

OFFSHORE MARINE

Builder of distinction

July – August 2011

MICA (P) 153/04/2008



BRAZILIAN PRIDE

FloaTEC treads deepwater

Powerful offshore support

CONTENTS

Keppel-rigs are the preferred choice	3
Promising start	8
High five	10
Safe send-off	12
Clockwork construction	14
3rd accommodation semi	44

INDUSTRY REPORT

FloaTEC treads deepwater	18
--------------------------	----

TECHNOLOGY & INNOVATION

Powerful offshore support	20
---------------------------	----

CENTRESPREAD

Brazilian pride	22
-----------------	----

PEOPLE PROFILE

Labour of love	36
----------------	----



Centrespread

22

The consortium of Keppel O&M and Technip Engenharia S/A has delivered the FPU P-56 to Petrobras Netherlands BV safely, on time and within budget.

The first FPU to be completely built in Brazil, the project teams for P-56 achieved nine million man-hours without lost-time incidents on its construction.

EDITORIAL BOARD

EDITORIAL ADVISOR

Tong Chong Heong

EDITOR

Lai Ching Chuan

ASSISTANT EDITOR

Eva Ho

SUB EDITOR

Lee Wan Jun

COMMITTEE MEMBERS

Michael Chia, Nelson Yeo, Wong Kok Seng, Hoe Eng Hock, Dr Foo Kok Seng, Vett Ramos, Ching You Yi, Hoo Yao Lin, Chin Sze Kiun, Alan I. Claveria, Betty Mok, Lucienne de Jong, Linda Mercado, Wong Chai Yueh, Roy Tan, Maria Magdalena

OffshoreMarine is a bi-monthly publication of Keppel Offshore & Marine Ltd
50 Gul Road, Singapore 629351
Tel: +65 6863 7200
Fax: +65 6261 7719 / 6265 1927

Company registration no. 199900642R

Keppel-rigs are the preferred choice

Nine rig orders in two months at Keppel FELS for rigs based on its proprietary design.



The KFELS B Class is among Keppel's suite of proven proprietary designs customised to our customers' requirements

Keppel FELS has secured another nine rig orders in the month of May and June. It has secured a total of 25 new rig orders since October 2010, of which 23 are proprietary designs.

Of the nine new orders, seven are being built to the KFELS B Class jackup design, one to the KFELS semisubmersible drilling tender (SSDT) 3600E design and another to the semisubmersible accommodation unit (SSAU) 4000NG design (refer to page 44).

SETTING NEW STANDARDS WITH THE KFELS B CLASS

The KFELS B Class design is the industry standard for efficient and high grade performance. To date, 33 such units have been delivered for operations in various parts of the world.

Developed by Keppel's technology arm, Offshore Technology Development, the KFELS B Class jackup is designed to provide maximum uptime with reduced emissions and discharges. For its environmentally-friendly features, the KFELS B Class design was bestowed the Prestigious Engineering Achievement Award from Institution of Engineers Singapore in 2009. The seven new orders received this month is testament to its capabilities.

Continues on page 4...

Continued from page 3...

Wong Kok Seng, MD of Keppel FELS, said, "With a strong operating track record in various parts of the world, the KFELS B

Class has become the industry's benchmark solution and features strongly in the fleets of today's leading offshore drillers."

FOUR REPEAT JACKUP RIGS FOR STANDARD DRILLING

Keppel FELS' returning customer, Oslo-listed Standard Drilling ordered four repeat KFELS B Class rigs on 15 May 2011. Successive deliveries of these units are scheduled between 2H2013 and 1H2014.

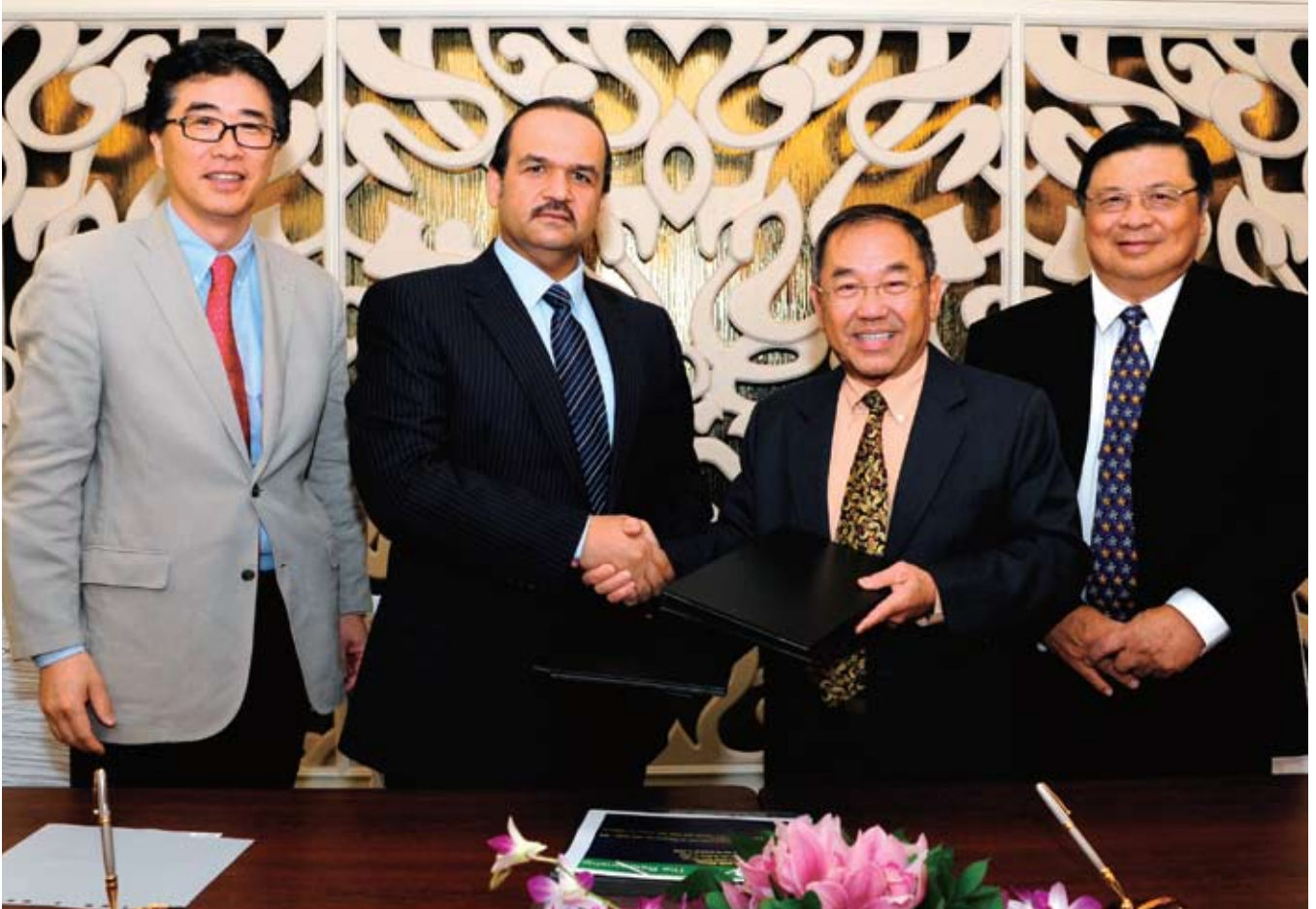
Standard Drilling had ordered its first jackup rig from Keppel FELS in November 2010 with two options. In addition, it acquired two jackups under construction as well as two option rigs from Clearwater Capital Partners LLC (Clearwater), another Keppel FELS customer, in a transaction where Clearwater became the largest shareholder of Standard Drilling. Standard Drilling now has a combined fleet of seven KFELS B Class rigs, all being built exclusively at Keppel FELS.

Rob Petty, Managing Partner of Clearwater and Director of Standard Drilling, said, "We have great confidence in Keppel FELS and their ability to deliver these next-generation rigs on time and on budget. With our fellow Directors and shareholders, we are focused on establishing Standard Drilling as a best-in-class operator and building a top-tier management team to complement the premium assets we are creating at Keppel FELS."

Espen Lundaas, CFO of Standard Drilling, added, "As long as there are rigs available in the market, the high-end units will be preferred



The KFELS B Class Bigfoot is equipped with larger spud cans for reduced bearings pressure and expands its operational coverage in more places, especially places where soft soil is predominant



GDI signs contract with Keppel FELS for two jackup rigs. From left: Yoichi Onoe, COO of GDI; Ibrahim J. Al-Othman, CEO of GDI; CH Tong, CEO of Keppel O&M; and Wong Kok Seng, MD of Keppel FELS

over the older and second rated ones. Our view that Keppel FELS is the best shipyard partner for Standard Drilling is reinforced by the fact that they have delivered majority of the KFELS B Class units ordered within budget, and either on time or early."

When completed, Standard Drilling's rigs will be able to operate in water depths of 400 feet, drilling depth of 30,000 feet and accommodate 120 men.

TWIN JACKUP RIG ORDER FROM GULF DRILLING

On 11 May 2011, Keppel FELS signed a contract with returning customer Gulf Drilling International Ltd. (q.s.c.) (GDI) of Qatar, to build two high-specification KFELS B Class Bigfoot jackup rigs.

Scheduled for delivery in the third quarters of 2013 and 2014, the two latest rigs mark GDI's first new orders in six years, and will increase the company's jackup fleet count to seven units.

CH Tong, CEO of Keppel O&M said, "We are pleased to work with GDI again, having successfully delivered two KFELS B Class jackup rigs to them previously. On top of its newbuilding contracts with Keppel FELS, GDI is also upgrading and repairing its rigs at Nakilat-Keppel Offshore & Marine, our joint venture shipyard with Qatar Gas Transport Company."

Continues on page 6...

Continued from page 5...

Customised to GDI's requirements, the new jackup rigs will be designed to operate in the higher ambient temperature of the Middle East. The KFELS B Class Bigfoot is equipped with larger spud cans for reduced bearing pressure and expands its operational coverage in more places, especially areas where soft soil is predominant.

Saad Sherida Al-Kaabi, Chairman of GDI said: "The two new hi-tech premium jackup rigs under order from Keppel FELS will be welcome additions to GDI's fleet. We look forward to receiving a high quality product from Keppel FELS and to continuing our association with them."

Ibrahim J. Al-Othman, Chief Executive Officer of GDI added, "GDI has become the leader of Qatar's drilling market in a matter of just six years. The decision to select Keppel FELS was carefully considered after taking into account factors such as rig design, rig equipment, experience in building jackup rigs, reliability, timing, cost and post construction support. We believe they produce a technically superior rig and we are very pleased to be adding two more of their rigs to our fleet."

DYNAMIC OFFSHORE GROUP ORDERS FIRST RIG TO B CLASS DESIGN

For its first drilling rig, Vision Drilling, a wholly-owned subsidiary of Dynamic Offshore Drilling

placed an order with Keppel FELS to build a KFELS B Class jackup rig.

Slated for delivery in 1Q2013, the rig will be able to operate in water depths of 350 feet with a drilling depth of 30,000 feet and accommodate 120 men. Dynamic Offshore Drilling has the option to build an additional rig to be exercised before 3Q2011.

Naresh Kumar, Chairman of Dynamic Offshore Drilling, said, "While this is Dynamic Offshore's first collaboration with Keppel FELS, we are no strangers to its excellent project execution and dedication to safe, on-time and within-budget deliveries. My team and I have previously worked very closely with the Keppel FELS team on two KFELS B Class jackup rigs which have been deployed under long term contracts with strong day rates with a Fortune 500 National Oil Company.

"With over 60% of the current Jack up fleet over 25 years old, it is an impetus for us as experienced drilling contractors to invest in premium high quality jackups with the world's leading shipyard. We are looking forward to build a number of rigs with the strong partnership of Keppel FELS in the years to come".

Dynamic Offshore Drilling's rig is equipped with enhanced features to expand the operational coverage of the rig. Provisions have been made for the rig to work in

high pressure high temperature (HPHT) environments and have Offline Stand Building capabilities.

WINNING FLOATER DESIGNS

The Keppel O&M's R&D unit Deepwater Technology Group has developed a suite of proprietary designs for its semisubmersible rigs to meet the needs of its customers.

