

Deepwater Production is on the up

It has been reported that deepwater production is to double by 2020 and a central part of that production for all companies is going to be the FPSO unit. There are currently over 200 FPSOs operating around the world so Total World Energy talks to Alastair McGregor of Omni Offshore Terminals and finds out more about the FPSO market and how the company is helping it grow.

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Offshore's Omni presence

Editorial: Colin Chinery

In its 26 year history, sector global leader Omni Offshore Terminals, part of Eyal Ofer's Zodiac Group, has delivered 23 conversion projects with two FPSOs and 21 FSOs of varying complexity. Headquartered in Singapore, its operational up time is phenomenal - 99.99 per cent. "It's about focusing on our core competence and delivering sustainable, economically viable projects," says CEO Alastair McGregor.

Versatility and time to first oil have made floating production, storage and offloading (FPSO) vessels a favoured operational component for offshore oil and gas operators.

The number in service or available for deployment has increased 96% over the past 10 years, and the

International Maritime Associates estimates a further 140 to 150 will be needed if all 132 currently visible projects proceed to development.

And with converted FPSO vessels a perfect match for marginal fields or small reserves where capacity required is low, Alastair McGregor,

CEO of Omni Offshore Terminals, leading provider of FPSO solutions and asset management, is unsurprisingly bullish.

"The future of the business looks very, very good."

Part of Eyal Ofer's Zodiac Group, Omni designs, builds, owns and

operates offshore units globally. And in the 26 years since it was founded, the Singapore-headquartered company has delivered 23 conversion projects with two FPSOs and 21 FSOs of varying complexity across mooring systems, operating environments, sub-sea installation, power generation and other specialised equipment.

Usually based on a converted oil tanker hull, a FPSO is equipped with hydrocarbon processing equipment for separation and treatment of crude oil, water and gases arriving on board from sub-sea oil wells via flexible pipelines.

It is a concept that allows companies to produce oil in more remote areas and in deeper water than is economically possible with other technology such as fixed piled structures.

Storage capacity for the treated crude oil produced is equipped with an offloading system to transfer the crude oil to traditional or shuttle tankers for shipment to refineries, rather than pipeline transportation to shore.

CONVERSIONS DOMINATE

“While we are more than happy to build new, the reason why conversions are dominant in the industry is time to first oil. If you go for a new build, you will not generally meet the oil company’s time schedule,” says McGregor.

“Occasionally you will see a new build, but these typically are done by the oil companies directly, answering a need where there is an exceptionally long schedule and the field development programme is worked around the delivery of the FPSO.

“We very much pride ourselves on completion on time - which is of exceptional importance to the oil companies – and, along with this, our up time operational performance,” says McGregor.

“And here we have a phenomenal record - a 99.99 per cent operational up time since 1988. It’s one of our core strengths and a very powerful marketing tool that we use when talking to prospective clients.”

Established with the aim of extending the useful life of tankers from the wider sailing fleet, Omni

launched two floating storage and offloading vessel (FSOs) projects in 1990 - one of which is still operational with an oil major.

“It’s quite unusual to find such an asset operational for such an extended period of time, and this underlines the strength, quality and nature of the service and conversions that we operate.

MARKET LEADERS

“In the mid-2000s we were recognised as the market leader in FSOs and looked to expand into other areas while working primarily on our core competence.

“So we investigated moving into the FPSO business using all the competences we had in the FSO sector but adding the production element on board. Our first contract began in 2006 and went into service in 2008 - in a harsh environment off the coast of New Zealand.

“Not only have we moved into FPSOs, we have also expanded the capability of what equipment we put on vessels, tailoring for the specific needs of our clients whilst maintaining





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a very close working relationship with them.”

FPSOs have many advantages over other production floaters, including field storage capability and deployment in locations economically inaccessible to pipeline infrastructure.

“The outlook for the industry as a whole is very, very positive - and particularly for Omni given our track record and success rate”

Water depth is not a constraint – FPSOs operate on shallow to ultra-deepwater fields and in environments ranging from the benign to the harsh. They are also less weight sensitive than other floating production

systems, while the extensive deck area of a large tanker provides flexibility in process plant layout.

“We are the largest providers of FSOs in the world, but that doesn’t necessarily make us the largest providers overall of FSOs and FPSOs because we don’t try to be everything to everybody.

“We are not an engineering house; we stick with our core competence and look at the mid-sized FPSOs - 60,000 to 70,000 barrels.

