

# TUG Magazine



2810 ASD harbour tug 'Smit Elbe' assisting tanker 'Propontis' upon arrival at the port of Rotterdam.

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Ben Vree stepped down as Chief Executive Officer of SMIT on September 1 and said farewell to the Group at the beginning of December. He has been succeeded by Frank Verhoeven, a Boskalis Group Director. Ben Vree successfully steered SMIT through a period of unprecedented change. In this interview, he looks back at the past decade, a very significant period in SMIT's long history.



## BEN VREE SAYS FAREWELL TO SMIT

### How does SMIT today compare with the organisation 10 years ago?

"It is a very different Group. Today, SMIT is more focused on its core businesses and is successful in achieving technical and operational synergies across its full range of activities. This is what we set out to achieve and, thanks to the efforts and determination of everyone involved, we have largely achieved our goals. SMIT, today, is a new organisation based on a portfolio of more stable business activities. As it enters the second decade of the new century SMIT has much greater inherent stability."

### At the personal level, do you have plans for the immediate future?

"My only plan at the moment is to have some time out before taking up a new challenge. Almost certainly, that challenge will be related to shipping - the industry closest to my heart."

### When you first joined SMIT, did you ever have doubts about the ability to turn things around?

"I had no doubts on that score, even before I joined as CEO. It was an organisation lacking a clear strategy for the future. It had no real direction and there was no doubt that substantial changes were needed. In analyzing this need for change, we decided not to engage external consultants. Instead, I travelled across the world, to have face-to-face discussions with over 70 SMIT managers. I saw, at first hand, that SMIT's people had the knowledge and passion required to make it work. It was a matter of galvanising and giving new direction. I never doubted! I knew that success was within reach and was convinced we could win."

### How do you feel, now it is time to say farewell to SMIT?

"I feel this is the right time to hand over. I must take the opportunity to thank SMIT's many clients across the world for their tremendous contribution to the process of change we have

just discussed. With their support we achieved great things. As a result, huge, highly positive changes have been made over the past 10 years. The strong support of our clients made it possible to embark on a major programme of investment in fleet renewal and expansion. This involved the ordering and delivery of over 160 vessels, to put SMIT on track for a secure, prosperous future.

"I would also like to take this opportunity to thank SMIT's staff, both ashore and on board the vessels, for their tremendous contribution. It was their commitment, loyalty and determination which made that strategy deliver the desired outcomes over the past decade.

"Now SMIT enters a new phase of change, following its merger with Boskalis. Another chapter in SMIT's long history opens. I take my leave at a point when the process of integration is already well under way. SMIT and Boskalis can now look forward to achieving valuable synergies between their organisations and, at the same time, preserving and enhancing those all-important synergies within SMIT itself.

"It has been a great honour to lead SMIT over the past 10 years. SMIT is now a part of Boskalis. I believe this merger makes good sense: It opens up a much wider panorama for SMIT and that, in itself, will be of huge value in future years. The merger has brought together two famous Dutch names who are both prominent in the marine sector.

"Inevitably, SMIT will move forward under a new philosophy and with new commercial

SMIT's new Board of Directors, f.l.t.r. Chairman Frank Verhoeven and Director of Finance Harry Hilhorst (seated), Managing Director Harbour Towing & Terminals Divisions Loek Kullberg and Managing Director Salvage and Transport & Heavy Lift Divisions Gerard Keser (standing).

goals. Returning to my initial comment, it feels right, at this moment, to hand over to Frank and his Board colleagues. I wish them well and every success in the future."

### On leaving SMIT, what memories do you take with you?

"It is difficult to know where to start. SMIT will always have a special meaning for me. After all, I became CEO at 46 - a relatively tender age. It was quite something to take the chair at such a famous name. SMIT was - and is - a very strong brand, recognised and respected around the world. I was excited then and I stayed excited!

"I had the chance to help turn things round, change attitudes and culture and bring in a new era of investment and growth. I am very proud of my time with SMIT and I wish SMIT's employees every success in the future."



## SMIT'S FLEET OF FIVE NEWBUILDINGS READY TO START AT GLADSTONE

A number of state of the art newbuildings joined the SMIT fleet during the second half of 2010. The new arrivals included the final two in a series of five 3070 tugs of 70 tonnes bollard pull, for service at the major coal port of Gladstone, on the Australian Gold Coast.

These Robert Allan-type tugs were delivered within a year of the contract award - a major achievement on the part of Uzmar Shipyard, Turkey, and all others associated with this fast-track newbuild project.

The first three tugs were named 'Smit Kongoo', 'Smit Yallarm' and 'Smit Awoonga'. The final pair are 'Smit Tondoon' (delivered October 25) and 'Smit Kullaroo' (delivered November 8). These new vessels are fully equipped for LNG-related support, in line with potential future requirements for LNG terminal support services.

Uzmar Shipyard has an on-going production programme and the first two of the five new tugs were already under construction when the Gladstone services contract was placed. SMIT took the two units then building and ordered a further three (at a point when steel began to be cut for them). With the timely delivery of these ASD newbuildings, the Gladstone harbour towing services contract will commence on schedule as from January 1, 2011. Deployments for this contract also include a 3211 type from China, the 'Smit Leopard', as back-up.

Other newbuildings delivered during the second half of this year include the 'Smit Lynx', also built in China. The deployment of this vessel had yet to be fixed at the time of writing. In addition, the first two in a series of four 75 m flat-top barges were delivered in December from Damen, Romania. The new Smitbarges - 10, 11, 12 and 14 - will work primarily in the European region, on both transport and heavy lift assignments.



'Smitbarge 10', the first of four new Smitbarges, was launched at the Damen shipyard in Romania at the end of November.

Recent deliveries also included two Robert Allan RAmpage 5000 multi-role vessels, completed by Keppel Nantong, near Shanghai. The 'Smit Angola' arrived in mid-year. The second of the two, 'Smit Siyanda', is now working with SMIT Terminals, engaged in SPM support services at Durban.

### Future projects

A major appraisal of SMIT's global fleet and future requirements is now in progress. Each existing vessel is being profiled in terms of position in the life-cycle, performance characteristics and, where appropriate, potential replacement over the period to 2020. An important dimension of this project is the detailed assessment of environmental factors, as part of SMIT's broader programme for enhanced environmental performance, and the technical appraisal of innovative future tug concepts. The latter involves comprehensive work on various options, such as advanced diesel-electric, sophisticated hybrids and LNG-fuelled vessels. Increasingly, SMIT tenders for harbour towing services and terminal support, often spanning many years, will propose radical solutions that set new standards for operational efficiency and environmental performance.



Newly built vessels 'Smit Yallarm' (above) and 'Smit Kullaroo' (below) are two of the five 70 ttp tugs that operate at Gladstone, Australia.



3211 ASD tug 'Smit Leopard'.





## NEW TUG ORDERS UNDERLINE SMIT'S COMMITMENT TO BRAZIL

SMIT Harbour Towing's long-term commitment to the Brazilian market for harbour towage services was underlined on December 1, when it became the 100 per cent owner of the SMIT Rebras joint venture.

During the second half of 2009 SMIT Rebras received the final tug in a series of 18 new-buildings for service at Brazilian ports. These tugs consisted of 12 Robert Allan 45 tonnes bollard pull ASD units and six in the 65 tonnes bollard pull class.

Loek Kullberg, Managing Director of SMIT's Harbour Towing Division, says: "We expect the growth of our operations in Brazilian ports to accelerate during next year. With this in mind, we have plans for further newbuildings, commencing with another four tugs in the 45 tonnes bollard pull class. Tugs of this type are ideal for deployment in South American ports - as is the case in the Far East region. As these new tugs are building, we may place an order for yet another series. Meanwhile, our expanding needs over the next three years will be met by 'frontrunner' tugs provided from SMIT's global fleet, as required. In essence, we are implementing a strategy for flexible global deployments, centred on three tug 'garages' and knowledge centres - Rotterdam/Antwerp, Singapore and Brazil."

Currently, SMIT Rebras is active in five Brazilian ports: Santos, Sao Luis, Paranaguá, Sepetiba and Vitória.

Elsewhere in South America, SMIT Harbour Towing established a new operating agreement in November with Argentinian company Maruba. This agreement provides for cooperation to build market share in Argentina. SMIT Harbour Towing will continue to operate the 'Smit Jamaica' and 'Smit Antigua' in Argentina, together with the 'Smit Abaco', the 'Miura' and the 'Buni'.

