

# TUG Magazine



On August 19 2009, harbour tugs 'Smit Hudson,' 'Smit Schelde,' 'Thamesbank' and 'Texelbank' towed jack-up platform 'Noble Scott Marks' to the Botlek, Rotterdam.


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## CONTINUITY AND GROWTH AS A WORLD CLASS MARITIME SERVICES PROVIDER



harbour towage is still regarded as an inherently stable market, despite the effects of downturn. SMIT's central commercial objective - a 50% increase in this Division's net result over the five years commencing 2007 - is still seen as achievable through acquisitions, fleet growth and the expansion of our global activities. One very positive factor here is the quality of SMIT's modern, standardised fleet. We have ordered 156 vessels in recent years. We have concentrated on standardisation and proven technology. The advantages of this policy include easier redeployment, particularly in support of our joint ventures.

Current economic trends favour joint ventures and acquisitions. The market wants larger, more powerful tugs, to match the steady increase in vessel size. Local operators face problems arising from lower workload and, in many instances, a heavy debt burden. This provides a basis of mutual interest in joint ventures or acquisitions.

The decision to proceed with the merger came in the wake of a powerful performance by SMIT in the first half, despite the difficult economic climate worldwide. Our first half results represent a healthy outcome, despite the deepest global downturn since the 1930s. SMIT's resilience is the product of flexible vessel deployment, well-targeted expansion in markets with high potential, a strong emphasis on stable income generation and long-term employment, together with new and promising alliances with regional and local partners across the world.

Against this background, the tough commercial targets set for each of SMIT's four Divisions remain in place. They are considered within reach, in all cases, despite the more challenging trading environment now prevailing. At the same time, the merger opens up even more interesting prospects ahead.

A major issue during the first half was the sharp fall in vessel traffic levels at major ports, including Rotterdam and Antwerp. In turn, this led to a decline in harbour towage revenues. Our Harbour Towage Division responded with a flexible strategy, including vessel redeployments to reduce the cost base. Opportunities were taken to move vessels to alternative locations. One result was an increase in deployments to boost our fast-growing joint ventures, including those in Taiwan and the Baltic States. Geographic flexibility did much to offset loss of turnover arising from lower demand in the large hub ports.

The salvage business was quiet during the first half, due in part to economic downturn. Fewer vessels are trading and most are engaged in slow steaming. Recession, however, tends to provoke reduced spending on labour and maintenance - issues with a potentially damaging influence on safety at sea and with a potential to increase demand for casualty salvage. The net result of these conflicting trends in risk is notoriously difficult to predict. This point was underlined as the third quarter of 2009 unfolded, with the development of a substantial increase in the salvage workload.

From a purely financial perspective the Salvage Division had a good first half - largely due to the settlement of past cases (including a net result of EUR 10 million due to the settlement from the 2005 Thunderhorse project). The Division's objective is to retain its 25-30%

market share. The crucial factor here is continued investment in new salvage technology, equipment and knowledge, to meet the challenge of bigger vessels, especially mega container vessels.

Change is under way in the world of salvage, particularly in relation to the administration of the Lloyd's Open Form contract. Fundamentally, the key issue is transparency. We support more transparency, but there must also be more consistency in awards. This is a vital factor in the modern business world.

Turning to the Transport & Heavy Lift Division, our transport business is still strong, with high utilisation levels during the first half. Around 50% of SMIT Transport's net profit is now contributed by stable income streams. In addition, the smaller vessels and barges continue to work well in the spot market, enjoying a substantial workload during the first half of the year. SMIT Transport has a target of 10% annual organic growth.

As for SMIT Heavy Lift, 2008 proved to be an exceptionally busy year. The first half of 2009 saw a return to more typical levels. The commercial goal, on this front, is consolidation at current levels.

Taken overall, our expectations may be down on last year, yet the 2009 first half produced reasonably good results - due in part to our sharper focus on synergy, core business activities and stable income. This is the ideal strategy when weathering difficult times.

As for the prospects for recovery in the world economy, this recession has gone deeper and lasted longer than most anticipated, making worthwhile predictions all the more difficult. There may be some "green shoots" now visible but the fact remains that shipping always tends to be the late runner in the cycle, behind any recovery in demand for raw materials and any increase in manufacturing. As for measuring recovery and performance, 2008 has some inherent disadvantages as a benchmark. The two preceding years are more useful measures.

Meanwhile, in looking at 2009 as a whole, we expect net profit for the full year to be in line with performance in the first half (excluding the "Thunderhorse" settlement). It is difficult to reach any conclusion about 2010 at this stage, other than, perhaps, the general observation that it would be unrealistic to expect a return to a "normal" commercial environment within that timeframe. What is more important, right now, is a clear policy to use this period to invest in people and expertise. We must have more expertise in place if we are to grow in the eventual economic upturn and exploit the many new commercial opportunities which will be opened up by the merger with Boskalis. Hardware can be acquired quickly, with relative ease, but human expertise is a different matter. Now is the time to invest in people!

Ben Vree  
Chief Executive Officer

## SMIT'S E3 TUG PROJECT REWARDED WITH KVNR SHIPPING AWARD

On 28 October 2009, SMIT was granted 'The Royal Association of Netherlands Ship Owner's (KVNR) prestigious "Shipping Award 2009" for its achievements in the development of the sustainable E3 tug at the 4<sup>th</sup> Maritime Awards Gala, in Rotterdam.

The KVNR jury rewarded SMIT's leading role within its industry of harbour and coastal towage service providers with regard to the areas of environmental awareness and vessel design.

The E3 tug (Environmentally friendly, Efficient in operation, and Economically viable) is being developed by a consortium consisting of SMIT

Engineering, Damen Shipyards and Alewijnse Marine Systems. The emphasis of this innovative tug design project is on "green performance" combined with operational flexibility. The E3 Group intends to develop a new generation of tugs with optimised performance regarding environment and operational efficiency.

Peter Kortekaas, General Manager of SMIT Engineering and Chairman of the E3 Group, accepted the award presented by Tineke Netelenbos, Chairwoman of the KVNR, and Charlie Aptroot, Member of the Lower House.



Peter Kortekaas accepts the KVNR Shipping Award as Chairman of the E3 Group.

## NAMING CEREMONY FOR FIRST OF NEW 'B CLASS' SERIES: 'SMIT BULLDOG'



From left to right: Jos van Woerkom (General Manager Damen Hardinxveld-Giessendam), sponsor lady Miranda Baars and SMIT CFO Gert Bruinsma.

On 5 October 2009, the Naming ceremony for the first of SMIT's new series of 3 DMPT 2500 vessels (design by IHC) took place at Damen Shipyards in Hardinxveld-Giessendam, where the series are being built.

Miranda Baars, partner of SMIT's CFO Gert Bruinsma, acted as sponsor lady for the 'Smit Bulldog' and performed the official ceremony. Afterwards, attendees were invited to view the vessel.

The remaining two newbuilds in this series, the 'Smit Beluga' and the 'Smit Buffalo', are planned for delivery during the first quarter of 2010.



## DEVELOPING NEW OPPORTUNITIES THROUGHOUT THE ASIA-PACIFIC REGION

Leo Huisman became Managing Director of SMIT's Singapore location in August. In this position he is responsible for the expansion and positive development of SMIT's wide-ranging activities in the Asia-Pacific region, an area of great strategic importance for the Group's future.

With a solid background of achievement in large corporate environments, Leo Huisman welcomed a fresh set of challenges. "I moved to SMIT from a position as Group Vice-President of Maersk Line Limited, with particular responsibility for key container service routes. Previously, I held senior positions with P&O Nedlloyd. In my new role I have a brief to expand SMIT's commercial activities in one of the world's most dynamic regions. Singapore, of course, is a major regional hub for marine and related activities. At the same time I intend to pursue opportunities in all markets throughout the Asia-Pacific area."

China and India represent markets central to the region's future and, indeed, economic activity at a global level. "Despite the current difficulties, these remain markets with inherent drive. They are of huge importance to SMIT, as their futures depend, to a significant extent, on the continued expansion of port and terminal infrastructures."

Other markets in the Asia-Pacific region are also seen as priorities, in terms of new commercial opportunities. Leo Huisman says: "Vietnam, for example, has a rapidly develop-

ing port infrastructure geared heavily towards the construction of deepwater facilities. Elsewhere, the exploitation of Australia's huge gas reserves will require major new LNG facilities, with good prospects for the provision of terminal services."

Leo Huisman has a number of key agenda items, including the further development of SMIT's operations in China. "We are looking forward to expanding harbour towage activities in two Chinese ports during next year. With tugs in place and working, we have a foundation for further expansion, to provide services in other Chinese ports."

Other regional priorities include securing harbour towage services and terminal contracts in Indian ports. "We see some progress here, with 'Smit Jaguar's recent contract for British Gas at Mumbai. Our vessel will be supporting an SPM project. We hope charters of this type will eventually develop into long-term contracts."

Leo Huisman regards the Keppel SMIT Towage (KST) relationship as crucial for developing regional market opportunities. "KST is an extraordinarily successful joint venture. It is the key to expanding our activities in markets such as Indonesia and Vietnam. Local partners also represent an essential element of success in many markets, including Vietnam. We have much work to do here, to find and then build relationships with local partners who share our vision."

The offshore market remains prominent in the future strategy of SMIT in Singapore: "It was a pleasant surprise to discover just how active this market is in the Asia-Pacific area. The pace of development is picking up in Indian waters and off Vietnam, for example. This is a tough, even fierce, market, but there are great opportunities here for the utilisation of SMIT's equipment and expertise."

Salvage remains a core activity for the SMIT Group and Singapore has always served as one of the world's primary salvage hubs. This is still the case, although the market has seen some recent dramatic changes. Leo Huisman says: "There are now no less than nine salvage contractors active in Singapore. In my view SMIT must continue to follow a strategy based on retaining its position as the lead salvage player in Asia. We will have our work cut out to achieve this goal."