The purpose-built KFELS SSDT™ series has revolutionised the way in which drilling tenders operate, allowing them to be deployed next to deepwater floating platforms for the first time.

Designed to operate in deep waters of up to 5,000 ft, the KFELS SSDT™ 3600E design was conferred the ASEAN outstanding engineering achievement award in December 2009 for its eco-friendly features and sustainable operations.

The SSAU4000NG is a new generation accommodation semisubmersible design capable of operating alongside fixed platforms, floating platforms and Floating Production Storage and Offloading vessels, with a full complement of deck cranes and fire-fighting capabilities.

It is an enhancement of the proven SSAU™ 3600 design with improved capability and operability. Featuring the latest technology such as Dynamic Positioning 3 and enhanced station-keeping, the SSAU4000NG is meets the stringent

UK Health, Safety & Environment requirements to work in the UK sector of the North Sea as well as the Gulf of Mexico, Brazil and Western Australia (refer to page 44).

EIGHTH SSDT ORDER BY SEADRILL

Keppel FELS was contracted by Seadrill on 9 June 2011 to build a repeat SSDT based on the KFELS SSDT™ 3600E design.

Scheduled for delivery in 2Q 2013, this is the eighth drilling tender that Keppel will be building for Seadrill since the launch of the design in 1994.

Wong Kok Seng, MD of Keppel FELS said, "Keppel and Seadrill have established a trendsetting partnership, which spans seven KFELS SSDTs and six KFELS B Class jackup rigs. This partnership has provided the launch pad for our industry-acclaimed KFELS SSDT™ series, which has become the market-leading solution for tender-assist operations under Seadrill's expert management."

When completed, the latest tender rig for Seadrill will feature a crane capacity of 250 tonnes, four mud pumps and

accommodation for 160 people. The drilling equipment set will be supplied by Seadrill.

The first of Seadrill's KFELS SSDT™ fleet, West Pelaut, was designed and built by Keppel FELS in 1994, and was conferred the highly-coveted Shell Platform Rig of the Year award in 2004, 2006 and 2008.



Based on the KFELS SSDT™ 3600E design, the new contract is a repeat of the semisubmersible drilling tender, West Jaya, delivered by Keppel FELS in March this year

Promising start

Keppel Singmarine Brasil has secured a steady stream of work from Brazilian operators ahead of its official opening in early 2012.



Project teams of Guanabara Navegacao Ltda and KSMB celebrated its first strike-steel milestone for a 4500 dwt Platform Supply Vessel on 15 April 2011

Keppel's newly-acquired yard, Keppel Singmarine Brasil (KSM Brasil), has secured two contracts from fleet operators in April 2011.

The first contract entails building six 45-tonne bollard pull twin-screw Azimuth Stern Drive (ASD) harbour tugboats for Rebras Rebocadores do Brasil S.A. (SMIT Rebras). SMIT Rebras also has an option to purchase another six harbour tugboats.

KSM Brasil's scope for the first six tugboats includes detailed design and engineering work and the purchase of all equipment. The first tugboat will be delivered in 4Q2012, followed by the remaining five at three-month intervals. These Robert Allan-designed tugboats will be deployed by

SMIT Rebras to work at key ports across Brazil.

Hoe Eng Hock, ED of KSM Brasil shared, "Petrobras will need over 100 Brazilian-built offshore support vessels by 2020 to facilitate the exploration and development of the Santos Basin's deepwater pre-salt fields. We see a growing market for purpose-built support vessels that can operate safely and efficiently offshore Brazil.

"Keppel Singmarine has been building harbour tugs for the global fleet of Smit in Singapore and China Nantong for the past 20 years. With the award of six harbour tugs contract, the relationship and partnership between Smit and Keppel has

deepened and expanded to the new frontier in Brazil."

To better tap the growing demand for specialised vessels in Brazil, KSM Brasil is adopting a new business model to build Offshore Support Vessels which will be offered for bare-boat charter or sale upon completion. Under this initiative, KSM Brasil will construct a large-sized 4500dwt Platform Supply Vessel (PSV) based on its proprietary MTD 9045-DE design for Keppel O&M's Brazilian ship-owning arm, Guanabara Navegacao Ltda (GNL).

The PSV, slated for completion in 3Q2013, is custom-designed by Keppel's Marine Technology Development unit to support offshore exploration and production activities in Brazil. The unique

arrangement of the PSV's internal tanks and systems enable it to carry oil-based and water-based mud and diesel.

Strategically located in Navegantes,

Santa Catarina in Brazil, KSM Brasil specialises in constructing Offshore Support Vessels such as Anchor Handling Tug Supply (AHTS) vessels, PSVs, Oil Recovery Support Vessels and harbour tugboats. To

be officially opened in 2Q2012, this new facility is also able to fabricate offshore steel structures and support major projects undertaken by Keppel's BrasFELS yard in Angra dos Reis.

Expanding capabilities

KSM Brasil has sent eight of its Brazilian employees to sister company Keppel Singmarine in Singapore for three-to-six-month training attachments since April. The aim of this attachment programme is to expose these employees to the engineering production and quality and safety management systems of Keppel Singmarine.

One of the trainees, Thiago Kestring, a piping mechanical supervisor, shared, "The training has provided me with a very good overview on the piping systems in different types of vessels, especially Offshore Support Vessels. I have also learnt various project management tools and to approach challenges with a project's safety, schedule and budget in mind. With a better understanding of these key components, I will be able to work more effectively on all stages of a shipbuilding project.

"Being one of the pioneers to work at KSM Brasil, I am motivated to apply my newly-acquired knowledge to the development of the company."

Another trainee, Willian Duracenski, remarked, "I feel privileged to have been selected for training in Singapore. This

experience has had a positive impact on me professionally and personally. With the friendship and support of my colleagues in Singapore, my Brazilian colleagues and I have been able to overcome some initial challenges to our attachments such as language barriers and cultural differences."



Eight KSM Brasil employees have been posted to Keppel Singmarine in Singapore for six-month attachments to advance their knowledge of offshore and marine operations

High five

Keppel FELS hands over the fifth of seven ENSCO 8500 Series® semisubmersible drilling rigs being built exclusively for Ensco.



Delivered on time and on budget, ENSCO 8504 is the fifth of seven ENSCO 8500 Series® ultra-deepwater semisubmersible drilling rigs Keppel is building exclusively for Ensco

“Keppel FELS has been a key partner for Ensco as we grew to become the world’s second largest offshore drilling contractor. Over the years, we have entrusted Keppel with 11 jackup rigs and 7 semisubmersibles. They have been our partner of choice in providing high quality products in a safe and efficient manner, on time and within budget.”

*Daniel W. Rabun,
Chairman, President & CEO,
Ensco*

Living up to its commitment to safe, on-time and on-budget deliveries, Keppel FELS has handed over the ENSCO 8504 ultra-deepwater rig to Ensco plc on 11 August 2011.

The rig was named at Keppel FELS on 18 June 2011 by Lady Sponsor, Mrs Maika Grosjean, in the presence of Guest-of-Honour, Mr Teo Ser Luck, Singapore’s Minister of State for Trade and Industry.

Mr Teo said, “In addition to the ability to offer customised solutions, our shipyards have long established a strong reputation for

quality and timeliness. Keppel FELS’ achievement today has done Singapore proud and bears testament to their capabilities and reputation as a leader in their field.”

ENSCO 8504 is the fifth of seven ENSCO 8500 Series® semisubmersible drilling rigs being built exclusively by Keppel FELS for Ensco. It has been contracted to TOTAL E&P Deep Offshore Borneo B.V, which is the operator of Block CA1 designated to Brunei Petroleum Company (PetroleumBRUNEI).

Daniel W. Rabun, Enasco's Chairman, President & CEO, said, "Our ENSCO 8500 Series® rigs built by Keppel FELS have been very well received by the market. These ultra-deepwater rigs increase our offerings to customers including our newest, TOTAL, in Brunei.

"Keppel FELS has been a key partner for Enasco as we grew to become the world's second largest offshore drilling contractor. Over the years, we have entrusted Keppel with 11 jackup rigs and seven semisubmersibles. They have been our partner of choice in providing high quality products in a safe and efficient manner, on time and within budget."

Designed to address some of the most demanding offshore drilling requirements at water depths up to 8,500 feet, ENSCO 8504 features a 2 million pound quad derrick, offline pipe-handling capability, 35,000 feet drilling capacity and DP (Dynamic Positioning) 2 station-keeping capabilities.

CH Tong, CEO of Keppel O&M, said, "We are pleased to support Enasco with their newbuilding programme as they grow their fleet of highly-capable rigs. Having built 14 rigs for Enasco including this latest semisubmersible, we have developed an understanding and trust that has enabled us to deliver successive projects more efficiently and in a safer manner.

"We work closely with our customers to provide innovative and cost-effective solutions for the market. Besides the remaining two ENSCO 8500 rigs, we also are constructing two ultra-premium harsh environment jackup rigs for Enasco modeled after our proprietary KFELS Super A Class design. We are committed to delivering these high-specification offshore rigs to the highest satisfaction of our faithful customer, Enasco."

Sharing their successes with the community, at the naming ceremony, Keppel FELS and Enasco

jointly donated \$15,000 to the Children's Cancer Foundation.

Keppel's collaboration with Enasco also extends to its overseas yards. Keppel AmFELS in Brownsville, Texas, USA, has built and refurbished jackup rigs for Enasco as well as undertaken numerous repair and upgrades for Pride International, which was recently acquired by the Enasco.

Enasco is also a regular customer of Keppel Verolme in the Netherlands while in Brazil, BrasFELS has carried out repairs and upgrades of rigs for Pride International.



In the heart of the vessel – the control room – are (L-R) CB Choo, CEO of Keppel Corporation and Chairman of Keppel O&M, CH Tong, CEO of Keppel O&M, Lady Sponsor Mrs Maika Grosjean, Daniel Rabun, Chairman, President & CEO of Enasco Plc, Minister of State for Trade and Industry Mr Teo Ser Luck

A safe send-off for Armada TGT 1

Keppel Shipyard is on track to deliver its third floating production storage and offloading (FPSO) unit for Bumi Armada.



Expert project management and a safety-first mindset have enabled an achievement of more than 3.8 million safe man-hours on this latest FPSO converted for Bumi Armada

Showers greeted the Farewell Ceremony for Armada TGT 1, signifying continued good fortune for all stakeholders of this floating production storage and offloading (FPSO) project.

Keppel Shipyard has been making steady progress on this third FPSO conversion project for Bumi Armada Berhad (Bumi Armada) since it arrived at the yard in the second quarter of last year. Expert project management and a safety-first mindset have helped the yard achieve more than 3.8 million safe man-hours on the project.

Nelson Yeo, MD of Keppel Shipyard, said, "We would like to thank our valued customer Bumi Armada for entrusting Keppel

Shipyard with the conversion of all their FPSOs.

"The success of any complex conversion project depends on the trust and teamwork between a shipyard and its customers. Keppel Shipyard was privileged to have the full support of Bumi Armada in the safe and timely execution of Armada TGT 1, for which we had provided a full range of conversion services, including the fabrication of the topsides and turret."

Hassan Basma, ED and CEO of Bumi Armada, said, "Today's achievement would not have been possible were it not for our value chain and how we engage them, a process that we have repeatedly applied all over the world.

"This process starts first and foremost with our clients, and local partners and involves our key suppliers and strategic partners across the globe all working together harmoniously with the single-mindedness of delivering a quality product on time."

When completed, Armada TGT 1 will be jointly operated by Bumi Armada and Vietsovpetro. The vessel has been chartered by Hoang Long Joint Operating Company for deployment in the Te Giac Trang (TGT or White Rhinoceros) oil field, in Vietnam's Cuu Long Basin.

Expected to strike first oil in the third quarter 2011, the FPSO will be able to produce 55,000 barrels

of oil per day and store 620,000 barrels of oil at full capacity.

Armada TGT 1 will join a long line of landmark projects that Keppel has delivered to Vietnam. Keppel's earliest project for the country is the 1,200 floating crane Hoang Sa, which was followed by the construction of the country's first jack up rig, Tam Dao 1. In recent years, Keppel FELS has completed three KFELS B Class jack up rigs for the Vietnam National Oil and Gas Group's PV Drilling Company. Also included in Keppel's track record are several converted FPSOs and a floating storage offloading vessel for offshore Vietnam.