In Panama, three units in the SMIT fleet have been sold: 'Smit Bahamas', 'Smit Sandtbank' and 'Smit Dortsebank'. They are succeeded by two tugs redeployed from service in Nigerian waters. The new arrivals, 'Smit Yerwa' and 'Smit Ile-Ife', are 53 tonnes bollard pull tugs. They offer a path for further growth in an increasingly competitive operating environment. The two tugs will be busy with a variety of activities, including oil terminal support.

SMIT tugs assisting one of the world's biggest bulk carriers, 'Berge Stahl', on arrival in Rotterdam - Europoort.

### Prospects in Canada

SMIT Marine Canada - with operations centred on Vancouver and Prince Rupert - also continues to progress. Activities have a new focus following the recent disposal of the transportation arm engaged in general barging and log barging. This sale (to Seaspan, part of the Washington Group) was completed in October.

Loek Kullberg explains the context to this sale: "We regarded these activities as non-core business. We need to concentrate on developing our harbour towage activities in Canada. This strategy accelerated at the beginning of this year, when we acquired Minette Bay in Prince Rupert. This venture is running well.

"Looking ahead, we plan to make further harbour towage investments in the Canadian market, replacing tugs with units offering greater bollard pull. We are also keen to expand support activities at energy terminals. One obvious candidate is the new LNG terminal at Kitimat, in the far north. We plan to tender for the marine support contract for this new facility, situated some 500 miles north of Vancouver."

### Developments in Europe

In the European region, progress continues to be made in the integration of activities in Dutch and Belgian ports, centred on closer coordination between the key centres of Rotterdam-Europoort and Antwerp.

There are also developments in the UK: the establishment of a new joint venture with Targe Towing at Tilbury, to provide services at this container and conventional port. Targe is providing a tug no longer required at the Petroplus Terminal. SMIT is providing the 'Smit Ahoada', which was mobilised from Nigeria.



SMIT Rebras tugs 'Smit Ticuna' and 'Smit Tupi' assisting container vessel 'Rio de Janeiro' at the container terminal of Santos, Brazil.

In the key port of Antwerp, the URS fleet has been reinforced with the recent delivery of 'Union Hawk', another newbuilding from Arman Shipyard in Burela, Spain. 'Union Hawk', with a bollard pull of 86 tonnes, is now work-



URS harbour tug 'Union Hawk' entered service at Antwerp.

ing in the Port of Antwerp, assisting vessels such as the Ultra Large Container Ship 'MSC Beatrice' and sister vessels - regular callers at Antwerp.

'Union Hawk' is the second of two newbuildings. The first, 'Union Eagle', was delivered in May of this year. Elsewhere in the world, recent activities included the successful completion of SMIT Kueen Yang's 'SKY 401' tow of the crane barge 'Rih Yang 2' to location at Taitung Zhiben, Taiwan, for a major pipelay project.

'SKY 401' carried out this assignment for Asian Grand. On completion of the tow, the vessel stayed on location to assist the crane barge during pipelay operations. The SMIT Kueen Yang joint venture operates five tugs, all based at Taipei.

Reviewing trends in the global harbour towage markets, Managing Director Loek Kullberg concludes: "We see the market picking up at European and many other ports worldwide. At last we are beginning to see an increasing volume of vessel calls. The overall trend is clear and it is positive."

## SMIT READY TO COMMENCE TOWAGE SERVICES AT GLADSTONE, AUSTRALIA

The SMIT Harbour Towing contract for marine services at the Australian coal port of Gladstone will commence on schedule on January 1, 2011. The first of a fleet of five 70 tonnes bollard pull tug newbuildings arrived at Gladstone in late October. All five will reach the port by the end of this month (December).

This important contract award in Australia provides SMIT with an exclusive harbour towage licence at Gladstone for a five-year period (with an option for an additional three years). Gladstone is already a busy port and it is set to get even busier. Total vessel calls in the year to June 30 totalled 1,430, with throughput at 83.3 million tonnes.

This breakthrough contract has real significance. It is the first harbour towage start-up for SMIT in Australia for some years. Gladstone is also important. It is one of the country's

leading coal export ports. In the year to June 30 coal exports totalled just over 60 million tonnes. In the port's development plan, the target is to increase total throughput from 76 million tonnes in 2008 to 127 million tonnes by 2013. This would equate to around 2,200 vessel calls by 2013.

The principal industrial activities in this region of Australia are minerals extraction and coal mining. Gladstone is a relatively small town with a large port. Frequent callers at the port include some of the largest vessels in the world bulk carrier fleet. The new contract is regarded as a major milestone for SMIT Harbour Towing and SMIT Terminals. The next challenge is to progress SMIT's tender for LNG terminal support at the Gorgon project in Western Australia - where Boskalis is already engaged in a major dredging project for the developers, Chevron.



SMIT Harbour Towing personnel arrived in Gladstone during July of this year. The shore-based team began to settle in and prepare for the arrival of the vessels towards the end of

the year. The five new vessels fly the Australian flag and will have all-Australian crews. The tug Captains have received comprehensive SMIT training, including simulator training in Rotterdam. They have also gained shipboard experience on board URS tugs of similar design operating in the port of Antwerp. Training continued at Gladstone, following the arrival of the first of the new vessels.

The newbuildings were delivered by the Turkish shipyard Uzmar to a tight deadline - less than a year after the order was placed. These newbuildings, to a Robert Allan design, are named 'Smit Kongoo', 'Smit Yallarm', 'Smit Awoonga', 'Smit Tondoon' and 'Smit Kullaroo'. The "frontrunner" tug is a 3211 Class vessel. This will work on the spot market in Australian waters but will be available as back-up, as and when required.

SMIT operations in Australia are now headquartered in Sydney, integrated within the Boskalis offices.



## PREPARING TO LAUNCH TOWAGE SERVICES IN VIETNAM

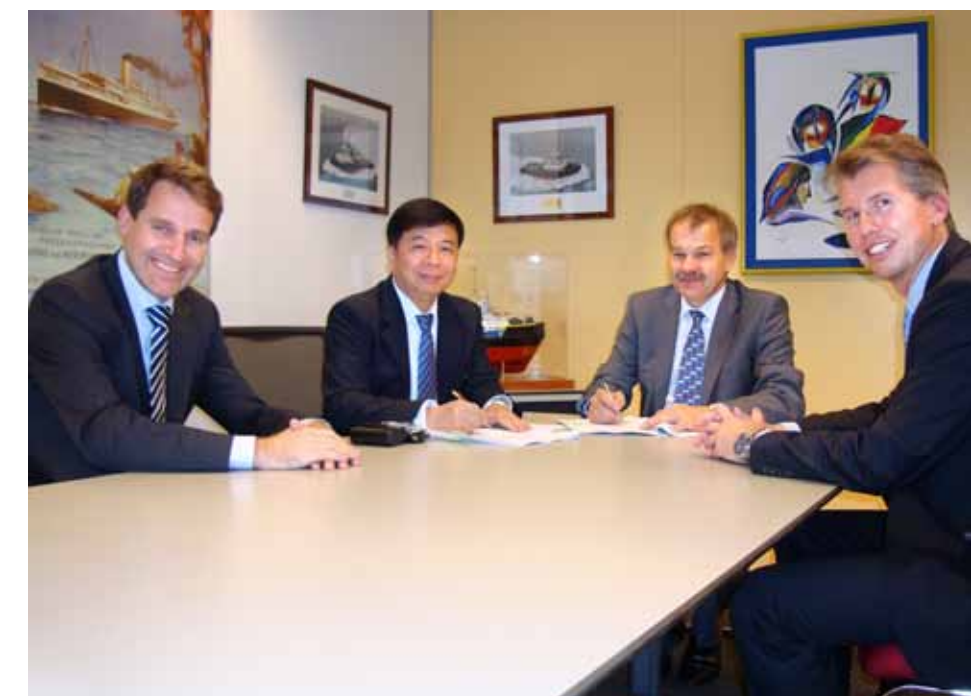
Plans for SMIT's new joint venture in Vietnam are continuing to develop. The partners, SMIT (Harbour Towing and Terminals) and Esaco Group, signed a joint venture agreement in September 2010. They are now in discussion with governmental authorities and commercial parties, with a view to provide towage services in Vietnamese ports and for oil and gas clients, under the banner of SMIT Esaco Marine Services. The objective is for SMIT Esaco Marine to commence operations in 2011.

The launch of this new towage venture comes at a time of rapid growth in Vietnam. There is a powerful drive to build infrastructures that will allow the country to develop as a major regional hub. Furthermore, Vietnam has an extremely promising oil and gas sector.

Vietnam is a nation with a coastline of around 3,200 km. National economic ambitions will require the progressive development of

Vietnam's seaports system. The aim of this strategy is to develop Vietnam's seaport system according to a national master plan. The country's seaport system must ensure the movement of import and export cargo as well as freight in transit by sea in response to the requirement of the country's economic growth.

