

TUG Magazine

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SMIT tugs assisting a tanker calling at the new Gate terminal, Rotterdam.

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BOSKALIS AND SMIT: THE INTEGRATION CONTINUES

The first objectives in the integration of Boskalis and SMIT have been achieved. This merger has established one of the world's leading international marine companies, with a clear vision for optimisation and the achievement of growth in business volume and spread. The integration continues, with a programme of measures to reinforce operational activities in key sectors such as Subsea, Transport and Heavy Lift, and expand geographic coverage in many areas of the world. Boskalis and SMIT continue to explore the potential for strategic joint ventures in world regions offering the greater potential for growth.

The integration of Boskalis and SMIT will see enhanced cooperation between Business Units. Boskalis will continue to invest in activities vital for strengthening its terminal services, harbour towage activities and project-related capabilities – particularly in the Subsea, Transport and Heavy Lift sectors. We will continue to focus on areas with high growth potential: North West Europe/North Sea; South and West Africa; Brazil; the Middle East; South East Asia; and Australia. These areas offer exciting opportunities for expansion in the years ahead.

Much was achieved during 2011. We began to capitalise on our respective commercial strengths in the various geographic regions. Boskalis, for example, is strong in Australia – an area also important for the growth of SMIT's business. Equally, SMIT's strengths in areas such as South Africa and Brazil are opening doors for Boskalis. Recent awards for Boskalis included capital dredging projects in Brazil, with SMIT's local presence contributing to these projects.

To fully capitalise on the contracting opportunities, the further integration allows us synergies at project and operational levels. One important market, in this context, is the North Sea. We recently offered jointly for a project to benefit from this wind park construction,

with Boskalis responsible for the stonework and SMIT providing marine elements. The North Sea offers similar additional opportunities in the area of oil and gas platform installations and the decommissioning of platforms. Increasingly, we offer together and this is generating a lot of interest in the market. These efforts are not confined to the North Sea region. We recently offered jointly for mooring buoy projects in West Africa and the Middle East. The power of the brands reflects trust in our names: both companies have an enviable reputation for reliability – a characteristic always much appreciated by clients.

Smit Lamnalco

The future of SMIT Terminals and Lamnalco has been redefined in recent months. At mid year, agreement was reached concerning the sale of SMIT Terminals and selected AHTS transport activities to Lamnalco (50 per cent owned by Boskalis). The new company, with a turnover of around USD 300 million, ranks as the largest provider in the terminals sector worldwide. By the end of this year we will have completed our detailed Business Model for the merged company. As TUG Magazine went to press, we were finalising the new management structure. Besides a strong representation of SMIT managers, Daan Koornneef, Managing Director of Lamnalco, will be the CEO of Smit Lamnalco. Loek Kullberg of SMIT will be appointed a member of Smit Lamnalco's Board.

Our fundamental aim is to bring together the best of both companies, both geographically and in other ways. In geographic terms, Lamnalco is strong in the Middle East and in Nigeria, while SMIT is strong in Africa generally. Smit Lamnalco now has a much broader position in the market. By combining the individual strengths, Smit Lamnalco will excel in its technical expertise with stronger fleet and tendering capabilities. Put simply, we want the best of both worlds and we believe we are on the way to achieving it.

Global uncertainties

SMIT made a good contribution to Boskalis' first half year results, given the challenging character of today's economic conditions. If we look at our key business drivers, we see oil and gas remaining vibrant – significant investments continue to be made. This is positive for SMIT, particularly in activity centres such as Subsea and Transport and Heavy Lift. At the same time, we cannot predict macro-economic outcomes, given the scale of current problems in Europe and the USA.

The development of trade in ports is another key driver. As a consequence of macro-economic uncertainties, large-scale investments in port infrastructures have declined. In the SMIT context, there was a considerable downturn in port-related activity levels in 2008-2009, followed by a steady recovery to the point where 2008 peak levels were approached by the beginning of this year. Now, however, the pace has slowed.

Market trends and outlook

Over the last three years SMIT's harbour towage workload declined, subsequently recovered and is now largely stable. SMIT Harbour Towage focuses on medium to large vessels. On the world stage we are expanding in Brazil, but withdrawing from the Baltic and Argentina – where growth prospects are relatively modest. We will continue to concentrate on those areas with greatest market potential.

To this end, Boskalis recently opened discussions with SAAM (Sudamericana Agencias Aereas y Maritimas S.A.) with a view to establishing a joint towage operation in the Americas. A joint operation between SMIT and SAAM would create a leading provider of towage services in Central and South America. The combined operation would serve 45 ports in nine countries, with a fleet of over 170 vessels. Total annual turnover would exceed USD 270 million. The two companies are seek-

ing to reach a formal agreement during the coming months.

In the terminals sector, short term market prospects look uncertain, but in the medium term we expect further growth as new facilities come on stream. In particular, there is likely to be strong growth in the commodities sector, particularly in the coal and iron ore trades.

Turning to Transport and Heavy Lift, the strength of the North Sea market for renewable offshore energy is very significant. We now have a large number of vessels working in this region on wind park projects. Marine Projects now offers for more contracts on a lumpsum basis. We are seeing the first positive results, with several recent awards for decommissioning in the North Sea.

Furthermore, detailed studies are now exploring future equipment needs, in addition to the sheerlegs. Options include the construction of crane vessels and jack-ups.

We have also been investing in our subsea activities. Based on the numerous opportunities we see, Subsea has become a stand-alone Business Unit. Besides the addition of Work Class ROVs, we expect to operate four Diving Support Vessels (DSV) in 2012.

As for salvage, this business performs well, despite the unpredictable character of much of its work. Recent months have seen plenty of casualty operations. Contracts successfully executed include a remarkable oil recovery in Korean waters. This involved the pump-out of oil from a sunken tanker.

During the next year we are bound to see more cooperation between Boskalis and SMIT Business Units active in the world's oil and gas markets. Despite global macro uncertainties, we see many opportunities on the horizon for 2012.

Frank Verhoeven
Chairman, SMIT

Colophon

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FIRST N CLASS VESSEL TO JOIN FLEET IN 2012

The first of the new N Class cable-layer/multipurpose vessels will join the fleet in September of next year, followed by the second vessel two months later. These innovative ships were ordered in June from Samsung, (with ZPMC as subcontractor).

The first two of these diesel-electric vessels will be outfitted for the cable-lay role. The first newbuilding is already earmarked for a cable-laying assignment in Europe.

The new vessels will have a length of 99 m, breadth of 30 m, a design draft of only 4 m and a deadweight (at 4.7 m) of 7,500 tonnes.

The design concept for the N Class centres on a DP2 platform with generous accommodation (up to 104 persons) and inherent flexibility, allowing the vessel to be outfitted to a wide range of client specifications. The multipurpose roles of this new vessel include rock dumping, diving support, offshore construc-

tion support, salvage and subsea installation. A number of outfitting variations are possible, such as a helicopter deck, a large offshore heave compensated crane, moonpools to lower diving equipment, additional accommodations and DP3 compliance.

The first of the new N Class – the cable-layer – will be operated by Boskalis Offshore.

The design development of the N Class centres on flexibility and multirole capability. In the cable-lay role, the vessel is purpose-designed for shallow water operation. This emphasis on shallow water capability takes account of current and future needs in the wind park construction market, where there is a clear requirement for cable-lay close inshore – laying cables from turbines to power converter stations and to the shore. These vessels have beaching capability in this role. When engaged in inshore cable-lay, they will use a six-point mooring system and a large turntable with a load capac-



ity of 5,000 tonnes. The cable-handling deck area (joining/burial) is 36 m by 30 m.

