AeroMarine Research
TBPNews - Performance Report

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TBPNews #155-Oct 29 2012

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>>>> **Tunnel Boat Performance News** >>>>>> (over 5000 members!)

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In this issue:

******************** TBPNews ***********************

Check out review of Jimboat's 13th Ed. "Secrets of Tunnel Boat Design" book in the last HotBoat magazine printed!

1) Torrente Crahses, Carella Wins in Liuzhou, China F1H2O

LIUZHOU, China - Team Qatar driver Shaun Torrente will miss the remainder of the season following the decision by the UIM race committee to withdraw his provisional super licence.

The incident that resulted in the decision by the UIM race committee to withdraw the American's licence followed the crash involving Torrente and World title challenger, Finland's Sami Selio, at the first corner after the restart following the first yellow flag incident of the race. The Qatar Team driver, Torrente, who was on the extreme inside, ran out of room and hit Selio from the back sending them both cartwheeling out of the race ending all hopes of the Mad Croc driver Selio of moving into first place in the drivers championship at the end of the day.

The UIM race committee of O.O.D. Li Rui Lin, UIM commissioner Luis Ribeiro and deputy drivers' representative Duarte Benavente issued the following statement. "With reference to art. 10 - super licences - paragraph 10.6 on circuit rules, the committee has unanimously decided to withdraw the provisional super licence issued to Mr Shaun Torrente, 07/2012, for dangerous driving and unsportsmanlike behaviour during the race."

Defending World Champion Alex Carella of the Qatar Team held off a determined last years winner Thani Al Qamzi of Team Abu Dhabi to win his second race of the season and move into first place in the drivers championship with a 6.86 second victory at the 18th Grand Prix of China in Liuzhou. Bearing in mind Torrente's record of ten GP's and six crashes, the UIM official obviously thought the driver's record put other drivers at risk, although it must be stressed not all of Torrente's accidents have involved others

After the Torrente crash, once the officials gave a green flag on another attempted restart, the race became a two way tussle between Carella and Al Qamzi. The 27 year-old Italian was able to hold on long enough for his fifth career victory. Alex now has 59 points moving him ahead of the ill Team Abu Dhabi driver Ahmed Al Hameli who remains in hospital in America with 50 earned points and hoping to return before the end of the season.

Full race results at: raceboatinternational.com

Read more here: f1h2o.com

********** TBPNews ********** [return to top]

2) Weymouth powerboat crash: Mike Lovell dies from injuries

Mike Lovell, from Southampton, UK, suffered multiple injuries when his boat crashed in Weymouth, on Sunday.

Despite being airlifted to Southampton General Hospital, race organisers P1 SuperStock confirmed Mr Lovell had died overnight. His navigator Dan Whapples, also from Southampton, remains in a serious but stable condition. The pair were competing in the national powerboat racing championship in Weymouth Bay when the crash happened at about 14:30 BST.

Portland Coastguard said Mr Lovell and Mr Whapples were rescued from the water near Weymouth Town Beach and the harbour. Shelley Jory-Leigh, of BBC Radio Solent's H20 show, was commentating at the event and saw what happened. "Unfortunately the boat just got caught up in the wash of the other boats - that's what happens with powerboat racing - and it barrel-rolled," the former powerboating world champion said. "The drivers got thrown clear of the boat. It's like a Formula 1 car spinning off."

Aaron Emmett was also competing in the race in the boat in front of Mr Lovell and Mr Whapples. "We all went into the first corner on the course together and as we approached the next corner we were ahead of Mike and Dan.

Martin Braybrook, owner of the Brookspeed team for whom Mr Lovell was racing, said he had a "vast knowledge" of powerboat engineering. "When the opportunity arose for him to be involved in the amateur racing he embraced it whole-heartedly, jumping at the chance to pilot the boat. He loved every second of it - living his dream.

Check out more at bbc.co.uk/news

********** TBPNews ********** [return to top]

3) Mercury introduces M Series inflatable boats

FOND DU LAC, Wis. – Mercury Marine this week introduced a new line of versatile and stylish inflatable boats at the 2012 Ft. Lauderdale International Boat Show.

The first model in the series, the 18-foot M570, comes standard with a Mercury 115hp FourStroke. The M Series features complete boat packages with sleek, new console designs, superior storage capacity and innovative new construction materials. The industry-leading fit and finish of this boat makes it ideal for virtually all boating lifestyles.

“We have been anticipating the launch of the new M Series because we are proud of the new features and technology used to manufacture these models. The streamlined console and ample storage make them the ideal vessel for everything from everyday use to yacht tending,” said Eric Reilley, global product manager for Mercury Inflatable Boats. “The hull is manufactured with a new fiberglass technique, which makes the boat much lighter without sacrificing strength or durability.”