The daily commitment and close understanding of Keppel and its partners have enabled the successful conversion of Armada TGT 1



Keppel Shipyard was awarded a bonus of S\$15,000 for its good safety performance on the project by Bumi Armada, Hoang Long Joint Operating Company and Vietsovpetro

Clockwork construction

Even as it secures more orders, Keppel O&M has been busy executing its projects in an efficient and safe manner. From Singapore to Brazil, it has completed significant milestones and received accolades on its projects.

SINGAPORE SWING

In May and June, Keppel FELS commemorated several strike steel and keel laying milestones.

On 3 May 2011, the new KFELS Super A Class jackup rig struck its first steel at a ceremony which heralded the birth of a new class of rigs. Being built for Discovery Offshore, it is one of the most capable jackups in the world.

It was witnessed by key executives from Keppel FELS and Discovery Offshore. The new KFELS Super A Class brings together winning features of the company's proven

jackup rig designs to provide operators with a viable and cost-effective solution for harsh environments and cold climate areas.

Jasper, which recently exercised its option for another jackup rig in April 2011, also marked the start of its first rig ordered late last year with a strike steel ceremony on 10 May 2011. The rig is slated for delivery in second half of 2012.

With seven KFELS B class jackup rigs on order at Keppel FELS, Standard Drilling saw three of its rigs marking their smooth progress with the celebration of their milestones. Two rigs struck steel on 29 April 2011 while one had a keel laying ceremony on 11 May 2011.

Progress on SEAFOX 5, a next generation wind turbine installation vessel based on Keppel FELS' Multi-Purpose Self-Elevating

Platform design, is also on track following its keel laying ceremony on 12 May 2011.

More than one million safe man-hours was achieved on SEAFOX 5. For the good safety performance, Seafox has awarded Keppel FELS with a bonus of US\$10,000.

Speaking at the safety award ceremony, Aziz Merchant, ED of Keppel FELS, shared, "Being a prototype rig, the development of the KFELS MPSEP was met with many challenges during the planning, engineering and construction stages. In overcoming these challenges, the project teams of Keppel FELS and Seafox have exercised constant vigilance and strong teamwork, and so secured this excellent safety record."

Over at Keppel Shipyard, the modification of FPSO OSX-1,



Keel laying ceremony on one of Standard Drilling's seven jackup rigs being built at Keppel FELS



Seafox has awarded Keppel FELS with a safety bonus of US\$10,000 for achieving a good safety record of one million safe man-hours on the construction of the world's first KFELS MPSEP: (L-R) Adeline Seah, Project Manager of Keppel FELS, and Rainer Verhulst, Project Director of Workfox, a company owned by the Seafox Group

a floating production storage and offloading (FPSO), surpassed more than one million safe man-hours. Keppel together with OSX Brasil S/A (OSX) and BW Offshore celebrated the project's sound and safe progress on 6 June 2011.

Bound for offshore Brazil, FPSO OSX-1 is owned by OSX, which has engaged BW Offshore for management, engineering and technical guidance services for this modification project.

BRAZILIAN BEAT

BrasFELS shipyard recently completed the repair and upgrade of a semisubmersible drilling rig as well as the conversion of a floating dock which enabled the mating of a stern block module onto a drillship.

NOBLE ENDEAVOUR

Noble Leo Segerius is in BrasFELS for the fabrication and replacement of components including a stern section, sponson tanks, helideck and fully-furnished living quarters.

Demolish the old structures, cut the vessel in half and install the new modules. These are part of the refurbishment and upgrade plan for the drillship Noble Leo Segerius.

The plan sounds simple enough but removing 3,700 tonnes of steel and installing a mammoth 4,400 tonne stern block safely onto the drillship in a single operation out at sea, all within a tight 24-day schedule was indeed a significant challenge.

This feat was accomplished on

21 June 2011 at BrasFELS with zero lost-time incidents; the vessel remains on track for delivery in the fourth quarter of 2011.

On the achievement, Gary Davis, Noble's Project Manager commended Keppel's project team, "From the signing of the contract to the installation of the new stern module onto the Noble Leo Segerius, the Keppel team has been a beacon for the navigation of our project. On behalf of Noble Drilling, I would like to extend our appreciation for a task well achieved.

"In a period of 24 days, your combined efforts allowed the complete removal of the entire stern, port and starboard sponsons, preparation for vessel

Continues on page 16...

Continued from page 15...



The jumboisation of Noble Leo Segerius was carried out at sea with the front of the ship first secured to the floating dock, FS-1, and submerged to receive the stern block afloat

joining, re-configuration of FS-1 (the floating dock) and a successful well-orchestrated marine manoeuvre. This is no small feat and each of you should be very proud of your combined accomplishment.”

Before the integration, the drillship was first loaded onto the floating dock, FS-1. This was done out at sea where FS-1 was submerged to a 16-metre draft and inclined for Noble Leo Segerius to be floated in through precise ballast remote control systems before being towed back to BrasFELS for fast-track demolition work to remove the stern and sponson.

From barge to floating dock

Another factor in the timely and successful mating of the stern module to the drillship was the role of FS-1, which was converted from a barge just in time to meet the docking schedule of the drillship.

FS-1 was converted from a barge into a floating dock to expand the capabilities of BrasFELS beyond its existing drydock. The first floating dock conversion project by BrasFELS, it took 15 months from the design stage to its maiden docking operation.

In the conversion, the barge was reinforced internally with

bulkheads and widened from 47m to 57m. Four wing wall boxes were added, one at each corner. The simple yet innovative design allows FS-1 to enjoy the versatility to dock vessels in both transverse and longitudinal directions and increases FS-1’s capability to dock both rigs and ships of up to 22,000 tonnes displacement. FS-1 in longitudinal direction, can receive ships up to 8m draft, 35m wide by 160 m long, and in transverse direction, it can receive rigs up to 8m draft, 85m wide by 110m long.

Project Manager of the FS-1 conversion, Loh Lee Wen said, “One of our team’s main

challenges was completing over 3,500 tonnes of steel structure and 370 tonnes of piping work within 8 months.

“We had to meet the deadline in order to dock the Noble Leo Segerius in time. If we were late, it would affect their schedule as well. With good teamwork and the support from experienced engineers from Brazil and Singapore as well as from our office in Houston, we were able to rise to the challenges and complete the conversion to dock NLS.”

The jumboisation of the vessel was then carried out at sea. Through precise ballast remote control systems, the stern block was securely positioned in place before de-ballasting to the surface.

Thia Lock Boon, Keppel's Project Manager at BrasFELS, said, "Before the installation of the stern module and sponsons, we had a massive amount of demolition works to clear which was a challenge as it was something new to the yard. However, we pulled together as a team and worked according to plan. Through this, we have built up not only the capabilities of the yard but the confidence of the workers."

In expediting the fast-track project, the stern module was pre-fabricated in Singapore while the sponson tanks were concurrently fabricated in BrasFELS. During the fabrication of the blocks in Singapore, Keppel's project teams achieved safety milestones of 1.5 and 1 million safe

man-hours on the drillships Noble Leo Segerius and Noble Roger Eason respectively, garnering a safety bonus of US\$15,000 for the two projects.

FALCON SOARS AGAIN

47-year-old Falcon 100 checked out of BrasFELS on 13 June 2011 with a clean bill of health, revitalised and ready to resume work in offshore Brazil.

Completed on time, the semisubmersible drilling rig underwent 104 days of repair work at the shipyard which included structural, outfitting, electrical, piping, architectural, mechanical and painting works.

For its excellent performance and achieving over 210,000 man-hours worked without lost-time incident on the project, BrasFELS was given a safety award and bonus of R\$15,000.

In an appreciation letter to the Keppel team, Antonio Lameira,

Project Manager, and Daniel Diskin, Project Head of Department of Transocean do Brasil, wrote, "On behalf of the Transocean Upgrade & Repairs Group, South America Division, we would like to personally congratulate yourself and your team for the excellent performance demonstrated throughout the execution of the Falcon 100 Project.

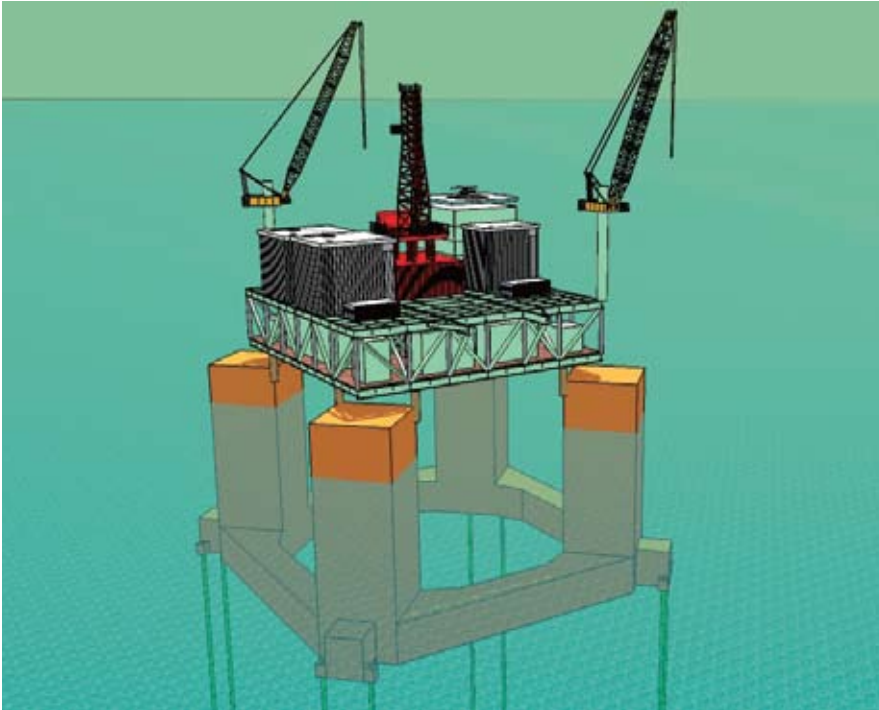
"The shipyard professionalism in assisting us during this difficult project was remarkable, given the challenging short duration planning period and tight tasks execution deadlines. We take this as a very strong proof that BrasFELS is prepared to assist us in our future regional projects.

"We look forward to re-establish our long term relationship, initiated back in 2000 with the major conversion of one of our most successful rigs, the Sedco 135-D, which marked the recommencement of the BrasFELS shipyard activities in the country."



Another successful repair at BrasFELS as Falcon 100 achieves a safety bonus

FloaTEC treads deepwater



Floatec is currently working on the P-61 Tension Leg Wellhead Platform for Brazil's Papa-Terra field, demonstrating its ability to deliver the best possible solutions for its customers

With the lifting of the ban on offshore drilling in the US Gulf of Mexico (GoM), several deepwater field developments are expected to get the green light before the end of the year.

This was recently shared by Eric Namtvedt, President of FloaTEC, LLP, in an interview with trade journal, Upstream.

Specialising in designing deepwater floating production systems (FPS), FloaTEC, a joint venture company between J. Ray McDermott and Keppel FELS, believes it is in a good position to participate in these projects.

Namtvedt said, "Things are opening up again. I can see three

or four potentially, at least front-end engineering and design (FEED) projects. We were very fortunate as we had big EPC (Engineering, Procurement, Construction) and FEED contracts awarded right before (Macondo). That allowed us to double our engineering staff and work on projects."

FloaTEC has seen its utilisation of engineering resources at 98% over the last five months.

The company is tracking about 20 potential opportunities for deepwater floating production platforms and is currently involved in four different early concept studies for potential field development projects in deepwater GoM.

Namtvedt added, "Following Macondo, all the majors are becoming very focused on what they call high-impact, low-probability risks, including another oil well blowout. If there is a first-of-a-kind technology that is not fully validated or qualified or hasn't been applied in the Gulf before, some of the majors will be very hesitant to base their development scenarios on those."

He added that operators are keen to settle on ideas for workable development schemes and early screening studies can therefore take place during the appraisal drilling which can be a lengthy process.

"They are moving rapidly into what I call active concept-prospect identification category," says Namtvedt. "That means giving the operator the ability to proceed with FEED work if appraisal drilling looks like confirming the viability of the discovery."