The DSV market is also global in character. The North Sea region and Australasia are two

areas with particularly strong growth potential. Australia is fast developing as a major offshore oil and gas producer. Here, the N Class vessels could play an important role in subsea installations.

STREAMLINING HARBOUR TOWAGE IN THE DUTCH AND BELGIAN PORTS

A new organisation for harbour towage services in the Dutch and Belgian ports took effect on July 1. SMIT Towage North West Europe centralises and streamlines the SMIT and URS harbour assistance operations in Rotterdam-Europoort, Antwerp, Zeebrugge, Flushing, Terneuzen, Ghent and Ostend. The new structure is led by General Manager Peter Vierstraete and is headquartered in Antwerp.

The concession in Zeebrugge for the provision of harbour towage services held solely by URS, was extended for another seven years by MBZ (Maatschappij van de Brugse Zeevaartinrichtingen NV/Port of Zeebrugge), during the final quarter of 2011.

"Today, all harbour assistance work in the Belgian and Dutch ports is controlled by a centralised management, but with localised

tional levels. In the commercial environment, SMIT and URS are offering identical services. It makes no sense to present this offering to the same client twice over. There is a real force of logic behind our desire to concentrate commercial activities to the greatest possible degree. We now have one Commercial Manager for SMIT Towage North West Europe, who is assisted by local contract managers.

"As for the operational side, we now have a Operations Manager for harbour towage operations in all Dutch and Belgian ports. This also makes good sense, as we now operate the entire fleet on an integrated and interchangeable basis. For example, we have had an URS tug at Rotterdam for the past three months, to cover for maintenance work on a SMIT tug.

"We display the same flexibility in terms of personnel. We now exchange people between the ports on a regular basis. Again, this makes good sense. If we have a shortfall at Rotterdam, why fill it by going to a crewing agency, when we can bring someone in from, say, Antwerp?"

"We have also centralised the support functions for these ports. Financial and adminis-

trative departments are now also based at Antwerp – with obvious advantages."

From the clients' perspective, the streamlining of harbour towage services in the Dutch and Belgian ports will show in efficiency improvements. It will also be easier to address multi-port contracts, when required. Reporting on progress so far, Peter Vierstraete adds: "We are now four months into the new arrangements and things are going smoothly. We have discovered lots of synergies in areas such as crewing and training. There has also been an exchange of learning in areas such as ship handling.

"The main point is that two famous names, with a long and proud history, have been brought together. Both SMIT and URS have their origins in the 19th Century. It is human nature to take real pride in their respective traditions. However, these traditions are preserved. We will selectively use the URS name side by side SMIT. Using the best elements of our company can only be a good thing!"



'MSC Sonia' leaving the Berendrecht lock in Antwerp.

SMIT Towage North West Europe has a combined fleet of 45 tugs serving the Dutch and Belgian ports. Peter Vierstraete says: "SMIT Towage North West Europe is the central organisation for SMIT Harbour Towage at Rotterdam, together with all URS harbour towage operations – including URS Belgium for Antwerp, Ghent and Zeebrugge, URS Nederland for Terneuzen and Flushing and for OSMA, the harbour towage company operating in Ostend.

execution at port-based offices. In the case of SMIT Harbour Towage in Rotterdam, the local office will remain at SMIT's building in the Waalhaven. This local office serving Rotterdam will include operational, commercial, crewing, fleet and SHE-Q functions."

Peter Vierstraete says that the commercial rationale behind the formation of SMIT Towage North West Europe is straightforward: "The advantages of streamlining our activities are obvious, at both the commercial and opera-



Assistance of a tanker calling at the LNG terminal in Zeebrugge, Belgium.



SMIT tugs assisting a tanker at the Gate Terminal, Rotterdam.

SMIT'S FLEXIBLE RESPONSE TO SLOWER PORT VOLUME GROWTH

Widespread concerns and uncertainty over economic prospects have slowed recovery in many of the world's most important ports. In some instances, ports look to be entering a "second dip". In North West Europe, traffic growth at Rotterdam and Antwerp has slowed down in 2011.

Loek Kullberg, Managing Director of SMIT's Harbour Towing Division, says: "We have also seen a reduction in vessel movements at Panama and in the Brazilian ports. There is also a slowdown in the Far East region, especially in spot business."

The problems focus largely on container shipping. Loek Kullberg: "The overcapacity in the container sector is now making itself felt. The excess tonnage exerts a powerful influence on the market. From our perspective, there is an additional factor to consider: larger units mean fewer vessel movements and a consequent reduction in demand for assistance.

"These developments are of concern. The bulk trades, however, appear less affected. At the same time, it is hard to see sunlight at the moment. We may have to put up with cloudy conditions for the near term."

Traditionally, however, SMIT Harbour Towing, takes the long view. For example, investment

in the future of the Brazilian market continues, with a significant tug newbuilding programme. New vessels are under construction at Keppel's Brazilian yard, for delivery in late 2012/early 2013. The order is for six tugs, with options for a further six. Meanwhile, four frontrunner tugs have been mobilised to Brazil – two from Panama ('Smit Taboguilla' and 'Smit Manzanillo', 50 tonnes bollard pull 3111s) and two from the Baltic region, where the joint venture Towmar SMIT Baltic was recently dissolved (the 60 tpb 2810s 'Smit Dane' and 'Smit Venta').

SMIT's long-term commitment to Brazil, as one of six global "focus areas", continues despite the recent slowdown at centres such as Vitória and São Francisco do Sul.

Far East report

The Boskalis/SMIT business plan envisages a gradual development of large-scale, strategic joint ventures across the world regions. Besides the intended joint operation between SMIT and SAAM for the Americas (see page 2), there have been recent developments in the Far East region which reflect this future vision. Loek Kullberg comments: "It has been agreed



Assistance of a vessel at arrival in Panama.



that the Keppel SMIT Towage (KST) joint venture will now take responsibility for SMIT activities in eight ASEAN countries – including the important markets of China and Taiwan. Meanwhile, we are already active in three Chinese ports and we intend to continue to expand in this market. In a further move, the joint venture SMIT Kueen Yang in Taipei has been acquired by KST from SMIT and KST now has a 50 per cent stake in this integrated business. The third quarter of this year saw SMIT reach a milestone in the Far East, with the last of a series of nine 65 tonnes bollard pull new-buildings from Keppel joining the fleet.”

New LNG terminal in Rotterdam

In recent weeks, SMIT Harbour Towage tugs assisted the first gas carrier to call at Rotterdam's new LNG terminal. The Gate Terminal opened for vessel calls during September. Five large LNG carriers had called at Gate at the time of writing – all assisted by SMIT tugs. These assistances were provided by a various tugs, from 2810s to the 3213s 'Smit Panther' and 'Smit Cheetah' – at 95 tpb the largest harbour tugs in the port of Rotterdam.

Turning to prospects at Rotterdam, Loek Kullberg says: “There are almost limitless syner-



The 3070 ASD tugs 'Smit Yallarm' and 'Smit Awoonga' operating at the Australian port of Gladstone.

gies between our harbour towage operations at Rotterdam and Antwerp. There is no doubt that our new, integrated operation – SMIT Towage North West Europe (see page 3) – is an important step forward. This new organisation will achieve significant improvements in efficiency and operational performance.”