Additional models in the M Series include the 17-foot M525 featuring a Mercury 90hp FourStroke and the 20-foot M620 featuring a 150 FourStroke. Both models will be available in 2013.

The M570 model is now available at authorized Mercury Inflatable Boat dealers.

For more information, go to: mercurymarine.com

********** TBPNews ********** [return to top]

4) Great Powerboat Videos

Check out these great videos....

.....F2 Tunnel Barrel-Roll - Nottingham Sep 2012

.....F2 Formula 2 Crash Grimstad

.....jeff gregory on drag boat racing (audio interview)

********** TBPNews ********** [return to top]

5) FEATURE: "Winterizing Your Performance Outboard Engine (Part 1)

...by Jim Russell

It's that time of the year again - If you live in a part of the world where winter is not the best time for power boating, then it is time to put your boat away for the winter. Although it is usually a sad time of year - remembering all the great times in the boat through the summer - taking a little time now can help to make sure that your boat will be ready (and happy) when you bring it out again next spring.

Getting your performance powerboat ready for winter storage is more than just pulling it out of the water. Proper winterization of your boat and motor can be the most important maintenance a boat owner can perform to help ensure it weathers the winter without damage, and to ensure safe boating next spring.

Make a list and check it twice - I am big on checklists. I don't like to forget any of the steps of the winterizing process, so I follow a list that I've built up over the years. If your owner's manual includes winterizing instructions, you should follow those recommended procedures. So, I recommend that you make up your own 'checklist' with all the winterizing steps that apply to your engine.

Tools of the Trade - The key items that you'll need are general maintenance tools (spark plug wrench, large slot screwdriver, manual ratchet set); your engine's normal lubricants (lower unit oil, triple-guard grease; lithium-based grease); aerosol can of fogging oil, a fuel stabilizer, and a grease gun.

It doesn't take a lot of time to get your outboard prepared for safe winter hibernation, and can save a lot of time and headaches in the spring. What needs to be done to get your outboard ready?

Prepare the Fuel System - Starting your engine in the spring with old gasoline is an invitation to problems. Removing all the possible moisture from the tank is the best approach. It is really best to leave your fuel tank(s) close to empty, draining the fuel that remains in the gasoline tanks and the fuel lines.

This is not always easy to do, and so as an alternative, a fuel stabilizer can be used in the tank(s) and lines.

If you are planning to drain the fuel tank, run the fuel tank fairly low, to minimize the amount of fuel that you have to drain. If you are not planning on draining the tank, fill it to a level that is almost (90%) full. Filling the tank will help reduce condensation in the tank as the temperature changes. Then, add a liquid fuel stabilizer to the fuel in the tank, using the instructions on the label of the fuel stabilizer. Try to put pure non-ethanol fuel in your tank for the winter, but know that phase separation that can occur with ethanol-laced fuel, because you really don't know what's in the gas station's tanks - so add the fuel treatment that prevents the phase separation (like STA-BIL or another stabilizing product)

Run the engine for a few minutes, either on the ramp or with a water hose attached for cooling, to move some of the stabilized fuel through the fuel pump and fuel system (never run your outboard

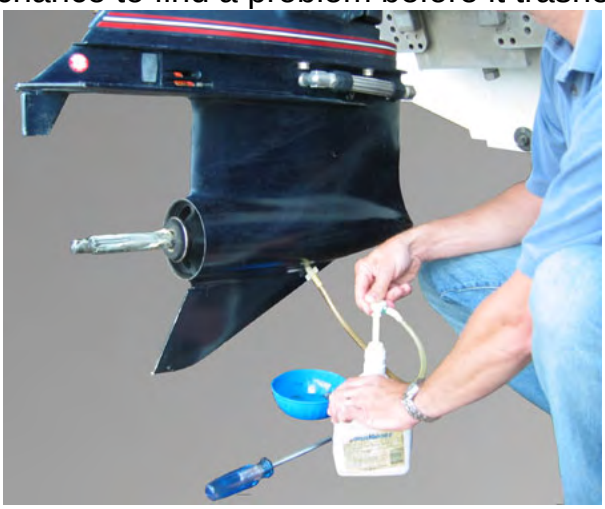
without a water supply). The fuel stabilizer helps maintain the octane of the fuel, and reduces the gum and varnish buildup that can otherwise occur during storage.