The joint venture's initial interests centre on providing port and terminal towage services in various growth regions along the Vietnamese coast, amongst others in the Cai Mep/Vung Tau region. This area is responsible for a substantial proportion of throughput in Vietnam and includes the important oil and gas area of Vung Tau.



Fl.t.: Leo Huisman, Managing Director SMIT in Singapore, Tran Viet Dzung, CEO Esaco Group, Loek Kullberg, Managing Director SMIT Harbour Towing and SMIT Terminals, and Mark van Dongen, Business Development Manager SMIT Harbour Towing, signing the joint venture agreement.



## TERMINALS: LOOKING TO THE PROMISE OF BETTER THINGS TO COME

Prospects for SMIT Terminals in the longer term remain very strong, but the current fallout from world recession has had an influence on major investment decisions and project timelines. Loek Kullberg, Managing Director of SMIT Terminals, says: "During the downturn the oil and gas sector has showed real resilience but, inevitably, there has been some impact. Today, the market is in recovery, albeit slow in pace. Most recently, there has been hesitation in the rebuilding of confidence. A number of major LNG projects - involving both shore-based and offshore terminals - have been delayed for the present."

"Clearly, there is no real prospect of a rapid pick-up in the terminals market. We have seen few terminal support contracts awarded over the past 18 months and this situation could continue for some time. Certainly, we are not expecting any significant change over the next half-year. Nevertheless, the fact remains that a high proportion of proposed oil and gas terminal projects are likely to go ahead in the longer term, despite deferment during this period of economic difficulty."

Loek Kullberg continues: "We believe that our commercial targets are still attainable. These targets are based on growth in profits and this stems from a variety of factors. Obviously, few terminal projects do exercise a strong influence on outcomes, but we believe we will 'catch up' over the next two to three years. We expect growth in areas such as renewables and in environmentally attractive alternatives, such as LNG. We will see the pace of new projects

accelerate as general economic recovery takes hold and strengthens.

"We are already experiencing an upturn in the search for alternative energy sources. Ultra-deep water operations are increasing and, in the years ahead, we see FPSO support as a major growth area for SMIT Terminals. At the same time, this is a business sector where patience really is a virtue. It takes patience and determination to win new contracts. At the same time, each success brings rewards which are long-lived."

### SMIT-Lamalco progress

The Boskalis/SMIT merger paves the way for the creation of the world's largest terminal operator, with some 40 per cent of the global market for marine services involving FPOs, buoys, oil terminals and LNG facilities. This represents a global market share of around 10 per cent in terms of all terminals-related business worldwide.

The challenge now is to define the most effective way of combining the two businesses. Loek Kullberg: "Lamalco and SMIT Terminals have similar turnovers, at around EUR 120 million annually (including joint ventures and other commercial affiliations). The combined fleet exceeds 150 vessels. Several options for integration are now under consideration. Inevitably, it will take some time to identify and implement the optimum solution. This must fully recognise the potential of SMIT Terminals and its associated joint ventures, partnerships and synergies."

"Both SMIT Terminals and Lamalco are very strong in West Africa and the Middle East. Operational cooperation as front runner for a permanent joint venture in these regions is an option that is being considered."

### Prospects in Australia

With tug operations about to commence at the coal port of Gladstone, on the Australian Gold Coast, SMIT Terminals is busy pursuing new opportunities in Australia. The prospects include a long-term terminal support contract for the Gorgon LNG project, west of Port Hedland, in Northwest Australia.

Gorgon is a prestigious project. Boskalis has a major role in constructing the new marine facilities, with a major dredging programme under way. Currently, SMIT has submitted a tender for terminal support, requiring four tugs of advanced design. SMIT's technical submission is based on the provision of sophisticated diesel-electric vessels offering extremely high environmental performance. This tug concept has been developed in association with Keppel and the design bureau Guido Perla. The second round in the tender process open is expected to open in the coming months.

In the Asian region, SMIT tugs have been working at Tangguh, Indonesia, for the past 18 months. Two 2810 tugs, together with two KST tugs, have been 'frontrunners' at the BP/MIGAS gas export terminal, operating in association with local partners Samudera. The intention is to provide future services via four Indonesian tug newbuildings. The first of the new vessels

was delivered in December. SMIT Terminals has a contract with BP/MIGAS to assist in bringing the new tugs into service and to man them for a 12-month period.

Looking ahead, a long-term crewing and operating contract with BP/MIGAS is a possibility. Meanwhile, SMIT Terminals intends to retain at least two 2810 tugs in the area, to ensure continuity of service as the new tugs are brought into operation.

Other contract developments in recent months include a five-year extension for SMIT Terminals' contract in Sudan. In India, 'Smit Jaguar's' employment at Mumbai - a one-year contract with British Gas - has been extended for a further two years.

Recent vessel deployments include the move of RAmpage 5000 newbuilding 'Smit Siyanda' to Durban, for SPM support. Sister vessel 'Smit Angola', currently working for Total in Angola, is likely to be transferred to Brazil for future operation.

SMIT Terminals in Kuwait has received ISO/OHSAS certification, following a British Standards Institute audit and assessment. The Kuwait-based organisation now has ISO 9001 (Quality Management), ISO 14001 (Environmental Management) and OHSAS 18001 (Health and Safety Management) certification.

RAmpage 5000 newbuildings 'Smit Angola' and 'Smit Siyanda' recently joined the SMIT fleet.

## SHIP FIRES PROMINENT IN RECENT SALVAGE WORKLOAD

Major Lloyd's Open Forms for SMIT Salvage during the European Summer included the 100,000 tonnes self-discharging bulk carrier 'Yeoman Bontrup', which caught fire at a Scottish quarry terminal while loading gravel/stones for a voyage to The Netherlands.

Huge quantities of rock are required for the construction of Rotterdam-Europoort's new Maasvlakte II complex of marine terminals. There are two main quarries providing vast quantities of stone - one in Scotland and the other in Norway.

The 'Yeoman Bontrup' is a highly specialised vessel. It is designed to self discharge by a system of conveyor belts running to a series of discharge gates. Twin belts come together to bring the stone out of the holds and up to the gates. In early July this system was not in



The fire on board freight ferry 'Lisco Gloria' was successfully extinguished.

use, as 'Yeoman Bontrup' was in the process of loading at the Scottish terminal. The vessel was around 75 per cent loaded when fire broke out during maintenance work on the conveyor system. This fire spread rapidly; over 45 m of belt was soon ablaze. The fire then reached the engine room, followed by the accommodation and steering gear room. The crew abandoned the vessel and were picked up by a lifeboat.

More damage resulted when stored boiler chemicals came into contact with water, producing an explosion. This violent blast ripped off the poop deck, which landed on the funnel deck!

SMIT Salvage responded in cooperation with co-salvors J.P.Knight of Lowestoft. The large salvage tug 'Anglian Sovereign' reached the scene within hours. SMIT mobilised a salvage and firefighting team from Rotterdam. Other tugs joined the firefighting and cooling operation, which lasted several days. The fires were eventually extinguished on July 6. The casualty was then moved from the berth to a safe anchorage and prepared for a tow to IJmuiden. LOF was terminated with the vessel safely moored at the dolphins just outside the IJmuiden Locks.

There was extensive damage to the 'Yeoman Bontrup'. The main engine was found to be intact but other areas in the engine room were destroyed in the fire. The accommodation

was virtually consumed. Yet, given the specialised nature of the vessel and the pressing requirement for its return to service, repairs are already well under way, with the intention of returning the ship to operations as soon as possible.

### Freight ferry fire

Another ship fire occurred more recently, on October 9. During the early morning the RoPax ferry 'Lisco Gloria', proceeding in Danish waters, reported fire on the high level open car deck. This blaze started in a trailer and spread very rapidly.

'Lisco Gloria' was on a voyage from Kiel to Klaipeda, with 236 passengers and crew on board. This emergency began to unfold when the ship was around 20 miles out from Kiel. Fortunately, the vessel was abandoned without injury to passengers and crew members.

When the Danish Emergency Towing Vessel (ETV) reached the scene, the RoPax was found to be on fire from bow to stern and drifting in towards the coast.

The accommodation was already gutted, but there was still some shelter available from the intense heat. This allowed two Coast Guard officers to board the casualty by helicopter. They managed to drop the anchors. The Coast Guard officers were then lifted off and 'Lisco Gloria' held on her anchors in a position three miles off the coast.

SMIT Salvage obtained a Lloyd's Open Form and mobilised a team including firefighters and a Marine Chemist. At the time of writing, the salvage team had extinguished the last of the smouldering fires and boundary cooling continued. The vessel was towed to Odense, where she was inspected by the local fire brigade and the contract was terminated.