"At the same time, we must be selective in our participations. We have the equipment for



the largest, most complex salvage tasks, with heavy units sourced from SMIT Transport & Heavy Lift. Yet, we have to be careful, pursuing only those wreck removal projects with real prospects of an appropriate return.

"As for emergency response - marine casualty work - the key here is to continue to develop links with local partners. Commitment to a "network" approach is vital, as speed of response is even more crucial today. Pollution prevention is the first priority and speed of response is an obvious measure of effectiveness."

When Leo Huisman moved to SMIT, he entered a new type of corporate environment: "I had been following SMIT for some time. I had also developed contacts with a number of people in the harbour towage and terminals businesses. It seemed to me that SMIT is a leading player in its markets and is dynamic in its style. That suits me. I am also very happy to be based in Singapore. I am no stranger to Asia, having worked in Hong Kong, for a period of four years, earlier in my career."

His family is also content. Leo Huisman and his wife have three daughters, aged 10, 12 and 14. "They settled in very well, being accustomed to an international outlook on life. Singapore, of course, is a busy, vibrant place, with a population of around one million expatriates. The schools are excellent, as is the healthcare. As a place to work and live, Singapore has a great deal to offer."



# A NEW STRATEGY FOR SMIT HARBOUR TOWAGE IN DIFFICULT TIMES

At the global level, SMIT's harbour towage activities have adjusted to new market realities reflecting world economic downturn. Loek Kullberg, Managing Director of SMIT's Harbour Towage Division, comments: "Over the past six months we have seen our clients - including the container shipping majors and the leading bulk carrier operators - coming to terms with very significant reductions in volume. We are seeing lower levels of activity in ports across the world."

"Naturally, our harbour towage business has been affected by these adverse developments. In addition, our clients look to service providers to assist, by reducing costs and taking other measures to support them in this very difficult market situation. Certainly, we are doing our best to meet these expectations."

Some disturbing port statistics are beginning to emerge. "The traffic levels at the world's leading ports tell the full story in graphic detail. At Antwerp, for example, traffic movements are down by 25-30 per cent. Movements at Rotterdam are down by 20 per cent and a similar decline is evident at Liverpool. There are, of course, many similar stories to tell in ports beyond the North West European region. In the container shipping sectors, there are still some 500 vessels laid up. The carriers are struggling to see light at the end of what appears to be a very long tunnel."

SMIT Harbour Towage has responded to these harsh conditions by redeploying a number of tugs to carefully selected locations. Loek Kullberg says: "We have been successful in redeploying surplus tugs working at ports experiencing major falls in volume. This action has seen our tug fleet at Rotterdam fall from 16 to 13 tugs and the Antwerp fleet reduce from 12 to 10. In the UK, the Liverpool fleet has been trimmed from six to five. These are examples of our proactive measures. Some of the tugs have been moved to serve new business. Others have been redeployed to reinforce our joint ventures, at various locations around the world."

One move from Rotterdam involved the 'Smit Mersey'. This tug has joined the Towmar SMIT

joint venture fleet in the Baltic. In addition, two Voith-Schneider tugs, the 45 tonnes bollard pull 'Union 9' and the 65 tonnes bollard pull 'Smit Trafalgar', have moved from Antwerp and Liverpool respectively, to join the fleet operated by SMIT Kueen Yang Towage joint venture in Taiwan, with activities centred on Taipei port.

Loek Kullberg says: "The joint venture in Taiwan commenced operations in January of this year. Whilst not immune from the effects of recession, this venture is progressing well. It has a fleet of five tugs: 'Sky 401' ('Union 9') and 'Sky 501' ('Smit Trafalgar'), together with three tugs from our partners ('Sky 111', 'Sky 211' and 'Sky 311' - all 30 tonnes bollard pull ASD tugs)."

More tugs are also needed for SMIT Terminals' contracts worldwide. In the Bahamas, for example, 'Smit Humber' (ex-Rotterdam) has reinforced the three tugs already working at this location. SMIT also operates a bunker barge in the Bahamas.

Meanwhile, SMIT Harbour Towage's extensive fleet renewal programme is still unfolding. Loek Kullberg says: "We continue to replace the



In October 2009, SMIT Harbour Towage assisted cruise ship 'Queen Victoria' at arrival in Rotterdam.

older tugs with the newbuildings, as they are delivered from the yards. In Panama, for example, we have deployed the two 2810 newbuildings 'Smit Saba' and 'Smit Guadeloupe', both of 60 tonnes bollard pull. These 2810s replace the 'Dortsebank' and 'Sandettebank', both of which are now being sold."

Two additional 2810 newbuildings, the 'Smit Ebro' and 'Smit Seine', have joined the SMIT Harbour Towage fleet at Rotterdam. Other changes to this fleet include the disposal of 'Smit Portugal' and 'Smit Denmark' - both having been sold - and the redeployment of 'Smit Aruba' to Panama.



SMIT Kueen Yang Towage tug 'Sky 501' in the port of Taipei.



SMIT Rebras tugs assisting bulk carrier 'Cape Triumph' in Itaguai, Brazil.

"Recent months have also seen the delivery of four 95 tonnes bollard pull 3213 Class newbuildings, especially equipped for LNG-related work. The first of the four, 'Smit Panther', is now in the "frontrunner" role at the Adriatic LNG project in Italy, but is expected at Rotterdam in the New Year. Sister vessel 'Smit Cheetah' is already at Rotterdam. Looking ahead, the construction of Rotterdam's Maasvlakte II development is about to start, with a projected completion date of 2012. This enlargement of Rotterdam-Europoort will include facilities for

10,000 TEU plus container vessels and a large LNG terminal. Obviously, our new 3213 tugs will play a key role when Maasvlakte II opens for these big vessels. Meanwhile, the remaining two 3213s have already found work. 'Smit Jaguar' has a one to three-year contract with British Gas at Mumbai and 'Smit Tiger' is starting at Zeebrugge in January, assisting LNG carriers calling at Exmar's Terminal."

In Latin America, the last of 18 tugs in an extensive newbuilding programme was deliv-



2810 ASD tug 'Smit Ebro'.



'Smit Saba', currently deployed in Panama.



3213 ASD tug 'Smit Cheetah'.



'Sky 401' assisting a vessel in Taipei.



SMIT Harbour Towage tugs assist platform 'COSLRIVAL' in Rotterdam.

## TOWMAR SMIT: A BALTIC JOINT VENTURE CONTINUES TO EXPAND

**Towmar SMIT continues to make progress in the second half of this year. The formal agreement establishing this Baltic joint venture, between SMIT Harbour Towage and partners Towmar, was signed in May. The decision to establish this joint venture was taken in the third quarter of last year. It is a platform for the provision of harbour towage services at the ports of three new EU members: Latvia, Estonia and Lithuania.**

Harbour Towage Division Managing Director Loek Kullberg says: "Our joint venture follows on from an earlier, successful relationship with Towmar at the Lithuanian port of Klaipeda. We have always regarded the Baltic States as an important area of commercial opportunity, given that the ports infrastructure serves three countries and the huge Russian hinterland. Our cooperation with Towmar is a major step forward. The potential for serving the wider Russian market has its parallel in North West Europe, with the ports of Antwerp and Rotterdam acting as gateways to France, Germany and their neighbours."

"Good prospects are reinforced by the steady transition of the Baltic States to West European-style commercial economies, based on the supply of goods and services within a truly competitive trading environment."

Towmar's principal is Jan Kohlsaet, a co-owner and Managing Director of the Towmar organisation. Loek Kullberg comments: "Towmar is operating at Klaipeda, in Lithuania, with several tugs. It is also active at Ventspils, Latvia, with three tugs. Under the Towmar SMIT joint venture, we have committed three tugs initially, including two newbuildings."

In the case of Klaipeda - a significant general cargo port - Towmar SMIT currently operates four tugs, including the 60 tonnes bollard pull 2810 tug 'Smit Trinidad'. At Ventspils, a major oil port, the Towmar tug 'Tak 4' has now been joined by the 60 tonnes bollard pull 2810 'Smit Dominica' and the 65 tonnes bollard pull tug 'Smit Mersey'. Meanwhile, the three SMIT vessels have been renamed ('Smit Trinidad' to 'Smit Dane', 'Smit Dominica' to 'Smit Venta' and 'Smit Mersey' to 'Smit Nida').

In a related move, the Towmar SMIT joint venture has acquired a company at the Latvian port of Liepāja operating four tugs. Two of these tugs have since been sold and the Towmar tug 'Tak 1' has switched from Klaipeda to Liepāja, following the arrival of 'Smit Trinidad' at the former port.

In addition, Towmar SMIT has entered into an agreement with tug operators PKL, for the provision of harbour towage services at



Towmar SMIT providing harbour towage assistance in Klaipeda, Lithuania.



the Latvian port of Riga - a centre with good potential for growth.

Loek Kullberg concludes: "We want to see the Towmar SMIT joint venture expand its

activities, to provide harbour towage services at some six or seven ports in the region. Our larger clients - global SMIT accounts - want continuity of service in ports such as St. Petersburg."





## MORE URS NEWBUILDINGS TO JOIN THE FLEET

A further two newbuildings have joined the URS fleet. In 2007 the Turkish yard Dearsan delivered the 65 tonnes bollard pull 'Union Grizzly' and 'Union Kodiak'. Over the past year the final pair of Rampart 3200 tugs were delivered: 'Union Panda' and 'Union Koala'. The latter, the last in this series of four, arrived at Antwerp in June.

