

MJP NEWS

September 2013

A newsletter from Marine Jet Power

THE PERFECT MATCH:

Marine Jet Power and Mexican Gulf oil industry

Rodi Marine Services, LLC, has signed a contract with Swiftships Shipbuilders, LLC, to build two 53m Fast Supply Vessels (FSVs) in support of its continued expansion into the oil and gas industry. The two new FSVs will add to Rodi's existing fleet, providing expanded capabilities in deep water operations.

The vessels will be equipped with quad MJP 650 CSU waterjets giving the vessels speed of 31 kn. The two vessels are scheduled to enter service first half 2014.

Swiftships' 175 Ft FSV DP-2 Crew and Supply Vessel is an all welded aluminum vessel built in accordance with A.B.S. regulations. This vessel is designed to transport personnel and supplies to offshore facilities. Its lightweight aluminum superstructure coupled with Swift-

ships' proprietary design allows for high-speed performance and delivery capabilities.

Rodi Marine is a Louisiana based company which owns and operates 5 FSVs ranging from 135ft to 165ft. This means the new vessels will be the largest in their fleet. Rodi's main office is located Lafayette, Louisiana; its position in the center of Louisiana allows them to serve customers throughout the Gulf Coast. Rodi Marine is known for its highly trained employees and well maintained vessels, enabling them to continuously provide excellent services to their clients.

Swiftships is a US Navy approved shipbuilder located in the heart of South Central Louisiana. Swiftships specializes in the construction of small to medium-sized vessels constructed of steel, aluminum, and fiberglass.



A force to trust

MJP
MARINE JET POWER

Marine Jet Power of today

Marine Jet Power is nowadays established as one of the leading companies for water jets. For many in the marine market MJP brand is synonymous with waterjets. We have reached this market position thanks to high performing and well proven products and an engaged and skilled team for every process within the company.

End of 2012 we acquired Ultra Dynamics with a very competitive product in today's MJP Ultrajet. Now we can offer a more or less complete product portfolio to the market.

Company's growth strategy requires a global organization. From now we can support from US, Singapore and Europe. These regional sales and service offices are the basis for our efforts to be the best partner in the market. We will keep our very much appreciated characteristic with an entrepreneurial and dedicated spirit. That's a promise.

The stainless and mixed flow products, MJP CSU and MJP DRB, are very suitable for tough applications where you have need for the equipment to be in operation all the time. The unique 5-year warranty and a Life Cycle Cost analysis verify this clearly.

Projects for crew and supply vessels for the oil industry are such an example. Wind Mill Industry is another. Some foresighted operators have already taken the decision to take advantage from the MJP CSU and MJP DRB products in order to be competitive and profitable in these markets. The number of users is growing in a remarkable way.

The aluminum and axial flow product MJP Ultrajet has a successful record especially in US and some parts of Europe. Now we will step by step establish the product global. This challenge is possible thanks to a competitive and well proven product together with a team providing world class service.

We have already some very interesting on-going projects in Asia for the MJP Ultrajet product. Future looks more than promising. Please challenge our organization and you will find an impressive support and service and hopeful an offer you can't refuse.

HANS ANDERSSON
Executive Vice President
Global Sales and Marketing



MJP Ultrajet high thrust series makes success on line handling boats

Alnmaritec Ltd. in Blyth, UK, has recently completed the build of two hose and line handling boats both of which are destined initially for shipyards in Singapore.

The primary role for each is in line and hose handling duties. They have a small wheelhouse forward with seating for four passengers and a bow access arrangement for personnel transfers. The aft deck is fitted with a working platform at the stern to facilitate hose/line handling with a hydraulic capstan built into a plinth on the deck and a towing point with a remotely operated quick release hook.

The boats have twin MJP Ultrajet 305HT waterjets installed on board giving the vessel impressive bollard

pull of 2.65 tonnes. Vessel speed is more than 25 knots.

The first boat, Alnmaritec hull number 158, will be installed onto the FSO (Floating Storage and Offloading) Gagak Rimang by Sembawang at their Singapore shipyard. From there she will head to the Cepu Oil & Gas block in East Java, Indonesia, which is operated by Mobil Cepu Limited and is expected to begin producing in July 2014.

Hull number 161, the second of the two boats, was ordered by single Buoy Moorings Limited of Monaco and is set to be installed onto the FPSO (Floating Production, Storage and Offloading) N'GOMA at the Keppel yard in Singapore. Next year the FPSO make the journey to Angola.



MJP Ultrajet 410 waterjets for TEMPEST 50-FAC

Tampa Yacht Manufacturing in Florida, USA, selected MJP Ultrajet 410 waterjets for their TEMPEST 50-FAC a 15.25 meter coastal patrol boats.

The pictured boat is the first of a six-boat program for the Boarder Security Forces of a South Asian country. In addition, the 50-FAC Fast Attack Craft has attracted strong interest from coastal protection and military entities in the role of FPC (Force Protection Craft) in other countries.

