



Subsea pipelines

Few commodities illustrate the macro-economic realities of supply and demand as succinctly as oil and natural gas. Fluctuations in the market concerning price are common. The recent global economic downturn has predictably affected oil and gas demand and demonstrated to producers that demand is not perpetually elastic. The price of oil may not be where many operators would like it, but field development plans still must be carried out. This includes the laying of pipelines, so that operators can bring oil and gas to market. Subsea pipelines, not only for oil and gas but also for electrical networks, are growing in demand. New technologies are being introduced or cross-bred from high tech industries to provide more capabilities in the offshore/energy market. Analysts advise that the current decade may offer the best opportunity to make new investments in pipeline infrastructure. Tideway, located in Breda, the Netherlands, is prepared to meet the needs of an impressive list of international clients for the protection/stabilisation of pipelines and dredging activities.

Work in the oil and gas sector is spread all over the world and especially in remote areas. This creates a rising demand for faster vessels that can reach great depths underwater. Tideway, a subsidiary of the Belgian company DEME, directs its main activities to subsea pipelines and cables. Its clients are the largest energy companies in the world. "The increasing price of oil along with technology development stimulates new oil and gas projects," points out Director Hugo Bouvy. Tideway is an expert in landfall construction, scour protection and pre- and post-dredging for the support of pipe laying operations. Its contracts are from all around the world: the company has landfall constructions for projects from the North Sea to the Far East with examples ranging from Zeepipe, Europipe and Interconnector in Europe to the Malampaya gas pipeline in the Philippines, the Dhirubhai 1 & 3 Field Development Project in India, the Balearic Pipeline Project in Denia, Ibiza and Mallorca, Spain, and the Bombax gas pipeline in Trinidad.

Fast growing and young company

The Dredging, Environmental and Marine Engineering (DEME) Group specialises in keeping the sea lanes open, improving access to open water, reclaiming land for the benefit of economic activity, and in specialised activities as, for example, hydraulic engineering and offshore and environmental works.

It started Tideway in 1991. Today, this fast growing young company currently has a staff of 250 professionals. At the end of 2008, it generated a turnover of 150 million EUR. Tideway's current fleet consists of two fall pipe rockdumping vessels,

"We promote partnerships with our clients."

the 12,000 t Rollingstone and the 18,000 t Seahorse.

Hugo Bouvy shares directorship of the company with Lucas Bols.



Tideway's new vessel named 'Flintstone' (which will be launched in 2011) will be able to reach depths up to 2,000 m



For rock placement, Tideway has the D.P. Fall Pipe Vessels 'Rollingstone' and 'Seahorse', which carry up to 18,000 t and use a DP2 navigation system

By 2011, Tideway will launch another new vessel that places stones over subsea pipelines to offer protection against anchors and fishing nets, as well as stabilising pipeline positions. The commissioning of this ship, called a fall pipe vessel, marks a turning point for the company in terms of personnel and expanded market opportunities. "We want to begin this new venture gradually so we can recruit the right people to manage the ship and its capabilities.

It is important that each member of the team has extensive training, experience and understanding of the technical aspects of the work," says Mr. Bouvy. "For enthusiastic professionals, we offer a diverse work environment with hands-on involvement with projects from Australia to the North Sea." Tideway prefers that its employees have a real 'click' with each other, inspiring a cooperative work environment. In the end, the company believes this contributes to

improved efficiency, productivity and innovative thinking. "A ship has the potential to earn 150,000 EUR a day with a top functioning crew," adds Mr. Bouvy. The company invests in the next generation of skilled technicians and engineers by being involved with local universities and colleges. In addition, it has an extensive training programme for employees covering new developments in the field.

