/P73-PWD_Worksheet.pdf)

## Weigh in:

Note the staggered weigh in times by rank. Bring your own tools and quick drying glue for last minute modifications (add/remove weight, Graphite, fixing loose objects...). Make sure you know the approximate weight of the car before weigh-in Friday evening. Your scout can use the method below to reach an estimated weight. As an alternative to coins...use last year's car.

The weight of coins varies slightly but the following should allow scouts to get close to 5 oz.

- 1 Quarter (old style) on average weighs 5.62 grams (Note that the new state quarters are heavier)
- 1 Dime 2.25 grams
- 1 Ounce = 28.35 grams
- 5 Ounces = 141.75 grams
- 25 Quarters (old style) at 5.62 grams = 140.5 grams

Thus: A scout should try to have his car weigh between 24 and 25 old style quarters.

25 Quarters should get a scout really close to 5 ounces.

24 Quarters should be safely under (add a dime to be closer)

## Family Derby:

During trophy determination we will have a Family Derby (parents, siblings, friends). Inspection and racing rules are the same as the scouts. Extra car kits are available locally from the Pack.

## District Derby:

YCC North Essex District PWD Derby, March 10<sup>th</sup> 2007

## PWD web resource URLs:

This Document	<a href="http://www.andoverpack73.org/Documents/P73-PWD_2007_FYI.pdf">http://www.andoverpack73.org/Documents/P73-PWD_2007_FYI.pdf</a>
Design Worksheet	<a href="http://www.andoverpack73.org/Documents/P73-PWD_Worksheet.pdf">http://www.andoverpack73.org/Documents/P73-PWD_Worksheet.pdf</a>
Derby Talk Forums	<a href="http://www.derbytalk.com/index.php">http://www.derbytalk.com/index.php</a>
Maximum Velocity Car Guide	<a href="http://www.andoverpack73.org/Documents/PWDMaxVelocityCarGuide.pdf">http://www.andoverpack73.org/Documents/PWDMaxVelocityCarGuide.pdf</a>
Maximum Velocity!	<a href="http://www.maximum-velocity.com">http://www.maximum-velocity.com</a>
The Ultimate PWD Site	<a href="http://www.maximum-velocity.com/more_speed_tips.htm">http://www.maximum-velocity.com/more_speed_tips.htm</a>
Pinewood Derby Car Design	<a href="http://members.aol.com/StandCmr/pwdesign.html">http://members.aol.com/StandCmr/pwdesign.html</a>
How To Improve A PWD Car	<a href="http://members.aol.com/StanDCmr/scfair.html">http://members.aol.com/StanDCmr/scfair.html</a>
Link to Links: Best on the Web!	<a href="http://www.geocities.com/~pack215/pwd-pwdsites.html">http://www.geocities.com/~pack215/pwd-pwdsites.html</a>

# Pack 73, 2007 Pinewood Derby Rules (updated 12/13/06 DCS)

## For Scouts - Rules in a Nutshell \*

- Be creative and have fun!
- You must make the car this year and anything on it can't fall off
- You must use only official BSA wheels, axles and body
- Your car must fit completely inside a box that is 2.75" wide x 7" long x 5.5" tall
- The car and everything on it can not weigh more than 5oz
- Try to keep the bottom of the car flat and a flat spot at the nose
- You must use the slots of the kit to position the wheels and you can't change the wheel shape to much
- **The rules below are Official**

## Official Rules - The Fine Print (for Partners, Officials and Scouts) \*

### 1 Inspection: compliant with Yankee Clipper Council North Essex District Rules

#### 1.1 General

- .1 The car and all components must have been made for this current year
- .2 Axles, wheels, body wood shall be as provided in kit from Pack or official BSA replacements
- .3 Cars will be impounded after inspection until the race is over
- .4 Weights and decoration must be attached in a durable (no tape) fashion to prevent race debris
- .5 Bottom of car should be free of protrusions. Our braking system depends on a flat undercarriage.

#### 1.2 Weights and Measures

- .1 Maximum weight 5.0 oz. (Derby scale)
- .2 Maximum width 2.75 inches
- .3 Maximum height 5.5 inches
- .4 Maximum length 7 inches
- .5 Minimum of 1.75 inches between inside rim of wheels
- .6 Minimum clearance of 3/8-inch from bottom of car to ground
- .7 Minimum of 1/4 inch flat spot on nose to rest against starting pin

#### 1.3 Prohibitions

- .1 Wheel bearings, washers and bushings are prohibited
- .2 The car must be freewheeling, gravity powered, with no starting devices
- .3 Wheel base can not be altered from what is provided in kit (slots in wood)
- .4 No hub caps of any kind

#### 1.4 Allowable Modifications and Provisos

- .1 Wheels may be sanded smooth, but must be flat (not rounded, pointed or significantly altered in shape)
- .2 Lubricating Graphite may only be added to wheels and axles prior to vehicle impounding

## 2 Racing: Racing rules apply to Pack 73 only

#### 2.1 Officiation

- .1 The Official's decisions are final. Every effort will be made to decide in favor of a good race
- .2 Referees may choose to consult others if necessary to arrive at fair and equitable decision
- .3 Track officials will ensure track readiness and that all cars are on the track properly

#### 2.2 Derby, Every car races in every lane (4 lanes)

- .1 Only cars having passed inspection will be allowed to race
- .2 A heat is one or more cars racing, ending without objections, fouls or mishaps, in recordable results
- .3 Proxy racing will be allowed for scouts unable to attend
- .4 For each heat, its racers and the winner will be announced
- .5 Recorded results are final, unless the referee determines that a rerun will clear an objection

#### 2.3 Mishaps, Repairs, Fouls and Other Errors

- .1 Mishaps: "Sudden departures from expected course of events"
- .2 Non-Interfering mishaps: other car's performances were not affected, referee's call
  - .1 If a car fails to cross the finish line due to mishap, that heat will be rerun
  - .2 There is a limit of one retry per car per heat, after the 2nd it will be eliminated from the heat
- .3 Interfering mishaps: other cars or heat results are affected, referee's call
  - .1 If a car interferes with the running of other cars for any reason, that heat will be rerun
  - .2 There is a limit of one retry per car per heat, after the 2nd it will be eliminated from the heat.
- .4 Sadly, two interfering heats will cause the offending car to be eliminated from further heats
- .5 Repairs
  - .1 A car involved in a mishap either interfering or non-interfering must be examined for repair
  - .2 Scouts and an adult helper will be given five minutes to repair car
  - .4 Graphite may be reapplied to repaired area only
  - .5 Officials are not allowed to help unless it is their scout's car
  - .6 A repaired car must be deemed race worthy to continue
- .6 Errors: Computer, Facility or Procedural
  - .1 At the referee's discretion, the heat will be rerun, or appropriate fair remedies will be applied

#### 2.4 Results and YCC North Essex District Derby Qualification

- .1 Scouts run their cars to determine 1st, 2nd and 3rd place by rank and pack
- .2 Places will be determined in the same manner for all cars, by run times
- .3 The top 4 cars in each rank; Tiger, Wolf, Bear and Webelos, qualify for pack payment of District Derby Fee

\* Derby organizers reserve the right to make sensible modifications to the rules as required or for clarification.