### Projects in the Asian region

Casualty salvage operations during the third quarter of 2010 included an accident involving a pusher-tug/barge combination at the port of Vung Tau, in Vietnam. Following a collision in late August, the pusher tug 'Takuyo Maru' sank in shallow water and settled on the bottom, largely exposed and with the barge still attached. This incident occurred shortly after the barge had dumped dredging spoil.

Salvage tug 'Anglian Sovereign' alongside the casualty in Scotland.



This LOF/SCOPIC salvage operation was undertaken with Nippon as co-salvor and in cooperation with a local partner, Visal Salvage. The sheerlegs 'Smit Cyclone' was mobilised to the scene, having just completed another job in India.

The operation to refloat the pusher tug required a substantial SMIT salvage team, together with the 1,000 tonnes lift capacity sheerlegs 'Smit Cyclone', two local tugs from Visal and a diving team provided by Nippon. On completion of a pumping programme, the pusher tug 'Takuyo Maru' was lifted by the sheerlegs and placed onto a barge, for towage to a repair yard in Singapore where the casualty was re-delivered.

Other projects under way in Asian waters include the removal of the wreck of the vehicle carrier 'Hyundai 105', lost off Singapore some years ago, following a collision with a tanker. The vessel was carrying some 5,000 cars at the time of the loss. The 3D underwater survey capabilities of Boskalis proved valuable in the start-up phase of this project. Recently, the accommodation/work barge 'Smit Ibis' moored over the wreck. A programme of work has removed the remaining

fuel oil from the wreck. The project team recovered around 150 tonnes of heavy fuel oil. The main wreck removal works call for the cutting of 'Hyundai 105' into 12 sections plus engine room - although this plan is flexible and ready to take account of any changes in circumstances. Work on site has already prepared the engine room for chain cutting. Lifting points have been established.



The sheerlegs 'Taklift 1' and the 'HWD2' grab were mobilised from the Gulf of Mexico for this major wreck removal. The 24,000 DWT semi-submersible barge 'Giant 3' acted as the transport platform for 'Taklift 1'; its long boom, the 'HWD2' hydraulic grab, chainpullers and rigging. 'Giant 3' sailed with this spread to Singapore, towed by the 'Union Boxer' via the Cape. She was expected in mid-December. Work on site is expected to take around 12 months.

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## SMIT SALVAGE TEAMS IN ACTION AT MUMBAI

August was an eventful month for SMIT salvage teams at Mumbai, India. At the end of July 'Khalijia 3' developed engine problems and ran aground near the port. SMIT Salvage obtained a Lloyd's Open Form contract and responded with salvage personnel well and the casualty was refloated. What followed, however, was remarkable and, in many ways, quite unique.

'Khalijia 3' had been cleared to complete her voyage to Mumbai and was inward bound. On August 7 she was involved in a collision with the 3,500 TEU container vessel 'MSC Chitra'. This vessel was trading between Mumbai, Karachi and a number of East African ports, 'MSC Chitra' was outbound when the accident occurred. She suffered severe damage in the collision. As a result, SMIT Salvage obtained its second LOF award at Mumbai in the space of two weeks!

port approaches. Everyone got off safely, but the port was closed due to the threat posed by floating containers that could also be submerged just below the surface.

### Responding to the second casualty

SMIT's Salvage Master and Naval Architect went to assess the condition of the 'MSC Chitra'. Their initial inspection found that the damaged hold and access passageway were now flooded and that the casualty was in an unstable condition. 'Khalijia 3', meanwhile, arrived in Mumbai port, was part-discharged and then redelivered to the owners.

SMIT Salvage soon reinforced the team on site, as they were now dealing with a major casualty. Additional personnel and special equipment arrived from Singapore and Rotterdam. All this time, there was close cooperation with

Mumbai Port Authority for the fast-track entry through Customs of a wide range of essential salvage equipment and protective clothing. The men working on board 'MSC Chitra' wore chemsuits and breathing apparatus or filter masks (depending on gas concentrations in the various work areas). Those wearing chemsuits in 40 degrees heat and high humidity could work for only very short periods, as they endeavoured to release the twistlocks and hook up lifting slings for the container recovery phase.

The 'MSC Chitra' work environment is challenging. Beyond the problems of working with the list and hazardous cargo, diving conditions are also difficult, with very strong currents at the scene. Diving is restricted to the slack water periods.

A local crane barge, the 'Khuber', acted as the main work platform. This vessel has a large revolving crane for container recovery work and enough space to accommodate up to 200 people. At its peak the project team numbered around 130. Despite the prevailing Monsoon weather, the work progressed well. All deck containers were removed and missing containers were located in the bay and then recovered.

### Preparing to refloat

During early October a new contract was negotiated, to prepare for the removal of the 'MSC Chitra'. The 'Smit Borneo' was mobilised to site for preparation activities. This work will include the installation of lifting points.

The salvage spread for the 'MSC Chitra' operation included the crane barge, fuel oil recovery equipment (including a hot-tap system), a small flotilla of local tugs and brief but valuable assistance from the newly-delivered 'Smit Jaguar'. Briggs Marine was contracted for an environmental work programme.

During this first phase of the operation over 300 dry boxes were recovered, together with 95 of the missing containers. Mumbai port reopened. Heavy oil was recovered from the starboard bunker tanks and skimming continued within the engineroom. At the time of writing,

the team on site had yet to gain access to the portside bunker tanks. Under this contract, work continues to prepare the casualty for wreck and cargo removal. Around 250 containers remain within 'MSC Chitra's' holds.



95 tpb tug 'Smit Jaguar' provided support to the salvage operation.

Looking ahead, SMIT Salvage has proposed a refloating method based on an intact hull. This would involve righting 'MSC Chitra' to the zero list condition, bringing the coamings above water, then commencing a pump-out operation. Under this plan, refloating would be achieved by a combination of pumping and lifting, with two Giant-type semisubmersible barges moored to either side of the casualty. This would require the Giant barges, to be mobilised from Singapore. The big barges would be deballasted on a rising tide, to free the 'MSC Chitra' as pumping continues.



Deck cargo and dangerous goods were removed from the casualty by the salvage team.

The 'Khalijia 3' struck the forepart of 'MSC Chitra' - which rapidly took on a significant list and began to lose deck containers. It soon became apparent that there was also leakage of bunkers. Damage to 'MSC Chitra's' sideshell included a large gash extending below the waterline. No. 2 Hold, a ballast tank and a passageway began to flood. The list reached an alarming 60 degrees. Faced with the imminent prospect that their ship could roll over, the crew abandoned the casualty and took to the lifeboats. They were wise to do so. Only the fact that the container vessel then drifted onto a mudbank prevented her from sinking in the

the Port Authority. Naturally, there were concerns at the closure of the port and the need to locate and recover the missing containers as soon as possible - so allowing traffic to resume normal movements.

Priority was to simultaneously pump ballast and reduce 'MSC Chitra's' list, before beginning the lightering operation required to free the vessel. The salvage team succeeded in reducing the list to 18 degrees - still a challenging work environment but manageable using specially-adapted mountaineering equipment.

This LOF/SCOPIC salvage operation had two objectives: to find and recover lost containers and, in addition, to remove the casualty from the port approaches. These two objectives were pursued in parallel.

The work was both hazardous and arduous. There was the 18 degrees list to contend with, together with the presence of many IMDG containers of hazardous substances. Within a few days some dangerous cargo washed ashore. The team working on 'MSC Chitra' benefited from special arrangements made by

The 'Khalijia 3' was successfully refloated by SMIT Salvage in August.



## NEW SMITBARGES FIND READY EMPLOYMENT FOR EUROPEAN WINDFARM PROJECTS

SMIT Transport vessels are continuing to support the construction of the Bard 1 windfarm project in the German Bight. SMIT's four Smitbarge newbuildings are deployed for this project, together with support tugs.

Two of the four barges are equipped with four-point mooring systems. These vessels are transporting rotor blades (already installed on the turbines) and upper mast sections to site. On arrival, each barge manoeuvres close to the jack-up 'Windlift 1', within range of the latter's



'Smitbarge 7' discharged by installation vessel 'Windlift 1' during the construction of Bard 1.

SMIT Transport won a contract from Bard for the provision of marine services in April of this year. Smitbarges 6, 7, 8, and 9 (supported by the B Class vessels 'Smit Barracuda', 'Smit Bulldog' and 'Smit Bronco', together with the 'Smit Polen') began work in June.

Bard 1 is a major development. It consists of a network of 80 turbines installed around 60 nautical miles offshore. SMIT's main responsibility is to transport wind turbine elements to site, in support of the installation vessel 'Windlift 1'. The piles are loaded at Flushing and the transition pieces are picked up at Cuxhaven, Emden and at other locations.