For FloaTEC, which has just about concluded FEED work of the hull, mooring and risers for Chevron's Big Foot extended tension leg platform, prospects of supplying the deepwater Gulf of Mexico with floating production platforms is looking bright.

Double win

Keppel Shipyard was recognised for operational excellence and safety at this year's Seatrade Asia Awards.

Continuous enhancements to Keppel Shipyard's capabilities and processes help to ensure operational excellence as well as strengthen its safety competencies.

The yard's sustained performance and efforts for improvements has been recognised. It garnered The Repair Yard Award and The Safety Award at Seatrade Asia Awards 2011. The award ceremony was held in Hong Kong on 17 June 2011.

Nelson Yeo, MD of Keppel Shipyard, said, "Shipyard operations are complex; each project requires the mobilisation of numerous individuals and equipment. It is with the support of our customers, suppliers and subcontractors, that we have been able to refine our operational and safety processes.

"We are grateful for the recognition we have received for our efforts and we are committed to work relentlessly with our stakeholders to achieve operational excellence and a work environment where nobody gets hurt."

To qualify for The Repair Yard Award, a shipyard has to have commendable business profitability, reliability record, rate of lost time accidents, docking flexibility and cost efficiency.



Chris Hayman (right), Chairman of Seatrade, witnesses the presentation of The Repair Yard Award to Chor How Jat (centre), ED of Keppel Shipyard, by Reverend Stephen Miller (left), Senior Chaplain, The Mission to Seafarers

Meanwhile, nominees of The Safety Award were assessed on rate of lost time accidents, safety innovation, compliance to international standards and investment in safety training.

Chor How Jat, ED of Keppel Shipyard, received the awards on behalf of Keppel Shipyard. He said, "The stringent criteria of these awards provide good frameworks for shipyards to

review our operations. While the results of this review are encouraging, we must not be complacent and continue to strive for an incident-free work environment."

Conferring some of the most prestigious accolades in the maritime industry, Seatrade Asia Awards raises the profile of maritime members and developments across Asia.

Powerful offshore support

Keppel designs offshore support vessels for Brazilian waters.



MTD 80210A, a large-sized AHTS measuring 88m in length and 22m in width, has a deadweight capacity of 3,500 metric tonnes and has tanks designed to carry drilling brine and marine gas oil

As the Brazilian offshore energy market grows, it requires an increasing number of offshore support vessels. Brazil's national oil company, Petrobras, has unveiled a strategic plan where it will require 100 Brazilian-built offshore support vessels by 2020; this is to facilitate the exploration and development of deepwater pre-salt fields in the Santos Basin. More specifically, Petrobras projects that it would require 64 Anchor Handling Tug Supply (AHTS) vessels, 64 Platform Supply Vessels (PSVs) and 18 oil recovery vessels.

To meet these demands, Keppel Keppel O&M's technology unit Marine Technology Development (MTD) has developed designs for offshore support vessels catering

to the Brazilian Continental Shelf. The designs are MTD9045-DE, a 4,500 deadweight tonne PSV, and MTD80210A, an 18,000 horsepower AHTS, capable of bollard pull in excess of 210 tonnes.

Keppel Singmarine Brasil is currently building the MTD9045-DE for Keppel O&M's shipowning arm in Brazil, Guanabara Navegacao Ltda (GNL). These vessels will be offered for bareboat charter or sale when completed.

MTD9045-DE PSV design spans 94.2 metres (m) long and 19.8m wide. It features a large deadweight capacity in excess of 4,500 tonnes and a deck space of 1,000sqm, which can accommodate up to 26 crew members. Equipped with a diesel-electric propulsion system and dynamic positioning (DP) 2, this PSV is well-suited to operate in a variety of offshore conditions.

The PSV's internal tanks arrangement and systems are designed to function as a fluid carrier (Fluideer) – suited for carrying oil-based and water-based mud, N-Paraffin brine, drilling brine and dry bulk – or diesel oil carrier (Oileer).

The unique arrangements of the PSV's internal tanks and systems enable it to transport a wide combination of oil-based and water-based bulk cargoes for offshore exploration and production, offering shipowners a

high degree of flexibility to meet chartering requirements.

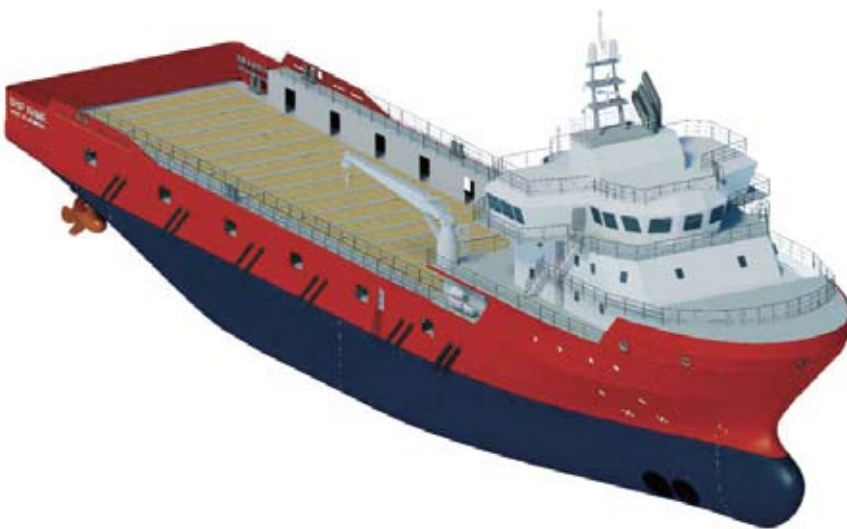
As for the MTD 80210A, it is a large-sized AHTS which measures 88m in length and 22m in width and has a deadweight capacity of 3,500 metric tonnes. Its tanks are designed to carry drilling brine and marine gas oil.

This vessel design is distinct for its large array of deck machineries, including double drums main towing/anchor handling winch, single drum special towing winch, double drums secondary towing winch, double drums storage winch, four large storage reels. They have been arranged for operational efficiency and to meet stringent deepwater anchor handling and towing requirements.

MTD80210A has accommodations for up to 24 crew members and DP2 capabilities. It is equipped with a diesel-mechanical propulsion system, consisting of four main engines rated at 2 x 3840 bkW and 2 x 2880 bkW, which are combined with two controllable pitch propellers in fixed high thrust nozzles.

Excellent manoeuvring and station-keeping are achieved with one tunnel thruster and one azimuth thruster.

Leveraging its rich design and engineering experiences, Keppel O&M is in a good position to deliver these competitive solutions to the industry.



MTD9045-DE PSV design is 94.2 m long, 19.8m wide, features a large deadweight capacity in excess of 4,500 tonnes and a deck space of 1,000sqm

Brazilian pride

100% made in Brazil, at Keppel's BrasFELS shipyard, the floating production unit (FPU) P-56 was christened in the presence of Brazilian President Dilma Rousseff on 3 June 2011.



(Image on left) Constructed completely at BrasFELS in Brazil, P-56 was completed in a record 42 months; (Image on right) Brazilian President HE Dilma Rousseff (centre), and President (The Americas) of Keppel Offshore & Marine USA Inc., Helio Azevedo, President of the workers union of Angra, KC Kwok, President & CEO of Keppel FELS Minister for Brazil

The consortium of Keppel O&M and Technip Engenharia S/A has delivered the FPU P-56 to Petrobras Netherlands BV (PNBV) safely, on time and within budget.

The first FPU to be completely built in Brazil, the project teams for P-56 achieved nine million man-hours without lost-time incidents on its construction. With a displacement of 50,000 tonnes, this massive FPU, one of the world's largest, measures 125 metres (m) long, 110m wide, and 137m high.

Brazilian President HE Dilma Rousseff who was present to witness the christening of P-56 by Congresswoman Luiza Erundina, said, "We have proved that it is possible to build rigs, platforms and equipment for offshore explorations in Brazil.

"We shall count on the partnership of companies which come from far away, such as that of Keppel FELS that comes from Singapore. We can count on them. They know that if they

come to Brazil, they will have the guarantee of a demand from Petrobras."

Also present at Keppel FELS Brasil's BrasFELS shipyard in Angra dos Reis were the Governor of Rio de Janeiro, Sergio Cabral, Petrobras' President Jose Sergio Gabrielli, Keppel's management and over 8,000 Brazilian shipyard workers.

CB Choo, Chairman of Keppel O&M and non-resident Ambassador of Singapore to Brazil said, "P-56 is a

“We have proved that it is possible to build rigs, platforms and equipment for offshore explorations in Brazil. We shall count on the partnership of companies which come from far away, such as that of Keppel FELS that comes from Singapore. We can count on them. They know that if they come to Brazil, they will have the guarantee of a demand from Petrobras.”

HE Dilma Rousseff
President of Brazil



together with (from left) YY Chow, MD of Keppel O&M Brazil, and Luiz Sergio Oliveira, Institutional Affairs

shining example of the technology expertise and execution capabilities built up by BrasFELS and Brazil's offshore and marine industry.

“This achievement has been built up incrementally through previous projects such as the P-52 and P-51 FPU. Today, we have turned vision into reality in establishing Brazil as a centre for world-class shipbuilding, with the first rig built entirely in Brazil.

“We are proud to be able to support Brazil and Petrobras as they grow their fleet of highly capable production units. Through our *Near Market, Near Customer* strategy, Keppel remains committed to Brazil and her comprehensive oil and gas development programme to increase output from Brazilian oil fields with significant local content.”

When completed, P-56 will be capable of processing and treating 170,000 barrels of liquids and 100,000 barrels of 16° API oil, six million cubic metres of natural gas, and of injecting some 280,000 barrels of water into the reservoir.

P-56 will be deployed at depths of 1,670 metres, off the Marlim Sul field, in the Campos Basin.

P-56 is another significant milestone in a series of firsts achieved by Keppel in Brazil since its BrasFELS yard was established in 2000.

Notably, BrasFELS carried out the country's first floating production storage and offloading vessel (FPSO) conversion, P-48. BrasFELS had also completed the FPU P-52, the first project for which Petrobras imposed a minimum 60% local content requirement. After

P-52, the yard delivered the FPU P-51 in 2008 and the FPSO P-57 in October 2010.

P-51, P-52 and P-57 were undertaken in collaboration with Keppel's yards in Singapore. There are considerable synergies between Keppel's yards in Singapore and Brazil, and significant technological and knowledge transfers have been made to Brazil through these projects.

CB Choo added, “We have a longstanding partnership with Brazil having delivered 19 major projects since 1994 for the country, five of which were completed in BrasFELS. Over the years, we have been equipping BrasFELS and training our workers to take on more sophisticated jobs. We are committed to continue deepening our roots here and be the choice provider of solutions to the Brazilian market.

“One of the most comprehensive offshore and marine facilities in Latin America, BrasFELS has an established track record that Petrobras and our customers can rely on to provide local content and support Brazil's requirements as a net oil exporter.”

Continues on page 24...

Made in Brazil

P-56, the first FPU to be built entirely in Brazil was completed in 42 months. This is some 10 months faster than the construction of BrasFELS last FPU, P-51.

Roberto Moro, Petrobras' manager for its Marlim Sul Projects and who is involved in the construction of P-56, explained, "The cloning was an essential element." In an interview with Brasil Energia, he shared that BrasFELS experience in constructing similar platforms – P-51 and P-52 – was a key factor for the time reduction. The completion of P-56 he said was comparable to what yards in Singapore or South Korea would have done.

The lower hull of P-52 was built in Singapore and towed to Brazil

where it was completed and joined with the topsides. On P-51, the lower hull was built in Brazil but the nodes of the lower hull were engineered and constructed in Singapore before being integrated with the lower hull in Brazil.

On P-56, the nodes were built in Brazil and represented the greatest challenge for BrasFELS in constructing the entire vessel in Brazil.

Edmundo Santos, Project Manager of P-56 and Operations Director of BrasFELS said, "The greatest challenge we faced was to build an FPU the size of P-56, under the conditions and schedule agreed with Petrobras. Besides being the first FPU of this size to be built entirely in Brazil, we had to achieve the goal approximately 10 months faster than the usual deadline

given for a project of this size. A tremendous challenge for us was building the nodes here which were previously fabricated in Singapore on the earlier projects. The nodes were the biggest structure our workshops have ever fabricated at 12m in height and 24m length and width. The nodes are the corner blocks of the lower hull and are very complicated structures as they contain equipment for Electrical & Instrumentation systems and piping systems. Through knowledge transfer from Keppel FELS in Singapore and the training of our workers here, we were able to successfully take on this part of the project."