In the final quarter of this year, the concession for the provision of harbour towage services in the port of Zeebrugge, Belgium was extended. The seven year contract was awarded by MBZ (Maatschappij van de Brugge Zeevaartinrichtingen NV/Port of Zeebrugge) to URS, as part of SMIT Towage Northwest Europe.

Meanwhile, there have been mixed fortunes in Panama. The Balboa concession was successfully renewed for a further five years. The Cristobal concession, however, was lost. This freed two tugs for immediate redeployment to Brazil as frontrunners.

SMIT's organisation in Panama has been reshaped, based around a fleet of 10 tugs. This new structure took effect in early October. Nine of the 10 vessels are 2810 tugs of 60 tpb, all built within the past six years. This young fleet is well positioned to move forward, as the world economy eventually recovers.

SMIT LAMNALCO: A LEADER EMERGES IN THE TERMINALS MARKET

The merger of Smit Lamnalco is now established, with an understanding reached between the parties and the resulting agreement signed in September. SMIT's terminals business has transferred to Lamnalco (a joint venture in which Boskalis has a 50 per cent stake). The majority of existing contracts has been transferred to the new entity.

Loek Kullberg, Managing Director of SMIT Terminals, will become a member of the Smit Lamnalco Board. He says: “The creation of Smit Lamnalco has been structured to optimise the companies' respective strengths. Lamnalco, for example, is especially strong in West Africa and the Middle East, while SMIT Terminals has a complementary broader spread.

“The outcome of this merger is a market leader with an extensive fleet of 177 vessels and a turnover of some USD 300 million. Smit Lamnalco now occupies a very strong position in the market, with operations in more than 30 countries. We have clear ambitions for the integrated company. Put simply, we intend to grow Smit Lamnalco and increase its earnings potential. Smit Lamnalco has the ambition to double the company's earnings over the next five years.”

Smit Lamnalco has been structured to maximise synergies. Loek Kullberg comments: “The new company is now geared to meet the needs of our oil and gas clients in the next decade and beyond. We believe Smit Lamnalco, with the strong support of Boskalis, will be the preferred provider of terminal towage and marine support in the oil, gas and mining industries.”

Global reach

The new company will operate worldwide. Loek Kullberg: “Smit Lamnalco will be a truly global provider of terminal services – primarily the berthing and unberthing of vessels. We also see many opportunities for the provision of marine support for the mining industry. In all sectors, our intention is to widen the marine package, to include services such as underwater assistance, pilotage, loading and discharging.

“We also intend to provide added value to clients by supporting terminal operators in their drive to manage and reduce commercial risks across the world. This will include their operations at remote locations. Risk-sharing is an increasingly important element of our offering.”

Smit Lamnalco blends a reputation for high standards of quality assurance and an expertise in cost-effective operation. Loek Kullberg believes the combination will provide clients in the oil and gas industries with a new and refreshing approach: “Naturally, SMIT and Lamnalco have evolved distinct cultures over the years. The new entity will have its own



SMIT Rebras tugs provide assistance to a tanker at Angra dos Reis, Brasil.

‘personality’, but we can be sure that the SHE-Q component will have a highly important profile in the new organisation. Activities will be governed by very demanding SHE-Q standards.”

A management team of SMIT and Lamnalco directors will head Smit Lamnalco. The new company will have a large and very modern

fleet at its disposal. This fleet includes eight L Class vessels, transferred to Smit Lamnalco from SMIT in Singapore.

Looking ahead, Loek Kullberg concludes: “Smit Lamnalco's substantial cashflow – supported, as necessary, by both shareholders – will support a major newbuilding programme over the next decade. A significant expansion of the fleet is essential. If we are to meet our targets for growth, we must add between five to 10 contracts annually to Smit Lamnalco's portfolio. This suggests a need for up to 20 new vessels annually as, typically, each contract requires between two to four tugs. Clearly, Smit Lamnalco has a very ambitious programme for the next few years.”

Terminal assistance in the port of Damietta, Egypt.



CLOSE CALL FOR ONE OF THE WORLD'S LARGEST CONTAINERSHIPS

The months of September and October were busy for salvage teams in the Western Scheldt. Casualty response services included assistance for the 10,000 TEU container vessel 'MSC Luciana', with URS/SMIT responding as co-salvors.

'MSC Luciana' suffered engine failure during a transit from Antwerp to Zeebrugge. The large containership lost steering and went aground just after high water. The salvors were awarded a LOF 2011 salvage contract.

It is often necessary to mobilise many tugs to respond to groundings in the Scheldt River. There is a good reason why substantial resources are needed. The salvor's aim, when possible, is to free a grounded casualty at the first attempt. Should this prove impossible, the operation may become much more problematic.

casualty repeatedly cracking and folding when sitting during low water.

The joint response to assist 'MSC Luciana' involved in total eight tugs. They succeeded in refloating the vessel that same day: Monday, September 19. The salvage team succeeded in reballasting this vessel in readiness for high water. The containership then entered Zeebrugge for inspection and onward passage.

There was more drama in the river a couple of weeks later. On Saturday, October 8, the Ro-Ro 'Repubblica Argentina' suffered engine failure. This Ro-Ro got into difficulties at the Scheldt's notorious "Bend of Bath" and ran aground. The Pilot managed to use the vessel's bow and stern thrusters to turn her into a heading parallel to the bank.



SMIT Salvage refloated a casualty that had grounded on the Mumbai shore.

at high water, at 14.00 hrs. In the event, the vessel came free an hour earlier. The Ro-Ro then proceeded to Flushing for inspection.

Passenger ferry fire in Norway

Casualty salvage operations in September included assistance for the well-known passenger ferry 'Nordlys', which trades along the Norwegian coast from Oslo, calling at a series of ports from Bergen up to Kirkenes. The ferry reported fire in the engine room. Sadly, two people died in this fire. The passengers were taken off and emergency teams mobilised.

SMIT Salvage was called in by Norwegian hull underwriters to support the firefighting operation alongside at Alesund. This casualty already had a slight list but suddenly heeled over, to just over 20 degrees.

SMIT Salvage teamed up with Norwegian partners Bukser og Berging mobilising tugs, dewatering pumps and other essential equipment. At this point all personnel transferred from the vessel as 'Nordlys' was approaching the critical list of 25 degrees. Fortunately, the salvage team was able to rig high capacity pumps and reduced the list. This gained enough time for the ship's condition to be further improved.

The 'Nordlys' operation was supervised by a Salvage Master, a Salvage Naval Architect and a Salvage Superintendent. More pumps were rigged. As pumping continued, work began

on other essential tasks, including temporary patching. Gradually, the salvage team gained control and the ferry was brought into the upright condition. The 'Nordlys' is now undergoing repairs.



Earlier in the year, mid-June, container feeder vessel 'MV Wisdom' grounded on the Mumbai shores while under tow to her scrapyard, after parting her towline in bad weather conditions. With a combined salvage team from Singapore and Rotterdam the vessel was successfully refloated over a spring tide at the beginning of July. Prior to the refloat operation, excess water in the hold was pumped out and diesel oil was removed from the vessel. The tug 'Smit Lumba' assisted in the refloating and towed her to her final destination.

Far East activities

The third quarter of this year also saw SMIT Salvage teams respond to emergencies in the Far East region. One operation involved the geared general cargo vessel 'Unison Vigor', in



'MSC Luciana' went aground in the Western Scheldt. The vessel was refloated by eight tugs.