'Union Manta' and 'Union Fighter' currently operate in Angola.

crane. The barge is then discharged. The contract for the marine spread supporting Phase 1 of the Bard project specifies identical tugs and barges, ensuring that most units are fully interchangeable.

Recent windfarm-related assignments for SMIT Transport in Europe included a project for Danish contractors MTH. Under this contract the barge 'E3004' loaded transition pieces and other elements at Aalborg, Denmark, for the voyage across the North Sea to a location just off Great Yarmouth, for the Sherringham Shoal windfarm development.

The barge was towed to Sherringham Shoal by the SMIT Transport Belgium tug 'Union Sapphire'. The vessels were mobilised for one month and the voyage was completed during the third week of October.

There are good prospects for continued high utilisation of SMIT vessels for marine services related to windfarm developments. Most of the active prospects for next year (2011) centre on the West European region. A further four Smitbarge newbuildings (10, 11, 12 and 14) are already heavily booked for wind energy projects in West European waters during 2011.

Major units in SMIT Transport's fleet were mobilised for a recent project undertaken on behalf of Saipem S.p.a. They transported sections of a new platform for installation in the Castor Field, in Spanish waters off Tarragona.

During July 5 the 24,000 DWT semi-submersible barge 'Giant 4' arrived at Cadiz to load the Castor jacket, together with four large piles. With a length of 120m, the piles exactly fitted 'Giant 4's' main deck. The platform jacket was loaded on top of the piles. With loading completed, 'Giant 4' made the four-day voyage to location. The jacket was then lifted and positioned.

Meanwhile, 'Smit Anambas' transported the 2,000 tonnes Castor platform topsides from Ingleside, Texas, to Rotterdam. On arrival in the Waalhaven, 'Smit Anambas' came alongside the 'Saipem 7000', which discharged and transported the topsides to location, for



'Smit Anambas' loaded with the 2,000 tonnes Castor platform topsides.

mating with the jacket. All installation operations offshore were completed by July 22.

The 'Giant 3' is heading for the Far East, carrying an extensive spread for the wreck removal of the sunken vehicle carrier 'Hyundai 105'. This spread includes the sheerlegs 'Taklift 1'. 'Giant 2' is already in Asia, preparing for participation in the refloating of the 'MSC Chitra'. The intention is to remove this vessel by refloating an intact hull.

SMIT Transport Belgium's one-year contract with Heerema, offshore Angola, is proceeding well. This focuses on Block 31. SMIT is supporting the activities of the large crane vessel 'Balder' and barges working at location. Vessels deployed for this contract include the largest anchorhandler in the SMIT Transport Belgium fleet, the 200 tonnes bollard pull 'Union Manta'. Also working in Angola's Block 31 are the anchorhandlers 'Alphons Letzer', 'Union Fighter' and 'President Hubert'.



AHT 'Union Boxer' joined the SMIT fleet in 2010.

## SMIT IN SINGAPORE SET FOR FLEET EXPANSION

SMIT's extensive Singapore fleet is set to expand. In March 2011 SMIT in Singapore will take delivery of one of two enhanced L Class AHTS vessels of 75 tonnes bollard pull, ordered in 2009. The first of these vessels, for delivery in January 2011, is to operate within the joint venture Ocean Marine Egypt (OME). These DP-2-equipped newbuildings will work in the oil and gas sector in the Middle East and Asian regions.

In addition, SMIT has ordered two anchorhandlers from Gujiang Yard, China, for delivery during the third quarter of 2012. This contract was placed in September. The new 95 tonnes bollard pull vessels will feature powerful winches and a 32 tonnes deckcrane and will be able to support a wide variety of services to the marine industry. The modern, state of the art equipment results in reliable, safe and economical vessels.

Four L Class vessels ('Smit Lingga', 'Smit Lumut', 'Smit Luzon' and 'Smit Laisa') continue to work

under long-term contracts with Saudi Aramco, via Hadi Al-Hamman. The charters have various periods, extending, in one case, to 2013.

Two other L Class vessels, 'Smit Langkawi' and 'Smit Lumba', have had their 12-month contracts with Saipem via Zakher Marine, extended to the year's end (and, possibly, just beyond). Another L Class, 'Smit Lombok', is operating with SMIT Amanda Marine for PetroSA at Mosselbay, providing AHTS services.

Two K Class vessels are now operating in the Middle East and Asian regions. 'Smit Kamara' arrived in Dubai, from the North Sea Region, in late November. She was then readied for a three-year attachment to Marine Engineering Diving Systems. 'Smit Kamara' is now equipped with an accommodation module. Initially, the vessel will be operating offshore India but will then deploy to the Middle East area.

Meanwhile, 'Smit Komodo' will continue working with joint venture OME and Petrobel in

Egyptian waters until May of next year. SMIT's Singapore fleet also includes 'Smit Nicobar', currently on long-term charter in the Middle East, working on behalf of Statoil.

SMIT in Singapore is also heavily engaged in a major wreck removal operation. A large salvage spread is assembling to remove the wreck of the sunken vehicle carrier 'Hyundai 105', lost some years ago in a collision at a position four miles off Batu Ampar, Batam.

Two sheerlegs, Singapore-based 'Smit Cyclone' and the 'Taklift 1', are required for this project, together with the large semi-submersible barge 'Giant 3' and support vessels 'Smit Ibis', 'Puma' and 'Smit-Lloyd 27'.

This project began with the recovery of around 150 tonnes of oil remaining in the wreck. The plan calls for the cutting of the wreck into sections, each to be raised and lifted onto pontoons. The steel scrap is to be transported for further processing. 'Smit Cyclone' has already

commenced preparations on the engineroom. Both sheerlegs will be required for the dual lift of a heavy engineroom section weighing around 1,100 tonnes.

The second sheerlegs, 'Taklift 1', is expected on location mid-December. The wreck removal team is expected to be on site until September 2011. This project is not especially weather-sensitive, but the wreck is located close to the traffic separation zone. Waves from passing vessels place constraints on lifting operations at the scene. On completion of the main wreck removal, the contract calls for the complete clearance of debris from the seabed.



## 'TAKLIFT 4'S BIG LIFT COMPLETES BELWIND PROJECT OFF ZEEBRUGGE

SMIT Heavy Lift's largest sheerlegs, 'Taklift 4', recently installed the final element for one of Belgium's first offshore windfarms. Belwind, situated off Zeebrugge, is now complete following the installation of the windfarm's high voltage transformer substation.

The 1,175 tonnes substation was prefabricated at the Hoboken construction yard and loaded onto the large flat-top barge 'E3505'. SMIT Heavy Lift's scope of work spanned full project management, from design of the seafastenings to the installation lift, as a complete scope.