Two additional newbuildings are now awaited by URS. These are two 80 tonnes bollard pull tugs building at the Armon Yard at Navia, northern Spain. They are scheduled for delivery towards the end of next year. This yard also built URS' eight 65 tonnes bollard pull tugs 'Union Topaz' and 'Union Onyx' (delivered last year), 'Union Sapphire' and 'Union Diamond' (delivered in 2003), 'Union Coral' (delivered in 2004) and 'Union Ruby', 'Union Emerald' and 'Union Pearl' (delivered in 2005).

Traffic levels at all Belgium ports have fallen as a result of global economic downturn. Volumes at Antwerp have declined by as much

as 25-30 per cent, with the falls somewhat less marked at Zeebrugge, Terneuzen and Ghent. Nevertheless, these remain busy ports and emergencies continue to occur from time to time. In the second half of this year URS tugs responded to two casualties, both on the river Schelde.

The first case involved the Dutch multipurpose vessel 'Stadiongracht', which was refloated by tugs 'Schelde 10' and 'Lieven Gevaert' following a grounding in August. The second concerned the small laden product tanker 'Vidden', which required assistance following a main engine failure in the river during September. At the time the vessel was in mid-fairway in the busy Schelde, in an area of frequent crossing traffic. The URS tugs 'Lieven Gevaert' and 'Union 7' connected up and towed the tanker to safety.

An assignment of a different type was undertaken by the DSV/salvage vessel 'Union Beaver'. This vessel has been busy since April in UK waters, engaged in offshore work supporting



Rampart 3200 tug 'Smit Panda' joined the URS fleet in 2009.

the Robin Rigg windfarm project. The vessel has been carrying out cable-laying between the wind turbines and for the landfall. Other duties include assisting the stationkeeping of

barge as they arrive on-scene. The DSV/salvage vessel was equipped with an eight-point mooring system for this assignment.

## SMIT TERMINALS LOOKS TO THE FUTURE WITH MAJOR BIDS SUBMITTED

SMIT Terminals' global market continues to show resilience in a period of world economic downturn, largely due to the inherent strength of the oil and gas markets.

Loek Kullberg, Managing Director of SMIT's Terminals Division, says: "This is the time to look to the future, as global energy demand is set to increase. This trend is reflected in the large number of major tenders prepared and submitted by SMIT Terminals over the past six months. In addition, continued to make progress in 2009, with the start up of new long-term contracts and the extension of existing contracts."

Over the past six months SMIT Terminals has operated four "frontrunner" tugs at Tangguh,

Indonesia, assisting vessels calling at the BP/MIGAS gas export terminal. SMIT Terminals has partnered local operator Samudera. The tugs at Tangguh are two 2810s - 'Smit Monserrat' and 'Smit Cayman' - together with the 'KST Sunrise' and 'KST Super'. Loek Kullberg says: "We intend to expand our role at Tangguh and develop a long-term relationship." BP/MIGAS is building a fleet of tugs and support crafts for operation within a long-term terminal support contract.

In Italy, SMIT's major Adriatic LNG offshore terminal contract commenced this Summer (see report, page 7). The tugs include a frontrunner newbuilding - the 95 tonnes bollard pull 'Smit Panther'. Exxon Mobil is the lead operator. Two additional LNG terminals are planned in Italy:

a second floating facility, close to the Adriatic LNG terminal, offshore Venice, and a shore facility in the Naples area.

Large-scale new projects are also in prospect in Australia - at Gladstone, an east coast port, and the Gorgon LNG project west of Port Hedland, in Northwest Australia. Loek Kullberg says: "Gladstone is a major coal port, receiving calls from very large bulk carriers and a range of other vessel types. We have made proposals for a harbour assistance/



2810 ASD newbuilding 'Smit Cayman' provides terminal services in Tangguh, Indonesia.

terminal support package based around a fleet of five tugs of the 70 tonnes bollard pull class.

"The Gorgon project has a requirement for four tugs. We have proposed four 75 tonnes bollard pull newbuildings of an innovative design, with a full range of environmental features such as low emission diesel-electric propulsion."

During 2008 SMIT Terminals further developed its activities in the Bahamas by securing a bunkering services contract. This year the SMIT tug fleet in the Bahamas was increased from three to four, with the transfer of the 65 tonnes bollard pull 'Smit Humber' from Rotterdam. This tug is assisting SMIT's bunker barge and is also providing harbour towage assistance for crude carriers calling at the Bahamas.

Elsewhere in the world, in Africa SMIT Terminals has made proposals for the offshore support of a large FPSO, stationed off the coast of Ghana, with three large tugs. Meanwhile, in Nigeria, SMIT Terminals' existing contract for support at the Bonny Island LNG terminal will be extended for a further two years. Future requirements at the NLNG facility will involve the deployment of new 65 tonnes bollard pull tugs.

In Egypt, changes in SMIT's fleet, within the OME joint venture, are in prospect. Two 65 tonnes bollard pull newbuildings (under construction at Keppel, Singapore) will succeed the 'Smit Diametta' and 'Smit Port Said'. The latter will move to new locations.



SMIT Rebras tugs provide terminal support services at Angra Dos Reis, Sepetiba Bay, on behalf of client Petrobras.

## ITALY'S ADRIATIC LNG TERMINAL COMMENCES OPERATION

SMIT Terminals and its Italian partner, RR Panfido, have commenced a major LNG-related contract in Italian waters. Four tugs are supporting LNG carriers calling at the novel Adriatic LNG terminal off Venice, which received the first vessel call during August. Exxon Mobil is the lead operator, with Qatar Petroleum and Edison SpA as partners. SMIT Terminals is providing vessel assistance and related services in a joint venture with Rimorchiatori Riuniti Panfido.

Adriatic LNG is a pioneering type of offshore LNG terminal, with the capacity to store and regasify around 10 per cent of Italian gas requirements. Stationed offshore Porto Levante, this gravity base structure is the first of its kind in the world. SMIT Terminals' contract has a 25-year time span and provides for towing support, security, firefighting and emergency towing at the new gas import terminal.

Four new tugs ('San Francisco AT', 'San Nicola AT', 'San Marco AT' and 'San Giorgio AT') were ordered for support services at the Adriatic LNG terminal. The orders were placed in May 2007. Two of the 70 tonnes bollard pull ASD escort tugs were built in Italy and the remaining two in Turkey. The last of the four, 'San Giorgio', is due for delivery by the end of this year. At that stage the state of the art 95 tonnes bollard pull 3213 newbuilding 'Smit Panther' will relinquish its "frontrunner" role and move to Rotterdam.

All tugs operating at Adriatic LNG have advanced "render and recover" winches, capable of automatically absorbing forces. This advanced equipment is necessary as the North Adriatic region is prone to periods of

heavy weather in the Winter season, with big seas and strong winds. The violent gusts of the Bora wind have their origin in the mountains of Croatia. This has a stronger and much more powerful character than the well known French Mediterranean Mistral.

From the New Year an average of two LNG carriers will call at the Adriatic LNG terminal every week. The vessels are safely moored alongside and discharged; the terminal then delivers the gas ashore. Vessels calling at the terminal are in the 120,000 tonnes - 150,000 tonnes range.

These vessel calls are closely managed. Each LNG carrier confirms its ETA 24 hours prior to arrival. Tugs are on station at the anchor-



SMIT Terminals tugs operating in Tangguh, Indonesia.

In Latin America, this May saw the start-up of SMIT's first terminal support contract in Brazil. Four 45 tonnes bollard pull tugs are now operating at Sepetiba bay, on behalf of client Petrobras.

### Client satisfaction

Twenty-six clients of SMIT Terminals participated in a recent Service Satisfaction Survey. In addition, the Division's Contract Managers carried out a complementary survey of satisfaction levels. Loek Kullberg says: "The results are very encouraging. The average satisfaction score we received was 8.2. Satisfaction was high in the operations area. When asked

whether service levels met or exceeded expectations, 91 per cent said that they equalled or were above expectations.

"The results show that SMIT Terminals holds a clear competitive advantage in activities such as project development, IRM (Inspection, Repair & Maintenance), berthing and unberthing, static towing and escorting. We also found, however, that we should improve our delivery of information on new developments and technologies. We will continue to take the temperature of client satisfaction on a yearly basis and we will use the results to improve services, under a specific action plan."

age two hours prior to the ETA. The LNG carrier stops, the Pilot boards and all four tugs are then connected. One tug connects to the bow and another at the stern, with the two remaining tugs alongside and ready to assist, if required, during the final approach. The approach speed is 3 kts, with engines stopped as the final phase begins.

When the LNG carrier closes with the berth, line-handling vessels arrive alongside. Meanwhile, the bow and stern tugs move off with slack lines and the two "push tugs" are released, if not required.

With the LNG carrier safely moored, two of the four tugs remain at a position around half a

mile from the jetty, ready to respond immediately if required. The remaining pair is positioned at a stand-off location, two to three miles from the terminal. The Adriatic LNG terminal has a three-mile radius Exclusion Zone for unauthorised traffic. The tugs patrol this safety area.

Weather and sea state are monitored at all times, with hourly updates from Trieste Meteorological Centre. In the event of heavy swells developing, the tugs return to the gas carrier, connect up and tow to a stand-off position, to await improved weather.



Bunker barge 'Smit Inesita' is deployed for bunkering services in the Bahamas.



SMIT Terminals tugs assist the first tanker calling the Adriatic LNG terminal in August 2009.



## SALVAGE WORKLOAD INTENSIFIES DURING SECOND HALF

SMIT Salvage teams working worldwide were engaged in a wide range of operations during the first ten months of the year. SMIT Salvage obtained a total of 19 Lloyd's Open Forms during the period and responded to seven groundings during the months of July and August alone.



Sheerlegs 'Smit Cyclone' with one of the legs of the rig 'Noble David Tinsley'.