A grounded vessel can lose its structural integrity and fold or even break up, due to the severe forces imposed by the uneven river bed in combination with tidal action. A prompt, decisive response is essential, to prevent the

Here, once again, the emphasis was on achieving a swift refloating. The grounding occurred at 01.30 hrs and a response team (including a Salvage Master and Salvage Naval Architect) soon boarded the casualty. The 'Repubblica Argentina' was swiftly prepared for refloating

After removal of all bunkeroil, SMIT safely refloated the grounded container vessel in the Singapore Strait.



Thailand. During July this vessel was involved in a collision near the entrance to the Bangkok River. 'Unison Vigor' was laden with a cargo of steel coils. Her two holds were damaged and both holds flooded. The vessel then settled on the bottom alongside the quay, with the stern still above water and the engine room remaining dry. Unfortunately, the vessel then continued to settle.

This salvage operation was undertaken under Lloyd's Form (SCOPIC invoked). Working with a local partner, SMIT Salvage mobilised equipment from Singapore and a salvage team from Rotterdam. Work began on the priority – recov-

'B. Oceania', carrying a cargo of iron ore and bound for China, suffered engine failure, turned through 180 degrees and moved across the busiest shipping lanes in the world, at the entrance to the Singapore Strait. Following the collision, two holds soon flooded and bulkheads began to collapse. The vessel sank within a matter of hours.

SMIT Salvage was awarded an oil recovery contract and subsequently began work on the 'B. Oceania'. The team pumped out 250 tonnes of HFO. The surface platform for this recovery was 'Smit Borneo'. The operation was challenging due to strong currents and poor underwater



SMIT Salvage came to the aid of a general cargo vessel that suffered severe damage following a collision near the Bangkok River.

ering bunkers. Later, a diving team assisted in the discharge of cargo to crane barges.

'Unison Vigor' was prepared for refloating by closing all openings in the accommodation and engine room. The forepeak was prepared for pressurisation. Unfortunately, the LOF was terminated and although preparations for a refloating operation were finalised the team and equipment were demobilised.

July also saw a collision in the Malacca Straits, involving the Panamax bulk carrier 'B. Oceania' and the larger, Capesize bulk carrier 'Xin Tai Hai'. This collision occurred in the eastbound traffic lane on July 29.

visibility and hazardous as she is in the middle of the busy shipping lane 'B. Oceania' is now a hazard to navigation and must be removed.

One month earlier the large container vessel 'Al Rawdah' ran aground in the Singapore Strait, Indonesian waters. The vessel hit a reef and as a result sustained severe damage to one of the holds, which partly flooded. SMIT Salvage was contracted under Lloyd Form to assist the 'Al Rawdah'. All bunker oil was removed and transferred to a tank barge in order to safely refloat the vessel. With the assistance of several tugs, the 'Al Rawdah' was successfully refloated on July 8. The salvage team prepared Port Klang in Malaysia for redelivery to the owners.



A wreck section of car carrier 'Hyundai 105' is lifted by 'Smit Cyclone'.

Elsewhere in the world, activities in the third quarter included the response in South Africa to the grounding of the 10,000 DWT tanker 'Phoenix'. This tanker, laid up at Lagos for some years, was on a scrapping voyage to India. She reported engine problems while rounding the Cape. Subsequently, the 'Phoenix' grounded in storm conditions, on a beach north of Durban.

A SMIT Salvage team sought to refloat this vessel on a spring tide, making use of heavy swell conditions. Bunkers and other pollutants

engaged in torch-cutting frames. The horizontal cutting system was designed in-house by SMIT. So far, around 5,300 tonnes have been removed, with the scrap landed at Batam.

The work location is just south of the east-bound traffic lane in the Singapore Strait, off Batam. The water depth on scene is 50 m. The area's strong currents make this a challenging operation. The next phase of the wreck removal is now under way – the removal of the car decks. Compacted vehicle remains are



were removed by pumping over the bow to the shore, to tank trucks. Later, this casualty was refloated and scuttled at a designated deepwater location.

Major wreck removal

SMIT Salvage is also progressing a major project to remove the wreck of the vehicle carrier 'Hyundai 105', which sank off Singapore in 2004 following a collision with a Japanese tanker. This wreck contains over 5,000 cars. Work began in June 2010 and, to date, the project team has removed around 50 per cent of the wreck.

The equipment on scene includes the sheer-legs 'Smit Cyclone', with a lift capacity of 1,000 tonnes, and a fleet of scrap barges. This large wreck lies fully inverted on the seabed. Progress to date includes the removal of the double bottom, engine room and main engine. This was achieved by means of horizontal chain-cutting, supported by a diving team

being removed by slings. At the time of writing, the team was working at locations just forward of the engine room position.

The second phase opened with the use of SMIT's directional drilling system, mounted on the barge 'Smit Andaman', to drill under the wreck at 10 locations. This will be used to insert messenger wires and pull through cutting chains. The plan requires vertical cuts to create 11 sections, which will then be removed by SMIT's huge HDW1 hydraulic grab, with a capacity of 650 tonnes.

The programme allows around six weeks for vertical cutting, with grabbing to be completed over a four-month period. This project requires the deployment of a full range of specialised equipment: chain-pullers, giant grab and the horizontal drilling system. The 'Hyundai 105' wreck removal marks the first operational use of the HDW1 grab.

SMIT Salvage successfully refloated a tanker that had grounded on a beach near Durban in bad weather conditions.

SUCCESSFUL RECOVERY OF BUNKERS FROM WRECK IN KOREAN WATERS

Oil recovery from casualties and wrecks is a major environmental service provided by SMIT Salvage. Recent operations of this type include a contract with the Korean Government agency KOEM (Korea Marine Environment Management Corporation). The task was to remove oil from the wreck of the tanker 'Kyung Shin'.



This tanker went down many years ago off the country's south east coast, in a water depth approaching 100 m. The crane barge 'Smit Borneo' was mobilised as the surface platform for this operation. The spread included a saturation spread and team, hot-tap equipment

(for pumping from the submerged tanks) and a newly designed tank heating system. The operation recovered about 500 tonnes of HFO from the vessel's tanks.

The Korean fuel oil tanker 'Kyung Shin' sank in 1988. She was lost in the Sea of Japan, close to the South Korean port of Pohang. Given the depth of the wreck, it was decided not to remove the vessel. However, action was taken to reduce the environmental threat.

Nevertheless, over the years there has been persistent oil seepage from this wreck. The leakage was small, but KOEM carried out a risk analysis, taking into account the possibility of a larger scale release of oil from the 'Kyung Shin'. It was at this point that the Korean authorities approached SMIT Salvage, an organisation with a solid track record for successful oil recovery.

During 2010 KOEM contracted SMIT Salvage for the task of carrying out a wreck inspection. In response, the crane barge 'Smit Borneo' and the multipurpose tug 'Smit Angola' were mobi-

lised. The spread included a saturation diving system and other specialised equipment, to take account of the depth at which the inspection would be performed.

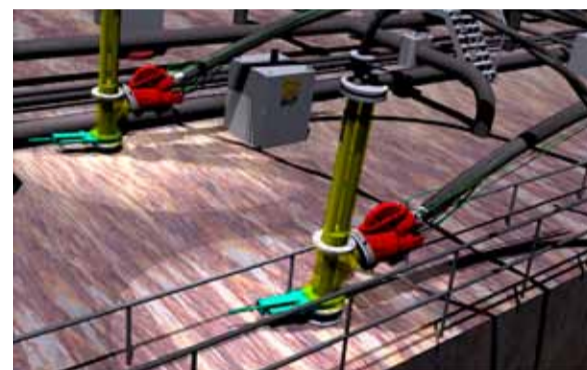
The diving team surveyed the wreck, measured the volumes remaining in each tank and took samples. Several compartments were found to contain various grades of fuel oil. This information was then used to develop a detailed pollutant recovery plan. The plan was accepted and SMIT Salvage was then awarded a contract to remove the oil during the summer of 2011.

