

AeroMarine Research

TBPNews - Performance Report

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**TBPNews #108 – December 9, 2006**  
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>>>> **Tunnel Boat Performance News** >>>>> (over 5000 members!)
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In this issue:

- 1) [Cappellini Wins to Tie Gillman for F1 Lead](#)
- 2) [FEATURE: 'Winterizing Your Performance Outboard Engine \(Part 2\)](#)
- 3) [2007 Mercury Racing Champ Boat Series Customer Loyalty Program](#)
- 4) [Unlimited owner/driver Brian Keogh dies](#)
- 5) [2007 OPA Racing Season Schedule](#)
- 6) [Powerboat Racing on TV](#)
- 7) [Jimboat's Feature articles](#)

***** TBPNews *****

1) Cappellini Wins to Tie Gillman for F1 Lead



ABU DHABI, Dec/2006 – Tamoil Racing driver Guido Cappellini captured his 3rd win of the season and his 54th of his career to move into a first place tie with American Scott Gillman with 65 points. The two head for a showdown at the Grand Prix of Sharjah and the final round of the UIM. F1 World Championship.

The 47 year-old driver from Como, Italy lead from start to finish taking his first win on the 8-turn 2.3 kilometer course in downtown Abu Dhabi since 1999. Emirates driver Scott Gillman had to settle for 2nd trailing Cappellini all afternoon between two and four seconds on the race course finishing 2.86 seconds back after the 50 lap event. Teammate Thani Al Qamzi had the pressure of racing on his boat in front of his hometown crowd and did well to finish on the podium for the 2nd time in his last three race starts. The 28 year-old stayed within 8 seconds of the leader all afternoon finishing 6.32 seconds from Cappellini at the end.

The field of 25 drivers now moves on 160 kilometers northeast to the lovely city of Sharjah and the final round of the 2006 UIM. F1 World Championship. Both Scott Gillman and Guido Cappellini have won in the Khalid Lagoon before. The Grand Prix of Sharjah will be one of the most historic in the 25 year history of the sport.

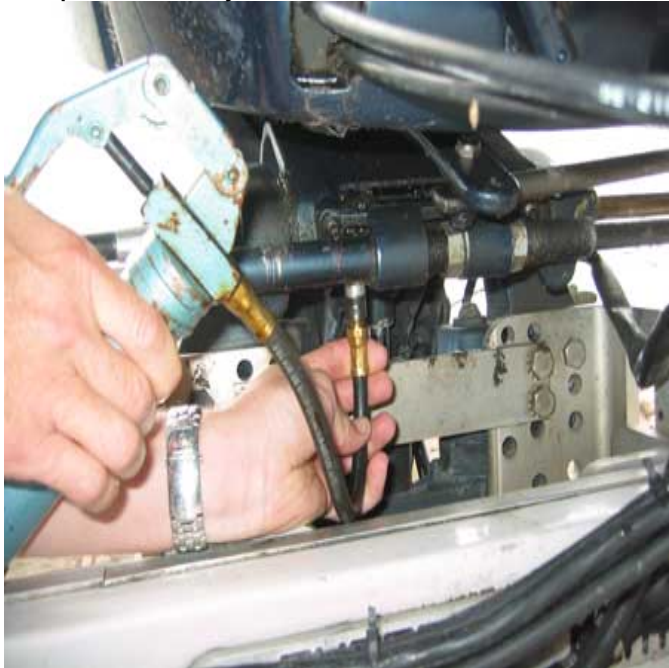
***** TBPNews *****

2) FEATURE: 'Winterizing Your Performance Outboard Engine (Part 2)

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. In the last issue of TBPNews, Part 1 discussed Tools required, Preparing the Fuel System, and Inspect & Change Gearcase (Lower Unit) Oil. Now, in Part 2, we will cover Preventing Rust & Corrosion, Engine Inspection & Preparation, and Freezing prevention.

Prevent Rust & Corrosion

Lubricate linkages - Clean all pivots and visible gears and protect them for the winter with oil or grease, as specified in your owner's manual. Grease all of the pivot points in the steering and trim/tilt



mechanisms. Pumping some grease into these areas will displace any water that might be there.

Allowing corrosion to flourish during the off-season is less dramatic but equally destructive. Corrosion can establish a foothold on idle components, so liberal use of corrosion inhibitors--both internal and external--is a second guiding principle for winterizing.

Drain cooling passages - Use a flushing attachment (Flushing kits are available from boat dealers.), or run the outboard in a tank filled with clean fresh water. Disconnect the flush attachment or remove the motor from the flush tank. With the motor upright, let all water drain out of the pick-up. Open drain plugs (if any--see your owner's manual) to empty the powerhead and intermediate housing. Crank the motor a couple of times

by hand or "bump" it with the starter to empty the water pump. If the motor will be exposed to freezing conditions, it is essential that no water remain inside.