Activities during September included oil recovery from the grounded bulk carrier 'Seli 1', beached near Cape Town (see report, page 10). September also saw the conclusion of a major salvage operation off Qatar. This involved the recovery of the legs of the rig 'Noble David Tinsley'. One of the rig's legs "punched through" the seabed whilst it was being positioned to serve as an accommodation facility alongside a production platform. The legs were separated from the deck by another contractor. The deck was then towed to safety. The legs were removed by the floating sheerlegs 'Smit Cyclone', mobilised from Singapore. The sheerlegs completed this project after a successful transit of the Bay of Bengal during the Monsoon season. The 1,000 tonnes lift capacity sheerlegs pulled the rig's legs and lifted them onto a barge, for subsequent delivery at Doha. SMIT Subsea participated with a DSV and a saturation diving spread.

SMIT Salvage teams responded to three groundings during August. The casualties included the Chinese bulk carrier 'Xin Dong Guan 3'. This vessel grounded off Johor Port, Malaysia, on August 8, whilst carrying a cargo of 60,240 tonnes of manganese fines. A salvage team mobilised from Singapore to assist this 69,500 DWT bulker, responding under a Lloyd's Open Form contract. Arriving on board an anchorhandler and a support barge, the team refloated 'Xin Dong Guan 3' the following day, having lightened the vessel by swiftly transferring 9,500 tonnes of manganese fines. As a



SMIT successfully refloated tanker 'Maria M' following a STS transfer.

precautionary measure the team also removed Heavy Fuel Oil (HFO) from the grounded vessel. The salvage operation concluded with a work programme to prepare the vessel for resumption of the voyage. The casualty was redelivered on September 19.

Another grounding in August, involving the 6,000 DWT chemical tanker 'Fetekoz', demonstrated SMIT's ability to achieve a fast, successful outcome whenever the opportunity presents itself. SMIT Salvage was awarded a Lloyd's Open Form following the grounding of the 'Fetekoz' off an Albanian port on August 16. The vessel was refloated the following day and redelivered within 48 hours.

These cases followed responses to four groundings in July - all concentrated in the second half of the month. The first arose when the gasoil-laden chemical/products carrier 'Maria M', 40,057 DWT, grounded off Gothenburg. This occurred on July 14; SMIT Salvage obtained a Lloyd's Open Form and mobilised to Gothenburg. A team flew in from



Bulk carrier 'Ystwyth' had run aground off Moro Port, Indonesia. The vessel was refloated after offloading 3,000 tonnes of cargo.

Rotterdam and tugs and equipment arrived on-scene. The salvage inspection revealed damage to the ballast tanks but no pollution. Calculations then demonstrated that freeing 'Maria M' would require a ship-to-ship (STS) transfer, in order to lighten her.

A lightening tanker was chartered in. Two tugs, provided by SMIT Salvage's local partners, arrived on-scene to support the STS transfer and other salvage activities. The team refloated 'Maria M' on July 21, following the transfer of 7,700 tonnes of gasoil to the lightening tanker 'F.D. Nord Fast'. When the casualty arrived at a lay-by berth in Gothenburg port, the balance of the cargo was transferred to 'F.D. Nord Fast'. 'Maria M' was then redelivered to the owners.

The second of the four groundings that month occurred on July 24, when the bulk carrier 'Ystwyth' went aground off Moro Port, Indonesia. Once again, SMIT Salvage obtained a Lloyd's Open Form. A Salvage Master and team were mobilised, boarding two vessels - the 'Dea Lingne' and the anchorhandler 'Smit Belait'. It soon became apparent that a part discharge would be necessary if a refloating attempt was to succeed.

The 'Ystwyth' went aground with a cargo of 75,200 tonnes of bauxite. With 3,000 tonnes of cargo offloaded, the casualty floated free on August 5. Additional tugs were mobilised, to add bollard pull for this critical phase of the operation. The work was not finished with the refloating. 'Ystwyth' was towed out of the Durian Straits, where local conditions (strong currents and poor visibility underwater) were unfavourable for the final phase of the project. With the bulk carrier positioned in sheltered, clear waters off Singapore, the team began work on an extensive programme of underwater patching. This casualty was redelivered on August 19.

SMIT Salvage responded to two groundings on July 30: the 'Full City', in Norwegian waters (see report, page 9), and the bulk carrier 'Austanger', grounded in the Martin Garcia Channel, Argentina. The 'Austanger' operation also involved measures to lighten the vessel. The 'Austanger' grounded during a voyage from Nueva Palmira, Uruguay, to Santos, Brazil. She was carrying wheat; some 5,000 tonnes of wheat was lightened. The vessel was refloated on August 14 and the cargo was backloaded. Redelivery took place on August 17 and 'Austanger' resumed her voyage.

The workload for SMIT Salvage in the second quarter was unusual, in that it included a series of casualties arising from main engine problems. On June 29, however, an emergency of a different character unfolded, when the cement

a main engine failure off the South African coast. A tow connection was made in bad weather and the casualty was towed to safety in False Bay.

During May the salvage workload included a response to fire on board the passenger ro-ro 'Vincenzo Florio', at a position 25 miles off Palermo. Some 500 passengers were taken off. SMIT worked in association with local company SOMAT. The vessel was towed into port and docked alongside. All fires were extinguished on June 10, with SMIT's team using "Cobra" firefighting equipment to kill persistent fires in trailers.

May saw another casualty in South African waters. 'Smit Amandla' was tasked to connect up to the disabled bulk carrier 'Pine Trader'. This vessel was redelivered at Cape Town. SMIT Salvage also rendered services to the 'UAL Nigeria' in May, following a call for assistance as a result of tail shaft problems.

carrier 'Marti Princess' and the container vessel 'Renate Schulte' collided in the Dardanelles. SMIT Salvage obtained Lloyd's Open Forms



SMIT Salvage came to the rescue of the grounded bulk carrier 'Austanger' in August.

for both casualties. SMIT responded with local partners Solar/ Beaufort. The vessels were separated and recovered, in a difficult operation posing a special challenge for SMIT's Salvage Naval Architect.

SMIT's Cape Town-based Emergency Towing Vessel (ETV) 'Smit Amandla' responded under a Lloyd's Open Form on June 22, when the 175,048 DWT laden bulk carrier 'Kiran' suffered



Emergency response tug 'Smit Amandla' towed disabled bulk carrier 'Pine Trader' to Cape Town.



## SMIT SALVAGE TEAM FREES THE GROUNDED 'FULL CITY'

One of SMIT Salvage's major cases during the second half of this year involved the Panamanian flag, 1995-built bulk carrier 'Full City'. In contrast to her name, 'Full City' was in ballast when she went aground off the port of Langesund, Norway, during the early morning of July 30. This vessel was refloated by a SMIT Salvage team in mid-August, following the successful completion of a challenging operation.

ful history of working together in Norwegian waters. Amongst the prominent cases in recent times was the salvage of the 'Crete Cement' and the rightening of the 'Rocknes' following a tragic accident.

A distinct feature of the 'Full City' salvage was the close cooperation between the salvors and the Norwegian Coastal Administration's response team. The bulk carrier had 1,200 tonnes of fuel oil in her tanks at the time of the



'Full City' grounded after dragging her anchor in a storm at Heroya Anchorage. She was driven onto a rocky shore and there was an initial spill of Heavy Fuel Oil (HFO) from her double bottom tanks. SMIT Salvage was awarded a Lloyd's Open Form contract within the first 24 hours.

A salvage team was mobilised from Rotterdam and flew out to Norway in a chartered aircraft. This team joined SMIT's Norwegian partners, Buksér og Berging, to perform the salvage of 'Full City'. The two companies have a success-

grounding. In these circumstances, oil recovery is the first priority, to protect the environment. The salvage team recovered most of the HFO and, in addition, skimmed the oil/water mix in 'Full City's holds and engine room. Recovered oil was transferred to a receiving barge moored alongside the casualty. As this environmental protection operation progressed, SMIT's Salvage Master presented his plan for the refloating of the casualty.

A detailed salvage inspection, followed by calculations, revealed that 'Full City's hull and



bottom had suffered very significant damage. She was hard aground - this was apparent from the first day. Before the inspection took place, Coast Guard video footage showed 'Full City's mast vibrating violently in the heavy swell - yet there was very little movement in the vessel, despite pounding from big seas. The weather was to remain poor for much of this operation.

Four of 'Full City's five holds were flooded and had a layer of HFO from the breached double bottom tanks on top. The engine room was also flooded. SMIT Salvage and local partners had assembled a fleet of vessels, including three Buksér tugs ('BB Bever', 'BB Belos' and 'BB Worker'), together with the receiving barge and a Diving Support Vessel (serving as the salvage team's main work platform).

The salvage team progressed work to restore 'Full City's buoyancy. Skimmers and pumps



were put to work, to remove the oil/water mix in the holds. Much of the damage was patched. One of the key milestones was the successful patching and pump-out of Hold No. 5, despite the extent of the damage. This was a crucial achievement, given the concentration of weight at the stern represented by the accommodation and main engine. The successful restoration of Hold No. 5 made refloating a



realistic proposition. The alternative could have involved a much longer and more expensive project, possibly involving the refloating of the foreship and the wreck removal of the stern.

In contrast, 'Full City' was refloated by tugs on August 17 - on the first attempt! The casualty touched just once during her exit from the grounding site and then floated free. A slight list was soon corrected and 'Full City' was towed to a nearby jetty for inspection. The vessel was boomed as a precautionary measure. A diving inspection revealed the true scale of the bottom damage. Sections of the bulk carrier's bottom were open in various locations, especially the engine room area and the Nos. 2/3 holds area. The forepeak, No. 1 hold and aftpeak were intact. 'Full City' was redelivered to the owners and salvage services terminated.



## SMIT TEAM PREVENTS MAJOR SPILL ON CAPE TOWN BEACH

A full-scale pollution prevention operation was launched on September 7, when the bulk carrier 'Seli 1' grounded during the late evening at Blouberg Beach, Cape Town.



