



Introduction to the class rules

Keeping Bottom 10" Of All Hulls Alike

The class rules are aimed at keeping the bottom 10" the same and we modify the other parts such as the sails, fins, rigging etc. This makes our competitions a blend of both sailing skill and building skill. The hull is the most time consuming part to build, it is very important to keep them alike so a hull you build today will be just as competitive far into the future. If the hull shape was allowed to vary, older hulls would be viewed as obsolete causing people to feel like they had to build a new hull to stay competitive which destroys the concept of this racer. Hulls are measured for racing so we can protect the integrity of our class and competitions. ([why we measure hulls](#)).

Additional Goals of The Rules

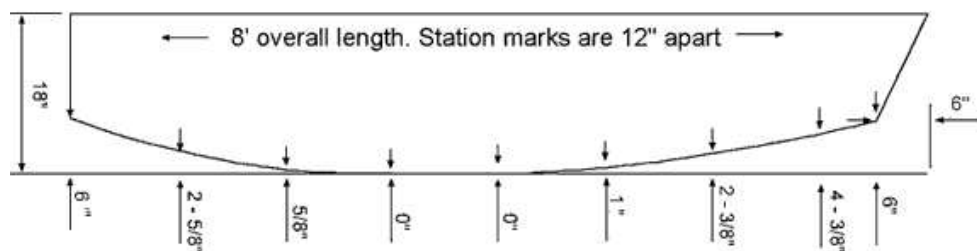
Build Her Like YOU Want To: With such a small set of rules that are only focused on keeping the bottom of the hull shape alike, you are free to explore and build all the other parts with unlimited possibility to make her a boat custom to your needs and what you want from a boat.

Affordable To The Average Person: The small size of our hull forms a natural limit on expense so the average person can build a complete boat from scratch for a reasonable price, compete in the annual world championship race and have a reasonable chance at winning with that boat. Boats built from common plywood can be made lighter, cheaper and just as smooth compared to fiberglass or carbon fiber meaning our class will always be affordable to the average ducker.

Non-Racing Purposes: A Puddle Ducker is someone who has a PDRacer hull number and there is no requirement that you must race your boat. There are many duckers that do not race or only race casually. For non-racing purposes, you can do anything you want with your PDRacer.

PDRacer Class Rules

Defined Hull Shape:



This is our defined hull section, this is the perfect shape of a finished boat, however most of us use this as the cut plan of our side panels. The tolerances are setup so that you can use this as your cut plan. The hull panel is 8' long. The hull panel is 18" high (however a 16" hull seem to be preferred by most). minimum required is 10" high. The station marks are 12" apart, from left to right (stern to bow) they are: 6", 2-5/8", 5/8", 0", 0", 1", 2-3/8", 4-3/8", the last point is 6" from the end, it is 6" up from the base line. For a metric conversion of the Defined Hull Shape [\[click here\]](#)

NOTE: The length of the hull depends on the height of the sides. For more info, see [How to cut the bow angle](#)

1 - The hull must match the lower 10" of the defined hull shape

- A** - The "end points" are the corners where the bottom meets the bow and stern transoms.
- B** - The distance between the end points may be as long as 91" or as short as 89-7/8"
- C** - The proper way to measure the rocker shape is from a straight line between the "end points" on a finished boat.
- D** - The station marks are measured from the stern end point, which is offset horizontally toward the middle by the formula $(\text{length} - 90" / 2)$
- E** - The rocker shape of the finished hull must fit within the defined tolerance range below.
- F** - The rocker shape is to be in the form of a curve
- G** - The boat must be sailed so the bow angle is normally facing forward.
- H** - Having a hull number does not guarantee the hull is class legal

2 - The hull must have flat parallel sides, flat bow and stern transoms, and a flat bottom

- A** - The chines and hull edges may be rounded, maximum of 1" fillet as [per this drawing](#)
- B** - The stern transom may be partially or fully open, however the sides must still be the full height.
- C** - Slots for fins are OK.
- D** - The sides must continue to be parallel, the sides & transoms must continue to be flat, even above the 10" line, except for a gunnel or hiking wings (or other similar shaped extension) with the following restrictions:
 - must be above the 10" line
 - must be perpendicular to the side of the hull
 - must not extend more than 6" beyond the hull
 - must not be thicker than 1.5"

3 - The hull must be 48" wide

- A** - The beam has a 1" tolerance (makes for minimum 47", max 49").

