

Spring 2012

# MARINE TORQUE TALK

What's happening on the water from ...

## VOLVO PENTA

## CONTRAPEL PROPULSION SYSTEM

Barry Davies and Paul Patterson, two Kiwi blokes have invented a propulsion system, Contrapel, that combines the best features of a water jet with those of propellers. This means that boats can be more manoeuvrable, as well as being able to travel further and faster on less fuel.

We think it's a pretty big breakthrough," says Contrapel inventor Barry Davies.

"The Contrapel system is a propeller system working above the waterline," Barry says. "Most boats have a propeller that's exposed underneath."

Contrapel Ltd is a research and development company committed to commercialising this new pumping, hydro and propulsion technology. It holds the key to super efficient, extremely robust and highly flexible ways of processing liquids, propelling craft or generating low-head hydro-electricity.

Nearly 20 years ago the Tuatapere teacher was looking for ways to improve his own jet boat when he thought about the idea of counter-rotating propellers. Since that time the team have been trying to perfect the system.

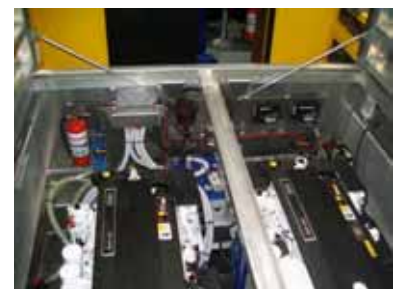
A demonstration craft, a 10-metre rescue boat is the culmination of two decades of hard work, with Invercargill company "StabiCraft" happy to share in the pioneering project.

"It will actually work all the way up to huge ships," says Mr Davies. "It works equally well underwater for submarines. We want this technology to be taken up all over the world and used in every facet of marine propulsion."

Volpower NZ Limited were approached for assistance with this project via our Christchurch Volvo Penta dealer, Southern Viking Ltd, and together we helped match up a pair of D6-435 inboard engines.



• Hull – StabiCraft Marine rigid pontoon
• LOA – 10.2 M
• Overall weight – (full fuel and 4 POB) – 8 tonne
• <b>Power – 2x D6-435 Volvo Penta diesel engines</b> (Displacement – 5.5L, engine weight (dry) - 699kg, Torque - 1040Nm @2500 rpm, maximum rpm - 3500)
• Propulsion – 2x 330mm Contrapel units



2 x D6-435 Volvo Penta engines

With a patent secured, Contrapel is now being released to the world.

This is an astonishing discovery and it's not overstating the case to say that it is the greatest breakthrough in propulsion since the propeller itself. Unlike the propeller however, it's a complete solution for the entire global industry, since it's scalable to all sizes and works equally well above or below the water-line. It boasts all of the operational advantages of a water-jet with few of the limitations. There are several pre-existing elements inherent to the Contrapel system which have enabled this development. Low propeller speeds, extremely high mass through-put, ability to operate with large blade-tip clearances, propeller rather than screw characteristics and an engineering structure that supports the counter-rotating propellers both fore and aft, culminate to create a very unusual and unexpected effect.

Contrapel will open new transportation options, reduce world energy usage, vastly improve human and animal safety, while setting new environmental standards for boats. Low head pumping and hydro electric generation will benefit greatly from this breakthrough, as the hybrid propellers are able to operate as fully enclosed aerofoiled blades capable of extracting lift from liquids, even where there is limited pressure-head.

Finally we can claim that there is a propulsion device where we are able to work or play in our amazing marine environments more safely, enjoying, but not destroying or disturbing them as it is environment friendly. The Contrapel Hybrid system is completely scalable and will offer entirely new ways to solve problems encountered in just about every sphere of the industry.

Article courtesy of Barry Davies, Contrapel

# ALL NEW VOLVO PENTA ACCESSORIES FOR 2012

## AUTOPILOT

Autopilot with Shadow Drive provides unmatched control

The Volvo Penta Autopilot with Shadow Drive is a complete auto-steering solution fully integrated with the EVC-system. It delivers accurate course keeping and smooth course turns at all speeds. The autopilot fits Volvo Penta IPS and Aquamatics with electronic steering - from EVC-E series.