“An ultra-deep 250,000 barrels production is not an FPSO that we would typically look at since the risk/reward ratio is not commensurate to the Omni business model. Those who play in those very high-end projects have often had difficulties in recent years. And that’s not where we want to be.”

BOILER-SUITED CEO

Alastair McGregor terms his career

background “unusual. Originally I was an engineer, studying first at Imperial College in London. Later I went to the Management School at Cranfield, and as a result moved into the financial world and became a banker with Salomon Smith Barney.

“It was while I was there that I became, for five or six years, an adviser to the Omni Group before actually joining it in 2003 as Chairman and CEO of Tank Pacific and Tank Pacific Offshore Terminals. So I have always been in charge of Omni. From my perspective, one day you will find me in a boiler suit in a shipyard and the next day wearing a business suit in a boardroom talking to financiers.”

A defining Omni characteristic is the skill sets of its management team. “We don’t try to be everything to everybody; we know our strengths and we work on those strengths with our customers. We try to create tailored solutions rather than ‘this is

what we have done before; let's just copy it.' That's not our approach."

Headquartered in Singapore – location of the bulk of tanker conversions – and with offices in Bangkok and Kuala Lumpur, Omni's operational reach extends from Brazil to the South Pacific, with a concentration in South East Asia.

"We have been in Australia, the Middle East, Angola, and Cameroon for example, so there's a real diversification. In some cases we operate the platforms on behalf of a client as well."

LOCALISATION AND OMNI TRAINING

Localisation is a strategy shaped by corporate preference and in some cases national legislation. "We will open a local office, move people there from our central office and recruit local people. In some geographies, we have a nationalisation programme where we have to take a certain percentage of local nationals - typically 80 per cent - good examples being Thailand and Malaysia.

"In these scenarios we recruit ahead of the vessel going operational, bringing people into our existing fleet of assets and then moving them around the world so they understand our operational philosophy.

"We have this 99.99 per cent record, and it's of the utmost importance. If one part of the oil chain goes down, the whole oil field stops. And to achieve that high number we have to train the personnel on board.

"We then slowly integrate them into the business so we are satisfied there's no deviation from our standards, and typically it takes two or three years to get to that 80 per cent local national level."

End of project redundancies are minimised. "If someone is trained in our systems, policies and procedures then obviously we don't want to

lose that knowledge. So we offer employment in other locations, trying always where possible to use our own people - who are fundamental to the success of the business.

"It's all very well me being head of the company, but it's the individual in the oil field and working asset that can have as big an impact on the reputation of the company as me.

"We also have a very integrated approach between our project and our operations teams. There's no sudden hand over. Part of the operations team is involved with the projects team from day one, and this creates a seamless transition as the vessel becomes operational."

While the deep water trend is

becoming the predominant factor in West Africa and Brazil, McGregor points to its drawbacks and the continuing viability of shallower water locations such as in South East Asia and parts of Africa.

"We are happy to look at deep water, but to make the economics work in a deep water field the sheer volume of oil needs to be a lot bigger. As such, the production facilities generally need to be larger and thus you need economies of scale to repay all the capital costs.

"If you look at a Brazilian FPSO project, you are looking at a \$1 billion asset. You can equally find smaller FPSO projects that are equally of interest that are \$400m assets. So it's not a matter of picking one over the other."

CHINA: NO THREAT

Oil companies are turning increasingly to China for services and equipment, attracted by lower costs and newly acquired expertise. And the first four months of 2014 saw South Korean shipbuilders overtaken by Chinese yards for new orders. But McGregor sees the China factor as an opportunity and not a threat.

“In the early period China was the provider of the steel work, blasting, coating and pipe work, but not necessarily the fabrication of the on-board processing modules which would be shipped in. However, over the recent period, China has started to take more of that work and adding fabrication.

“But we have good experiences in China – where we have done three conversions - and equally very good experiences in Singapore.

“At Omni we never compromise on the quality of service we provide. So it's not about being biggest and best for everybody. It's about focusing on our core competence, and delivering sustainable, economically viable projects that work for our clients and continue to grow the Omni business model”

Availability is an issue since a yard can only take on so much work because conversion is very, very labour intensive, with perhaps several hundred people working on board at any one time.

“But China is not a threat, and we will continue to look there as well as Singapore. For us, competition among the yards is good because it maintains prices at a competitive level. And if the price is too high, it could mean a field development doesn't happen.”

Offshore oil production and environmental concern are inseparables, and in July the announcement that the US Government was taking the first step toward oil and natural gas exploration off the Atlantic coast was condemned by environmentalists. For Omni, environmentalism is an underlying

Gall Thomson is the market leader in the design, manufacture and application of Marine Breakaway Couplings (MBCs). It is the only range of MBCs on the market that is backed-up by a proven field record spanning the last 35 years and more than 250 recorded successful activations.