Fog the cylinders - Remove each spark plug and spray fogging oil into the holes to coat the interior surfaces of the cylinders. Rotate the flywheel (do this by hand, not by turning the starter motor with the ignition key) a few turns to spread the oil on the cylinder walls. While the plugs are out is the time to check them and re-gap or replace as required. Reinstall the spark plugs.

CAUTION: do not over tighten. Over tightening is the #1 mistake made when tuning up your outboard engine. Just turn the plugs until finger tight, and then use your socket wrench to tighten only 1/8th turn more. (Over tightening can strip the threads in the head, and really ruin your day!).

Fill oil tank - For (2-stroke) engines with automatic oil injection, fill the reservoir to the top fill line. This will prevent condensation from forming inside the tank. For 4-stroke engines drain the oil in the sump. When you're done filling the sump again with fresh oil, check the level using the dipstick (just like you would in your car!).



Touch up damaged paint (you can usually get a perfect



color match paint from your dealer or from an automotive paint store. Mist-coat powerhead and any unpainted parts with an anticorrosion spray.

Spray a moisture displacing lubricant such as a silicone product onto electrical terminals and the fuse panel. Read the label to make sure the spray is safe for use on electrical components.

Clean and liberally lubricate propeller shaft - The off-season is the perfect time to have your prop(s) serviced.

If the engine will be stored on the boat, take the prop(s) home to discourage theft.

Clean starter motor shaft and pinion gear - now is a good time to clean any buildup of grease and dirt from the starter. If there is too much buildup on the pinion gear, or the shaft or the return spring, then the starter may not function properly. Clean it all well, then put some white grease on the shaft and the pinion gear.

Inspect

Check the props for nicks or dings. Even very slight damage will hinder performance. Worse yet, blade damage can cause vibration, damaging other engine parts and the drive system. Get any damage repaired - some damaged props can be repaired by marine dealers for a fraction of the cost of a new one.



Inspect steering systems, including tiller steering friction fittings on outboards. Tighten them if they're loose. Grease the cylinders on mechanical steering connections to the motor.

Battery Prep - Remove the battery and store it inside. Do not store your battery directly on a concrete floor or on the bare ground as this can discharge your battery. Use an automatic shut-down (current limiting) battery charger to keep your battery charged up over the winter. If your battery has water fill caps, make sure they are filled to the "fill-line" with distilled water.

Mouse-proof your engine - This might sound crazy, but if you've ever had a bad marine experience with a rodent, you'll know what we mean! They can do a lot of damage to an outboard over the course of a long winter - and seem to really enjoy doing it in the most hard to reach corner of your engine. In addition to chewing up your wires and hoses, they really love that foam or plastic soundproofing material on the inside of the cowling. Use a fitted canvas engine cover, or something smelly that will discourage the mice from living inside your engine during the winter.

Watch out for freezing - It is sometimes a good idea to disconnect gages that use water pressure to operate - such as speedometer and water pressure gage. Trapped water in the line can make its way to the gage. The freezing process causes thermal expansion in the lines and inside the gage,

ultimately damaging the gage if the water freezes.

None of these operations are very difficult, and can be done by the average handy boat owner. The 'checklist' makes it easy to go through the full process without missing any steps. For boaters who aren't comfortable doing their own maintenance, a qualified marine technician at your local boat dealer may perform the procedures. Taking a little time in the fall to get your boat and motor ready for winter means that you can be one of the first boaters out on the water next spring.

See Jimboat's full colour article published in Family & Performance magazine at: http://www.aeromarineresearch.com/adverts/F&PB_Jan05.html]

***** TBPNews *****

3) 2007 Mercury Racing Champ Boat Series Customer Loyalty Program

Mercury Racing has announced its return as the official engine sponsor for the 2007 Champ Boat Grand Prix Series. The series, which features Mercury powered Champ and Champ2 (SST 120) class outboard tunnel boat racing, consists of qualifying heat races and single-lap time trials to determine starting positions for the main events. Champ2 races feature 30-lap main events, while the Champ final race is 50 laps.

Customer Loyalty Program - New for 2007 is the Mercury Racing Champ class customer loyalty program. The program, which features special pricing and promotional cash rebates on stock Champ engine powerheads and cylinder blocks, rewards race teams that compete with stock Mercury engines in Champ Class in the Champ Boat Grand Prix Series. Qualified race teams, who purchase and race stock Champ powerheads, partial powerheads and cylinder blocks, are eligible for rebates on a per-certified race basis. For pricing details and parts availability, interested parties should call Mike Gurath at 920-924-2039. Checks will be distributed at the end of the 2007 race season.

Mercury Racing Champ Rookie of the Year Award - Participants of the 2007 Champ Boat Rookie Program are eligible for the Rookie of the Year award. The \$2,500 contingency fund prize purse (retail value toward the purchase of Mercury Racing engines, parts and accessories) will be awarded to the winner of the Champ Boat Series Champ class Rookie Program for the 2007 season. Rookie participants must run a completely stock (as built by Mercury Racing) engine in each of the qualifying races for which the rebate will be claimed.