**VOLVO PENTA AUTOPILOT** always keeps you on course with a minimum of effort

## Shadow Drive

Shadow Drive is your steering assistant that makes boating easier. Instead of keeping the boat on course using the steering wheel, you can just release it and let the Shadow Drive do the work. Take over manual control of the helm at any time and set a new heading.

## Fully Integrated

With Volvo Penta Autopilot you get a complete auto-steering system without any additional interface requirements. The autopilot is fully integrated in the EVC-system and available on all helm stations on the boat. Power up, station handling and dimming integrate with the rest of the helm station. When the ignition is switched on, the autopilot will start and assume standby mode. If changing station, the autopilot follows the rest of the helm controls but is only active on the new station.



## JOYSTICK DRIVING

Experience a new and intuitive way of boat driving

Lean back in your seat and steer the boat with the joystick - at any speed. Joystick Driving lets you drive with perfect control and response. It allows for ergonomic helm solutions that until now have only been seen in commercial vessels and yachts. Available for Volvo Penta IPS and Aquamatics with electronic steering - from EVC-E series.



**Steer your boat at all speeds with the joystick.** You can also fine-tune the course on the integrated Autopilot.

## A New Experience In Boat Driving

Volvo Penta Joystick Driving is a system that enhances the driving experience. You can now lean back in your seat and steer the boat at all speeds with the joystick.



**Steer the boat and control the Autopilot with the Joystick. 1: Course adjustment. 2: Steering. 3: Joystick driving on/off.**

## How It Works

When the Joystick Driving is activated the autopilot turns on simultaneously. You steer the boat by moving the joystick sideways and when you release the joystick the boat goes straight forward again, the autopilot keeps the course in the new heading. You can easily change the set course on the Autopilot by the slightest turn of the joystick. Throttle and gear shift controls work in the normal manner. Joystick Driving requires Volvo Penta Autopilot.

For further information go to: [http://www.youtube.com/watch?feature=player\\_embedded&v=eAEYI-HQ\\_wM](http://www.youtube.com/watch?feature=player_embedded&v=eAEYI-HQ_wM)

**VOLVO  
PENTA**

**VOLVO  
PENTA**

## Penta in the Pacific

Since the winter of 2008 White Pointer owners have shipped their vessels to Samoa to compete in the annual Samoa International Game Fishing Association Tournament.

They travel 60 nautical miles of open water to Pago Pago, American Samoa for the Steinlager I'a Lapo'a Game Fishing Tournament.



Fleet at Pago Marina

This trend started when ex-pat Kiwi and long-term Samoan resident Vaughan Simpson, owner of a Volvo Penta powered boat, offered the Waihau Bay-based White Pointer Tournament a prize package of a trip to Samoa to fish the Samoan International Game Fishing Association's Apia-based tournament. This was very well received and raised a lot of interest in fishing the Samoan Tournament.

Consequently, the idea developed to ship New Zealand trailer boats to Samoa so they could participate in the tournament. For a number of years now several White Pointers have travelled to Samoa by ship to fish the tournament.

Eight out of the twelve NZ boats in the competition were powered by Volvo Penta engines.

Volvo Penta diesel power is becoming the first choice, as keen fishermen upgrade their vessel. The initial reasoning is the increased fuel range with common rail Volvo Penta diesel powered vessels burning around half the fuel of their outboard counterparts for the same day's game fishing and extending your working range.



Fu'a II

But once the battle commences the duo props ability to back down on fish, giving the skipper total control in the fight, is the trump card.

When the weather picks up the Volvo Penta duo prop really comes into its own surfing down ocean swells and punching into 20 knots of chop with no throttle input required - it's nice to know you're still in control.

During the tournament 67 fish were weighed (including two marlin) and a further 11 marlin tagged and released. The overall winners, Vaughan Simpson, Brian Atkins and John Booker on Fu'a II, also received an invitation to fish the IGFA World Offshore Championship, next year in Costa Rica.



(L-R) John Booker, Vaughan Simpson and Brian Atkins

Parker Racor Fuel Filter



**Together, we can**  
protect your  
investment in engines  
and fuel, maximize  
fuel economy,  
performance and  
maintain a clean  
environment.

Parker Racor fuel filters are built with patented Aquabloc elements to obtain maximum efficiency, high dirt holding capacity and are used by many engine manufacturers worldwide for their reliability.