The grounded bulk carrier 'Seli 1' off the coast of Cape Town, South Africa.

'Seli 1' was bound for Gibraltar with 30,000 tonnes of coal when she ran aground. At first light a SMIT Salvage team was winched onto the casualty's main deck from a helicopter. An inspection was performed and SMIT Salvage obtained a Lloyd's Open Form contract.

The South African Maritime Safety Authority (SAMSA) made it clear from the first day that the overriding priority was the prevention of a major spill of fuel oil. Meanwhile, all personnel from the vessel were transferred ashore, in the face of hostile weather and the heavy seas breaking over the beached casualty.

The oil recovery operation had two main components. A prompt start was made on transferring fuel oil from the double bottom tanks to spaces at a safer location, higher up in the vessel. At the time of the grounding it is estimated that 'Seli 1's bunker tanks held some 660 tonnes of fuel. As the

internal transfer began, work commenced on preparing for the transfer of bunkers from the casualty to a shallow draft receiving vessel alongside. Progress depended on improvements in the weather and sea state.

Other activities included on-going surveys, to monitor 'Seli 1's structural condition, and a hydrographic survey around the casualty, to assess water depth and the nature of the surrounding seabed.

There was a small oil spill immediately following the grounding, but 'Seli 1's bunker tanks remained intact. This limited spill was found to have originated from a settling tank in the engine room. Meanwhile, precautionary booming was under way, to protect sensitive areas, as SAMSA's pollution patrol aircraft, 'Kuswag 9', continued a programme of overflights. The aircraft reported a light sheen, in the immediate vicinity of the casualty, confirming the Salvage Master's reports of no significant pollution.

Within a few days of the grounding the weather improved and the recovery and transfer of the fuel oil could begin. Over the first week some 400 tonnes were recovered. The pump-out continued and, when concluded, around 575 tonnes of fuel had been accounted

for. The SMIT Salvage team then continued to search for small pockets of oil trapped in fuel tanks, the engine room and topside tanks. 'Seli 1's engine room was tidal and skimming in this area continued. The pollution prevention operation succeeded in preventing a damaging spill in a highly sensitive area.

'Seli 1's flooded engine room indicated severe bottom damage. Calculations suggested that the refloating of 'Seli 1' is a real possibility, but would involve the ship-to-ship transfer of part of her coal cargo. This casualty has five holds and two (Nos. 2 and 5) remained dry. The calculations imply that a refloating would demand the discharge of these holds, at the very least. At the time of writing salvage personnel are still monitoring the situation and reporting to SAMSA. In addition, sensors to monitor and record movement have been positioned on board. These sensors can be read remotely. The South African government is presently considering a cargo recovery operation and eventual wreck removal.



## PROGRESSING CLEARANCE OF DEBRIS FROM JACK-UP 'PRIDE WYOMING'

SMIT Salvage wreck clearance work continued this year on the remains of the jack-up drilling rig 'Pride Wyoming'. This jack-up was a casualty of Hurricane Ike in September 2008. 'Pride Wyoming' was evacuated as the hurricane approached. The violent winds and huge seas tore the jack-up apart. The deck was ripped from the legs and drifted over 60 miles before settling in shallow water.



A survey after the hurricane subsided revealed that debris from the mat-supported 'Pride Wyoming' was concentrated at three main locations. The remains of the legs were found in 60 metres of water, whilst the mat sections and deck were discovered at two shallow water positions (water depth: 10-15 metres) 30 miles apart.

SMIT Salvage received a contract from Pride Offshore (subsequently Seahawk Drilling) to

recover debris. Work began in October of last year moving from site to site coordinating accessibility with Pride and leaseholders eventually ending at the deepwater site, where the remains of the legs had been found, together with the drill floor and derrick.

A major salvage spread was mobilised for the 'Pride Wyoming' project. Teams from Houston and Rotterdam flew in, together with equipment. The SMIT sheerlegs 'Taktlift 1' (800 tonnes lift capacity) - already in the US Gulf - was deployed for this project, together with three support tugs, a supply vessel and two scrap barges.

A surface-supplied, mixed gas diving operation during the final quarter of 2008 prepared the legs for lifting. Two legs were pulled free and wet stowed on the seabed. Prior to moving to the deepwater site the environmental concerns were addressed by hot tapping oil storage tanks within the rig recovering hydrocarbons.

The SMIT Salvage work programme in 2009 focused on the recovery of the mat section from 15-metre water depth. Access to the site was limited and the project team was mobilised for the 2009 season in end of June and concentrated on the recovery of mat sections. A very large mat section, protruding from the water, was ballasted down. Debris was recovered and transported by barge to a scrap

facility at Port Gibson. The project team also recovered the remains of two legs, attached to the mat sections. All sections of debris from the mat obstructing repair and replacement of damaged pipelines was recovered. Remaining sections do not present a risk to the subsea infrastructure.

Operations offshore were concluded in late August, due to the need to make way for a pipelaying project in the field.



## DEVELOPING NEW, HIGH POTENTIAL MARKETS FOR SPECIALISED MARINE SERVICES

As another significant phase in SMIT's long history nears completion - with the construction of 156 vessels creating a new fleet for worldwide operations - the Group is now free to redouble its efforts to develop fresh markets. SMIT sees many opportunities to develop its portfolio of specialised marine services.

Abel Dutilh, Managing Director of SMIT's Transport & Heavy Lift Division, says: "In building our businesses worldwide, there are many countries and niche sectors offering good opportunities for expansion, even in a time of recession. One example is Egypt, a market where we are active in a range of areas, from transport to terminal operations and salvage.

"Two years ago we entered into an agreement with the Shilbaya family enterprise, with which we have a long lasting relationship already. The result is Ocean Marine Egypt (OME), operating a fleet of vessels owned in a joint venture. This is a 50:50 partnership and it is about to be reinforced. The company's fleet of six vessels has already been enlarged by the addition of a seventh, a chartered-in SMIT vessel. Furthermore, two newbuilds - scheduled for delivery next year - will be purpose-built for service in Egyptian waters."

The two additional newbuildings are building (to a DP II specification) in a Chinese yard. The construction work is progressing under the supervision of SMIT in Singapore. Abel Dutilh

says: "These newbuilds are designed to meet present and future offshore oil and gas industry requirements. They will be delivered during the second and third quarters of 2010.

"For the moment we do not see Egypt as a centre for general market expansion. Rather, it is a market characterised by stable demand for a broad spectrum of marine services that SMIT and its Egyptian partner can provide. Tug fleets in Egypt, servicing major clients, will need to be modernised over time and this process is already well under way in OME."

The Egyptian joint venture's activities are traditional in character, including offshore supply, anchorhandling and towage. Within this joint venture agreement, all salvage activities are undertaken under the OME banner, with OME having all the necessary infrastructure to respond at the local level.

SMIT is also active at Damietta Port, Egypt, where SMIT Terminals has a long-term service contract with BP and British Gas. Two SMIT tugs provide assistance at the LNG export terminal. This contract will run until 2026.

"We see prospects for further business in this area. The Port Authority is already a partner in the joint venture DMSC - Damietta Maritime Services Co. DMSC currently operates two vessels on bareboat charter from SMIT. It has now been decided that DMSC should own its own tugs and a yard order is being finalised for two

65 tonnes bollard pull, LNG-dedicated tugs, to be constructed in Singapore."

Opportunities of a different kind exist in the demanding, highly sensitive environment of the North Caspian. Kazakhstan's Kashagan Oilfield has huge oil and gas reserves. "In terms of developing markets, Kazakhstan offers huge long-term potential, in the context of growing world demand for new energy supplies.

"At present we have three barges working in the Kashagan Field and we are in the process of tendering for a wider portfolio of work in the region. We have much to offer, to support construction and production activity in the Field."

The North Caspian is an ultra-sensitive marine environment, characterised by shallow water and rare fauna. The seasons are marked by climatic extremes, with the winter months memorable for the formation of gigantic ice drifts. The oil and gas is being produced from a series of artificial islands, with offshore operations under the direction of the consortium known as Agip KCO. SMIT's three barges have been working in this area since 2006. Two are on charter to Saipem and the third to Agip.

"Our activities in this region focus on our joint venture with the Kazakh group Isker, based in Atyrau. It is hard to overstate the scale of the marine resources required in the North



'Smitbarge 2' alongside the aggregate loading jetty in Dande, Angola.

Caspian. It is estimated that demand will grow to some 240 vessels, including 70 barges."

Angola is yet another market with strong potential. "Our joint venture, SMIT Octomar, provides a foundation for our activities in Angola, including subsea work and SMIT's terminal support contract with BP. We are now offering services to other majors. We are also active in the area of marine projects. At present, for example, SMIT Marine Projects has a contract with Bechtel for the transportation of aggregates, required for the construction of a new LNG terminal at Soyo.

'Smitbarge 2' and a chartered vessel, 'Eidebarge 37', are employed for this work. They are supported by the tugs 'Ndongeni' and 'Smit Rhone'. The scope of this contract has since been expanded, requiring the deployment of a third transport vessel - the flat-top barge 'E3503' - and two more tugs, 'Uran' and 'Fairplay 29'. This transport project continues until early 2010. Soyo is set to grow in importance as the centre of Chevron's LNG-related operations in Angola. This country is a very significant oil and gas province and warrants our full attention."

## SMIT'S BIG BARGES TAKE MAJOR ROLE IN WINDFARM CONSTRUCTION

SMIT's transport fleet expanded during this year, with the addition of four Smitbarge newbuildings. The new vessels arrived in Rotterdam in June and three immediately commenced a charter with Bard - main contractors for the construction of the Bard I windfarm, in the German Bight.



SMIT Transport was awarded the contract for the provision of marine equipment and services in April of this year. Smitbarges 7, 8 and 9, together with the two B Class vessels 'Smit Barracuda' and 'Smit Bronco', began operations for the Bard I windfarm project in June.