'Smit Borneo' was prepared for this task. The vessel was fitted out with equipment from SMIT's warehouse in Rotterdam, including a hot-tap system, boilers, heat-exchangers and special pumps and hoses. Meanwhile, the SMIT Subsea SAT-3 saturation diving system was mobilised from Dubai.

'Smit Borneo' and 80 tpb tug 'Union Boxer', departed Singapore in early

June for this oil recovery, which proved to be something of a technical tour de force. One crucial success factor involved producing the correct temperatures for optimum pumping of the various fuel oil grades. This was achieved by the use of warm water heating, to reach the required temperature for pumping. Spiral heat exchangers were inserted into each tank, by means of the hot-tap system. When oil reached the surface, it was passed through an oil-water separator. During the operation, completed on July 10, a total of 12 tanks were emptied.

The use of warm water heating produced the correct temperatures for optimum pumping.



SUPPORTING THE CONSTRUCTION OF EUROPE'S NEW WIND PARKS

SMIT Transport's close working relationship with BARD, a major contractor for North Sea wind park construction projects, continued with fresh assignments this year. BARD's extensive offshore energy activities have continuously utilised SMIT vessels and barges over the past three years.

In 2008 the 24,000 DWT semi-submersible heavy transport barge 'Giant 4' was mobilised for the building of the nearshore VM wind turbine test facility at Hooksiel, Germany. 'Giant 4' was equipped with a huge crawler crane and was deployed as the main shallow water installation platform.

In May of this year 'Giant 4' returned to Hooksiel, to play a lead role in the replacement of a nacelle/motorhouse. This new BARD 5.0 nacelle, weighing 280 tonnes, has a projected lifecycle of 20 years. A Terex-Demag CC 6800 crawler crane was mounted on 'Giant 4' for this new task. Later, in October, 'Giant 4' returned to

Hooksiel for the third time, for another nacelle exchange.

The BARD projects also involve 'Smitbarge 7', 'Smitbarge 9' and the two B Class vessels 'Smit Barracuda' and 'Smit Bulldog'. These vessels continued to perform regular transport voy-

Semi-submersible barge 'Giant 4' at Hooksiel, Germany.



Load-out of jack-up rig 'Tan Dao 03' in Vietnam.

ages, delivering equipment, steel fabrications and piles for Hooksiel.

Other recent work for SMIT's big barges included 'Giant 2's charter for the load-out/float-off of the jack-up rig 'Tan Dao 03', in Vietnam. This assignment was performed in the August-September period. The total weight of the rig was approximately 10,000 tonnes. The load-out/float-off of PetroVietnam Marine's first newbuild jack-up was completed successfully. 'Giant 2' then demobilised back to Batam.

The jack-up 'Tan Dao 03' was brought on board the semi-submersible barge by means of a skidding system. The operation required some complex ballasting. The skidding phase was completed in just 12 hours, but the all-important thorough preparation occupied a very busy week. With the rig securely on 'Giant 2's main deck, the skidding system was removed and preparations began for the subsequent float-off.

This project followed 'Giant 2's charter – in the June-July period – for the drydocking of the mat-supported rig 'Mopu Sepat' at Lumut, Malaysia. This rig, with a weight of around 6,300 tonnes, was drydocked for maintenance and repairs.

'Giant 2's latest task is a contract for the transport and float-over of an accommodation platform. The voyage, from Pasir Gudang, Malaysia, to offshore Mumbai, is on behalf of Newcruz Offshore of Singapore. The big barge was taken on-hire in November, for 100 days. Looking ahead, 'Giant 2's schedule includes a contract with Saipem UK in the North Sea. This will involve the transport of an 8,200 tonnes topsides and 420 tonnes of grillage, from Cadiz to the UK Sector's Jasmine Field.

During the final quarter of the year 'Smitbarge 2' was chartered by Belfreight in Arkhangelsk, Russian Federation, for the transport of the Gazflot-owned jack-up rig 'Amazon' from Yugorskiy Shar to Murmansk. This jack-up, with a lightweight of around 4,800 tonnes, will remain on board 'Smitbarge 2' until August 2012, for special survey and repairs. The jack-up will then return to Yugorskiy Shar for offloading.

'Smitbarge 2's initial task was challenging. The barge manoeuvred under the rig (with the legs raised). Yet this procedure is familiar to SMIT; operations of this type were commonplace during the 1980s.

Elsewhere in the world, four SMIT Transport Belgium vessels – the 205 tonnes bollard pull 'Union Manta', the 90 tpb 'Union Fighter', the 160 tpb 'President Hubert' and the 93 tpb 'Alphonse Letzer' – recently completed a 15-month support assignment for Heerema in Block 31, offshore Angola. Block 31 is BP's deepwater production field. These vessels have been engaged in various activities supporting Heerema's heavy lift crane vessel 'Balder'. The



'Giant 2' loaded with jack-up rig 'Tan Dao 03'.



'Smitbarge 2' on transport with jack-up rig 'Amazon'.

tasks range from support for ROV operations to barge towing between the 'Balder' and Port Amboim.

In the Far East region, there is a growing emphasis on project work. A number of L Class vessels are now placed for diving support/installation projects. Discussions are progressing on future project commitments. Other L Class vessels, meanwhile, have been transferred to Smit Lamnalco.

BRAZIL AND GERMANY FEATURE IN SHEERLEGS' WORKLOAD

The floating sheerleg 'Taklift 4', with a 2,200 tonnes lift capacity following its recent upgrade, has been active in North West Europe busy over the past half year. Recent projects included a visit to Wilhelmshaven, to perform the lifts of two crane topsides, each weighing 552 tonnes. To carry out this work, the sheerlegs was rigged with the 30 meter fly-jib (four slings).

The scope of work at the German port called for the "lift off" at the assembly site on the Hannoverkai, followed by transport in the hooks through the locks to the Niedersachsenbrücke Terminal. The topsides were then positioned on the main sea jetty, onto pre-installed lower crane structures.

This assignment was performed for Kirow Ardel GmbH. The main challenge came when manoeuvring through the locks, given the large topsides and a centre of gravity requiring slings to be rigged unusually "tight" to the structure. This operation, performed in September, went very smoothly.

'Taklift 4's bookings for next year include a visit to Brazil, to perform the module lifts required for the FPSO 'Cidade de Paraty', building at the Angra dos Reis yard. This assignment, to be performed during the mid-year period, calls for the lift of a series of 13 modules, with weights ranging from 800 tonnes to 1,368 tonnes. Some modules will be lifted from barges; the remainder will be lifted from the quayside.

Meanwhile, returning to this year, 'Taklift 4' partnered another sheerleg for a dual lift in Rotterdam during September. The client was Huisman and the cranes lifted the drill tower for the rig 'Noble Globe Trotter'. This lift was performed at Huisman Schiedam and the weight totalled 2,164 tonnes.

Programme 'Taklift 7'

'Taklift 7' has also been active in North West Europe. Recent activities include the lifts, at Hamburg, of two coal discharger topsides, each weighing 425 tonnes. The scope of work also included the lifts of a machine house and the discharger booms, with weights of 120 tonnes. 'Taklift 7' performed these operations for Scholpp Montage GmbH.