4 - The hull must have enough emergency flotation to be self rescued

For more info about flotation, see: [Emergency Flotation](#)

5 - No external flotation chambers (such as pontoons, cut waters, amas etc.)

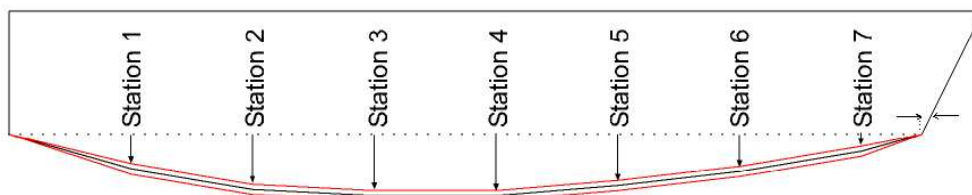
- A** - Mast head floats are exempted from this rule, and are OK to use.

6 - No lifting fins (hydro foils)

- A** - All fins must be vertical
- B** - Maximum of 1.5" wide fins (centerboards, keels, rudders etc)
- C** - Fins may extend forward or aft of the hull, and may extend vertically above the gunnel.
- D** - Fins may be attached to the sides of the hull.

7 - Don't screw with the hull shape

- A** - Anyone with a registered class legal pdracer who is participating in the event, has the right to request the measurement of any pdracer hull which is also participating.
- B** - Nobody shall impede, prohibit, or otherwise try to restrict (or make un-cool) this right of any puddle ducker.
- C** - If a registered hull is found out of tolerance, that hull can still participate, however it must delay it's start until all the class legal hulls have crossed the start line, the results of that hull are not counted, and that hull is not listed on the score card.



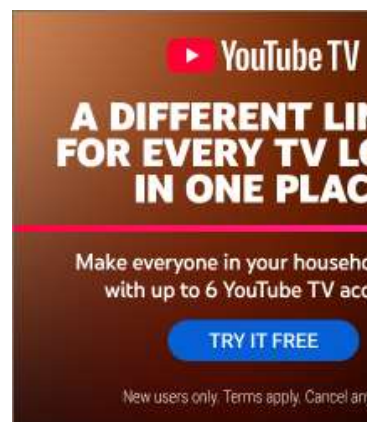
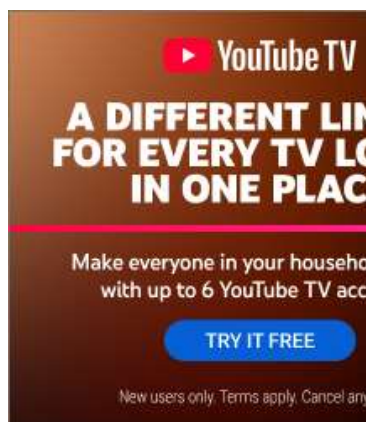
Defined Tolerance Range

Station	1	2	3	4	5	6	7	over to bow
Above	2,7	0,7	0,2	0,2	1,2	2,5	4,5	2,2
Ideal	2,5	0,5	0,0	0,0	1,0	2,3	4,3	2,0
Below	2,3	0,3	-0,2	-0,2	0,6	2,1	4,1	1,6

David "Shorty" Routh is the founder of Puddle Duck Racer sailboat class, sole administrator of the class & rules, and sole owner of the [PDRacer trademarks](#). I have made my best effort to keep the rules as simple and easy to read as possible in laymen terms. If you have a question about the meaning of the class rules, try looking through the following pages:

Additional Class Rule Information:

[How to cut the bow angle](#)
[How to Measure A Hull](#)
[Rule Explanations Page](#)
[World Championship Rules](#)



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