The first phase of the Bard windfarm development will involve the installation of 80 wind turbines, sited around 100 kilometres offshore. SMIT's main scope of work is the transport of wind turbine components to site, in support of the installation vessel 'Windlift 1'. The piles are picked up at Flushing, whilst the transition pieces are loaded at Cuxhaven.

SMIT Transport also played an active role in two additional windfarm developments during the second half of this year. One of these projects, undertaken for the Danish-German venture Aarsleff & Bilfinger Berger, called for the transportation of turbine foundations for the Rødsand 2 windfarm project, situated off the Danish southern islands.

The Rødsand 2 project called for the participation of the 'Smit Anambas', required for the construction of concrete turbine foundations at the Polish yard of Swinjousci. The semi-submersible 'Smit Anambas' is acting as a floating construction platform for the foundations, each with a typical weight of 1,400 tonnes. On completion of fabrication, 'Smit Anambas' departs for the site. On arrival, the barge ballasts down in preparation for the lift-off of the foundations by the main contractor's heavy lift vessel, which then performs the final positioning.

'Giant 4' had been chartered by Aarsleff alone for a similar assignment: fabrication and trans-

port of turbine foundations for the Sprogø windfarm project, west of Copenhagen. These foundations were also fabricated whilst at Swinjousci, Poland. Once again, the main deck of the barge served as a fabrication site. Completed elements were taken to location in the Great Belt, between Nyborg and Korsør. A total of eight wind turbines were required in this phase and the gravity bases have weights of up to 1,900 tonnes. 'Giant 4's involvement reached a conclusion in September. SMIT Transport's scope of work also included towage from the Polish fabrication yard and marine services for the discharge of elements on-scene.

A particular feature of this project was a contractual commitment to be able to refloat, following set-down, in any circumstances. Refloating, however, is a process requiring 24-36 hours and this, in turn, demanded a very robust, well-engineered moorings solution.

This arrangement required two pre-installed, fixed moorings at 'Giant 4's bow, together with the positioning of the mooring/anchoring barge 'E1504' at the stern. The 'E1504' was mobilised to Sprogø by the multipurpose tug 'Smit Barracuda'. 'E1504' was put into a pre-laid, four-point mooring pattern, leaving two winches for direct connection to the 'Giant 4'. In this way, 'Giant 4' was readied to withstand



Turbine foundations on the deck of the 'Giant 4'.

sustained periods of poor weather. In the event, weather conditions were to test this arrangement - which performed as specified.



The turbine foundations are offloaded by a heavy lift vessel on site.



## 'TAKLIFT 4' RETURNS TO WORK AFTER MAJOR UPGRADING

SMIT's floating sheerlegs 'Taklift 4' is nearing the completion of a major refurbishment. 'Taklift 4' was built in 1981. A life extension and upgrading project will be completed by the end of this year. The 'Taklift 4' will commence its first post-refurbishment project in the first quarter of the New Year. This requires mobilisation to Brazil for the lift of a series of modules for the 'P57' newbuilding FPSO.

Work on the 'Taklift 4' refurbishment began in July. There were many reasons for carrying out this project. The main motivation was the opportunity to increase lift capacity and outreach at full loading and, at the same time,

install a new diesel-electric propulsion system, refurbished winches and new winch control systems.

Work began with the removal of the sheerlegs' A-frame, which was lowered onto a pontoon following the removal of wires and the cutting of the main pivots. Another sheerlegs, 'Taklift 7', was used to lift the A-frame and position it ashore at the Huisman Yard, Schiedam. The work then continued with the removal of all winches and the stripping out of 'Taklift 4's' engine room.

The upgrading will produce a sheerlegs with maximum lift capacity increased from 1,600 tonnes to 2,200 tonnes, outreach on the A-frame/flyjib increased by 5 metres at full load - allowing the installation of modules on the largest FPSOs now building - and the fitting of diesel-electric main engines offering lower fuel consumption and reduced emissions. The latter initiative



reflects SMIT's comprehensive programme for the enhancement of environmental performance in all areas.

Two of 'Taklift 4's' four lifting blocks have been updated, from 400 tonnes to 700 tonnes each. All electric motors for the winches have been renewed. These motors are now controlled by frequency drives.

The sheerlegs' additional lifting capacity is of significant benefit, due to the ever-larger

safety margins required for heavy lift. Typically, a 25 per cent safety margin is required when lifting offshore, effectively reducing 'Taklift 4's' previous maximum capacity from 1,600 tonnes to 1,200 tonnes. The increased lift will do much to increase operational capabilities in the offshore sector.

When 'Taklift 4' is handed over by Huisman, an extensive programme of load-testing and sea trials will commence, before the sheerlegs departs for Brazil.

## SMIT HEAVY LIFT BOOKED FOR NEW FPSO ASSIGNMENT IN BRAZIL

Following this major upgrading project, SMIT Heavy Lift's 'Taklift 4' will mobilise from Rotterdam to Rio during the first quarter of the New Year, to carry out the latest in a series of contracts involving integration lifts for FPSO newbuildings.

The new assignment in Brazil involves the FPSO monohull 'P57', under construction at Brasfels' Angra dos Reis yard, near Rio. This contract calls for the lift of a total of 11 modules

(maximum weight: 1,300 tonnes), together with the flare boom.

The upgraded 'Taklift 4' is scheduled to arrive in Brazil by the end of March. Its programme of heavy lifts, for client SBM, will occupy around 30 days.

During September 'Taklift 6' joined forces with 'Taklift 7' in the Port of Rotterdam to discharge 23 inland barges from the deck of the heavy

transport vessel 'Sainty 9'. Looking ahead to 2010, 'Taklift 6' is booked to participate in the Wallney windfarm project, in the Irish Sea. The sheerlegs is required for a five-month period, commencing April.

GeoSea has a contract to install 50 foundation piles (each of 600 tonnes) and transition pieces for the Wallney turbines. The foundation piles (up to 6.5 metres in diameter) will be brought to the installation area in the floating condi-

tion. 'Taklift 6' will use a specially-constructed upending tool, mounted at the bow, to raise each pile on site.

Elsewhere in the world, during late September the sheerlegs 'Taklift 1' completed heavy lift work associated with an additional phase in the 'Pride Wyoming' wreck removal project, in the US Gulf. This sheerlegs is to remain within the region for salvage deployment and other work.



SMIT sheerlegs 'Taklift 6' and 'Taklift 7' unloaded 23 inland barges in Rotterdam.

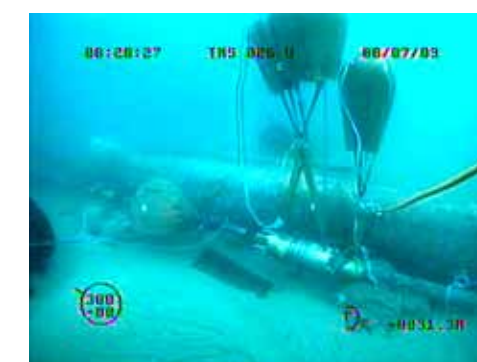
## FAST-TRACK REPAIR KEEPS THE GAS FLOWING

Operations undertaken by SMIT Subsea Europe this Summer included a pipeline repair for Shell Exploration & Production Europe, undertaken in the southern North Sea. This project called for the repair of a 4 inch monoethylene glycol (MEG) pipeline, laid parallel to the 30 inch gas export pipeline between 'Leman Alpha' gas platform and Bacton shoreside gas terminal.



Preparation of divers for the Wintershall project.

MEG is required for inhibition in the main gas pipelines that can occur during start up and certain operational activities. The damaged MEG line suspended the start up of the Leman Cluster platforms after an operational trip out. In response, a fast-track repair programme was devised and carried out. The damaged pipeline section was located along the 55 kilometres subsea route between Bacton and Leman Alpha. SMIT Subsea mobilised a dive, ROV and dredge spread, on board the DP3 Diving Support Vessel (DSV) 'EDT Protea'. The task was to replace a section of MEG pipeline with a length of approximately 90 metres. The repair work was carried out at a waterdepth of 35 metres. Work began in late June, only a few weeks after the discovery of the problem, and was successfully completed in the following three-week period.



Additional work has also been undertaken concerning the Wintershall Noordzee BV project. In 2008, during the first phase, the source of leakage in the 12 inch Duplex pipeline, near the 'L8-P' platform, was identified and confirmed by SMIT Subsea Europe. In August of this year, SMIT Subsea commenced activities for the second phase of this project. The scope of work was to remove rock cover from the pipeline and to disconnect, cut and recover around 55 metres of the pipeline within the 500-metre safety zone of the 'L8-P' platform. In the final phase, the pipeline is reinstated by

the installation of two spools (including the installation of a new Morgrip flange on one side). The work was executed with DP3 DSV 'EDT Protea'.

In the same programme, SMIT Subsea Europe also installed the closing spools of the newly drilled subsea wells at 'P9-A' and 'P9-B', ensuring first gas for Wintershall on schedule.

Inshore works carried out by SMIT Subsea Europe in recent months include jetty repair and renovation at Rotterdam's Petroleum Harbour No. 4, on behalf of main contractor Ballast Nedam. This facility in Rotterdam is operated by Esso, BP and Aramco. The SMIT Subsea contract was awarded in February and the work was completed in late September.

Work continues on a major programme of anode replacement at Rotterdam-Europoort, under a contract with the Port Authority. This work began at the beginning of this year and is now in its final phase. Additional anode replacement work is also under way for Ballast Nedam at Rotterdam Port's Mississippihaven. SMIT Subsea Europe placed a total of 8,000 anodes this year.

SMIT Subsea Europe also recently finished a third phase project in Amsterdam, concerning an extension of the Rijksmuseum building. A new underground area, 10 metres below street level, is being constructed on site. SMIT Subsea



divers are carrying out underwater concreting and other tasks, prior to the pump-out of the newly created spaces.