The two top sections of the dischargers were loaded at the assembly area within Hamburg port during July. The topsides were loaded onto a SMIT pontoon for transport to the site at the Vattenfall Moorburg facility, where the bottom sections awaited. The dischargers will serve a new coal-fired power station on the Elbe.

'Taklift 7' was rigged with the 130 m long boom for these lifts. The boom arrived in Hamburg on the deck of the SMIT barge 'Tak 5'.

Later in the year, in mid-November, 'Taklift 7' called at AS Nymo's Eydehaven yard, Norway, for a series of module lifts for the 'Sevan Voyageur'. This FPSO is being re-fitted and modified prior to a move to a new location in the North Sea.

The sheerleg carried out this assignment over a three-day period, rigged with the 130 m long boom. It performed the installation lifts for seven process modules, with weights of up to 425 tonnes. The visit to this yard went very smoothly.

Meanwhile, in the Asian region, construction work is under way for a new and very large sheerleg – 'Asian Hercules III' – with a lift capacity of 5,000 tonnes.

This new sheerleg has been ordered in response to the growing demand for heavier lifts during the construction of large FPSOs and drill rigs. The keel-laying took place in October, in China. Delivery is expected in late 2013 or early 2014. The construction timeframe takes account of the long lead time for key items such as winches.

Next year and beyond promises to be busy for the Asian Lift joint venture. 'Asian Hercules III' will capitalise on the growing order books of yards in Singapore and elsewhere in Asia for FPSOs and drill rigs.



Taklift 4' with one of the two crane topsides in its hooks at Wilhelmshaven.



Taklift 4' positioned two crane topsides onto lower crane structures.



SMIT MARINE PROJECTS TAKES MAIN CONTRACTOR ROLE

SMIT Marine Projects continues to reinforce its organisation and structures, to develop as a marine projects main contractor. The first results of this new initiative, taken following the merger between Boskalis and SMIT, are now beginning to emerge. Projects executed as main contractor over recent months include contracts for dismantling works in the North Sea.

Wim Vogelaar, SMIT Marine Projects' General Manager, says: "Our recent contract for Nederlandse Aardolie Maatschappij (NAM) points the way to the future. We were main contractors for this dismantling project, involving the removal of the subsea protection structure of the L13 gas well. Increasingly, we will tender for major works, contracted for a fixed sum, with SMIT Marine Projects responsible for the entire process: prospecting, tendering, contract negotiations, engineering and the preparation and execution of projects.



"The NAM contract is a good example of close cooperation between SMIT and Boskalis – a factor which contributed to meeting the extremely short project timeline. The task was to remove a gas well protective structure in a matter of a few weeks. The time available was limited as this area of the Dutch Continental Shelf, off Den Helder, was due to be opened as a Naval training area from the end of October."

The sheerleg 'Taklift 7' was mobilised for this project, partnered by a tug to assist in anchorhandling. Hydronamic, Boskalis' in-house engineering company, completed a workability study for this area, timing and our equipment limits, a Boskalis surveyor was responsible for positioning and SMIT Subsea provided a Seaeeye Tiger ROV to assist the underwater work team.

The main task, once on location, was to lift the large steel structure which had protected this seabed gas well for the past sixteen years, since its installation. The well is now capped. The structure, with a weight of 116 tonnes, consisted of a steel tubular frame and grating panels. The structure measured 13 m by 13 m at its base, with a height of 7 m.

The lifting operation was monitored by the ROV. When the structure was lifted, it was fastened to the sheerleg's foredeck and brought to Flushing for proper disposal. The scope of work also included the pulling of steel piles which had secured the cage to the seabed. The entire operation was completed over a four-day period.

SMIT Marine Projects is now busy tendering for other dismantling and decommissioning works on the Dutch Shelf and in UK waters.

Wim Vogelaar adds: "We are receiving an increasing number of requests for decommissioning operations of this kind. Another important market for SMIT Marine Projects is renewable energy, particularly offshore wind parks. A third prime activity area is civil projects, where we focus on marine structures and the large-scale transportation of raw materials."



The gas well protection structure lifted to the surface.

When the structure was lifted, it was brought to Flushing on board 'Taklift 7'.



SMIT SUBSEA ORDERS TWO WORK CLASS ROVS

SMIT Subsea now operates on a global basis from five strategic locations: its Rotterdam headquarters and regional centres at Cape Town, Singapore, Dubai and a recently established office in Perth, Australia. SMIT Subsea's services include Inspection, Repair and Maintenance (IRM) by means of Remote Operated Vehicles (ROV) and surface demand and saturation diving systems.

SMIT Subsea is now investing in equipment and expertise, continuing its development as a major force in the subsea market worldwide. SMIT Subsea has already invested in advanced Work Class ROVs, various air diving systems and saturation diving systems.

SMIT Subsea has operated ROVs for many years, but these are of the "observation" type. The new Work Class ROVs, however, will allow SMIT Subsea to expand its offering into areas such as pipeline inspection. With this in mind, SMIT Subsea has ordered two Schilling Robotics Work Class ROVs. These heavy duty vehicles are ideal for IRM and construction operations.

The "HD" Work Class ROVs accommodate an extensive equipment payload to the side and forward areas of the vehicles. Each vehicle is pre-commissioned with attachments for IRM and survey tooling.

The Schilling HD has a high thrust performance and a substantial payload of 250 kg. Units are fully protected by impact resistant fendering. The equipment fit includes: a seven and five function manipulator; low light, colour zoom and docking cameras; depth and heading sensors; an Internal Navigation System (INS) unit; DVL; strobe; multi-beam sonar; LED lights; programmable pan and tilt; and a high flow valve pack for various tooling. The required positioning and survey software and hardware will be developed in close co-operation with the Survey department of Boskalis.

SMIT Subsea's HD ROVs will be commissioned next February. One unit will be deployed in the North Sea region. The second ROV will be available for operations worldwide. Beyond expanding SMIT Subsea's offering, the new ROVs could also play an important role in com-

plex salvage projects and offshore construction.

Meanwhile, SMIT Subsea has added a new "Zone 2" diving system to its equipment portfolio. This system is designed for operation in gas hazard areas on board platforms and FPSO's. The unit can be pressurised to function safely in a gas environment.

New initiatives

SMIT Subsea's recent initiatives include a cooperation agreement with Boskalis Heinrich Hirdes, specialists in the detection and removal of ordnance. This capability is of growing importance, as many nearshore locations now required for wind parks in the North Sea region were used for dumping surplus munitions immediately after both World Wars.



DEVELOPING SMIT SUBSEA'S GLOBAL MARKET OFFERING

SMIT Subsea's comprehensive plans for development include initiatives to strengthen its market position in the important North Sea region. Being active in the air diving market for many years the offering is being expanded, to include saturation diving and Work Class ROV services. With this strategy in mind, the DSV 'Constructor' has been chartered. She is equipped with a 12-man saturation diving system and two air diving systems, together with a crane rated at 100 tonnes. In addition, Work Class ROVs have been ordered, one of which will work in the North Sea area.

In a related move, SMIT Subsea has extended its charter of a second DSV, the DP3 'EDT Protea' - which is equipped for air diving work. With the operation of the DSVs 'Constructor' and 'EDT Protea', SMIT Subsea now participates in projects spanning both air diving and saturation diving sectors.

The 'Constructor' has been busy since May, undertaking a full work programme - diving services and construction support - on behalf of Visser & Smit Marine Contracting at Statoil's Sheringham Shoal wind park in UK waters. The project team on board 'Constructor' has been busy on a range of subsea construction activities around the turbine foundations. The Sheringham Shoal wind park is located off Teesside.