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Mr Jack Gall Thomson was the original inventor of the Marine Breakaway Coupling in 1978 and Gall Thomson has been supplying MBCs since 1980. Since then, Gall Thomson has supplied more than 1700 units throughout the world, including all major (and the vast majority of minor) companies operating offshore terminals.

Gall Thomson MBCs are employed in all types of offshore hose transfer systems such as SPM CALM buoys, SALM terminals, FSOs, FPSOs, CBM/MBMs and Articulated Loading Platforms; where they regularly prevent catastrophic oil spills, costly hose damage and terminal downtime.

Gall Thomson has been working with Omni Offshore for many years and its MBCs are in use on the vast majority of Omni's vessels. The company is very proud to be associated with Omni's latest projects such as Manora and Nong Yao and is very much looking forward to a continued, mutually satisfying relationship between both companies for many years to come.

The company is currently following up on many projects throughout the world which will include Gall Thomson Marine Breakaway Couplings. Following the recent acquisition of Gall Thomson by Signum Technology, it has now moved to a new state-of-the-art design and production facility in Great Yarmouth, UK. This huge investment, including new CNC machines, will help consolidate Gall Thomson's technical and commercial market leading position.



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ABS Classed SPM Calm Buoy – Designed, Built, Installed & Hooked Up by ESPL for OMNI Offshore Pte Ltd in Gulf of Thailand, July 2014



Calm Buoy for Murphy Oil, Malaysia, 2008

Equatoriale Services Pte Ltd, [ESPL], Singapore, part of Swiber Group is proud to have worked with Omni Offshore Terminals Pte Ltd in the Manora Project. The work scope involved design, ABS Certification, construction, Installation of the SPM Calm Buoy, Subsea Tie-in, Risers Installation & Hook Up of FSO in Gulf of Thailand, about 45m MSL. Complete in-house detail design, fabrication at partner yard, use of own fleet and diving / subsea spread and most importantly, involvement of personnel with thorough experience in all aspects of SPM systems has led to the completion of a well-managed project, classed under ABS.



Calm Buoy(s) for Petronas, Malaysia, 2012

“We are excited to have been awarded another similar EPCI of SPM Calm Buoy in Nong Yao field, Gulf of Thailand, about 75m MSL, engineering & fabrication for which are underway.

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We are able to deliver cost effective solutions, customised to meet project requirements on time, worldwide,” says Jean Pers, CEO of ESPL.

principle, says McGregor.

“I think there’s an overriding drive within the industry to improve health, safety, and the environment, and Omni is an important part of this.

ENVIRONMENTAL SENSITIVITIES

“For example, we have operated in one of the most sensitive areas in the world - off the coast of New Zealand - and where there are only two producing oil fields. On board the FPSO and platforms you could watch seals and whales.

“If we weren’t environmentally sensitive, there’s no way we would have been allowed to work in New Zealand. We worked very closely with the local authorities, our clients and the

local communities to ensure that everyone was comfortable with what we were going to do out in the oil field.

“They after all will be the people who will see the impact if anything goes horribly wrong. You have to ensure they too have confidence in what is happening.

“On every project you attempt to learn and improve standards across your entire business model. The whole health, safety and environmental regime is continuously under review and under improvement, and in our company we are constantly monitoring and striving for continuous and demonstrable improvement.”

Meantime, the future of the Omni Group is “looking very, very good,” says McGregor. “With

a lot of activity in the drilling sector over the last few years we are seeing a very strong pipeline of prospective projects coming through to us. It almost replicates what we saw between 2006 and 2009.

“We have already delivered one project this year, have another in the yard and are having discussions on a further two, either of which would mean conversion works would commence in 2014.

“Typically we try to do two projects a year - we have done as many as three - but we are very selective; we want to look for those where the risk/reward ratio is right. We don’t want to be everything to everybody.

“Knowing our core competence, we identify



specific projects which fit our capabilities, in many cases with clients with whom we have a very long standing relationship.

“The outlook for the industry as a whole is very, very positive - and particularly for Omni given our track record and success rate. In fact, I wouldn't be surprised in a year's time if we are approaching the point where we would have to say we couldn't take on any more work.

“At Omni we never compromise on the quality of service we provide. So it's not about being biggest and best for everybody. It's about focusing on our core competence, and delivering sustainable, economically viable projects that work for our clients and continue to grow the Omni business model.” ❖



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