

AeroMarine Research

TBPNews - Performance Report

Tunnel Boat Performance News - #168 - Oct 15, 2015

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[Chiappe Cruises To His First Ever F1 Victory In China!](#)

LIUZHOU, China - The dream finally came true! It took French driver Philippe Chiappe 16 races and competing in China since 2004 to reach his goal, but the defending World Champion of the CTIC China Team captured his first victory in the People's Republic at the fourth round of the UIM F1 H2O

World Championship event at the 21st Grand Prix of China in front of over a hundred thousand race fans along the Liu River in Liuzhou... [\[more\]](#)

[What's Weighing You Down?](#)

[Why weight and weight distribution are important to your performance boat]

THERE ARE LOTS of design and set-up issues that affect a powerboat's performance, but one that can sometimes be the easiest to influence is the weight of the boat. The overall weight of a boat really affects its overall performance, including top speed, handling, dynamic stability, porpoising and even ride comfort. Performance hulls are even more sensitive to weight.

Here's why weight is important and how it can affect the performance of your boat.

Lift = weight = performance



All boats must generate enough lift to balance the weight of the hull. If there is not enough lift, the boat sinks (and if there is too much lift, the boat flies!). So at all speeds, lift = weight. Performance boats generate lift by hydrodynamic planing: and along with the desired hydrodynamic lift comes the more unwelcome hydrodynamic drag. As a boat goes faster it needs less wetted surface to generate its required lift - but that lift is always equal to the weight of the boat, and the lift always comes with a

certain amount of drag.

[...[get the full article here](#)]

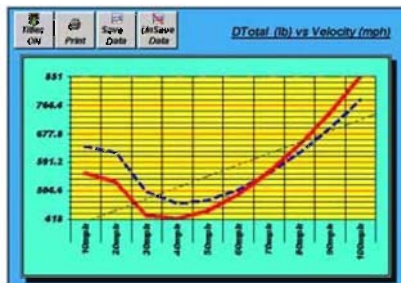
Power boat racers from Dubai crash during Gold Coast event



Salem Al Adidi and Eisa Al Ali of Dubai crash in the Dubai Duty Free Speed Cat Run on Day 1 of the Gold Coast GP - fourth round of the UIM XCAT World Series on August 22, 2015 in Gold Coast. The XCAT World Series truly is a spectacle of speed, with teams of two taking each other on in two-engined carbon-fibre boats that tear around the course at speeds close to 200km per hour. [\[click for video\]](#)

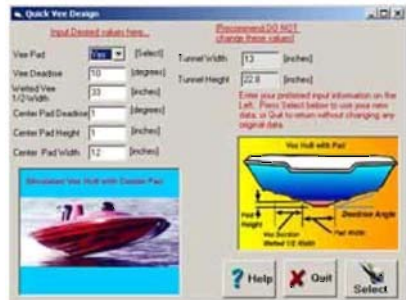
NEW! Tunnel Boat Design Program software, Version 8.5 RELEASED!

See [Scream and Fly Magazine Review of TBDP/VBDP Version 8](#) - "...the very best and most comprehensive performance evaluation tool available."



NEW Release of [Tunnel Boat/Vee Boat Design Program](#) software - Version 8, includes [Vee Boat Design Program \(VBDP\)](#) in the same package, with many other great [feature upgrades!](#)

This is the ONLY software specifically for design, performance analysis and setup of Tunnel hulls and performance Vee hulls! Every feature developed by research and proven by testing.



The NEW TBDP and VBDP Version 8 incorporates the same ("AR Analysis") design approach as documented in the [Secrets of Tunnel Boat Design book](#). The super power of the software allows for even more comprehensive analysis, employing engineering techniques that include detailed aerodynamic, hydrodynamic and stability calculation methods that are key to Tunnel hull & Vee hull design and accurate performance prediction.

TBDP/VBDP - high performance software, not just for high performance applications. Great for recreational, commercial, fishing, powercats and vee hulls (even whitewater jet hulls, RC

boats, Fishing/Utility tunnels, bass boats, center-console boats, AND high performance and racing tunnels, modified tunnel (Mod-VP), modified Vee hulls).

[TBDP/VBDP Version 8 has dozens of NEW Features](#)

See ALL the TBDP/VBDP [standard features](#), [screen samples](#), and ['how-it-works'](#)!

- *** Accurate Performance Prediction through full velocity range; hull optimization
- *** [Dynamic Stability Analysis](#) - see hull stability *at all speeds* (not just while at rest on the trailer!)
- *** NEW [Whisker Spray analysis](#) - Advanced hydrodynamics and Whisker Spray drag analysis gives highly accurate drag contributions to powerboat performance predictions & optimization.
- *** [NEW 2015 Motor Wizard](#) - includes over 1750 OEM engine specs, making input of your engine data to TBDP©/VBDP© as simple as picking your motor from a list.
- *** NEW [Lower/Drive Unit drag analysis](#), includes Torpedo drag, skeg drag, leg drag, induced drag and spray drags [using surface piercing flow analysis].
- *** NEW [Lifting Strakes, Spray Rails & Trim Tabs analysis](#)
- *** NEW ["Auto 1-2-3 Performance Analysis"](#) Wizard - steps through easy steps to calculate Maximum Velocity, Trim Angle analysis and Power (Acceleration/Elapsed Time) analysis.
- *** NEW [Performance Analysis Wizard](#) - design-based Report that compiles a narrative summary of unique key characteristics of your performance analysis - even recommendations!
- *** NEW [Porpoise Analysis](#) - XPorpoise is a breakthrough engineering tool developed by AR that predicts your hull's susceptibility to porpoising.

See ALL the TBDP/VBDP [features](#), [screen samples](#), and ['how-it-works'](#)!

Check out [review of AR's NEW Version 8 "Tunnel Boat Design" software and "Vee Boat Design" software in Powerboat & RIB magazine!](#)

Get the new [TBDP/VBDP software!](#)



[More of Jimboat's Feature Articles](#)



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['Attitude Adjustment' - How to Optimize your boat's running trim](#)
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['Outboard Jack Plates for Performance in Powerboats'](#)
['Step Design in Powerboats'](#)
['Successful Propeller Testing for Performance'](#)



- ["Vee pad design", Vee hull design and performance powerboat design](#)
[Gearcase & Propeller "Blowout"](#)
["Chine Walking" - why it happens and how to fix it](#)
["How Trim Angle and engine height affects performance"](#)
Jimboat interviews star of [F1 H2O World Championship circuit, Shaun Torrente](#)

...and [check out lot's more of Jimboat's FREE articles here...](#)

See you next time!

/Jimboat