The 50-FAC has composite hulls along with anti-balistical materials and glass for crew and passenger protection. The 50-FAC will provide patrol and surveillance, day and night, in shallow coastal and riverine waters. The mission requirements of shallow draft, high maneuverability, and speed are provided by the MJP-Ultrajet propulsion and control system.

Tempest 50-FAC is equipped with twin MJP Ultrajet 410 waterjets, each powered by a 588 kW MAN R6-800 engine via a ZF marine transmission. The first of the series achieved up to 42 knots in sea trials.

Vessel control and maneuverability is provided by the MJP's JetMaster electrohydraulic control system. The integral hydraulic system for reversing and steering on each jet is activated via electrical cable from the helm station.

Tampa Yacht Manufacturing also has an order to deliver ten of their 36RHIB design for another foreign military customer. The 36RHIB has a twin MJP Ultrajet 305 propulsion system with each jet powered by a 358 kW FPT N67 diesel engine via a ZF280 transmission. The first 36RHIB achieved 47 knots lightship and 42-44 knots laden in sea trials.

ROC Navy "Swift Sea" Wave Piercing Catamaran with MJP CSU 850



Marine Jet Power will deliver quad MJP CSU 850 waterjets to the ROC Navy Swift Sea program. The equipment are under production and will be delivered in November by Marine Jet Power AB. This is the first time ROC Navy adapts catamaran hull and waterjet propulsion in a combat vessel. She is considering 60m in length with displacement of about 600tons. The vessel is under construction at Lung Teh Shipbuilding and basic design is prepared jointly by Navy Development Center and S.O.I.C. in Taipei. Marine Jet Power MJP CSU 850 is selected with its proven high efficiency and robust durability compared to other brands. Four MTU engines giving total power over 15,000kW and the vessel is expected to achieve over 38knots in speed. The Wave Piercing Catamaran will be commissioned by the end of 2014.

Direct comparison of waterjets proves excellent and unique performance of MJP

Two recent refits of waterjets are unique in one respect that they allow a direct comparison between waterjet brands, while everything else remains unchanged. Waterjets from Marine Jet Power were recently used to solve some significant propulsion issues and in one case the exchange even helped the yard to achieve its project goals leading to the fact that the yard finally was able to deliver the ships to the owners.

In the first case, the operator of a 10-year-old vessel decided to change to MJP DRB jets due to significant service and corrosion issues on the existing waterjets. The vessels were originally equipped with axial flow jets. MJP DRB mixed flow jets with intakes completely made of GRP were installed in one of the existing hulls with the rest of the equipment, including the engine, remaining unchanged. The GRP gives a smooth and efficient intake shape and eliminates any corrosion issues. The MJP DRB waterjets are otherwise completely made of stainless steel and have thus unmatched strength, resulting in a full five-year warranty, which per se is unique in the marine market.

Sea trial following the refit showed stunning results: Ship speed increased from 38 to 43 knots only thanks to the change of waterjets. The vessel with its original waterjets never achieved more than 38 knots – not even when the ship was new. The overall efficiency has increased from 57% to 67%. The difference in efficiency is incredible 18%, meaning that the vessel can obtain an 18% lower fuel consumption. The engines can operate at lower load, giving less wear and longer service life.

Since the operator is very satisfied with both installation and function of the control system, more vessels are now being rebuilt accordingly.

In the second case a yard was in big trouble. Three brand-new vessels could not be delivered due to lack of performance. After long, it was decided to shift out the existing mixed flow jets to MJP DRB mixed flow jets on one of the



vessels. Again, it was the MJP DRB jet with GRP intakes that were installed. Interestingly enough, when comparing the two jet systems on paper, they both claimed to deliver the same thrust. In reality, however, the MJP jets consumed 8,5% less power at the same operating speed. Power consumption was measured under the supervision of DNV, guaranteeing the accuracy of the measurements.

Furthermore, the noise level in the aft part of the passenger compartment was also measured. It turned out that the noise level was cut in half following the installation of the MJP DRB jets.

After the exchange of waterjets, the yard could finally deliver the ships to the owner, who is now successfully operating the vessels.

MJP is said to have removed a big burden from the shipyard, while the operator is now counting on savings of approximately NOK 1.2 million (USD 200,000) per year when operating 3,500 hours annually.

Ivan Fossan, managing director of Norled AS comments: “Norled is very satisfied that Oma Baatbyggeri AS has been able to find the reason why our new vessels didn’t reach the agreed speed. Oma Baatbyggeri builds high-speed vessels with an important comfort-factor and thanks to the MJP waterjets we do not only reach our desired speed, but save a substantial amount of fuel oil at the same time”.

Marine Jet Power AB
SE 748 01 Österbybruk, Sweden
Tel: +46 (0)295 244 250
E-mail: sales@marinejetpower.se

Marine Jet Power Limited
Upperfield Rd, Cheltenham, Glos, GL51 9NY, England
Tel: +44 (0)1242 707 900
E-mail: sales@marinejetpower.co.uk

Marine Jet Power Inc.
1110A Claycraft Rd Columbus, Ohio 43230, U.S.A.
Tel: +1 (614) 759 90 00
E-mail: sales@marinejetpower.com

www.marinejetpower.com