With this assignment completed, future prospects for the deployment of the 'Constructor' look good in both the air diving and saturation diving markets. Last year was challenging in the North Sea, with SMIT Subsea's workload largely confined to IRM activities. This year, however, activity levels have recovered, with construction projects on the increase. The workload has returned to a good balance between IRM and construction.



DSV 'Constructor' at work at the Sheringham Shoal wind park, United Kingdom.

'EDT Protea' at Maersk Oil's 'Tyra East' platform in the North Sea.



During the June-August period 'EDT Protea' was engaged in a contract involving a series of Maersk Oil platforms in the Danish Sector of the North Sea. The main scope of work was to remove redundant boat landings and moorings (which were submerged). Air diving was required for rigging tasks prior to the removal of these structures. Diamond wire cutting systems were employed.

The project team cut the structures into manageable sections, which were then lifted by platform cranes onto 'EDT Protea'. These operations required careful manoeuvring of the DSV, as the vessel worked in very close proximity to platforms and submerged structures. The removal activities also required good weather on scene. 'EDT Protea's' small diving craft helped to optimise this work. The combination of boat and bridges gave efficient access to all locations.

New office in Australia

SMIT Subsea recently opened a new office in Perth, Australia. The office opened in June and underlines Boskalis SMIT's recognition of the significance of Australia and regional growth potential. SMIT Subsea has re-positioned the SAT-4 modular saturation diving system to the Asia Pacific region. SAT-4 is now on board Fugro-TSM's large ROV construction vessel 'Rem Etive'.

SMIT Subsea and Fugro-TSM have signed a cooperation agreement. This commercial partnership has just had its first contract success - an assignment in Malaysia for Shell. Before the contract was awarded, SMIT Subsea successfully completed a major Shell audit of the new SAT-4 saturation diving system.

Perth is now SMIT Subsea's regional office and serves the entire Asia-Pacific region. The equip-



SMIT Subsea removed redundant boat landings and moorings for a series of Maersk Oil platforms in the North Sea.

ment recently moved to Australia also includes an air diving system (which will meet local regulatory requirements). In this way, both air diving and saturation diving markets will be covered in this important region.

SMIT Subsea's Sander Korte comments:

"Australia has great potential. However, cooperation with a strong local partner is essential. Our intention is to build a track record in the saturation market and achieve the same in the air diving sector, working in association with Fugro-TSM."

"Australia is important to SMIT Subsea, given that the North Sea is a mature market, the Middle East is already seen as one of our 'home markets' and West Africa, whilst strong, tends to function very much at the country-specific level. We intend to grow the Perth-based regional business into a new home market. In recent months we have successfully taken our first steps along this road."

In the Middle East, SMIT Subsea commenced a long term terminal subsea maintenance contract at Port Sudan, for SPPHC, on August 1. The scope of work includes surface gas diving and ROV services. This requires a six-man diving team, surface gas diving equipment, the ROV 'Falcon' and additional personnel. The "flat pack" dive spread platform was soon assembled and transferred to the vessel 'Opal'. The first task on site was an inspection for

Bluewater (including inspection of the mid-water buoy and then the PLEM, valves and actuators).



A Cougar XT ROV was deployed by SMIT Subsea for pipeline touchdown monitoring for Kito Enterprises.

SMIT Subsea also continues its long relationship with GNPOC at Port Sudan. GNPOC's Marine Terminal (Marsa Bashayer 1) has been exporting Nile Crude for the past 12 years, loading over 1,000 tankers safely and without incident during this period. Contract manage-

ment and the local joint venture agreement (which has produced the first commercially qualified divers in Sudan) have transferred to Smit Lamnalco. SMIT Subsea continues to supply diving systems, dive supervisory personnel and support as required.

Elsewhere in the Middle East region, SMIT Subsea has responded to Qatar Petroleum's request for an additional 25 personnel to service the port maintenance contract at Mesaieed and Ras-Laffan. In addition, SMIT Subsea provided ROV and air diving services, on board the DP2 DSV 'Team Muscat', for Neptune Marine Services in connection with the Qatar Gas underwater structure inspection services programme for 2011. The inspection work required a Cougar XT ROV and a six-man air spread. Recent months also saw completion of the seventh successful intervention for Kito Enterprises.

West Africa

SMIT Subsea Africa recently performed the hook-up of the 'Aseng' FPSO in Equatorial Guinea, on behalf of SBM. Work included pull-in, preparation and hook-up assistance for mooring lines, umbilicals and risers.

In Angola, SMIT Subsea is contracted to Saipem for diving support work on ExxonMobil's Kizomba FPSOs A & B Subsea Tiebacks. The work includes site preparation and cleaning of marine growth at both 'Kizomba A' and 'Kizomba B'; installation of 3 x I-Tubes at 'Kizomba A'; installation of the flexible jumper pull-in systems, installation of I-Tube extensions on 'Kizomba B'; and as-built surveys of protection guards. The work will be done in two phases between October 2011 and February 2012.

The annual IRM campaign in Equatorial Guinea for ExxonMobil and Hess commenced during November and should continue to early February 2012. Once again, the DSV 'Smit Orca' will be chartered by Hess, while ExxonMobil will charter the new SRP boat 'Smit Sjambok'. Two independent dive teams and associated dive spreads will be employed during the period.

SMIT Subsea's contract with SBM, for the provision of air and saturation diving services on board the DP2 DSV 'Dynamic Installer', continues. Works in Angola, Nigeria and Equatorial Guinea are being performed during the final quarter of 2011 and the first quarter of 2012. This partnership has been very successful over the years, providing SBM with a quality diving service to meet their deepwater SPM and FPSO inspection, repair and maintenance commitments.

Work in Nigeria continues through associate company Nigeria Westminster Dredging & Marine. SMIT Subsea is providing the diving support for a project to stabilise the 'SPDC Awoba' concrete barge in the Niger Delta. Supporting structures have been undermined by river erosion over time. A diving survey has provided data for the preparation of the repair solution. SMIT divers will work with the NWDMM team to install the stabilizing grout mats and other remedial works during the first quarter of 2012.



SMIT Subsea's SAT-4 modular saturation diving system on board of the 'Rem Etive'.





ASIAN LIFT PERFORMS SUCCESSFUL LOAD-OUT FOR KTT PROJECT

In Mid-June Asian Lift performed a series of lifts enabling the load-out of four modules at the McDermott Batu Ampar Yard in Batam, Indonesia, for the Kipper Tuna Turrum (KTT) development project in the Bass Strait off the coast of Victoria, Australia.

The Kipper Tuna Turrum project, owned by Esso Australia Resources Pty Ltd and managed by the engineering procurement contractor McDermott Industries in Australia aims to further develop the Kipper, Tuna and Turrum oil and gas reservoirs.

The load-out involved modules for 'Marlin B', a new oil platform bridge-linked to the existing 'Marlin A' platform in the Bass Strait. 'Marlin B' will process additional oil production and gas cycling from the Turrum field, which will be piped back to existing processing facilities at Longford, Australia.

3,200 t 'Asian Hercules II' successfully lifted the four modules, with weights of up to 2,100 t, and placed them onto a barge at the McDermott Batu Ampar Yard in Batam. To execute this lifting operation, 'Asian Hercules II' changed out the Fly-Jib tackles to the A-frame, in order to achieve its full "single hook" lifting capacity.