### WEST & SOUTHERN AFRICA AND ASIAN PACIFIC

Tenders are being submitted for projects requiring the newbuild SMIT SAT4 12-man saturation diving system, now under construction in Cape Town under the supervision of SMIT Subsea Africa. This new system will be deployed initially in West Africa or the Asian

region. SMIT SAT4 (the fourth saturation diving system in the SMIT portfolio) is due for delivery early in the New Year.

SMIT Subsea Africa's current activities include an offshore assignment in China for CATC, a consortium of oil majors (CNOOC being the field operator). SMIT Subsea's contract is with the UK-based trenching contractor CTC Marine, a Trico Group company. The scope of work calls for the installation of mattresses and risers, together with spool completions. The SMIT SAT2 nine-man saturation diving system has been deployed for this project onboard Deep Ocean's DP2 DSV 'Atlantic Challenger'. Work began in May and was interrupted by several tropical cyclones passing through the South China Sea. The contract with CTC Marine concludes at the end of December.

Work in the final quarter of 2009 included maintenance activities involving both fixed and floating production facilities off Equatorial Guinea, on behalf of Exxon Mobil and Hess. These works are conducted in the context of SMIT Subsea Africa's long-standing master services agreements with these oil companies.

In Vietnam, SMIT client Saipem was contracted to PTSC Pearl for the installation of pipelines and fixed structures, over a period of several months, ending in September. SMIT Subsea Africa provided air diving services on board the barge Castoro Otto.

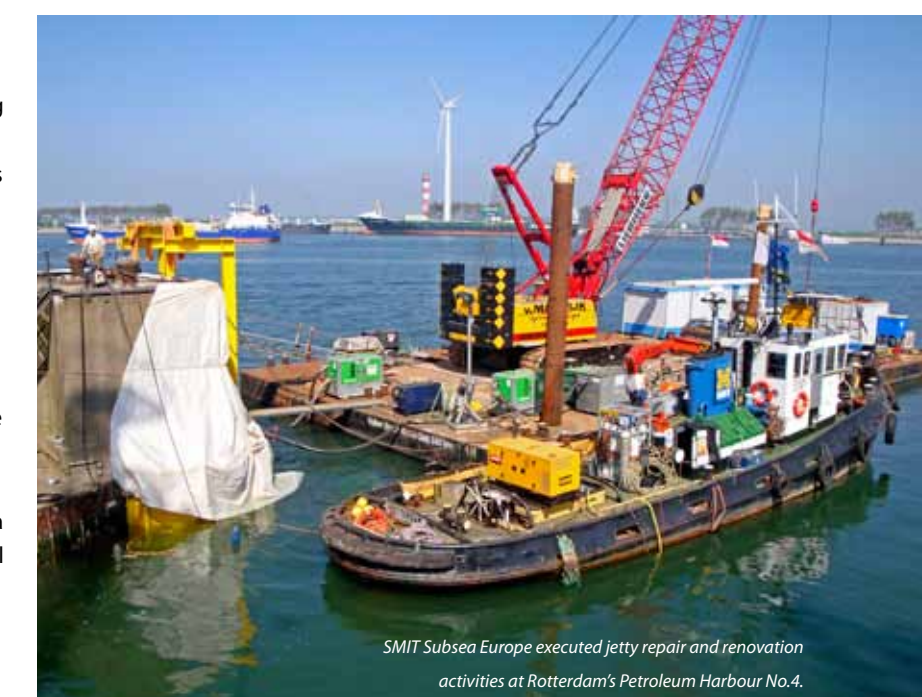
Shell South Africa contracted SMIT Subsea Africa - through associate company SMIT Amandla Marine - to carry out a fuel jetty inspection in Port Elizabeth. This followed



A diver installs the Morgrip pipe connector on to the new pipeline section.

sightings of light oil seepage into the harbour. Inspection was needed to identify the source of the leaks.

SMIT Subsea Africa provided air and saturation diving services to the Single Buoy Moorings' DP2 vessel 'Dynamic Installer', for work on FPSOs and SPMs in South Africa, Angola, Congo and Nigeria during the latter half of the year.



SMIT Subsea Europe executed jetty repair and renovation activities at Rotterdam's Petroleum Harbour No.4.

### MIDDLE EAST

SMIT Subsea Middle East's contract with subsea marine contractors Acery, for the installation of SBMs offshore Qatar, was completed successfully in June. The project concerned the installation of two Bluewater buoys for Maersk Qatar.



DP2 DSV 'Team Muscat' was mobilised with SMIT Subsea's SAT3 system to recover the legs of rig 'Noble David Tinsley'.

At mid-year a strategic decision was taken to locate the SMIT SAT3 6-man saturation diving system to the Middle East region. This system was deployed for the first time for the salvage operation to recover the legs of the rig 'Noble David Tinsley', off Qatar. The SMIT SAT3 system was mobilised on board the DP2 DSV 'Team Muscat'. The project was completed successfully in September, with close cooperation between SMIT Subsea and SMIT Salvage. The work was performed to a very high specification.

SMIT Subsea Middle East's five-year port maintenance contract with Qatar Petroleum is running well. Recent milestones include the delivery of two new diveboats. In recent months, the scope of services has been expanded and this process is likely to continue.

Qatar Petroleum has also required SMIT Subsea Middle East to oversee the upgrading of a managed 26 m x 11 m dumb barge into a DP1 self-propelled crane barge. On completion of the upgrading, SMIT will continue to man and operate this vessel (equipped for conventional air diving) for the on-going maintenance and refurbishment of SBMs, general port maintenance works, buoy replacement and other duties.

Other activities in the region include diving support for Maersk Oil Qatar during the upgrading of the Al Shaheen Field. This involves both air diving and rigging services.



## 'SMIT BORNEO' TACKLES NEW CONTRACTS FOLLOWING CRANE UPGRADE

'Smit Borneo's latest upgrade was completed at mid-year. This non-self-propelled offshore construction and accommodation barge underwent extensive refurbishment in 2006, involving accommodation and machinery. This year saw the change-out of the barge's crane with a new Liebherr BOSS 14000-500 D Litronic crane, with a 60-metre boom and 500 tonnes lift capacity.

The crane change-out was completed on schedule during July and 'Smit Borneo' then mobilised for the installation of the FSO 'Puteri Songkhla', in the B17/C - C-19 zone of the Thailand/Malaysia Joint Development Area. This contract called for piling, the installation of mooring legs, flexible riser installation and assistance during the hook-up phase.

This FSO assignment, for Franklin Offshore International, was completed in early September. Very shortly afterwards the barge mobilised for India, for an extensive programme of work in the Mumbai High Field. This contract with Leighton India is for a wide range of light construction works under the Pipeline Repair Project (PRP2) Phase II, involving activities such as the installation of risers, spool pieces and flexibles. The anchorhandler 'Smit-Lloyd 27' is supporting 'Smit Borneo' in this role. The work in Mumbai High Field is

expected to continue until April of next year.

The barge 'Smit Ibis' was busy in October, mobilising for a three-month plus options assignment with Total Indonesia offshore Balikpapan, Borneo. This contract involves supporting a well maintenance programme. 'Smit Ibis' departed Singapore for Borneo, having participated in the salvage of the Chinese bulk carrier 'Xin Dong Guan 3', off Johor Port, Malaysia, during August. Also the 'Smit Belait' was also actively involved in this salvage operation.

The SMIT fleet at Singapore has been active on the salvage front over the past six months. The 1,000 tonnes lift capacity sheerlegs 'Smit Cyclone', for example, played a major role in the recovery of the legs of the rig 'Noble David Tinsley', at a position off Qatar. Also in the Middle East, 'Smit Lumba' was due to commence, in early November, a one-year contract for Saipem, providing anchorhandling support for pipelay operations in Saudi Arabia.



'Smit Borneo' was deployed for the installation of FSO 'Puteri Songkhla' in the Thailand/Malaysia Joint Development Area.

▶ Murphy Oil, Malaysia, recently presented an award to the Master and crew of 'Smit Nicobar', for good service and an excellent safety record.

## ASIAN LIFT SHEERLEGS TEAM UP FOR DUAL LIFT

Asian Lift's sheerlegs 'Asian Hercules' and 'Asian Hercules II' teamed up for a dual lift of two halves of the hull of Global Industries' new derick pipelay barge at the Keppel Singmarine yard, in Singapore.

The two sheerlegs lifted the 2,485 tonnes starboard strip and 1,762 tonnes port strip, which were specially outfitted with a temporary bulkhead so that the two 120 metre by 16 metre sections could be joined and welded together whilst afloat.



## Colophon

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## SMIT AMANDLA MARINE: EXCEEDING CLIENT EXPECTATION IN BUNKER DELIVERY

SMIT Amandla Marine's reputation as the market leader for bunker delivery in Southern Africa is without comparison. And this company, responsible for bringing the first bunker barge into South Africa in the mid 1990s, is determined to maintain market share despite an increase in competition whilst improving on delivery standards.



In doing this, SMIT Amandla Marine prioritises Service Excellence and provides their clients with what they need - which is all efforts focussed on bunkering vessels at the time agreed, efficiently, with no delays. Delivering the correct quantity and quality of fuel is also critical. As is good communication up until vessel arrival, through the bunkering process and up to completion - all with no oil spills, environmental impact or demurrage claims.

With bunker operations in the Ports of Durban and Richards Bay, the company is well placed to service their customers with two barges in Durban and one in Richards Bay. The flagship 'Smit LiPuma' was built locally in Durban and introduced into service in early 2008 as the first double hulled bunker barge in Africa. Both the 'Smit Energy' and 'Smit Bongani' have subsequently been double hulled in order to meet MARPOL requirements. With the

port of Durban handling approximately 70% of all bunker ships calling at South African ports, both the 'Smit LiPuma' and 'Smit Energy' are based there.