Underwater robots

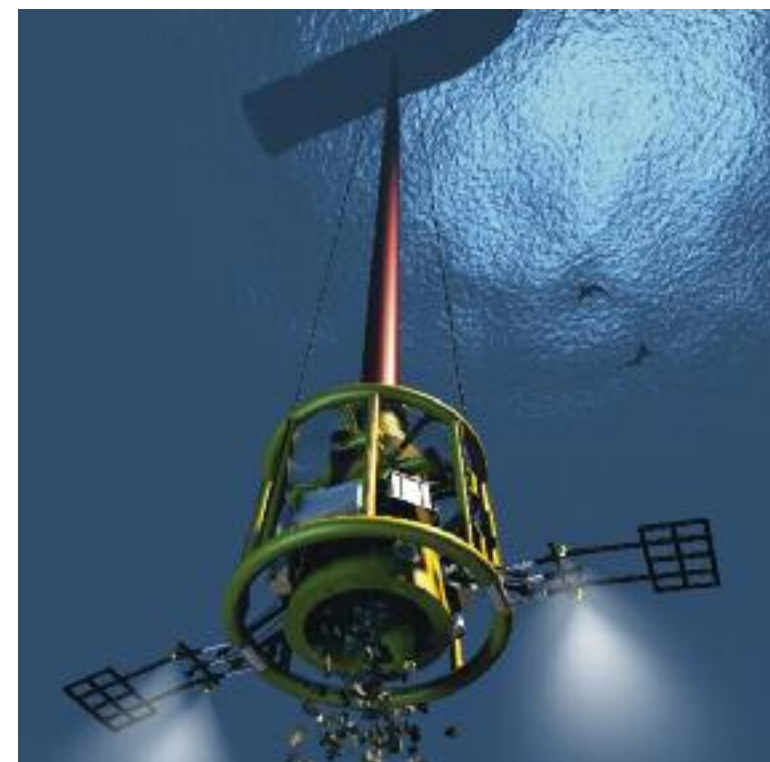
A fall pipe vessel is a highly specialised vessel consisting of a cargo, in which graded rock is stocked, and a 'fall pipe', at the lower end controlled by an ROV, which places the graded rock material at an exact location. An ROV (Remotely Operated Vehicle) is an underwater 'robot' that is used for many different underwater applications such as

"The renewable energy market is where the future is."

trenching, cable and pipe survey, as well as rock placement. The new fall pipe vessel of Tideway is able to carry out accurate rock placement works at a depth of no less than 2,000 m. "The challenge of reducing production costs while working in ever-deeper water is shaping the technologies today for ROV intervention. There seems to be a surge in Remote Tooling development and ROV system utilization," explains Mr. Bouvy. Recently, the company has reached depths up to 1,000 m, placing stones precisely and carefully on pipelines.

Known worldwide

Tideway's activities are divided into three categories; rock placement, landfalls and outfalls, and offshore dredging. The landfalls and outfalls division uses the company's exten-



Stabilisation and protection of pipelines



Tideway has extensive experience in installing pipelines in coastal and near-shore waters for oil and gas installations, as well as sewage effluents and cooling waters for power and water authorities

sive experience in installing pipelines in coastal and near-shore waters. "We not only install pipelines for oil and gas installations, we are also able to construct pipelines which discharge sewage effluents and cooling waters for power and water authorities," states Mr. Bouvy. "Our goal is to offer a variety of innovative and environmentally friendly alternatives." In the area of rock placement subsea, Tideway is known worldwide. The company covers all aspects of the procedure from preparation of the seabed to insulation of pipelines. For preparation of the seabed, offshore dredging is used. Typically, this involves pre-sweeping sand dunes with D.P. Hopper Dredgers. "Besides allowing us to reach depths up to 110 m, these vessels give us excellent capacity ranges with circumferences from 6,000 to 35,000 m³," adds Mr. Bouvy. With the same vessels, Tideway is also equipped to handle offshore ballasting of gravity-based structures and loading buoys.