Fog the carburetor/air breather intake(s) with an engine fogging oil. Fogging oil is an anticorrosive mixture that protects the internal surfaces of the carburetor and the cylinders. Available in bulk or aerosol cans, fogging oil is formulated to stick to the cylinders and not slide down the walls. Follow the instructions that come with the product. Remove the cowls of your motor, and spray the fogging oil into the intake holes/ vents.

Before the engine runs out of fuel, spray fogging oil into the carburetor or breather covers. Expect that the engine will run rough just before it runs out of fuel - that's ok. Get lots of fogging oil into the air intake system while the vacuum is operating.

Change the fuel filter inside the engine, using a fresh filter from your engine dealer. Remember to also change the fuel/water filter canister (usually mounted inside the boat and the aft, near the transom) if you have one. Leaving water in the fuel lines is dangerous during the winter

Inspect & Change Gearcase (Lower Unit) Oil - This operation is one of those things that you "can't do too often". When I was racing on the OPC circuit, we would change gearcase oil after every race - sometimes after every heat. It gives a chance to check condition of the transmission, seals, etc. - a chance to find a problem before it trashes your lower unit.



Even a small leak in your bearings or shaft seals will allow moisture to migrate into your gearcase. The carbon-steel parts, like gears and some shafts, will corrode, and ultimately cause more seal failures. But worse - if there is any water or moisture whatsoever inside your gearcase, the result can be a cracked housing! It is easy prevent such an event by checking for moisture now and replacing with fresh lube oil. (Note: if you do find water in the oil, you may have leaking seals that should be replaced before next season!)

Normal operation and wear will leave small metal filings mixed in your oil. Changing the oil now will prevent them from building up in the mixture and causing further wear next spring.

Don't leave your outboard without oil for the winter. This just allows moisture in the air to condense inside the gearcase and corrode during the winter. Fill it with fresh oil - ready for next season!

To drain the oil in the lower unit, have a container ready to catch the used oil. Remove the lower screw on the side of the lower unit (usually on the right side). Oil will begin slowly draining into your container.

Remove the vent (upper) screw. The oil should come out faster now. Let the oil drain until you're satisfied that most of it is out.

To fill the lower unit, you will need either a squeeze bottle with a narrow tapered spout, or a pump. The oil is pumped into the lower unit through the bottom hole - not the top one! The top is a vent - and also prevents overfilling. With both holes open, place your squeeze bottle or hose against the lower hole, and begin pumping the oil in. Watch the upper hole. When you see oil starting to come out of the upper hole, the lower unit is full. Keeping the lower hole covered, install the upper screw and tighten snuggly. When you remove the bottle/pump from the lower hole, immediately plug the hole with the proper screw. Tighten the screw, and clean up the mess with your rags.

Tip: Don't try to put the bottom plug in first and then fill from the top. This method can cause under filling or undesirable air pockets in the chamber.

That's all for this issue. Watch for the next issue of TBPNews, for the conclusion of Winterizing your Outboard. In Part 2, we will cover Preventing Rust & Corrosion, Oil Change, Engine Inspection & Preparation, and Freezing prevention.

See Jimboat's full colour article at: aeromarineresearch.com

/Jimboat

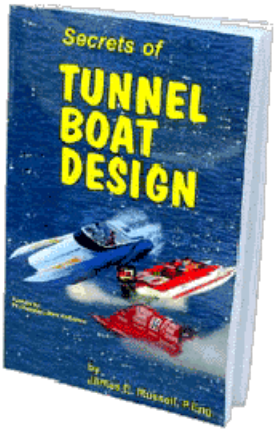
[Ed. Note: Do you have any of your own questions on performance hull design? Send your question or story to Jimboat@aeromarineresearch.com]

See more Performance Articles at: aeromarineresearch.com/articles.html **

Read more about Vee Hull & Tunnel Boat design and setup in the world acclaimed "Secrets of Tunnel Boat Design" book

********** TBPNews ********** [return to top]

6) NEW! 13th Edition "Secrets of Tunnel Boat Design" book



13th Edition "Secrets of Tunnel Boat Design" (ISBN# 1-894933-30-3) - By well-known powerboat design author and race-driver, Jim Russell.

Learn how to design and setup your own tunnel boat, power cat, or modified vee hull for all Recreation, Performance Family hulls, UIM & APBA racing or even RC models. (not just for racing applications!) This new edition has lots of new information; now with over 200 pages, and well over 150 photographs!

Get the most from your tunnel hull or vee-bottom boat setup.

The new edition ALSO includes an added Design of Tunnel Hulls and Modified Tunnels;

History of Tunnel Boat Design; Design of Propellers; Design of Lower Unit/Drive Units; History of the Modified Vee hull design; History of the WIG (Wing in Ground Effect); 10 Steps to performance powerboat design. All outlining how they have impacted high performance powerboat and tunnel boat designs.