In addition, careful logistical planning was required for P-56 which required more than 50,000 tonnes of deadweight steel in the construction of the lower hull. This was helped by the processes implemented since the first FPU, P-52, was undertaken.

Having worked on all three FPUs, Low Tiau Tiong, Assistant Operations Director of BrasFELS has seen the improvements carried over from each project.

He said, "While we have improved our processes through the previous projects, we are always thinking of new ways to increase efficiency. On this project, we initiated the 'Guide' method of joining the columns and blocks together. The 'Guide' method improves accuracy and more than halves the time it takes to join blocks compared



Edmundo Santos (left) and Low Tiau Tong have been instrumental in the improvements of the yard through P-51 to P-56



Waldir Zanetti (left) and Marcos Shinohara have are the latest graduates from BrasFELS' two year Trainee Engineers Scheme

to the previous method of using temporary stoppers."

Another significant change was the introduction of IHOP (Integrated Hull Construction, Outfitting and Painting) which shortens the period of time that the platform spends in the shipyard by ensuring that all the major works are done before the launch of the vessel into the sea and that only works that cannot be done before the launching is done during the second phase.

More than just processes, Santos who has been with BrasFELS since its inception in 2000 has seen a systematic and cultural change in the yard.

"There is a sense of camaraderie in the yard. The teams at BrasFELS have grown together and understand each other so they work faster. The achievement of building this FPU completely in Brazil means a lot to the workforce of BrasFELS. We are all proud of what we have done. This project is a marker to the

world that Brazil can build an FPU of this size and complexity in a very tight schedule and with world-class quality. It is the fulfillment of a dream and one that I am sure will stand us in good stead for future projects," he added.

One of the ways the yard is increasing its capabilities is the continuous hiring of recent-graduate engineers who start in shops as process engineers and are systematically transferred to achieve both production and design experiences in hull construction, outfitting and painting.

These Engineers first undergo the Trainee Engineers Scheme where they are rotated through the various trades and sections to get a well rounded understanding of the yard's functions. They are provided with leadership opportunities as well as mentored throughout.

A recent graduate of the programme, Production Supervisor Waldir Zanetti shared

his experience saying, "The programme provided me with great exposure, not just to job functions but also to work with a global mindset as I get to interact with people from all over the world. Key to the training has been on sharpening our problem-solving skills. I am also grateful to have been sent to Singapore for training on Project Management"

Echoing his colleague, Cost Supervisor Marcos Shinohara added, "There are many opportunities to grow here. Even as trainees, our ideas are taken onboard. On a project, a proposal that a colleague and I came up with which would help reduce transport costs by up to 20% was implemented. Being part of the shipyard and seeing that what I do can contribute to something as incredible as the P-56 platform, really makes me feel proud."

Recognising that people are BrasFELS key assets, Pedro Perieira, Head of Human Resource, has comprehensive career paths mapped out for all employees.

He said, "We continuously develop our workforce to improve performance and productivity. We have several tiers of training which include leadership programmes as well as a technical workshops. Our aim is to create a skilled and motivated workforce so that the yard is able to increase efficiency, reduce safety incidents and take on more complex jobs."

Friends of the fraternity

For its outstanding support for the Institution of Engineers, Singapore (IES) in 2010/11, Keppel FELS was awarded "Friends of IES Award 2011".

Keppel FELS actively contributed to National Engineer's Day, one of IES' major initiatives in 2010. Besides sponsoring the event, Keppel FELS hosted student tours to the Keppel Safety Training Centre, an immersive training environment comprising classrooms, an exhibition hall showcasing shipyard safety procedures, a replica of

the middle segment of a ship and terminals for shipyard skills training.

Through its involvement in such knowledge-sharing initiatives, Keppel FELS helps to cultivate a strong engineering fraternity in Singapore.

IES was established in 1966. The premier engineering institution in Singapore, IES helps to provide feedback on professional engineering matters to the government.



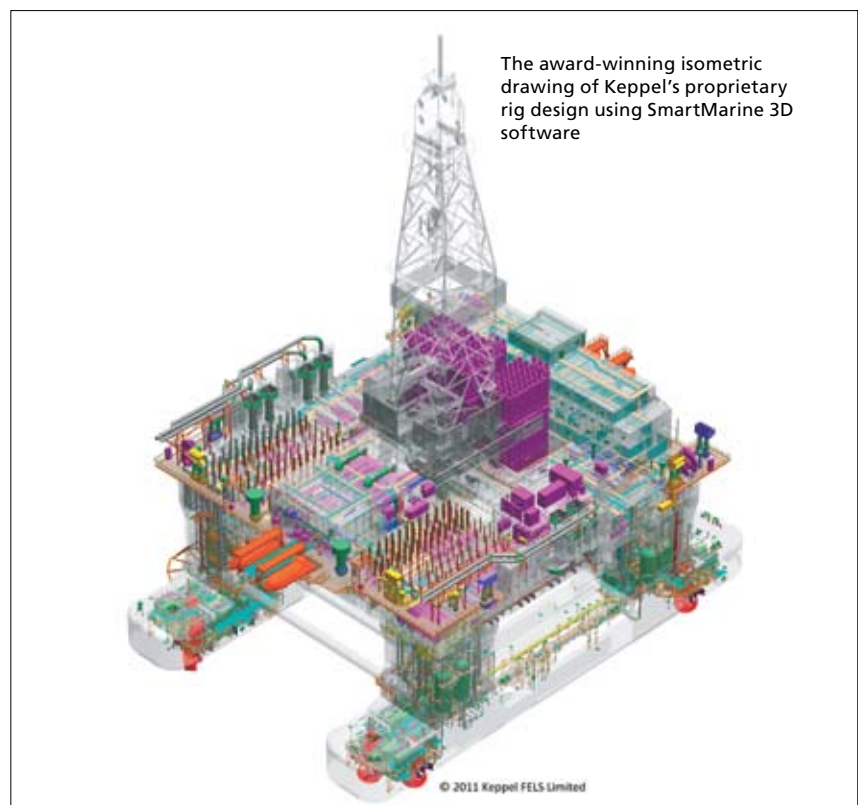
On behalf of Keppel FELS, Lim Boon Seng (right), Engineering Manager, receives the 'Friends of IES Award 2011' from Ho Siong Hin, President of Institution of Engineers, Singapore

Smart engineering solutions

Testament to Keppel FELS' design and engineering capabilities, the company was awarded joint 'Best of Show' in the 2011 Intergraph Golden Valve Awards Competition for a detailed view of its deepwater semisubmersible drilling rig, DSS™ 38E.

An isometric view of the rig was created using SmartMarine 3D software and rendered with SmartPlant. Keppel FELS garnered the same accolade in 2009 for the view of its semisubmersible drilling tender.

Receiving the award on behalf of Keppel FELS was Tan Leong Peng, Deputy Engineering Manager. He also gave a presentation on Keppel's SmartMarine Enterprise Solutions at the conference on 9 June 2011.



The award-winning isometric drawing of Keppel's proprietary rig design using SmartMarine 3D software

Compelling partners



Magsaysay Transport & Logistics Group inks a fleet repair agreement with Keppel Philippines Marine which operates Keppel Batangas Shipyard and Keppel Subic Shipyard

Long-time partners, Keppel Philippines Marine, Inc. (KPMI) and Magsaysay Transport & Logistics Group (MTLG) signed a fleet repair agreement.

The fleet agreement represents MTLG's confidence

in KPMI's capabilities. Having serviced many of MTLG's vessels over the years, KPMI is familiar with its requirements. Leveraging its experience, KPMI strives to continue to provide MTLG with top quality services.

This agreement will allow MTLG to have dock-space priority, even for emergency repairs, leading to reduced downtime. The agreement also gives MTLG the flexibility to service its vessels at two KPMI-operated yards – Keppel Batangas Shipyard in Southwest Luzon, the main island of the Philippines, and Keppel Subic Shipyard, Central Luzon.

Together, Keppel Batangas Shipyard and Keppel Subic Shipyard operate two graving docks, a ship-lifting system, and eight dry berths. Through their complementary facilities, they provide shipowners with a broad spectrum of construction, conversion, repair and fabrication services.

Adopting the family name

Over the last year, Keppel raised its stake in its yard in Subic Bay, the Philippines. With closer ties to Keppel now, the yard has recently adopted the family name, and is now known as Keppel Subic Shipyard.

Mok Kim Whang, President of Keppel Subic Shipyard, said, "The name change reflects Keppel Subic Shipyard's new status as a Keppel subsidiary. The increased stake reinforces Keppel O&M's *Near Market, Near Customer* strategy and



Keppel Subic Shipyard is the new name for Subic Shipyard and Engineering

improves synergies between Keppel Subic Shipyard and its sister yard in the Philippines, Keppel Batangas."

Making safety our business



Safety officers from Keppel FELS and Keppel Shipyard in Singapore visited employees at BrasFELS and Keppel Singmarine Brasil to exchange knowledge on safety best practices

“The cross-pollination programme is an eye-opener, allowing us to understand the challenges faced by our colleagues in Brazil. We were also able to share with them some of our Singapore safety practices such as the High Impact Risk Activities programme.”

*Ashaari Omar
HSE Office of Keppel FELS*

Through a series of safety programmes, Keppel continues in its effort to build an incident-free work environment.

SUPPORTING NATIONAL EFFORTS

In support of Singapore’s efforts to improve workplace health and safety, Keppel Group contributed \$180,000 to this year’s National

Workplace Safety & Health Campaign. Themed “Say NO to risks at work”, the campaign rallied employers and employees to ensure workplace safety.

Jointly organised by Singapore’s Workplace Safety and Health Council and the Ministry of Manpower, the three-month

“While we have taken big strides forward in our safety performance over the last few years, we cannot afford to rest on our laurels. This year’s theme ‘Back to Basics’ is a timely reminder to us on the importance of reassessing and strengthening our fundamentals, processes and mindset. We must leave no stone unturned.”

*CH Tong
CEO of Keppel O&M*

long campaign was launched by former Minister for Manpower Gan Kim Yong on 20 April 2011.

SHARING SAFETY IDEAS

Keppel’s Inter-Strategic Business Unit Safety Committee recently implemented a safety cross-pollination programme to encourage the sharing of best practices amongst companies in the Group.

From 23 May to 23 June 2011, Keppel FELS Brasil’s BrasFELS

yard hosted two safety officers, Ashaari Omar of Keppel FELS and Alvin Thng of Keppel Shipyard. The attachment provided rich opportunities for the two of them to share safety know-how with their Brazilian counterparts.

Ashaari commented, “The cross-pollination programme is an eye-opener, allowing us to understand the challenges faced by our colleagues in Brazil. We were also able to share with them some of our Singapore safety practices such as the High Impact Risk Activities programme.”

More such attachment programmes between companies are being planned on a regular basis.

BACK TO BASICS

Keppel FELS’ Health, Safety and Environment (HSE) Excellence campaign kicked off on 17 June 2011. At the campaign’s opening ceremony, CH Tong, CEO of Keppel O&M, urged all

employees, contractors and customers to work hand-in-hand to build a safe and healthy workplace for all.

CH Tong said, “While we have taken big strides forward in our safety performance over the last few years, we cannot afford to rest on our laurels. This year’s theme ‘Back to Basics’ is a timely reminder to us on the importance of reassessing and strengthening our fundamentals, processes and mindset. We must leave no stone unturned.”

Comprising activities such as posters and exhibits design competitions, the HSE Excellence campaign harnesses the creative energies of all levels of the workforce to disseminate safety knowledge and strengthen the safety culture.

WALK SAFELY

BrasFELS has made significant advancements in its safety performance. It has had a 50% reduction in hand injuries and 60% decrease in the total number of incidents since 2010.

This year, the offshore yard in Brazil continues in its efforts to enhance its safety performance. In an effort to drive down leg and feet injuries, which currently constitutes 27% of the total number of injuries, BrasFELS launched the ‘Walking Safely’ campaign on 7 April 2011.