Five-race Lease Powerhead and Gearcase Program - Mercury is also offering a five-race lease powerhead and gearcase program (\$1,500/race lease fee). As part of the program, the fifth-race lease is offered at no charge. Racers can purchase the leased powerhead and gearcase at the end of the fifth race for \$10,000.

Contingency Funds - Engines must pass an on-site, cowl-to-prop-nut inspection by Mercury Racing personnel to qualify for rebates and Stock contingency fund. Contingency Funds are based on retail value of Mercury Racing engines, parts and accessories and include:

- \$40,000 for Mercury Racing Stock Champ Participants Contingency Points Fund.
- \$7,500 SST-200 Participants Contingency Points Fund (w/in SST-120 class).
- \$2,500 Rookie of the Year Contingency Points Fund (all funds go to one winner).

Check out details at: <http://www.champboat.com>

***** TBPNews *****

4) Unlimited owner/driver Brian Keogh dies

Former Unlimited participant Brian Keogh passed away on Sunday, November 12, 2006, in Detroit, Michigan. Brian was reportedly working around the house, became ill, collapsed, and died a short time later.

A life-long boat racing fan, Brian first became an Unlimited owner in 1976, purchasing the U-56 hull from Gene Benning and giving it the nostalgic name U-70 Such Crust I. His second boat was Salt Walther's former Country Boy, which Brian raced until 1979. Brian also owned one of the last



competitive automotive powered Unlimiteds. In 1989 he fielded the U-9 with two Ford V8 engines. Driven by Jack Schafer, Jr. and Mark Evans, the U-9 kept the roar in the thunderboats at a time when everyone else was going with turbines.

As a driver, Brian handled the first U-IOO KISW Miss Rock in 1980, as well as his own boats in 1978, '79, and '82.

A former board member with Unlimiteds Detroit, the Spirit of De-troit Association, and the APBA, Brian was a mainstay on the Detroit boat racing scene. UD sends its deepest condolences to his family. He was a man with big dreams who knew how to make them come true.

With Jack Schafer, Jr., as driver, Brian was the last man to attempt automotive power in the Unlimited Class with the Ford-powered MISS EXIDE in 1993.

Check out more at: www.unlimitedsdetroit.com

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5) 2007 OPA Racing Season Schedule

You can now mark your calendars, the 2007 OPA racing season is now official. Most of the old sites are back with a new one in Long Island added to the mix. We might even see a Single Outboard Class at this race for smaller boats.

2007 OPA Race Schedule:

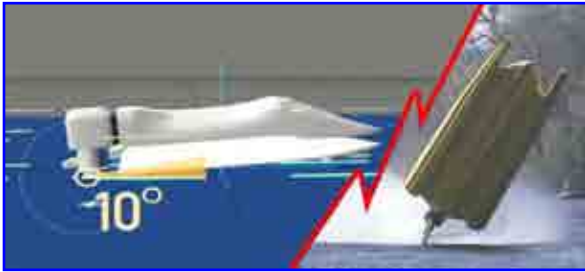
1. Algonac Michigan June 2-3
2. Ocean City June 23-24
3. Mentor Ohio July 7-8
4. St Clair Michigan July 28-29
5. TBA - August 11 - 12
6. Patchogue L.I. N.Y. August 25-26
7. Pt Pleasant NJ Sept 8-9

8. Cambridge MD Sept 22-23

***** TBPNews *****

6) Powerboat Racing on TV

*** **"Thrill Zone: Extreme Powerboats"** - National Geographic powerboat show.



Author Jim Russell (Jimboat) is powerboat design technical consultant on a new National Geographic special for "Thrill Zone" series...**Watch our website for the Next Show scheduled.**

Details at: (channel.nationalgeographic.com)

Watch for other show dates on AR's website! www.aeromarineresearch.com/NatGeo_thrill-zone.html

*** **"Champ Boat Grand Prix Series"** - on SPEED Channel. Next show "Bay City River Roar" on December 23, 2006 at 11am EST. Check it out at: www.speedtv.com

*** **"F1 World Championship TV Show"** on The Water Channel - Check it out at: www.waterchannel.com; Thursday Dec. 14, 2006 7:30pm ET. [see web site for other show times]

*** **NEW "War On Water" TV Show** on The Water Channel - Check it out at: www.waterchannel.com; Next Show is on: Wednesday, Dec. 13, 2006 at 6:30 PM ET. [see web site for other show times]

*** **"American Powerboat Television"** on The Water Channel - Check it out at: www.waterchannel.com; Next Show is on: Thursday Dec. 14, 2006 8:00pm ET [see web site for other show times]

[Ed. Note: The Water Channel is available on [The Dish Network](#)]

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7) Jimboat's Feature articles

Jimboat writes Feature articles in HotBoat, Family&Performance Boating, World of Powerboats, Extreme Boats magazines.

- ['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