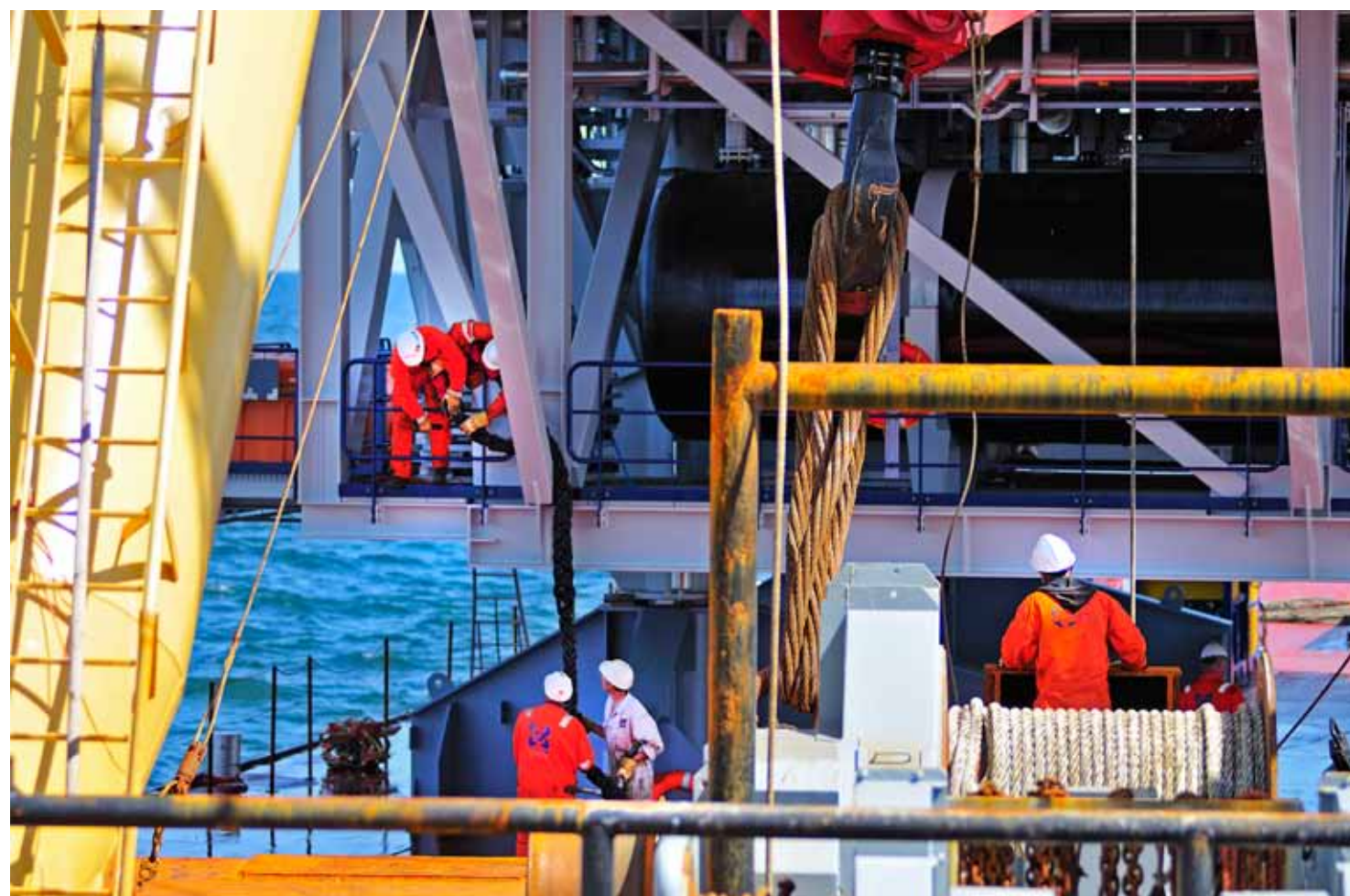
The tug 'Union Boxer' towed 'E3505' loaded with the substation from Hoboken to the location off Zeebrugge. One of SMIT's B-Class vessels, 'Smit Beluga', also attended for the final positioning of the sheerlegs and barge. With the lifting slings connected, the seafastenings were released and the substation was lifted onto the monopole on August 11.

'Taklift 4' was rigged with the 1,400 tonnes flyjib for this lift, which was performed on behalf of client Fabricom. On completion, the lifting slings were released and 'Taklift 4' was demobilised.

SMIT has also supported earlier phases of work during the construction of the Belwind project - the country's third windfarm development. Various tugs in the SMIT fleet (SMIT Transport Belgium) have been busy this year supporting installation vessels responsible for installing the monopiles.

'Taklift 4' performed the Belwind transformer installation following its return from a series of FPSO construction lifts in Brazilian yards. 'Taklift 4' then joined 'Taklift 7' for a dual lift of a 220 m long bridge section in Norway. This was for the new Brandangundet Bridge, which opened in November. 'Taklift 7' deployed from the Irish Sea, where this sheerlegs installed monopiles for the Walney windfarm, on behalf of GeoSea.

*'Taklift 4' during the installation of the transformer substation for the Belwind windfarm offshore Zeebrugge.*



This bridge lift task was carried out in early September, on behalf of the Swedish group Skanska. The two sheerlegs transported the 1,860 tonnes section in the hooks for a distance of 5 km, from the fabrication yard at Sløvågan (near Mongstad, north of Bergen) to the installation site spanning the Brandangundet. The two sheerlegs were supported by the tugs 'Smit Beluga' and 'Smit Buffalo'.



*'Taklift 4' and 'Taklift 7' installing the 220 m long bridge section in dual lift.*

## WORK UNDER WAY TO COMPLETE INSTALLATION OF BORDEAUX BRIDGE CAISSONS

The construction of Bordeaux's new road bridge is progressing, with significant input from SMIT Marine Projects. A major milestone was reached in mid-year, when SMIT Marine Projects completed the tow-out and installation of three of a total of six caissons for the new bridge, which will link the French port's Bacalan and Bastide districts.

This first-phase contract, for French contractors GTM Sud Ouest TP/GC, went smoothly, despite difficult conditions on the Garonne River - with strong currents, rapid tidal changes and the hazards of floating debris. The project team deployed two ASD tugs, 'Union Diamond' and 'Red Wolf', and the B Class multi-purpose vessel 'Smit Bison' for this work programme, which installed the three right bank caissons.

This work was undertaken in four phases: tow-out of the caissons from the dry-dock, a 4 km tow to the bridge site, mooring on location



and, finally, the positioning and installation of each caisson. Due to the presence of a number of areas of relatively shallow water, the 4 km tow was divided into two stages. The entire spread was moored for a period in a special, pre-laid mooring system, to await a favourable tidal direction and sufficient time to complete the tow to location. Upon arrival at site, both towing tugs were connected up to another pre-laid mooring system, with 'Smit Bison' providing assistance. Each caisson was then connected to two independent shore winches, for accurate positioning against pre-installed guidance poles.

Bordeaux's new bridge is a lift-type structure. Its mid-section will lift to allow the passage of large vessels, including cruise ships. Work is now under way to position and install the final three caissons, this time on the left bank of the river.



*The 'Union Diamond' and 'Red Wolf' towing one of the caissons out of the dry-dock.*

Of the six caissons, the largest two measure 43 m x 18 m x 16 m. The remaining four are circular, with a diameter of 18 m.

The left bank work is the subject of a second contract signed in October. The installations will be carried out early 2011. This will require around one week on site, with a similar spread to that deployed for the earlier contract.

Once again, the project team will have to contend with a river current of around 3.5 knots and high levels of debris. Furthermore, as in the first phase, all activities will be subject to very precise timings, governed by tidal considerations and the proximity of shallow water.

*The caissons were then transported to the bridge site, a four km tow.*

## SMIT SUBSEA PREPARES FOR GROWTH

SMIT Subsea now has a stronger global orientation, designed to deliver one standard of excellence worldwide and grow the business in expanding regional markets. Under this strategy a close regional focus on clients will be maintained, but SMIT Subsea's main operational centres in Rotterdam, Dubai, Cape Town and Singapore will also apply common operational and SHE-Q standards.

This new framework for SMIT Subsea allows for growth in key regional areas, including the Middle East and Far East. The intention is to expand operations in Singapore and grow business in Australia, assisted there by the establishment of offices in Perth. In the Middle East region, there will be a greater focus on opportunities in several markets, including Saudi Arabia.

SMIT Subsea is well established in the markets for air diving and saturation diving, but it now intends to develop its ROV capabilities. New ROV systems are to be acquired and commercial initiatives will be taken to enter the market for pipeline inspection services.

*SMIT Subsea assisted in the installation of F3FA platform in the North Sea.*

### North Sea work programmes

In the European region, SMIT Subsea was busy during the Summer period with the 2010 IRM (Inspection, Maintenance, Repair) campaign for Conoco-Phillips in the southern area of the North Sea.

The programme opened in early July and was completed in late September. It involved several platforms and focused primarily on riser inspection. Leak-testing of a subsea well was also undertaken. This was a carefully-coordinated process, during which all valves were pressure-tested. The project team, including 28



divers, operated from the DP3 Diving Support Vessel (DSV) 'EDT Protea'.

SMIT Subsea was also active in the northern part of the Dutch sector of the North Sea, supporting the installation of the new Venture F3FA platform, constructed at Vlissingen, The Netherlands. The new platform was towed to location and a diving team on board the 'EDT Protea' assisted in the installation. 'EDT Protea' was fully manned as a "Floater" for this task, with 88 persons on board and a Crew Transfer System for access to the platform.

SMIT Subsea's scope of work called for assistance in disconnecting the platform from the transportation barge, followed by inspection of the platform as installed and clearance of any debris on the surrounding seabed. The subsea work content was completed on September 5.

Other activities in the Dutch Sector in recent months included the annual inspection of the Ameland AWG-01 cluster of platforms, on behalf of Onegas (NAM). This project was a challenge due to the extremely shallow water (average water depth: 12 m). The DSV/Anchorhandler 'Vos Shelter' and a diving team and ROV team were deployed for this assignment. The spread included an ROV with an extended umbilical and the 'Smit Stour', fitted with a mobile diving system.

SMIT Subsea Europe's inshore projects in recent months included a quay wall repair contract at Rotterdam's Europahaven. The team working on site injected a gel-coat, to stabilise sand and reduce loss. The main programme of repairs required the placing of 28 caissons, followed by the cleaning of sheet piling and repairs involving the installation of a fresh steel face, followed by concreting.