Workers participate actively in safety quizzes conducted as part of Keppel FELS’ HSE Campaign

Keppel O&M appoints new MD



Chow Yew Yuen (YY Chow) has assumed the role of MD, Keppel O&M

Chow Yew Yuen (YY Chow) has been appointed MD of Keppel O&M with effect from 1 June 2011, reporting directly to the CEO, CH Tong.

YY Chow will be based in Singapore. He will assist the CEO in all aspects of Keppel O&M and will continue in his role as the President of the Americas for Keppel O&M, in which he oversees the group's business covering the US, Mexico and Brazil.

In this role, YY Chow will also support the CEO in driving the growth and development of Keppel O&M's business by strengthening its competitive advantage in the fast-changing global offshore and marine industry, and enhancing stakeholder value.

With the company for 30 years, YY Chow first joined Keppel FELS in 1981 as a Project Engineer. Over the next decade, he worked in various departments and rose through the ranks to become yard manager of Keppel FELS in 1990. In 1993, he was seconded to AmFELS, later renamed Keppel AmFELS, in Brownsville, Texas. He has been President of Keppel O&M USA since 2004.

In the last 18 years in the US, YY Chow has been instrumental in establishing Keppel O&M

as a credible competitor in the Americas, and has helped set the foundation for its current standing as the preferred solutions provider, backed by two of the largest and most comprehensive offshore and marine yards in the Americas.

CB Choo, CEO of Keppel Corporation and Chairman of Keppel O&M said, "YY Chow has provided leadership to build and enhance the value of Keppel O&M's international reputation and positioning. The Board and I are confident that he will continue to lend his wealth of experience and help CH Tong manage and grow Keppel O&M."

YY Chow is also Chairman of Keppel AmFELS Inc, Deputy Chairman of Keppel FELS Brasil SA and President of Keppel Offshore & Marine USA Inc. He also serves on the Boards of AmFELS Offshore Ltd, BrasFELS SA, Deepwater Marine Technology, FloaTEC, LLC and other companies in the group.

YY Chow has a Bachelor of Science degree in Mechanical Engineering with First Class Honours from the University of Newcastle upon Tyne. He has attended the Harvard Business School's Advanced Management Program. He is also a member of the American Bureau of Shipping.

Staying connected

In May, Keppel O&M made waves at the offshore and marine industry's most anticipated trade conventions, reconnecting with its global customers and partners in Houston and Oslo.

OFFSHORE TECHNOLOGY CONFERENCE

Held from 2 to 5 May, Offshore Technology Conference (OTC) 2011 drew the participation of offshore energy industry experts from some 40 countries and over 2,500 companies. The event also offered one of the strongest technical programmes ever, featuring prominent speakers from every major oil-producing area.

Keppel O&M once again participated in this annual event under the Singapore pavilion. Its strong presence at the conference was evident from the cocktail party it hosted. Over 600 customers, business associates and friends turned up for what

many considered as the most anticipated party of OTC. Here, old friendships were rekindled and new connections were made.

At OTC 2011, Keppel O&M also teamed up with the US Commercial Service to present to US oil and gas equipment and service providers on how they can support Keppel's projects across the globe. Jay Singam, Assistant GM (Commercial) of Keppel FELS, introduced Keppel's global network, as well as the Group's procurement policies.

Jay said, "OTC brings together all the major players in the industry. It provides good opportunities for us to forge new partnerships and

enhance our products and services. To provide maximum value to our customers, we select our vendors carefully, with key considerations such as competitive pricing, high quality and on-time delivery schedules."

Keppel O&M's subsidiaries such as Keppel Verolme and Keppel FELS Brasil, as well as associated companies like Floatec LLC and DPS Global also had significant presence at the exhibition.

NOR-SHIPING

Keppel O&M gathered with other industry leaders at anticipated Nor-Shipping 2011 from 24 to 27 May. Themed "What's Next?", the exhibition and conference event focused on the maritime business that might evolve in the future as well as the latest developments in offshore and marine technologies. More specifically, issues such as Brazil's energy industry as well as lessons learnt from the Macondo incident were discussed.

Knowledge-sharing platforms such as Nor-Shipping facilitate the proliferation of best practices and help industry practitioners gain better insight on future opportunities and challenges.

Exhibiting with other Singapore companies, Keppel helped raise the profile of Singapore's vibrant offshore and marine industry.



Keppel senior management catching up with business associates and customers at the annual OTC cocktail reception hosted by Keppel O&M

Rig of ages calls home



The majestic Kan Tan IV seen here in two different decades

Following an epic journey of 28 years across the North Sea, the UK, Trinidad and Tobago, Australia and New Zealand, the semisubmersible rig (semi) Kan Tan IV, returned to Keppel FELS for repairs in May this year.

At her homecoming, the third generation semi was warmly received by familiar faces, the folks who had delivered her in 1983. Western Pacesetter IV, as she was known then, was once the largest rig built by Keppel FELS.

It was a huge challenge at the time to build a highly-advanced semi that could withstand

whatever the seas and winds threw at it.

FS Wong, Keppel FELS' GM for Operations, Quality Systems and Process Excellence, who was a Project Superintendent then, recalled, "Back in the 80s, we did not have the luxury of assembling rigs in a drydock; everything had to be joined together afloat. Our biggest crane at that time could barely lift 300 tonnes. Today, we can use the floating crane Asian Hercules II, which can lift up to 3,200 tonnes.

"As such, each building block was relatively small. You can only

imagine the amount of work and coordination involved in constructing such a massive unit."

Back at her birthplace in Pioneer Yard, the weather-beaten "ol' dame", as Kan Tan IV is affectionately called, stands in the shadow of the other new generation rigs that tower over her. But like a child, she continues to hold a special place in the hearts of all who conceived her, a number are still with Keppel O&M.

Among these long-serving Keppelites are YY Chow, MD of Keppel O&M and President (The Americas) of Keppel Offshore &



(L-R) Ong Tiong Hin, Keppel FELS Deputy Section Manager, Chio Chee Chok, Keppel FELS Hull Superintendent, Wong Fook Seng, Keppel FELS GM of operations, quality systems and process excellence, Goh Soon Poh, Keppel FELS Electrical Superintendent, and Lim Boon Seng, Keppel FELS Manager of Engineering Department

Marine USA; and Keppel FELS' Ong Tiong Hin, Deputy Section Manager, Lim Boon Seng, Manager of the Engineering Department, Chio Chee Chok, Hull Superintendent, and Goh Soon Poh, Electrical Superintendent.

"Looking at Kan Tan IV brings back memories of the toil and sweat that went into building this rig. Taking a rig from drawing board to construction to commissioning is a complex undertaking. In the process, the project team not only develops a lasting attachment for the rig, but also strong ties with each other," Boon Seng shared.

Although FS Wong will not be involved directly in the repairs for Kan Tan IV this time, he will still take on a supervisory role, leaving the rig in the good hands of the Project Manager Yeong Yew Ming.

Yew Ming said, "Kan Tan IV is old and still uses traditional anchors at six points to maintain her position at sea instead of thrusters, which are used in modern rigs. However, I can understand why my seniors are so proud and fond of her. She withstood the test of time, and has put up good performances in oil fields around the world.

"As the Project Manager for this repair job, I will have the opportunity to help restore Kan Tan IV's charm in some measure."

Under the watchful eye of Yew Ming and his team, Kan Tan IV will have various steel parts replaced and her ventilation system repaired. Kan Tan IV is owned by Sinopec and managed by Keppel's long-time customer, Maersk Drilling.

Striking international ties



Pehin Yasmin Umar (5th from right), Brunei's Minister of Energy (Prime Minister's Office) hosted by top Keppel management including Dr Lee Boon Yang, Chairman of Keppel Corporation on his visit to Keppel's shipyards

With its far-reaching reputation, Keppel O&M hosted a series of high profile visits from delegations including Cuba, Brunei and Kenya in the month of June.

On 17 June 2011, a Brunei delegation led by Pehin Yasmin Umar, Brunei's Minister of Energy (Prime Minister's Office) visited Keppel O&M's yards. He was received by Dr Lee Boon Yang, Chairman of Keppel Corporation, and CB Choo, CEO of Keppel Corporation and Chairman of Keppel O&M, as well as CH Tong, CEO of Keppel O&M, and other key management.

Just two days earlier, on 15 June 2011, Cuban Ambassador Carlos Amores, accompanied by Petronas executives were also hosted by Keppel management as they visited the semisubmersible rig, Scarabeo 9 undergoing completion at Keppel FELS.

Representatives from Italian oil service company Saipem and Spanish oil company Repsol, the rig owner and charterer respectively were on hand to guide them as they toured the drilling rig which would be working off Cuban water when delivered.

Hailing from East Africa, officials from Kenya's Maritime Authority visited Keppel Singmarine and Keppel Shipyard on 14 June 2011. Hoe Eng Hock, ED of Keppel Singmarine hosted the delegation led by Engineer Wilfred Kagimbi, chief surveyor and receiver of wrecks.

The Kenya Maritime Authority which regulates, oversees and coordinates maritime affairs in Kenya was in Singapore to learn more about Singapore's maritime capabilities including shipbuilding. They also visited the Maritime and Port Authority of Singapore.

Warm turf

Keppel FELS' employees and customers set their pulses racing at the Singapore Kranji Turf Club on 3 June 2011. Enjoying good food and company, the group made friendly bets on a number of horse races.

The warm gathering was a platform for Keppelites and customers to get to know each other better, strengthening their ties, which are underpinned by their mutual understanding and camaraderie at work.

With a strong turnout from customers, it was a winning social event for all in attendance.



Keppel FELS strengthened its relations with customers at a social event at Singapore Kranji Turf Club

Labour of love



Charles during his stint at Ras Laffan Yard, Qatar

Do what you love, love what you do. These are not the same thing for everyone, but for some Keppelites who have stuck through thick and thin for decades with the Keppel Group, they are evidently one and the same.

After an average of 30 years with Keppel, 71 of these dedicated employees have retired from Keppel O&M this year. These Keppelites have developed a deep sense of belonging and affection for their workplace and the work that they were entrusted to carry out.

One such veteran is Charles Ong. Back in 1980, Charles had joined Keppel's Purchasing and Stores Department. Presented with opportunities to be rotated he gained valuable experience and exposure working at Keppel's various yards before eventually

returning to the Keppel Shipyard's Tuas Yard in 2010 to serve as Senior Manager in the Purchasing and Stores Department.

Charles said, "Keppel has come a long way from the mid-1980s. Then, it was deemed as a sunset industry and during that challenging period, each of us worked very hard with austerity and team spirit to keep the business going and encouraged each other to boost morale.

"Today, Keppel is a global leader in multiple fields, and old hands like me are proud to have contributed in some small way to the building of this world-class organisation. I have had the pleasure of working alongside many dedicated and passionate men and women who gamely rose to any challenge which came their way, and I will

miss being in the thick of action with a *Can-Do!* team."

Also retiring this year is Keppel Shipyard's Customer Relations Officer, Thangaduri Jevaraza, known as TJ Raza to his colleagues. With Keppel Shipyard for 42 years, TJ Raza started his career with the company as a general worker.

Filled with passion for his job, TJ Raza said, "If you are doing what you love, you will never be tired of it. My work energises me; it brings me joy to be able to help orientate our foreign customers to Keppel Shipyard and Singapore."

Always one to go the extra mile to make others feel at home, TJ Raza shared, "In 1965, I decided to learn Russian to better understand and engage our Russian customers. Initially, I had difficulties with pronunciation and constructing full sentences. But I persisted and have since become proficient in the language. It was a worthwhile endeavour as I was able to help with translating technical documents from English to Russian and vice versa."

A mentor and friend to many young Keppelites, TJ Raza had these words of advice for them, "Don't be afraid to take on challenges or expose yourself to new experiences, you will be surprised by how quickly you can learn and grow. Treasure your work and company at Keppel for you will look back on your time here with great nostalgia."

Colourful homes and hearts

Keppelites and their families and friends spent a Saturday on 14 May 2011 to help clean and decorate old folks' homes. They were gathered at the Moral Seniors Activity Centre (Toa Payoh), one of three senior activity centres under the Thye Hua Kwan Moral Society.

