

# ULTRAJET WATERJETS –

## WATERJETS EDITORIAL – LATEST ADVANCES IN WATERJET TECHNOLOGY & RECENT INSTALLATIONS FOR JULY ISSUE MARINE NEWS

### NEW ULTRAJET 410

**The UltraJet 410 was introduced to the UltraJet range in 2007 and all its benchmarks were met when it was put through sea trials. It was also observed that the improvements made to the steering system resulted in increased speeds during hard turns and lower noise levels.**

**The UltraJet 410 with a 410mm diameter impeller provides unrivalled thrust and acceleration to cruise speed.**

All of the hydraulic control system elements are mounted on the jet keeping installation time and cost for the boat builder to a minimum. These include the integral oil cooler which requires no external water connections, the complete hydraulic pump system and the steering cylinder. On electro-hydraulic control system options, all electrical cables are included allowing “plug and play” installation – requiring minimum skill levels. All systems are fully tested before despatch.

The UltraJet 410 is available in either zero or five degree installation options to suit different engine alignments and is compatible with a variety of engine models, driven either direct or via a gearbox.

As with all UltraJets the UJ410 can be fitted with their new JetMaster Joystick Control system driven by a PLC (Programmable Logic controller), which will offer their customers unparalleled manoeuvring power at a budget price. The system offers features previously only available on more expensive systems. The PLC

converts the joystick commands to boat movements harnessing the full benefits of waterjets.

Easy and logical to use, even inexperienced boat users can operate JetMaster making close quarter manoeuvring simple. One hand manoeuvring gives you total control of your boat and the ability to move in any direction. Docking and backing into slips has been made simple (with same sense steering) just by moving the joystick in the direction you want the boat to move to.

Other JetMaster options include vessel steering by use of proportional interceptors; remote tether control; Auto-steer (Autopilot) interface; steering and reverse position indicators; helm mounted display for set-up and diagnostics.

Ultra's investment in this area reflects the increasing importance of flexible user-friendly and efficient control systems on board marine craft. The JetMaster control technology has been driven by customer demand for improvements in performance and to have the capability to integrate with services on board. JetMaster meets these demands and more by enabling major improvements in control system integration and waterjet functionality. In addition, JetMaster provides the platform for many planned enhancements including GPS positioning, jet and engine performance monitoring, remote condition-based maintenance services and vessel management.

## **CRAFT FITTED WITH NEW ULTRAJET 410s:-**

### **Mare Safety AS delivers new UltraJet driven Rescue Craft**

The MARE MSDC 12m aluminium Rescue Craft is the first of its kind and will be fitted to 'Stril Hercules' a new 55.2m Area Standby Vessel which will operate in the Tampen oilfields in the North Sea. The craft has met StatoilHydro's stringent specification for a rescue craft capable of reaching high speeds and yet have a high bollard pull to enable it to tow lifeboats, as well as carry out general operations from its mother vessel. Powered by twin Volvo Penta D6-435 mhp @ 3500 rpm diesels powering twin UltraJet 410 waterjets, MSDC 12 achieved a top speed of 36 knots and a 32 knot loaded cruising speed. The test programme which took place in Ulsteinvik covered self-righting and self bailing, jet and engine performance, shaft torque, and power and thrust, during which the UltraJet 410s achieved a bollard pull of 4.0 tonnes. A second Rescue craft is currently being built.



Mare Safety Rescue Boat fitted with twin UltraJet UJ410 jets.

### Silver Ships fit Twin UJ410s to 60ft Research Vessel

Twin UltraJet 410s are being fitted to Silver Ships 60ft Research vessel, powered by twin Cummins QSM 11 engines rated at 715hp @ 2500 rpm. The boat will be used at a university in Florida for oceanic research. The propulsion packages includes the UltraJet JetMaster joystick control system.

### Sunsplash 50ft Thrill Ride Vessel

Twin UltraJet 410s will be are being fitted to the 5<sup>th</sup> Sunsplash Marine vessel. This is a 50ft thrill ride vessel similar to Honolulu Screamer (photo attached), built to operate in Cancua, Mexico. The UJ410s are coupled to twin MTU S60 engines rated at 800 hp at 2300 rpm.



ALSO FROM A TECHNICAL POINT THESE PHOTOS MAY BE OF INTEREST OF TWIN ULTRAJET 410s BEING FITTED TO SUNSPASH VESSEL.





PLUS: Other NEW ORDERS:-

## **UltraJet Waterjets first choice for Wind Farm Workboats**

Ultra Dynamics, manufacturer of the UltraJet range of waterjets report that waterjets are currently the first choice of propulsion for wind farm workboats. The reason being increased manoeuvrability and the ability to hold station while work is being carried out. A key requirement when servicing offshore wind farms, especially in very rough sea conditions.

Waterjets can also be serviced quickly and easily often without dry-docking the boat, which means less down time and cost savings to the end customer. An important issue when a vessel is operating in an area where there are no facilities to undertake extensive repair work.

Recent orders from South Boats Special Projects Ltd. include 8 boat sets comprising of twin UltraJet 451 waterjets complete with flybridge Joystick control and display to propel a series of 15.43m (50.6ft) Alloy Wind Farm Service Vessels designed for crew transfer and logistical support at various wind farms in the UK and Europe.

The first of these vessels launched in February has Twin Scania

DI 12M EMS 591 bhp (441 kW) diesel engines @ 2100 rpm coupled to ZF360 transmissions with a 1.237:1 reduction ratio driving twin UltraJet 451 waterjets.

Following on from these vessels, a further 3 boat sets for twin UltraJet 575 waterjets with Joystick controls have been delivered to propel a series of larger and more powerful 20.4m (66.9ft) Alloy Wind Farm Vessels which will match MAN D2842 LE410 EDC diesel engines rated at 1100 bhp (809 kW) @ 2100 rpm via Twin Disc MGX5147SC transmissions with a 1.48:1 reduction ratio.



South Boats Cat fitted with UltraJets in service.



UltraJet waterjet installation at South Boats.