Other inshore activities included the underwater inspection of the floating oil storage facility 'Servant Voyager' in Norway. This scope of work included the disconnection of two "Barracudas" (connections between the vessel's bottom and the flexible line to the manifold).





The installation of a spool piece, part of the SMIT Subsea Africa project in Nigeria.

### Subsea Africa

SMIT Subsea Africa is working in Nigeria, on behalf of Saipem, supporting a project for Exxon Mobil. This contract runs for the six months ending March 2011 and is employing two air teams, working from the Saipem barges 'Crawler' and 'SB203'. The activities include installation of pipelines, spool pieces, pipeline crossings and mattress protection.

SMIT Subsea has also provided the DSV 'Smit Orca' for an IMR (Inspection, Maintenance, Repair) programme on behalf of Hess, at their Okume and Ceiba fields. The contract concerns fixed and floating offshore facilities in Equatorial Guinean waters.

A new 12-man saturation diving system, SMIT SAT4, has been delivered and mobilised to the Asia-Pacific region.

The nine-man saturation diving system SMIT SAT2 was mobilised on board the vessel 'General Alexander Shiklinsky' for deployment in the Caspian.

### Subsea Middle East

The Middle East regional market for offshore-related subsea services continues at a high level. Utilisation of subsea assets exceeded expectations in 2010. This positive trend is expected to continue into 2011.

In the area of current projects, SMIT Subsea Middle East has now completed two of five phases for supply of ROV support services for Kito Enterprise Middle East. In the second phase the spread included the Seaeye Surveyor Plus and the Cougar-XT, required for monitoring pipelay activities and the installation of crossover concrete sleepers. Phase III with Kito Enterprise recently commenced, utilising the Cougar-XT and Tiger ROV systems. The final two phases will be undertaken in the New Year.



DP vessel 'Team Muscat' equipped with the six-man saturation dive system SMIT SAT3 for inspection work offshore Qatar.

On-going activities include the five-year contract, awarded in mid-2008, for port maintenance on behalf for Qatar Petroleum. The project personnel include two dive teams, based at Masaieed and Ras Laffan. In addition, the six-man saturation dive system SMIT SAT3, on board the DP vessel 'Team Muscat', has been mobilised for NDT inspection work on behalf of field operator Rasgas, offshore Qatar.

The nine-man saturation diving system SMIT SAT2 is now on board the vessel 'General Alexander Shiklinsky' – working in the Caspian since September. The scope of work includes hypobaric welding, a first for SMIT Subsea worldwide. The contract, between SMIT Subsea and Momentum Engineering, is nearing completion.



## SMIT AMANDLA MARINE: WEATHERING THE STORM

Despite the world's economic difficulties, SMIT Amandla Marine has seen sustainable growth in 2010. The South African based specialist marine services company has set an ambitious target in its Growth Strategy to increase its 2009 revenue base by 40 per cent by 2012. The company has made progress towards this goal in 2010, in terms of efficiency improvements, ensuring a competent skills base and organisational development.



Sponsor lady Mrs Ingrid Oosthuizen activates the bottle breaking device with the assistance of Captain Dawie Erasmus, during the official Naming ceremony of the 'Smit Siyanda'.

Managing Director Paul Maclons says: "We have taken important steps in three key areas during the course of this year. Firstly, we have introduced new measures to optimise the returns on our existing contracts in South Africa. Secondly, we have identified additional business opportunities in South Africa, helped by our readiness to introduce new vessels and attractive contractual solutions into a mature market. Thirdly, we have had encouraging success in building our business base beyond South Africa. We are focusing on developing a contracts portfolio in countries such as Mozambique and Namibia, together with the East Indian Ocean nations, such as Mauritius. The recent successes include the award of a harbour towage services contract in the port of Beira, Mozambique to SMIT Amandla Marine.

"Working with Boskalis, there are now opportunities to explore the potential for maintenance and capital dredging contracts in the

ports of Mozambique, including Beira, Nacala and Maputo. And in South Africa, the Transnet National Ports Authority represents perhaps the last new market growth opportunity for us in the country for harbour towage and capital dredging across its 8 ports, where our hard earned status as a Level Three Contributor to Broad Based Black Economic Empowerment positions SMIT Amandla Marine as a preferred marine services provider.

Paul Maclons adds: "We have enjoyed a very productive 2010, thanks to the efforts of all SMIT Amandla Marine employees and the continued support and understanding of our Board of Directors. We look forward to further achievements in 2011."

### Highlights of 2010

The highlights of 2010 included the arrival of the newly-built offshore support vessel 'Smit Siyanda', during early November. This vessel was commissioned by SMIT Amandla Marine in partnership with its Client SAPREF. 'Smit Siyanda' is now providing anchorhandling, towing, and dive support services for the SBM operated by SAPREF for BP, Engen, Sasol, Shell and Total, at a location some 1.5 km off the Durban coastline. Around 80 per cent of South Africa's annual crude oil requirement is imported through this SBM. The company is in advanced discussions with SAPREF to add a second vessel by June 2011.

Paul Maclons says: "Fleet expansion (and renewal) remains a key business strategy, underlining our commitment to South Africa's maritime future and the training and development of seafarers. SMIT Amandla Marine is already South Africa's largest employer of seafarers.

"A key feature of the 'Smit Siyanda' building project was our strategic partnership with SAPREF. The result is a vessel that benefits



F.L.t.r.: Mr Willem Oosthuizen, General Manager Engen Refinery, Mr Paul Maclons, Mrs Ingrid Oosthuizen, Dr Zweli Mkhize, Premier of Kwa Zulu Natal, SAM Chairperson Mrs Manana Nhlanhla, Mr Ben Vree and Mr Baart Voet, Managing Director SAPREF Refinery).

from the very latest technological advances in design and equipment. The growth of SMIT Amandla Marine's fleet will contribute significantly to the realisation of our revenue and profits targets."

'Smit Siyanda' was designed for operation to the highest safety and environmental standards. SMIT Amandla Marine intends to seek a "CLEANSHIP" Class Notation for 'Smit Siyanda'. The new vessel features a moonpool, decompression chamber facilities and a fully integrated dive control room. 'Smit Siyanda' is equipped for offshore assistance and emergency support, if required.

The company successfully re-tendered for the ETV contract in South Africa with the Department of Transport this year.

### Safety first

Towards the end of August, SMIT Amandla Marine reached an important milestone: the passage of 365 days without a Lost Time Accident (LTA). Paul Maclons comments: "I see this not as a reason to celebrate but rather as an opportunity to refocus on safety as an issue that lives depend on. This numerical achievement should provide a platform where we

can now start assessing whether we in fact have a behavioural safety culture, and start interrogating our processes and systems of managing safety. Safety, together with Health, Environment and Quality, remains a central pillar of our strategy for the future.



A traditional Zulu Praise Singer blesses the 'Smit Siyanda'.

Maclons concludes: "Into 2011, we intend to retain a contract for the management of eight fisheries protection and research vessels for the Department of Agriculture, Forestry & Fisheries. This contract provides us with good economies of scale which enable us to maintain a substantial crewing pool of South African seafarers." This tender was submitted on December 10.

## MAJOR FPSO INSTALLATION PROJECT ASIAN LIFT

Asian Lift was assigned by contractor Modec Inc to support the construction of FPSO 'BP Angola'. For this project, the Asian Lift sheerlegs performed a series of 29 lifts. The operation comprised the installation of several modules, the crane pedestal, turret, SAS, pipe racks, helideck and flare towers.

Sheerlegs 'Asian Helping Hand III', equipped with 400 tonnes lifting capacity, 1600 t 'Asian Hercules' and 3200 t 'Asian Hercules II' were deployed for the lifts in accordance with their capacities.

The FPSO is built for the PSVM (Plutão, Saturno, Vênus and Marte) Field Development in Block 31, offshore Angola. The 'BP Angola' will have a production capacity of 157,000 barrels per day and first oil from the development is scheduled in 2011.

Activities for the series of lifts involved the preparations for substantial rigging that was required for the transport of the modules from the fabrication yard to location and the subsequent installation on to the FPSO. The entire project was executed as planned between February and November 2010. The final challenge is the installation of the upper flare tower, 80 m above sea level, in January 2011. With this concluding lift Asian Lift will successfully complete the operation.





## WORK PROGRESSES ON RADICAL DESIGNS FOR NEW GENERATION TUGS

In October 2009 SMIT received a prestigious industry award for the development of the sustainable "E3" tug concept, focused on a new generation of vessels with optimised environmental and operational performance. E3 (Environmentally friendly, Efficient in operation and Economically viable) has evolved in a cooperative venture between SMIT Engineering, Damen Shipyards and Alewijnse Marine Systems. Now SMIT Engineering is moving beyond E3 - extending the scope of conceptual studies to embrace other innovative ideas.

