

TBPNews #95 - February 13, 2006

1) Speed Queen - Jean Hoffman's 100-mph Lauterbach hydroplane

In her new 100-mph hydroplane, Jean Hoffman is one of the faster women on water.

Spend a few moments with Larry Lauterbach in his custom boat shop in Chester, Md., and you'll quickly realize you're in the presence of a legend. The walls and shelves are covered with awards, trophies and photos of his racing achievements. Prominently displayed on a handsome, hand-built trailer is a one-of-a-kind Lauterbach boat. This 500-hp beauty, distinguished by its two side-by-side seats, was commissioned by Jean Hoffman, a 63-year-old woman from Clayton, N.Y.

To appreciate the significance of Hoffman's 100-mph boat, you need to understand Lauterbach's place in boat racing history. The son of Henry Lauterbach, Larry has built upon his father's reputation for making and racing record-setting hydroplanes. Larry's brother, Hank, was killed at age 43 when his boat flipped during a race.

There's a delicate point between being in control of a partially airborne hydroplane and totally losing it. At race speeds, only three small areas are in contact with the water: the prop and two tips of the sponsons. The hull shape is designed much like an aircraft wing, providing lift while the deck creates just enough downward pressure to prevent the vessel from gaining too much altitude. Powered by specially tuned, big-block Chevy and Ford engines, it takes a lot of talent and guts to race these machines.

From his custom boat shop Lauterbach focuses on restoring vintage raceboats, but he was persuaded to design and build a truly unique boat for Hoffman. The past president of the Antique & Classic Boat Society, she's owned her share of vintage boats, including a number of Garwoods. Hoffman became intrigued by the idea of running her own hydroplane on Lake George.

The Lauterbach Special was launched last spring. The natural aerodynamics of the hull eliminate any need for external trim tabs. To drive this boat, she simply looks for an open thoroughfare of water and hits the throttle. In



seconds it's flying over the water. In a turn, the custom-built seats hold her body in place while the skid fin keeps the boat tracking. According to Lauterbach, the boat can exceed 100 mph in flat seas.

2) Wurster bids farewell to Llumar

You'd think that watching the sport's longest-running sponsorship evaporate would be a pretty serious blow. The exodus of sponsors from unlimited racing is nothing new. And with Budweiser gone, virtually anything can happen. But for Bill Wurster, today is another day of business as usual at his U-8 unlimited hydroplane shop - without Llumar Window Film. Wurster has been down this road before...and if anything, his U-8 team has shown a particular resiliency toward adversity.

Back in 1990, Wurster's longtime sponsor, Proctor & Gamble, withdrew its Jif Peanut Butter and Pringle's brands off of his boat. Within a year, he had wooed them back with Tide as a title sponsor. When Tide left the sport, Wurster campaigned without a season sponsor, showing up in Tri-Cities as the Super Range Golf, a course in the Seattle area. And odds are that Wurster's U-8 will be back in the fray again.

Wurster wasn't 100% positive driver Jean Theoret would return next season, but he did sound reasonably sure. So that's how things are going in the shops of the only team on the circuit to win two races this year.

3) Powerboat Racing on TV

\*\*\* "Thrill Zone: Extreme Powerboats" - National Geographic powerboat show Author Jim Russell (Jimboat) is the powerboat design technical consultant on a new National Geographic special for "Thrill Zone" series...Sunday, March 5, 2006 at 6:00P - details at: http://channel.nationalgeographic.com/channel/ET/daily/20060205.html)

"Professional powerboat racing is one of the most death-defying sports in the world. Competing at speeds that often reach 200 mph, their boats are marvels of engineering but even the most technologically advanced can crash. From Formula One Racers to Offshore Powerboats to Unlimited Hydroplanes, Extreme Powerboats takes viewers up close with the world's fastest boats, the sport's best drivers, and the most advanced technologies".

Also airs: Saturday, April 1, 2006, at 10P; Sunday, April 2, 2006 at 1:00A; and Sunday, April 2, at 1:00P Check out details at: http://channel.nationalgeographic.com/channel/ET/daily/20060401.html

## 4) New 'SECRETS OF PROPELLER DESIGN' book



NEW RELEASE!

The NEW (2006) publication "Secrets of Propeller Design", by performance powerboat designer, Jim Russell (Jimboat) includes sections on Propeller design, Pitch, Rake, Skew, Venting, Cupping, Propeller Types, Fundamentals of Cavitation, Ventilation, Blowout, Slip, Nosecones, Labbing, Gearcase design, Surface Drives, and Speed Calculation formula. Fundamentals of cavitation, ventilation, "BlowOut" - and how to avoid problems.

Advantages of all types of props - including cleaver, chopper, round-ear, weedless, racing cleaver. 3, 4, 5 & 6 blade propeller design & peformance discussed. Propeller cup, rake, pitch, skew, venting, and effects on performance.