Racor Turbine Series is the most complete, most efficient, most reliable high-capacity engine protection you can install.



0800 VOLPOWER

# SONIHULL

Ultrasonic Antifouling System

Keeps your hull cleaner,  
all year round

Banish the Barnacle  
with *Sonihull!*

**Easy to install**  
No hull penetration required

## SONIHULL KEEPS YOUR HULL CLEAN

- Uses ultrasonic energy pulses to make surfaces less attractive to barnacles and algae.
- Helps prevent marine growth on hulls, pipe work and sea chests.
- Less marine growth means less hull friction, which means better fuel economy.
- Used in commercial and pleasure craft.

## ENVIRONMENTALLY FRIENDLY

Tests demonstrate that electronic antifouling products have no adverse effect to fish. The 'SONIHULL' Ultrasonic signal stays very close to the hull structure and does not stray into open water.



Very easy to install  
Kits available for cats and monohulls

**0800 VOLPOWER**

## WHANGAREI MARINE SERVICES T/A RAY ROBERTS MARINE



## 2 YEAR WARRANTY ON ALL NEW VOLVO PENTA MARINE ENGINES

\*Applies to non-commercial use only. Conditional on annual service by authorized Volvo Penta dealers.

## VOLVO PENTA MARINE DEALER LIST

### NEW ZEALAND:

**OPUA:** Lowes Marine Services 2012. Paihia Ph 09-402-8375  
**WHANGAREI:** Ray Roberts Marine. Whangarei Ph 09-438-3296  
**MATAKANA:** Matakana Marine & Engineering Ltd. Matakana Ph 09-422-7822  
**WHANGAPARAOA:** Marine Solutions Gulf Harbour.  
 Whangaparaoa Ph 09-424-1260

### AUCKLAND:

**Ovlov Marine Ltd.** Westhaven Ph 09-377-4285  
**Ovlov Marine - Pine Harbour Limited.** Beachlands Ph 09-5365249  
**Allvo Marine & Engineering Ltd.** Howick Ph 09-535-9189  
**Bensemam Boating Centre Ltd.** Westpark Marina Ph 09-416 2190  
**WHITIANGA:** Pacific Coast Marine & Diesel. Whitianga Ph 07-866-0551  
**BAY OF PLENTY/WAIKATO:** Coastline Marine Limited.  
 Tauranga Ph 07-574-9613

**TAUPO:** Fleet Marine Limited. Taupo Ph 07-378-8514

**NEW PLYMOUTH:** West Coast Marine. New Plymouth Ph 06-759-0939

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**WANGANUI:** Marine Services Wanganui Ltd. Wanganui Ph 06-345-6958

**PORIRUA:** KP Marine. Porirua Ph 04 233 6164

**WELLINGTON:** Strait Marine Parts & Services Limited.  
Wellington Ph 04-568-8062

**PICTON:** Marine Engineering Ltd. Picton Ph 03-573-6477

**PORT NELSON:** Aimex Ltd. Port Nelson Ph 03-548-1439

**KAIKOURA:** Kaikoura Marine Services Ltd. Kaikoura Ph 03-319-5276

**CHRISTCHURCH:** Southern Viking Ltd. Christchurch Ph 03-348-8976

**WANAKA:** Torque Marine. Wanaka Ph 03-443-6404

### FJI:

**NADI:** Yacht Help Fiji. Nadi Ph 679-675-0911-2

**WEBSITE INFO:** Visit our website for new and used engines and trans, parts, accessories, servicing etc. [www.volvopenta.co.nz](http://www.volvopenta.co.nz)

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Proud to be part of N.Z.'s most comprehensive marine dealer network.



Sue and Geoff Cammell took over the business of K-Mac Marine, T/A Ray Roberts Marine, located in Whangarei from Grant McKenzie on 16th July 2012. Geoff has taken over where Grant left off and has brought a new level of enthusiasm to drive the business forward over the coming years. While they will continue trading as Ray Roberts Marine they do have a new logo, along with a new website address of [www.rayrobertsmarine.co.nz](http://www.rayrobertsmarine.co.nz)

## SOUND PROOFING



Volpower distribute affordable Pyrotek Noise Control products through our dealer network to provide sound proofing solutions for marine and industrial applications. To see samples contact your local Volvo Penta Dealer now.

Dealer Stamp

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PENTA**