These new segments are added to the original STBD book features: The developments of the tunnel and V bottoms are interestingly chronicled, with detailed explanations of hull design, function, potential and characteristics. This unique book also details ten design steps for analysis of hull performance and stability showing how the calculations are accurately performed, as well as providing detailed information about their relation to hull performance. The ten steps range from layout design and dimensions, calculating aerodynamic and hydrodynamic lift and drag, power calculations, and stability, acceleration, etc.

Buy Now

Also..check out the new TBDP© performance software V7.14 at: aeromarineresearch.com

********** TBPNews ********** [return to top]

7) Powerboat Racing on TV

***** "AMSOIL Offshore Powerboat Series"** - Check out TV Schedule on Fox Sports Net
***** "*Powerboat SuperLeague*"** Series - Check out show schedule at AmericaOne.com
***** "*IHBA Lucas Oil Drag Boat Racing*"** Series on SPEED TV - Check next show at speedtv.com
*** **"P1 Powerboat World Championship"** - See at: www.boatson.tv

********** TBPNews ********** [return to top]

8) Jimboat's Feature Articles

NEW Jimboat Article Announcement! - Author Jim Russell writes in POWERBOAT & RIB magazine!

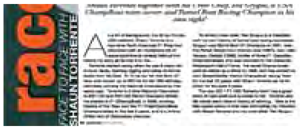
Jimboat outlines secrets for 'Successful Propeller Testing for Performance'

Jimboat details the speed secrets of 'Vee pad design', vee hull design and performance powerboat design

Jimboat explains 'Gearcase & Propeller BlowOut' (RIB magazine April 2011 issue)

Jimboat explains 'Chine Walking' (RIB magazine Dec 2010 issue)

Jimboat explains 'How Trim Angle and engine height affects performance' (RIB magazine Jan 2011 issue)



Jimboat interviews in RaceBoat International magazine, the newest up-and-coming star of [F1 H20 World Championship circuit, Shaun Torrente] together with his Crew Chief Ted Gryguc.

[Jimboat writes Feature articles in PowerBoat & RIB magazine, HotBoat, Family&Performance Boating, Performance Powerboat, RIB magazine, World of Powerboats, RaceBoat International, SEA Yachting, Extreme Boats magazines].

- Tunnel Vision - 'How Do Tunnel Boats Fly?' - HB Nov/Dec 2008
- 'Why Do Boats Create Rooster Tails?' - HB-August 2008
- 'What a Blow Out!' - "Gearcase & Propeller Blowout- Why it Happens & How to Fix it" - HB-June 2008
- 'Walk on the Wild Side' - "Chine Walk - Why it happens & How to Fix it" - HB-Jan 2008
- 'Hump Zone' - "Why does your Boat Porpoise?" - HB-April 2007
- 'The Bottom Line'-"Why does a Pad make a Vee Hull faster?" - F&PB-Sept 2005
- "10 Smokin' Speed Secrets Revealed..." - HB-Feb2005
- "Winterizing your Performance Outboard" - F&PB-Jan2005
- "What a Drag" - 'Trim Angle & Engine Height Can Reduce Drag and Increase Speed' - HB-Sept2004
- "10 Safety Tips" - 'Ten Safety Ideas for High Performance Go-Fast Boats' - HB-Aug2004
- "Flight Path" - 'Where does Lift Come From?' - HB-April2004
- "Rocket Science" - 'How To Increase Your Hull's Design Speed With Aerodynamics' - World of Powerboats-Winter2004
- "Tunnel Vision" - 'What Factors Influence Tunnel Hull Performance' - Extreme Boats-April2003
- "Step-by-Step" - 'Step Design in Powerboats' - TBPNews #88, October 2005

******************* TBPNews ******************* [return to top]

See you next time!
/Jimboat
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Let us know ideas you have, requests for articles, questions or comments on TBPNews. Send comments to TBPNews@aeromarineresearch.com
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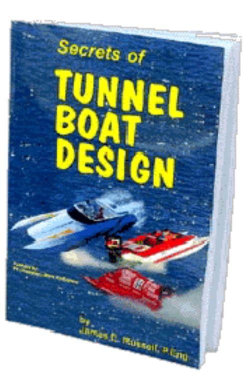

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"History of Tunnel Boat Design" book, "Secrets of Propeller Design" book, the "Tunnel Boat Design" software
for tunnel and high-performance Vee-hull design, and "PropWorks2" software for speed prediction and propeller
selection at the AeroMarine Research web site: http://www.aeromarineresearch.com