The "History & Design of Propellers" book presents a detailed accounting of how the first "screw" applications were invented, and how they led to early ship propulsion. Outlining "How a Propeller Works", parts and functions of a properly designed propeller, including material selection and "advanced propping" techniques, gearcase design and nosecone application is outlined.

Speed prediction formulae and propeller selection methods. This is a "must have" book for serious boaters, designers and enthusiasts that have "a need to know".

5) Top Ten Boats Stolen in US

Personal watercraft are hot and they're the most likely vessels in the United States to be stolen, according to a list by BoatU.S. Seaworthy, the damage avoidance newsletter from BoatU.S. Insurance, recently published a list of the top 10 vessels stolen. The list was compiled from recreational vessel theft claims from the last five years. PWCs made by Yamaha Waverunner, followed by Kawasaki and BRP's Sea Doo top the list.

It was also found that 90% of all boats stolen were on their trailer, with the average size just over 20 feet. Less-mobile vessels, such as sailboats and heavy, slow trawlers, were "decidedly unattractive targets for thieves."

Here's the top 10 list of most frequently stolen boats, and the chances they will be stolen: Yamaha PWC, 15.3%; Kawasaki PWC, 12.8%; BRP Sea Doo, 8.19%; Mako, 7%; Chaparral, 5.22%; Regal, 4.92%; Wellcraft, 5.22%; Boston Whaler, 3.36%; Four Winns, 3.06%; Chris-Craft, 2.8%; Bayliner, 2.57%; Sea Ray, 2.25%.

6) CAN HYDRO RACING DEFEAT ITS WORST ENEMY?

That's the question hydroracing.com columnist Jody Moore asks in his latest missive. He compares NASCAR's domination of motorsports with hydroplane racing's inability to secure national sponsorships.



7) Jimboat writes Feature articles in HOTBOAT & F&PB magazines

\* Jimboat writes Feature article in Family & Performance Boating magazine. 'The Bottom Line'-"Why does a Pad make a vee Hull faster?" is the FEATURE in the F&PB September 2005 issue. Get your copy of the full article at: http://www.aeromarineresearch.com/adverts/Vee%20Pad%20Design.html

and Recently published...

\* Jimboat writes Feature articles in HOTBOAT & F&PB magazine "10 Smokin' Speed Secrets Revealed..." - Jimboat has new article in February 2005 HOT BOAT magazine. "If you don't want to make expensive modifications to your hull or engine setup, then here are some tips for getting the most performance from your current setup. By Jim Russell, author of "Secrets of tunnel Boat Design" [editor-HB] Check it out at: http://www.aeromarineresearch.com/adverts/HB\_Feb2005.html

\* "Winterizing your Performance Outboard" - Jimboat has new article in Jan2005 issue of Family & Performance Boating. Check it out at: http://www.aeromarineresearch.com/adverts/F&PB\_Jan05.html

\* "What a Drag" - Trim Angle & Engine Height Can Reduce Drag and Increase Speed", by Jim Russell, author of "Secrets of Tunnel Boat Design book [editor-HB]. See September 2004 issue of HOT BOAT Magazine. Or get your own copy of the feature article at: http://www.aeromarineresearch.com/adverts/HotBoat\_Sept2004.html

See you next time!

/Jimboat



Note: Some of the articles presented in TBPNews are edited excerpts from the "Secrets of Tunnel Boat Design" book, "Secrets of Propeller Design" book, "History of Tunnel Boat Design" book, by Jim Russell, published by AeroMarine Research. The STBD book explains the theory in full, and outlines example design calculations, step-by-step. The "Tunnel Boat Design Program", software, does all the force calculations, dynamic force balances at all speeds, and reports the analysis automatically, including complete graphical performance results for any tunnel or modified vee-hull design.

>>>>> Tunnel Boat Performance News >>>>>

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Get your full, illustrated, NEW 12th edition copy of the world known "Secrets of Tunnel Boat Design" book. GO TO: <u>http://www.aeromarineresearch.com/stbd.html</u>

Also, the publications "History of Tunnel Boat Design" book, "Secrets of Propeller Design" book, the "Tunnel Boat Design Program" software, and the "PropWorks2" software for speed prediction and propeller selection at the AeroMarine Research web site. GO TO: http://www.aeromarineresearch.com

<u>"Secrets of Tunnel Boat Design" book</u> <u>"History of Tunnel Boat Design" book</u> <u>"Secrets of Propeller Design" book</u> <u>"Tunnel Boat Design Program" software</u> for tunnel hull and vee-hull design <u>"PropWorks2" software</u> for propeller selection and powerboat speed prediction

>>>>> Tunnel Boat Performance News >>>>>>

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