Arina Tan, a purchasing officer from Keppel FELS who was in charge of the monthly home maintenance initiative at the centre, quipped, "I was so delighted to see many Keppelites bring their children, wives and friends along for this Keppel Volunteers activity.

"We welcome anyone who has a heart for the community and we hope this platform will serve as good bonding sessions not

just among Keppelites, and also between them and their families."

Kwok Yan Hoe, Deputy GM of Corporate Development, Keppel Land, is one of the volunteers who have been helping the old folks in home maintenance for the past few months. He brought his daughter along to experience how blessed she is compared to many others who are in need.

Yan Hoe shared, "My daughter is very privileged for we have a maid at home. I hope she will learn to be more independent and compassionate to the less unfortunate."

A group of students from Keppel's adopted charity, the Association for Persons with

Special Needs (APSN), also helped to paint the Centre's walls.

Together with Keppel Volunteers, the APSN students brought to life a multi-coloured garden with butterflies onto the walls. The picture had been sketched out by artists from Social Creatives beforehand.

Thomas Leong, an engineer from Keppel Shipyard, shared "I really enjoyed the interaction with the APSN students who did a good job painting the walls. We are all very happy to see the cheerful look we have brought to the centre. Our efforts also allowed APSN students to contribute to the society by doing something they like and are good at, for example, drawing and painting."



Thomas, an engineer at Keppel Shipyard, worked together with APSN student, Bene, to paint the Centre's wall



Yan Hoe, Deputy GM of Corporate Development, Keppel Land, and his daughter making sure all food items kept by the old folks are safe for consumption

Homing in on a vibrant community

Keppel partners the charity organisation Gawad Kalinga to build homes and empower lives.



Together with Local Chief Executive, Hon. Ryan M. Dolor (left, foreground), Keppel Batangas and GK management broke ground on the one-hectare Keppel-GK Eco-Village site in Bauan, the Philippines

As part of efforts to nurture the communities in which it operates, Keppel Group has joined hands with the charity organisation, Gawad Kalinga (GK) to develop a vibrant eco-living community for the underprivileged in Bauan, a municipality in the province of Batangas, the Philippines.

The groundbreaking ceremony of the one-hectare Keppel-GK Eco Village site was officiated on 29 April 2011 by Bauan's Local Chief Executive, Hon. Ryan M. Dolor.

Mayor Dolor said, "I am very pleased to officiate the start of another long-term community effort by Keppel today. As a corporate member of Bauan for more than 35 years, Keppel has worked with the municipal government to initiate and support many social and environmental causes benefiting our communities.

"The destitute often live in disaster-prone areas, with poor sanitation and limited access to fresh water and food. The Keppel-GK Eco-Village, a first in

Bauan, will help to change this condition by providing a healthy and sustainable living environment for them, restoring their dignity and empowering them to break out of the poverty cycle."

Keppel will seed an initial sum of about PHP10 million to construct around 60 houses as well as a pre-school and community centre. Developed in three phases, the Eco Village will be completed in mid-2012. The local government of Bauan had provided the land for development.

The first phase of construction started in the first week of June. Recently, during the Philippine Independence Day (12 June) period, Keppel Batangas and GK organised a two-day homebuilding programme at the Eco Village.

100 volunteers from Keppel Batangas and GK participated in the homebuilding programme. Working alongside them were the members of 30 families, future inhabitants of the Eco Village.

Rolilando Macalipay, an employee of Keppel Batangas Shipyard and a future resident of the Eco Village, said, "I am very thankful to Keppel, GK and the Bauan Local Government Unit for making it possible for my family to own our own house. This puts me one step closer to my dream of

providing a safe and healthy life for my family."

Rolilando and his family have been helping out at the Eco Village over the last weeks. Beneficiaries of the estate are encouraged to play an active role in the development of the village, to establish a sense of belonging to the new community.

Fernan Tupaz, a trainee welder at Keppel Batangas Shipyard and volunteer for the two-day homebuilding initiative, said, "I currently live in another GK site. My GK village experience has been very positive, and I would like to help others enjoy similar benefits."

Consistent to the environmental thrust of GK communities, careful measures will be taken to preserve and integrate the

natural surroundings of the Keppel-GK Eco Village with the housing development.

For instance, the mango trees onsite are being conserved so that their fruits can be harvested by the residents as a potential source of income. The development will also have garden plots for residents to engage in subsistence farming.

Eco-friendly practices such as collecting rainwater for domestic use and making organic fertilisers from biodegradable waste will also be introduced.

Poh Leong Kok, Senior VP of Keppel Batangas, said, "Keppel is intimately involved in sustainable development and living through its key businesses of offshore and marine, infrastructure and property development. As we offer solutions to meet the needs of rapid urbanisation, we also want to share our resources and expertise to help improve the quality of life of the less privileged wherever Keppel is present.

"Drawing on the collective strengths of the Keppel Group and GK, we will engage our staff volunteers to nurture a vibrant living environment for the poor."



Employees of Keppel Batangas Shipyard volunteered for a two-day homebuilding initiative at Keppel-GK Eco Village, a vibrant living community for underprivileged families

Active citizenry

Always attentive to the needs of their local communities, Keppel's Philippine yards in Batangas and Subic Bay contribute towards empowering lives in big and small ways.

MAKING IT CLEAN AND GREEN

Conspicuous in colour and message, 70 bright cherry red garbage bins glint under the sun from various corners of Bauan, Batangas, the Philippines. Recently donated by Keppel Batangas Shipyard to the community, these sturdy bins are shining examples of creative green initiatives and a partnership with officials of Bauan to keep the community litter free.

The yard's welding apprentices had converted these bins from used oil

drums, which were initially slated for disposal. As such, this recycling project not only breathed new life into junk, but also enabled the welding apprentices to practise their newly-acquired skills.

One of the six government officials receiving the drums on behalf of the community, Mr Carmelo A. Magnaye, the Captain of Poblacion 1, a district in Bauan, said, "We appreciate Keppel's continued support to the numerous local government's initiatives such as the

garbage disposal concerns of our community."

LENDING A HELPING HAND

Keppel Subic Shipyard also recently donated 10 wheelchairs and 20 pairs of crutches to the Subic Municipality, for use by the underprivileged. The donations were received by Mr Jefferson F. Khonghun, the Mayor of the Subic Municipality, located in Zambales.

The yard also recently provided financial assistance to The



Roderick S. Tan, Financial Controller and Administration Department Manager of Keppel Subic Shipyard, hands Keppel Subic Shipyard's donation to the Philippine Red Cross



Keppel Batangas Shipyard's welding apprentices converted used oil drums into garbage bins, which were then donated to community to help ensure a litter free environment

Philippine National Red Cross for their humanitarian missions and medical emergency response programmes.

ENABLING PEOPLE

Kolehio ng Subic, a public college, received three computers from Keppel Subic Shipyards. Juan Deveraturda, the school's administrator, said, "These

computers will come a long way in the academe's effort to increase the computer skills of our students."

Meanwhile, Keppel Batangas Shipyard donated a computer and printer to the Philippine National Police (PNP) station in Bauan, Batangas.

"We used to wait for our turn to use the computer from the other units. Now we can prepare our reports with ease," said the Municipal Executive Senior Police Officer Mario A. Panganiban.

Sound support to the arts

Keppel recently lent support to two great musicians who hail from Brazil and the Middle East, places in which it has a strong presence.

BRAZILIAN BOSSA NOVA

Gilberto Gil – a seven-time Grammy Award winning Brazilian singer, guitarist and song writer – has over 46 years left an indelible mark on the history of Brazilian popular music. A former Minister of Culture from 2003 to 2008, Gilberto Gil performed at the Esplanade to a packed concert hall on 17 April 2011.

Keppel Group had sponsored \$60,000 in support of the performance. During the one and a half hour-long concert, Gilberto Gil kept his audiences, which included H.E. Paulo Soares, Brazilian Ambassador to Singapore, as well as CB Choo, CEO of Keppel Corporation and Chairman of Keppel O&M, CH Tong, CEO of Keppel O&M, and their invited business associates, spellbound with his soulful voice.

Keppel's relationship with Brazil has deepened over the years with the country's growing oil and gas industry.

Keppel FELS Brasil's BrasFELS in Angra dos Reis, Rio de Janeiro, is Brazil's most comprehensive offshore and marine facility. BrasFELS recently delivered safely, on time and within budget the Floating Production Unit (FPU) P-56 to Petrobras Netherlands BV for deployment in the Marlim Sul field in the Campos Basin.

Meanwhile, the newly-acquired Keppel Singmarine Brasil in Navegantes, Santa Catarina focuses on the construction of Offshore Support Vessels and has already won a number of contracts from customers in the region.

LEBANESE CLASSICS

Lebanese master musician Marcel

Khalife performed at the Yong Siew Toh Conservatory of Music Concert Hall, National University of Singapore on 20 May 2011.

One of the Arab world's most celebrated musicians, Marcel Khalife's concert in Singapore formed part of the conference "Whither the Gulf", organised by the Middle East Institute from 19-20 May 2011, and sponsored by Keppel.

"Whither the Gulf" is an academic conference that gathers distinguished and emerging scholars from Asia, the Middle East and the West to discuss the historical and contemporary convergence of developments between Asia and the Middle East.

Keppel O&M deepened its ties with the Middle East region last year with the inauguration of Nakilat-Keppel Offshore and Marine (N-KOM), Qatar's premier offshore and marine facility. The yard is jointly owned by Keppel O&M and Qatar Gas Transport Company Ltd (Nakilat).

Over in the United Arab Emirates, Keppel operates Arab Heavy Industries (AHI), which focuses on a wide spectrum of ship repair, conversion, shipbuilding and steel fabrication services. This yard was formed through a landmark partnership between the Ajman Government, the Al Futtaim Group and Keppel O&M.



H.E. Paulo Soares, Brazilian Ambassador to Singapore, and CB Choo, CEO of Keppel Corporation and Chairman of Keppel O&M, get up close and personal with Brazilian music sensation Gilberto Gil (right)

GLOBAL NETWORK

Keppel Offshore & Marine Ltd

(Head Office)
50 Gul Road Singapore 629351
Tel: 65 6863 7200
Fax: 65 6261 7719
www.keppelom.com

SINGAPORE

Keppel FELS Limited

(Pioneer Yard 1 – Head Office)
50 Gul Road Singapore 629351

(Pioneer Yard 2)
55 Gul Road Singapore 629353

(Shipyard Road)
31 Shipyard Road Singapore 628130

(Crescent Yard)
60 Shipyard Road Singapore 628131

Tel: 65 6863 7200
Fax: 65 6261 7719

Email: marketing@keppelfels.com
www.keppelfels.com

Contact Persons: Wong Kok Seng, Managing Director
Keith Teo, General Manager (Marketing)

Keppel Shipyard Limited

(Tuas Yard – Head office)
51 Pioneer Sector 1 Singapore 628437

Tel: 65 6861 4141
Fax: 65 6861 7767

(Benoi Yard)
15 Benoi Road Singapore 629888
Tel: 65 6861 6622
Fax: 65 6861 4393

(Gul Yard)
55 Gul Road Singapore 629353
Tel: 65 6861 3007
Fax: 65 6862 3645/7

www.keppelshipyard.com
Email: ks@keppelshipyard.com

Contact Persons: Nelson Yeo, Managing Director
Louis Chow, General Manager (Commercial)
Mah Chan Wah, General Manager (Commercial – Shiprepair)

Keppel Singmarine Pte Limited

15 Benoi Road Singapore 629888
Tel: 65 6861 6622

Fax: 65 6862 1792

Email: singmarine@keppelsingmarine.com
www.keppelsingmarine.com

Contact Persons: Hoe Eng Hock, Executive Director
Poon Tai Lum, General Manager (Commercial/Marketing)

Keppel Offshore & Marine Technology Centre (KOMtech)

31 Shipyard Road Singapore 628130
Tel: 65 6591 5450

Fax: 65 6265 9513

Email: KOMtech@keppelom.com
Contact: Dr Foo Kok Seng, Centre Director

Offshore Technology Development Pte Ltd

55 Gul Road Singapore 629353
Tel: 65 6863 7409

Fax: 65 6862 3465

Email: felsotd@pacific.net.sg
Contact Person: Dr Foo Kok Seng, Executive Director