Investment in people

Clients of Tideway are drawn predominantly from the oil and natural gas industries although the company also has contracts with energy companies. Canada, Mexico, Australia, the United Kingdom, Norway and Russia are import markets for the companies; however, the company has contracts from all around the world. Along with large capacity vessels, the people working for Tideway are an essential factor to its success. "We have built a reputation for being trustworthy and our people make that happen. Together with DEME and its other subsidiaries, we can offer full-scale projects for an agreed price and timeframe. Our ►

Preparation of the seabed involves pre-sweeping sand dunes with the company's powerful D.P. Hopper Dredgers

In brief

Core Competence

Offshore dredging, landfall construction, and pipeline stabilisation and protection

Facts & Figures

- Founded: 1991
- Structure: Subsidiary of the DEME Group
- Branch offices: Work sites worldwide
- 250 (worldwide), 60 (the Netherlands)
- Turnover: 150 million EUR (2008)
- Export: 95% of turnover

Products & Services

Dredging, land reclamation, rock placement for pipeline and power cable stabilisation and installation, as well as trench construction

Target Groups

Oil and gas industry, as well as power and utility companies

Market

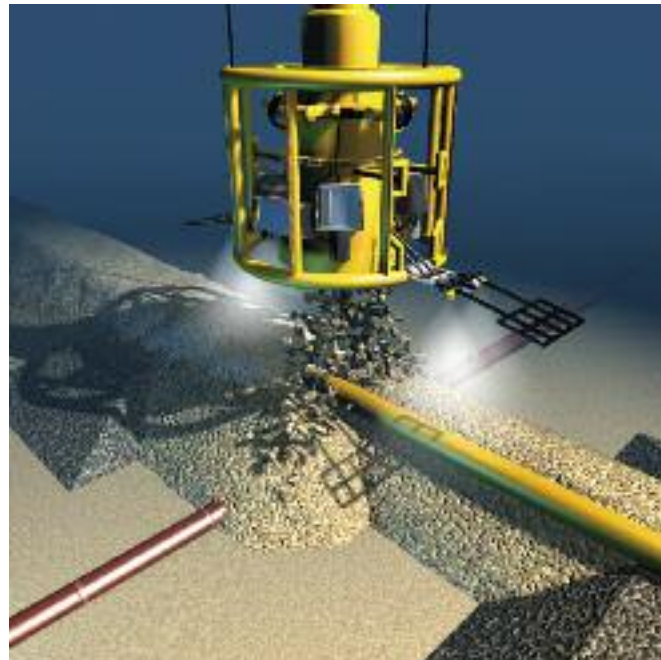
Market leader in rock dumping activities, landfall constructions and offshore dredging

Future Outlook

- Capitalise on the growing alternative energy market
- Expand fleet of ships with broader capacities that can reach greater depths
- Invest in employee training and the next generation of new engineers

“Our professionals search for innovative approaches.”

Besides oil and gas, there is a growing market in the laying of subsea power cables transporting electricity from offshore windmills



Tideway's rock placement equipment can reach depths of up to 1,000 m with exact precision

employees have the experience and education to solve any issue, offering the client a satisfactory solution,” describes Mr. Bouvy.

Besides oil and gas, there is a strong increase in the laying of subsea power cables. This increase is due

to the construction of windmills and their need to connect to national electrical networks. “We have been involved in NorNed, a cable that binds the electrical networks between Norway and the Netherlands. At this moment we are working on

BritNed, binding electrical networks between England and the Netherlands. There are also plans for other international cable connections throughout Europe, using our services,” says Mr. Bouvy. With the oil industry slowing down yet the demand for energy still increasing, alternative energy sources are moving towards a more important position in the market. Tideway worked on the Thorntonbank Wind Farm located 28 km off the Belgian coast. At full capacity, the windmills will produce 1,000 GW a year, sufficient to provide 600,000 people with renewable energy. This will result in a reduction of CO₂ emissions equivalent to 450,000 t a year. “For this project we laid the cables, provided the foundation for the turbines and placed rocks over the cable for protection,” says Mr. Bouvy. “We are excited about the future of renewable energies and try to develop more strategies around them.” Tideway's commitment to taking its interests further is witnessed in its new ship being built named 'Flintstone', which will be able to reach depths up to 2,000 m to protect/stabilise cables and pipelines. ■



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