Peter Kortekaas, General Manager of SMIT Engineering and Chairman of the E3 Group, explains: "We are now engaged in three main lines of engineering studies. The first, kick-started by the E3 project, concentrates on propulsion systems. A second study area centres on the 'Hydrogen Tug' and a third is exploring LNG-fuelled vessels.

"Our aim is to engineer ourselves into a position which will permit a meaningful life-cycle assessment of each option, from the standpoint of general design, technical performance, economical viability and environmental characteristics. SMIT's first step, within the E3 project, is to harvest benchmarking data also applicable to the Hydrogen Tug and LNG-fuelled vessels. We want to be ready to develop a future fleet with several standard types, matching optimised performance (on the economic, efficiency and environmental fronts) to a given operational envelope. There is every possibility that this future fleet will include, for example, LNG-fuelled tugs.

Some fundamentals are already apparent. An E3-type tug would be more expensive than the conventional, present generation tugs, but a hydrogen tug would be even more costly (but more benign, from the environmental standpoint). One key issue for this hybrid

option is the initial purchase cost of batteries and their replacement during the lifetime of the tug. Replacement, as things stand, would be required around every 10 years but, at the same time, battery technology is advancing steadily and, in the longer term, assessments on economic viability could change on this factor alone.

Pilot work is also under way on the LNG option. Peter Kortekaas: "The LNG tug looks very favourable in the environmental context, as there is, in comparison to conventional fuel, a very substantial reduction in emissions. When considering the challenge of compliance with future International Maritime Organization regulations on atmospheric emissions, the LNG-fuelled tug looks very promising."

Under the auspices of TNO, a first-phase study of the environmental and economic performance of LNG versus fuel oil began in July of this year. This includes both dual fuel and LNG applications. The scope of work includes a well-to-propeller study of greenhouse gasses (CO<sub>2</sub> and CH<sub>4</sub>) and a tank-to-propeller study of air quality emissions (NO<sub>x</sub>, SO<sub>x</sub> and particulate matter).

A second phase study, to start in 2011, will focus on the design aspects of an LNG-driven tug. Future phases will involve more detailed environmental and financial assessments of the best vessel design and knowledge dissemination in areas such as LNG bunkering infrastructure and the relationship between environmental performance and operational profiles.

Peter Kortekaas adds: "There are some real challenges to overcome here, including the generation of methane - a significant greenhouse gas. Technical solutions may well emerge, but research projects in this area are still rather limited at present. In addition, tug engines are designed to cope with fluctuating loads - typically large, instant power demands. New generation tugs must be able to respond as required. In any event, as the environmental, operational and financial characteristics of the new options become better understood, we will eventually reach a point where we can fine-tune tailored solutions for clients to an unprecedented degree."

## Colophon

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## BOSKALIS AND SMIT INTEGRATION AT FULL STEAM

Since the start of the Boskalis and SMIT integration process at the end of May, ten working groups with Boskalis and SMIT staff have been hard at work moving the integration plan forward. In the working groups and on the workforce at both companies, there is a lot of enthusiasm about the opportunities generated by working together. The working groups have been asked to look at their own areas and examine the opportunities for shared market opportunities and cost synergy, to identify the optimal approach and, ultimately, to draft plans for the integration of the selected activities.

Rounding off the plans from the Integration Working Groups, a new organisational structure was formed for the operational side and staff departments of both companies. The future team of directors at SMIT will comprise four members and it will replace the SMIT Board of Management and the Stratcom. Frank Verhoeven, Group Director at Boskalis, will team up with Harry Hilhorst, Gerard Keser and Loek Kullberg to guide SMIT on its future course.



Boskalis restored the island of Vilufushi, which was devastated by the tsunami in 2004. The island was extended threefold, raised and provided with coastal defenses.

Boskalis and Archirodon are working together on the construction of the Port of Khalifa, one of the world's largest greenfield port projects. The project started in 2007 and it will take four and a half years to complete. Boskalis is involved in the design activities, dredging and reclamation works and the construction of quay walls, bridges and breakwaters.



The trailing suction hopper dredgers 'Prins der Nederlanden', 'Cornelis Zanen' and 'Queen of the Netherlands' in Melbourne, Australia.



Lamnalco terminal tugs providing assistance.

### COMPANY PROFILE

Royal Boskalis Westminster N.V. is a leading global services provider operating in the dredging, maritime infrastructure and maritime services sectors. Excluding SMIT's share Boskalis has a versatile fleet of over 300 vessels and equipment, and including its share in Archirodon and Lamnalco Boskalis has around 10,000 employees. Boskalis operates in over 50 countries across five continents and has strong home market positions in various countries. Main clients include national, regional and local governments, port operators, international project developers, oil companies, mining companies and other contractors.

Boskalis activities are broadly spread across all continents and are clustered in three product segments:

- ▶ Dredging & Earthmoving;
- ▶ Maritime Infrastructure;
- ▶ Maritime & Terminal Services.

The main product segment is Dredging & Earthmoving. It includes, among others, the following activities:

- ▶ Construction and maintenance of ports and waterways;
- ▶ Land reclamation;
- ▶ Coastal defense and riverbank protection;
- ▶ Offshore services for the oil and gas industry;
- ▶ Dry infrastructure and soil improvement;
- ▶ Environmental activities;
- ▶ Mining;
- ▶ Tunneling.

Examples of projects in this product segment are the Port of Melbourne project in Australia, which was awarded the National Infrastructure Award in 2010, and the Safer Islands project in the Maldives, where some islands are being protected from rising sea levels.

Our second product segment is Maritime Infrastructure, which Boskalis is involved in through its partnership with Archirodon, a leading contractor in this sector. The activities in this segment comprise maritime, civil-engineering and industrial construction. The projects in this sector include the construction of the new offshore Khalifa Port project in Abu Dhabi.

The third product segment is Maritime & Terminal Services, through our partnership with Lamnalco.

The activities in this product segment include maritime and terminal services for the oil and gas industry. The nature of these activities are highly comparable to those of SMIT Terminals albeit that Lamnalco has a geographic focus on the Middle East and Western Africa.

For more information on Boskalis, please visit [www.boskalis.com](http://www.boskalis.com).



# ALL GOOD THINGS COME IN THREES...

Getting close to a tradition, once again three harbour tugs were named simultaneously at the SMIT head office last September. This time the festivities involved the 3213 ASD tug 'Smit Cheetah' and two 2810 ASD tugs, 'Smit Ebro' and 'Smit Seine'.

Adding to the special character of the event was the fact that three female SMIT colleagues had the honour of conducting the proceedings this time. Ms Claudia van Anel (Manager Corporate Communications), Ms Brigitte van Breugel (General Manager Fiscal Affairs) and Ms Lee Sook Fung (Finance Manager SMIT Singapore), performed the official ceremonies for the 'Smit Cheetah', 'Smit Seine' and 'Smit Ebro' respectively.

The triple naming ceremony took place next to the head office in Rotterdam and all local SMIT employees were invited to attend the event and reception afterwards.

All three new harbour tugs are currently operating in the port of Rotterdam.



The sponsor ladies, f.l.t.r. Ms Lee Sook Fung, Ms Claudia van Anel and Ms Brigitte van Breugel.



# ABEL DUTILH AWARDED FOP SMIT MEDAL

At least once every three years SMIT presents the Fop Smit Medal to honour an individual who has made a special contribution to the international maritime sector.

gency response, as the UK Secretary of State's Representative, Maritime Salvage & Intervention (SOSREP).

Last September, the Fop Smit Medal was awarded to Abel Dutilh, Managing Director of SMIT's Divisions Salvage and Transport & Heavy Lift.

On September 29 2010, Abel Dutilh officially bid SMIT farewell after 36 years of service, to enjoy his retirement. On this occasion, SMIT CEO Ben Vree presented the Fop Smit Medal to him, in recognition of his extraordinary contribution to the SMIT Group over a period of more than 30 years.

In 2008, Robin Middleton was honoured with the very first Fop Smit Medal for his outstanding contribution to marine emer-

Abel Dutilh joined SMIT in 1974. Over the years he has built up a wide network of valuable relations and business partners to the benefit of SMIT. Under his leadership SMIT in Singapore has grown to the leading position it still has. Abel Dutilh has been an excellent coach for young people within the SMIT Group due to which a strong foundation has been formed for future growth and development of the company.



Abel Dutilh was awarded the Fop Smit Medal in honour of his valuable contributions to the SMIT Group.



CEO Ben Vree presents Abel Dutilh the Fop Smit Medal.