Deepwater Technology Group Pte Ltd

50 Gul Road Singapore 629351
Tel: 65 6863 7163

Fax: 65 6863 1739

Email: anis.hussain@keppelom.com
Contact Person: Anis Hussain, General Manager

Marine Technology Development Pte Ltd

15 Benoi Road Singapore 629888
Tel: 65 6860 2858

Fax: 65 6860 2502

Email: chenghui.tan@keppelsingmarine.com
Contact Person: Tan Cheng Hui, Senior General Manager

Asian Lift Pte Ltd

23 Gul Road Singapore 629356
Tel: 65 6668 4222

Fax: 65 6668 4333

Email: asianlift@asianlift.com.sg
Contact Person: John Chua, General Manager

Keppel Smit Towage Pte Ltd

23 Gul Road Singapore 629356
Tel: 65 6668 4222

Fax: 65 6897 8056

Email: kst@keppelsmit.com.sg
Contact Person: Ben Chew, General Manager

AUSTRALIA

Keppel Prince Engineering Pty Ltd

Level 7, 3 Bowen Crescent, Melbourne, Victoria 3004, Australia
Tel: 61 3 9820 9033

Fax: 61 3 9866 6110

Email: cchiam@ozemail.com.au
Contact Person: Charles Chiam, Director

AZERBAIJAN

Caspian Shipyard Company Ltd

South Bay, KMNF Basin
Baku AZ1023, Azerbaijan

Tel: 994 12 449 9930

Fax: 994 12 449 9931

Email: csc@csc.az
Contact Person: Yan Naing Myint, President

BRAZIL

Keppel FELS Brasil SA

Rua da Assembleia, 10 - 2113
20011-000 Rio de Janeiro, RJ, Brazil

Tel: 55 21 2102 9400

Fax: 55 21 2224 2248

www.kfelsbrasil.com.br

Email: kaichoong.kwok@keppelfels.com

Contact Person: Kwok Kai Choong, President & CEO

Keppel Singmarine Brasil Ltda

Rua Prefeito Manoel Ewaldor de Muller, 3388, Bairro
Machados, Navegantes, Santa Catarina, Brasil. CEP88-375-000

Tel: 55 47 3342 6460

Fax: 55-47-3348-1701

Email: Chongkee.tan@keppelsingmarine.com

Contact Person: Tan Chong Kee, General Manager

BULGARIA

Keppel FELS Baltech Ltd

54 Debar Street, Varna 9000, Bulgaria
Tel: 359 52 684 250/1

Fax: 359 52 684 252 (Admin)

Email: office@fels.bg

Contact Person: Lyudmil Stoev, General Manager

CHINA/HONG KONG

Keppel Nantong Shipyard Ltd

No. 9 Yan Jiang Road, Nantong City, Jiangsu Province
P.R. China 226005

Tel: 86 513 8530 0000

Fax: 86 513 8530 0011

Email: taikwee.lee@keppelnantong.com

Contact Person: Lee Tai Kwee, President

Keppel FELS Engineering Shenzhen Co., Ltd.

3th Floor, Chiwan Petroleum Building
Chiwan Road No. 5, P.R. China 518068

Tel: 86 755 26851902, 86 755 26851959,
65 68637215 (Singapore Contact)

Fax: 86 755 26851670

Email(China): jongheng.ho@kfelsshenzhen.com

Email (Singapore): jongheng.ho@keppelfels.com

Contact Person: Ho Jong Heng, General Manager

INDIA

Keppel FELS Offshore and Engineering Services Mumbai Pvt Ltd

Unit Number 3, 8th Floor, Prism Tower-A, Mindspace,
Link Road, Goregaon (West), Mumbai 400 062, India

Tel: 91 22 4001 8888

Fax: 91 22 4001 8898

E-mail: anant.shukla@kfelsmumbai.com

Contact Person: Anant Shukla, General Manager

INDONESIA

Bintan Offshore

Kampung Budi Mulia, RT.02/RW.01, Desa Sei Walang
Kecamatan Bintan Timur, Kabupaten Bintan

Propinsi Kepulauan Riau, Indonesia

Tel: 62 771 462 2297

Fax: 62 771 462 2298

Email: boonheng.kok@keppelfels.com

Contact person: Kok Boon Heng, General Manager

JAPAN

Regency Steel Japan Ltd

46-59 Nakabaru, Tobata-ku
Kitakyushu, Fukuoka 804-8505 Japan

Tel: 81 93 861 3103

Fax: 81 93 861 3114

Email: ws.chong@r-sj.com

Contact person: Wong Chun Yu, President

KAZAKHSTAN

Keppel Kazakhstan LLP

SEZ "Seaport Aktau", Aktau 130000, Mangistau Oblast
Republic of Kazakhstan

Tel: 7 7292 571 100

HP: 7 300 528 4885

Fax: 7 7292 571 110

Email: pw.yick@kk.kz

Contact Person: Yick Ping Wong, General Director

THE NETHERLANDS

Keppel Verolme BV

Prof. Gerbrandwyeg 25, 3199 KK Rotterdam-Botlek
Harbour no. 4550, P O Box 1001, 3180 AA Rozenburg

The Netherlands

Tel: 31 181 234300

Fax: 31 181 234346

Email: mail@keppelverolme.nl

www.keppelverolme.nl

Contact Person: Harold W.M. Linssen, Managing Director

NORWAY

Keppel Norway AS

Strandgaten 147, P O Box 425, 4304 Sandnes, Norway
Tel: 47 5160 2500

Fax: 47 5160 2510

Email: ros@keppelnorway.com

www.keppelnorway.com

Contact person: Roy Sletten, Acting CEO

THE PHILIPPINES

Keppel Philippines Marine Inc

Unit 3-B Country Space 1 Building, Sen. Gil Puyat Avenue,
Salcedo Village, 1200 Makati City, Philippines

Tel: 63 2 892 1816

Fax: 63 2 815 2581, 63 2 892 4604

www.keppelphilippinesmarineinc.com

Email: mhq@keppelpm.com or commercial@keppelpm.com

Contact Person: Mok Kim Whang, President

Keppel Batangas Shipyard

Barrio San Miguel, 4201 Bauan, Batangas
Philippines

Tel: 63 43 7271532 to 36

Fax: 63 43 7271453

Email: kbs@keppelpm.com

Contact Person: Poh Leong Kok, Senior Vice-President

Keppel Subic Shipyard

Cabanga Point, Cawag
2209 Subic, Zambales, Philippines

Tel: 63 47 232 2380

Fax: 63 47 232 3350, 63 47 232 3883 to 84

Email: all@subicship.com or commercial@subicship.com

Contact Person: Mok Kim Whang, President

QATAR

Nakilat-Keppel Offshore & Marine

Erhama Bin Jaber Al Jalahma Shipyard

Southern Break Water, Ras Laffan Industrial City (RLIC)
PO. Box 28388, Qatar

Tel: 974 4419 7300

Fax: 974 4419 7301

Email: commercial@nk.com.qa

Contact Person: Abu Bakar Mohd Nor, CEO

Chin Sze Kiun, Commercial Manager

UNITED ARAB EMIRATES

Arab Heavy Industries

P O Box 529, Ajman, UAE

Tel: 971 6 526 3232

Fax: 971 6 526 3233

Email: ahiaeme@emirates.net.ae

www.ahi-uae.com

Contact Person: Jimmy Loh, Managing Director

USA

Keppel Offshore & Marine USA Inc.

5177 Richmond Ave, Suite 1065, Houston, Tx 77056, USA
Tel: 1 713 600 8380

Fax: 1 713 600 8384

Email: yewyuen.chow@keppelOM-usa.com

Contact Person: Chow Yew Yuen, President

Keppel AmFELS LLC

PO Box 3107, 20000 South Highway 48
Brownsville, TX 78523, USA

Cell: 1 956 592 6149

Tel: 1 956 838 3187 Fax: 1 956 831 6220

Email: g.tan@keppelamfels.com

Contact Person: Tan Geok Seng, President & CEO

FloaTEC, LLC

14701 St. Mary's Lane, Suite 250, Houston, TX 77079

Main Tel: +1 281 870 5200

Main Fax: +1 281 870 5210

Email: businessdevelopment@floatec.com

Website: www.FloaTEC.com

Direct Tel: +1 281 870 5556

Mobile: +1 281 381 2781

Email: ehnamtvedt@floatec.com

Contact Person: Eric H. Namtvedt, President

Keppel Marine Agencies International LLC

(Texas Office)

5177 Richmond Ave, Suite 1065, Houston, Tx 77056, USA
Tel: 1 713 600 8371

Fax: 1 713 600 8374

Email: mike.holcomb@kmaihouston.com /

Contact Person: Michael Holcomb, President/Director

Mobile 1 713 816 0438

Email: john.bajor@kmaihouston.com

Contact Person: John C Bajor, Marketing Manager

Mobile 1 713 922 3226

(New Jersey Office)

15 Huddy Avenue, PO Box 417, Highlands, New Jersey, USA

Tel: 1 713 600 8370

Fax: 1 713 600 8374

Email: keppelnj@comcast.net

Contact Person: John J. Bajor, Director

VIETNAM

Keppel FELS Limited

Petrovietnam Tower, Suite 150M
9 Hoang Dieu Street, Ward 1, Vung Tau City, S.R. Vietnam

Tel: 84 64 850098

Fax: 84 64 850089

Email: john.chin@keppelfels.com

Contact Person: John Chin, Country Manager

RUSSIA

Marine & Shelf Development Ltd

129090 Moscow, 12, B.Spasskaya str., office 101, Russia
Tel: 7 (495) 9378978, 9378966

Fax: 7 (495) 9378978

Email: marketing@keppelfels.com

Floatel returns to Keppel for 3rd accommodation semi

Keppel FELS has been awarded a contract by returning customer, Floatel International Ltd (Floatel), to build a new generation accommodation semisubmersible (semi) for delivery in 1Q2014.

This accommodation semi will be constructed to the SSAU4000NG design, which is developed by Keppel O&M's Deepwater Technology Group. It will possess Dynamic Positioning (DP) 3 capability.

Keppel FELS has worked on two accommodation semi projects with Floatel previously. Floatel Reliance (SSAU™ 3600 with DP2) and Floatel Superior (DSS™ 20NS with DP3) were delivered last year.

The SSAU4000NG is an enhancement of the proven SSAUTM 3600 design; it has improved capability and operability. The design meets the stringent UK Health, Safety & Environment requirements to work in the UK sector of the North Sea as well as the Gulf of Mexico, Brazil and Western Australia.

Equipped with state-of-the-art accommodation and recreational facilities, the SSAU4000NG also provides increased comfort for the 500 persons it can accommodate in one-man and two-man cabins.

Peter Jacobssen, CEO of Floatel said, "What Keppel FELS has built for us previously have been well received by the market. Both units



The new contract is Keppel FELS' third accommodation semi project with Floatel, after the delivery of Floatel Reliance (in image) and Floatel Superior last year

are working successfully in their respective fields. We have ordered this third unit as we continue to see strong demand for such highly capable accommodation vessels, and we believe we are well-positioned to strengthen our niche offering in this area.

"As we grow our fleet of next-generation accommodation semis to meet the needs of the market, Keppel FELS is the ideal partner for us in terms of reliability and quality. Their suite of proprietary designs has proven to be cost-effective solutions for offshore accommodation and we believe the SSAU4000NG will be just as successful as her predecessors." Featuring the latest technologies, including that for enhanced station-keeping, the SSAU4000NG is capable of operating alongside fixed platforms, floating platforms and floating production storage and loading (FPSO) vessels. In addition, it has a full complement of deck cranes and fire-fighting capabilities.

Wong Kok Seng, MD of Keppel FELS said, "We are pleased that Floatel has entrusted us to build their third accommodation semi to our proprietary design. As more exploration and production activities move into deeper waters and harsher environments, the SSAU4000NG with its new and improved features is customised to meet these challenges.

"We have built up a good track record with Floatel, having delivered Floatel Reliance and Floatel Superior to their satisfaction. This contract reinforces our win-win partnership and we look forward to provide yet another quality vessel to Floatel safely, on time and within budget."

Well-suited to the needs of the market, the two Floatel rigs delivered in 2010 have been chartered for work – Floatel Reliance to Petrobras for five years in Brazil's Campos Basin and Floatel Superior to Statoil in Norway's Oseberg field.