Bradley Stevens, Operations Manager at CMA-CGM in Durban, is a valued client. "SMIT Amandla Marine's bunker barge service is dependable and the Durban Management team understand our needs well. CMA CGM is primarily a container Line and so even our bunker callers are under pressure to be serviced and sailed as quickly as possible due to berthing window commitments at the next ports of call. But we know we can rely on SMIT Amandla Marine's Durban Bunker team to be there when we need them, with minimal delay."

Earlier this year, SHELL recognised the team aboard the 'Smit Energy' under Barge Master Pearl Makanya for proactive environmental awareness and the prevention of oil spills in the Port of Durban. This achievement is characteristic of an operation where maintaining high SHE-Q standards are critical - and are being achieved.

The SMIT Amandla Marine Bunker Operations team under Bunker Barge Manager Gerard Singh face the frequent challenges of congestion and product loading delays. The key to managing expectations of clients, though, is in ongoing communication.



## SMIT'S CRISIS COMMAND CENTRE TESTED IN RESPONSE DRILL

November 19 saw the successful simulation of a crisis using SMIT's dedicated Crisis Command Centre, located at the Group's Rotterdam headquarters.

The drill was overseen by General Manager SHE-Q Sageed Kunhiraman. He says: "It is important to test the room and its facilities. The only effective way to do this is to carry out a crisis management drill from the Crisis Command Centre. We commissioned COT, the Dutch Institute for Safety and Crisis Management, to facilitate this training.

"On November 19 the Centre was used to respond to a simulated incident involving a SMIT sheerlegs with two SMIT harbour tugs in a river passage. We scripted the scenario such that the towing convoy makes contact with

an over head power cable. The consequences were obviously very serious and necessitated extra ordinary mitigation. We recognise that this is an acute form of emergency (or crisis) which could require a protracted response. In order to be fully effective in managing such emergencies, we must have dedicated response facilities."

One of the key issues is the ability to sustain a response on a 24/7 basis. The Group's many business units have their own Emergency Management Teams. In the event of a crisis the Rotterdam headquarters based Crisis Management Team will also be activated. This team will manage the crisis from the Command Centre, located adjacent to the SHE-Q Department (which can offer more space and facilities, if required).



David Crouch, Branch Manager for Rennis Ships Agency in Durban, notes that whilst they do at times find delays due to congestion, service levels are good and meet with their requirements. "At all times, service provided by the barge masters in terms of communications are excellent."

Managing Director of SMIT Amandla Marine Paul Maclons believes that the organisation continues to drive the transformation agenda and Broad Based Black Economic Empowerment in the maritime sector. "SMIT Amandla Marine's Barge Master training programme has seen real results over the last 12 months in particular. As a result, these qualified professionals are highly sought after in a competitive environment - skills retention thus remaining an ongoing challenge. "And maintaining that competitive edge drives a sought after workplace culture amongst the bunker operations team - where being market leaders is topped only by a desire to also be the 'best'."

Going the extra mile to exceed customer expectations is what it is all about. Earlier this year, the Richards Bay bunker barge 'Smit Bongani' was out of service for 4 months during her double hulling. This required an

innovative solution in order to maintain service in the Port of Richards Bay and continue to keep bunker delivery customers happy. The 'Marine Excellence' was relocated to the Port for this period - a display of efficient management and utilisation of assets - to the benefit of clients.



2010 will see a continuation of SMIT Amandla Marine's drive for Service Excellence and a more aggressive market focus in Southern Africa to realise growth objectives.

management is about effective communication between the parties involved and that, in turn, requires equipment that performs reliably whenever it is needed. We know we can liaise effectively with all parties, including our emergency team at the scene and in the local or branch offices."

SMIT's Crisis Management Team (CMT) at Rotterdam headquarters consists of members of the Strategic Committee. Typically the CMT has between four and six team members, representing operational issues and a variety of other disciplines, such as SHE-Q, Personnel, Legal and Corporate Communications. They report to the Executive Board, led by the CEO and CFO.





## SMIT'S NEW LNG TUGS ENTER SERVICE

During early 2007 SMIT ordered a series of four new tugs representing a new Class of vessel designed specifically for LNG terminal support. The first of the four ASD 3213 tugs, 'Smit Panther', was delivered by Damen Vietnam in July of this year. 'Smit Panther' mobilised immediately to Europe and became the "frontrunner" vessel for SMIT Terminals' major new contract - the Adriatic LNG project - based around a floating facility near Venice, Italy.

The second 3213 was also delivered by the Haiphong Song Cam Shipyard in August. 'Smit Jaguar' has now commenced a one to three-year assignment in India. This new tug arrived at Mumbai in late September and started a range of offshore-related activities, including assistance of FPSOs.

The third in the series, 'Smit Cheetah', finished her trials in early September, left Vietnam towards the end of that month and sailed to Europe, joining the SMIT fleet at Rotterdam.

The final 3213 newbuilding, 'Smit Tiger', completed her trials in early October and was handed over later in the month. 'Smit Tiger' then set out for Europe, with Zeebrugge as her destination.

SMIT Senior Engineer Ulco Muiser has been closely associated with the development of the new Class of tug, together with supervision of the construction and outfitting process. He says: "There is a trend towards heavy investment in new LNG facilities in many parts of the world. These terminals require powerful, specially-equipped tugs to assist the LNG carriers."

"The design of our new 3213 class has been influenced by the prevailing trend in LNG carrier design. These vessels are growing in size, both in length and height. As a result, they present a very large wind area. The tugs assisting them require all the special features of LNG-dedicated vessels and a relatively high bollard pull. In this case, the four 3213 newbuilds are rated at 95 tonnes bollard pull (ahead) and 89 tonnes (astern). Power and performance are such that they are able to deal with ultra large, new generation LNG carriers."

The new Class of tug has a number of distinct features. Ulco Muiser adds: "There is plenty of shear on the aft deck and smooth, upgoing lines in the underwater hull form aft. Much of the work is done over the bow, so the new tugs spend much of their time sailing astern. The aft deck has a lot of shear, so as to reduce water over the deck in this configuration. In a design of this type, the tendency - when proceeding astern - is for the tug's stern to "climb" out of the water."

Other special design features include advanced "render and recover" winches. In essence, these winches can render or recover automatically, at programmed maximum/minimum load levels, taking up slack and absorbing forces within safe parameters.

This new Class has an impressive set of LNG-specific safety features, including:

- ▶ Remote closure (from the wheelhouse) of engineroom and accommodation air intakes.
- ▶ Main engines equipped with "Rigsaver" - a safety stop system if gas is sucked in.
- ▶ An advanced gas detection system, with sensors at engineroom intakes and accommodation ventilation.
- ▶ Explosion-proof exterior lighting.
- ▶ Spark arrestors in exhaust systems.
- ▶ Cylindrical fendering with synthetic straps (rather than steel chains), with low fender pressure loads against tanker hulls.
- ▶ Waterspray system in way of bow fendering, for pushing operations in swell conditions.
- ▶ Anti-static synthetic tow lines.
- ▶ Lloyd's Firefighting Ship 1, with waterspray notation.
- ▶ Lloyd's Escort Tug notation.

The new tugs have a length (O/A) of 32.14 metres a beam (O/A) of 13.29 metres and a maximum draught of 6.43 metres. Main propulsion consists of 2 x Caterpillar C280 - 8/ MC units providing 5,420 kW (7,268 bhp) at 1,000 rpm. Each tug has two Rolls Royce US 285 azimuth thrusters, with 3,000 mm controllable pitch propellers. The firefighting system features two monitors, each rated at 1,200 cu m/hr (water/foam), together with a deluge system.

Ulco Muiser explains the background to the design development of the new LNG tugs: "We drew up a basic specification and opened a dialogue with Damen here in The Netherlands. The next step was the production of a conceptual design. It is important to develop a good understanding with the builder's design development team very early on. Our feedback on the first concept was used to prepare a revised concept, leading to the development of a fully detailed Technical Specification and drawings."

"The 3213 class is, in essence, a variant of the well-established ASD design, but tailored for a very specific role. Perhaps the most radical step forward is the Rolls Royce winch system. These winches are the most intelligent of their type now in service."

Damen's Vietnamese yard had building docks large enough to accommodate the new Class of tugs, with their wide beam. With the Technical Specification and drawings developed and approved, construction work began in the yard. A SMIT Superintendent was resident throughout.

Ulco Muiser says: "It is very important to have a continuous presence at the yard when a new Class is under construction. It is impossible for drawings alone to resolve all issues concerning, for example, the exact position of particular items of equipment. There has to be some degree of flexibility in these situations."

Some equipment had longer lead times than others. Special attention was paid to the delivery timeframes of key items, including main engines, rudder propellers and winches. "The winches were new to us and to Damen. Due to the time pressure, some testing was undertaken at the Rolls Royce facility in Shanghai. Naturally, a number of modifications were requested and made. We were pleasantly surprised when the winches arrived at the yard in Vietnam. Rolls Royce had done an excellent job and the commissioning phase took only a few days. There were no problems during the trials."

The handover of each new tug began with "commissioning" - running up all equipment, having connected up all piping systems,



electrics and hydraulics. The commissioning phase focused entirely on functionality. "We then moved to the 'trials' phase, which concentrated on testing the performance of engines, winches and other systems. In the case of the engines, we tested for speed and bollard pull. As for the winches, we checked the delivery of power - the pull and the speed of hauling. We found the new vessels' controllable pitch propellers produced very smooth handling."

"Taken overall, the four new vessels performed beyond contractual requirements during the trials. The bollard pull exceeded our expectations. Stability in all configurations is excellent, with a very low heel on sharp turns. The comments from the Captains during the trials were very encouraging. They were delighted with the new tugs' characteristics."