SMIT AMANDLA MARINE READY FOR THE CHALLENGES AHEAD

In commercial and financial terms, the current year unfolded in line with expectations for South African marine services company SMIT Amandla Marine. Managing Director Paul Maclons comments: "In the main, our performance has been satisfactory in 2011, although the year saw some significant challenges. The number of lost-time accidents, especially in the offshore fleet, remains a matter of concern. This has prompted a redoubling of efforts on the SHE-Q front. We were also confronted with some challenges in the bunkering business. Most of these problems were external and beyond our control – particularly a number of extended, unplanned refinery outages. These issues had an impact on the financial performance of our bunkering business, although we still generated profits in line with budget."

As for prospects for 2012, Paul Maclons expects another challenging year: "We are driven by a demanding set of revenue and profit goals. Our ability to meet these targets depends on the successful renewal of existing contracts and success in winning new business, both in South Africa and in neighbouring countries."

There was an encouraging development with the award of a five-year contract in Mozambique for the Brazilian coal mining group Vale. This is a significant contract, requiring two vessels, an offshore installation, a diving team and onshore technical support. Paul Maclons explains: "Vale mines the coal at a location around 1,000 km inland; the coal is transported by rail to the port of Beira. Our contract, which commences in February, is to provide marine support for Beira's offshore coal transshipment facility. Currently, Vale is stockpiling coal at the port. The company intends to export around six million tonnes of coal a year from this facility."

Meanwhile, a new vessel has been purchased for SMIT Amandla Marine client Sapref in Durban. The new vessel – named 'Siyakhula' ("we are growing") – will replace the 'Pentow Service'. These new arrangements mean revenues are set to grow at Durban.

Looking to the future, SMIT Amandla Marine recently submitted two tenders to PetroSA. One concerns a terminal contract, to manage

a Marine Loading Facility in Mossel Bay. The second concerns the provision of two anchor handlers to support a PetroSA drilling campaign involving the F-O Platform in 2012.

New business in prospect includes further contracts in Mozambique. Paul Maclons adds: "We are involved in discussions with the Mozambican Ports, Rail and Harbours Authority, concerning the provision of harbour towage and marine operations at the port of Beira. Certainly, we recognise the harbour towage opportunities at Beira and other ports in Mozambique."

"We believe it is important to widen our 'footprint' beyond South Africa, into countries such as Mozambique – with its strong growth potential – and Namibia, Madagascar and Mauritius. We are prospecting for marine services and, of course, for dredging and reclamation opportunities for Boskalis. At the same time, we will continue to develop in our home market. One area of interest is our work - in partnership with SAMSA, the South African Maritime Safety Authority - to review current arrangements for coastal protection."



Bunker barge 'Smit Lipuma'

There is also the newly built 'S.A. Agulhas II', launched this July and due to replace the existing Antarctic Research Vessel in April 2012. SMIT Amandla Marine manages this vessel on behalf of the South African Department of Environmental Affairs. It is providing support to the project team in Finland and will also manage the new vessel. The 'S.A. Agulhas' has a high public profile due to her annual voyages to Antarctica.

SMIT Amandla Marine has received a prestigious National Business Award in recognition of its excellence in the areas of business performance, employment equity and diversity management. The award, presented in August, was the first granted in this category to a company in the maritime industry.



Antarctic Research vessel 'S.A. Agulhas II' was launched last July.



Salvage vessel 'Smit Amandla' provides emergency response and coastal protection services in South Africa.

SMIT ENGINEERING EXPLORES THE FUTURE OF AUTOMATION

SMIT Engineering and its industry partners have completed the first phase of a futuristic "Vessel Automation Project". The aim is to gain new insights into vessel automation issues and, in particular, to identify what can be achieved within the boundaries of today's technologies. At the same time, the project team is also looking at the far horizon and considering the outer limits of what might be possible with tomorrow's technologies.

The project partners are: SMIT Engineering, providing tug expertise and hardware; Imtech Marine & Offshore, a leading provider of software/hardware and automated systems; Allseas, the pipe-laying contractor, interested in the automation of pipeline survey vessels; Bureau Veritas, providing input on present and future regulatory requirements; Amarcon, providers of maritime software systems; and the Defence Material Organisation, interested in potential naval warfare applications, such as unmanned area exploration.

SMIT Engineering's Peter Kortekaas sets this project into context: "It is a fact that automation is becoming more important in most industries. Automated systems play an increasingly prominent role in the operation of civil aircraft. Recently, we have seen the launch of the first cars with "self-park" capability. This process will continue and it seems logical to conclude that vessels – including future harbour and terminal tugs – will be automated to a greater extent than they are already.

"SMIT Engineering's main focus is the more efficient operation of the current generation of tugs in the fleet. We are not actively considering automated harbour assistance. Instead, we will concentrate on automation of equipment on board which supports efficient tug movements in confined and congested waters."

The first phase of the joint industry Vessel Automation Project has defined concepts for automation and autonomous operation. The project partners are also engaged in operational analysis and the "functional decomposition" of tug and survey vessel operations. Fresh insights are also considered for other applications (e.g. naval warfare).

The second phase – now under way – is considering regulatory impacts on various vessel types, identifying "bottleneck" issues. It also includes an operational risk assessment, in order to assess the possible level of automation of the various equipment on board, taking into account the function it fulfils. The third

phase will focus on the development of the technical concept (including software protocol and support hardware), to apply available technologies to specific vessel types, taking account of the findings of the initial phases.

The work will move on to a fourth phase, which will bring together these elements and take in lessons from other industries, then progress to the final phase of the current project: small-scale practical experiments, to test elements of the Vessel Automation technical concept.

Peter Kortekaas adds: "This last phase will be especially interesting. We will develop a control system and assess if it is possible to operate a vessel entirely free of direct human intervention – although, of course, taking into account that a crew will be on board. Meanwhile, we will keep our feet firmly on the ground and concentrate on the main matter at hand – more efficient tug sailing in busy port areas."

JOINT EFFORT FOR ROTTERDAM'S WORLD PORT DAYS



Many of Rotterdam's port companies gave a fascinating glimpse behind the scenes of their daily operations during the 34th annual "World Port Days" on September 2-4. In the city centre, along the river Maas and the quaysides, visitors enjoyed the best of the port to the full. The attractions included a wide range of vessels and equipment, together with numerous nautical demonstrations and excursions.

The theme for this year's World Port Days, "Port of many flavours", referred to the culinary aspect of the Port of Rotterdam, which is a stop-off for many of the semi and fully manufactured products that find their way to our kitchens. The events commemorated the history of Katendrecht, where the first Chinese immigrants settled 100 years ago, bringing with them the taste of China that has become so much a part of Dutch cuisine today.

Some 30,000 visitors boarded SMIT's specially equipped pontoon, that was moored along-

side the Wilhelminakade. The key features on board of the pontoon this year included a diving tank, that gave visitors an opportunity to see for themselves what it feels like to work in a diving suit below water, ROV demonstrations and a variety of heavy equipment on display.

Boskalis was also present on the pontoon. On display to the visitors were a Trailing Suction Hopper Dredger (TSHD) pump casing, a large cutter head and a head-high bucket from a backhoe.

In addition, the 156 m-long TSHD "Prins der Nederlanden" of Boskalis was berthed adjacent to the SMIT pontoon, alongside the Wilhelminakade, and held "open house". Many visitors were happy to attend. The crew members of the "Prins der Nederlanden" showed an almost unending procession of enthusiastic visitors around the ship and were available to answer questions.



▼ The SMIT pontoon also featured an actual salvage game, where children could pump a wreck to the surface themselves.

