MDL
INGENIOUS INSTINCT

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Leading the way in subsea innovation

Maritime Developments' Portable Vertical Lay System has been acknowledged by judges as a significant breakthrough in the global SURF market.

MDL's industry-first modular PVLS won the Innovation and Technology category at the Subsea UK Business Awards 2018. The annual event celebrates the achievements of companies and individuals in the British subsea industry, which has the challenging North Sea basin at its core.

The category, which this year saw the highest number of entries on record since the awards started over 10 years ago, recognises excellence in developing new technology and bringing it to market.

Derek Smith, CEO and founder of MDL, said: "This award recognises some of the core values that have been at the heart of MDL since we launched the business 18 years ago – our commitment to never stop innovating.

"I would like to thank all the team at MDL who brought this system to life and proved the technology on projects in different basins around the world.

"But I would also like to congratulate our clients, as they are the ones who truly introduce innovation into our industry – by putting their trust in a company like ours and working with us to bring pioneering technology like the MDL PVLS to the market."

Pictured: Alan Dick, Simmons & Co. International, presenting the Award to MDL CEO Derek Smith

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MDL PVLS: From concept to trailblazer

The market's first road-transportable vertical lay system.

The MDL PVLS came as a response to high specialist vessel costs and tight schedules, making offshore flex-lay business particularly difficult in a low oil price environment.

The market's first road-transportable vertical lay system went from design to market in August 2015. From its first mission that summer with Technip UK it has proven the efficiency and cost savings it can offer to global flex-lay operations.

As a fully modular system, the PVLS can travel to its destination port exclusively by road or in standard shipping containers, cutting out specialist vessel charter for non-mission critical activities.

The 23-metre tower, which includes fully integrated components such as control room, hydraulic power units, spares, winches and retractable work platform, transforms a standard offshore support vessel into a dedicated pipelay vessel – which means a reduction on vessel day rates.

Thanks to smart load distribution and sea-fastening solutions, it can be installed on board in a single lift which saves valuable time in port, and therefore cost.

The system's compact footprint means the unit is highly versatile and can be installed wherever it is required on deck: over the stern, the side or the vessel's moonpool.

This flexibility frees operators to react to opportunities regardless of installation vessel availability, while also allowing fleet operators to expand their service portfolio.

The success of the MDL PVLS on projects to date – which include the North Sea, offshore Canada and the Caribbean – has fuelled market demand for the system. As a result, the company will soon be launching a larger unit as part of its rental fleet.

MDL PVLS and RDS on a North Sea project in 2016

The next big thing...

The arrival of the 150Te PVLS will bring to the market the first road-transportable vertical lay system of its size to handle flexibles.

It will offer similar functionality as its sister unit, including fully-integrated components which saves deck space; the ability to take different deck positions and loading onto the vessel in a single lift.

Packaged with the rest of MDL suite of market-leading back-deck equipment, including its unique range of 4-track tensioners spanning between 50-150Te line pull, the MDL PVLS forms the most efficient and safe vertical lay system in the world to date.

Alic Wilson, Engineering Manager at MDL, said: "The beauty of our first PVLS was how it could transform a standard offshore support vessel into a dedicated pipelay vessel. This more powerful model will see this ability extended to reach basins more widely, while delivering the world's first road-transportable vertical lay system to handle 150-tonne top tension.

"At MDL we believe in designing equipment the industry needs – increasing safety and efficiency while reducing costs at the same time."

Part of MDL spread at Delmar Systems' facility

MDL moors in the Gulf with Delmar partnership

Maritime Developments has entered a partnership with global mooring specialist Delmar Systems to provide a flex-lay equipment spread in the USA.

MDL's suite of portable, modular back-deck equipment for the deployment and retrieval of SURF products will be available for hire from Delmar's existing facility in Fourchon, Louisiana. The facility offers 11 acres of shore space, 600 feet of dockside access and the use of the port's largest crane at 650 tons – offering combined cost-saving services to energy businesses in the region.

The first MDL units are already stationed in Port Fourchon, having completed their maiden projects in the Gulf of Mexico.

The MDL m-IDP, delivered in 2016, is also based in Fourchon

DELMAR

Established in 1968, Delmar Systems, Inc. is the world leader in offshore mooring and subsea services, providing the most efficient solutions for the global oil and gas industry.

World-renowned for unmatched reliability and safety, the services provided by Delmar include: engineering design, mooring analysis, project management, planning and procedures, operational installation, and mooring equipment rentals.

Matt Smith, VP of Operations at Delmar Systems, said: "With all the challenges the industry has been throwing at us this last while, there are also a lot of opportunities to improve the way things are done.

"To form this JV with MDL is really exciting, as this allows us to extend our support to our clients and to assist new customers with reducing their project costs and schedules."

Thanks to the modular design of the equipment and clever sea-fastening solutions, the MDL spread can be quickly moved by road between onshore locations or transferred easily between back decks – meaning immediate availability of a flex-lay spread as and when required, without reliance on transit, vessel schedule and cost.

Additionally, Delmar's prime facility location in Port Fourchon will allow easy mobilisation in the Gulf and provide storage, maintenance and repair services, seasoned through years of on-and offshore experience in both companies' respective markets.

Derek Smith, CEO of MDL, said: "For a long time now it had been our ambition to set up a physical base in the Americas – probably even before our first delivery to the region in 2013. "We found a perfect match in Delmar as a company who shares our vision for providing clients with great equipment at maximum convenience.

"I truly believe this partnership is much more than just an MDL foothold in the Gulf; jointly, we will deliver a lasting change to how flex-lay equipment is provided: safer and more efficient, a top-quality service at the operators' doorsteps."

James Soliah, Subsea Manager at Delmar, added: "All of us at Delmar believe this partnership will allow us to better serve our customers' needs and it is a natural extension of our current subsea offering."

Your complete flex-lay toolkit

Forward thinking back-deck systems

Products

- Portable Vertical/ Horizontal Lay Systems
- Tensioners
- Reel Drive Systems
- Product Deployment Systems
- Winches
- Spoolers & Level Winders
- Small Turntables
- Radius Controllers
- Compensators
- Overboarding Chutes

Systems & HPUs/EPUs

- Manifold Systems
- EPU / HPU
- Control Systems

Services

- Offshore Operation and Support
- 24/7 Onshore Support
- Full Life of Product Support/Service
- Maintenance and Repair
- System Adaptation/ Upgrades

MDL RDS completes first mission in Gulf of Mexico

Maritime Developments has completed a deepwater project in the Gulf of Mexico (GoM) for Subsea 7 and a supermajor.

The MDL RDS 400-02 was used for handling and installation of a deepwater umbilical, supported by the company's experienced offshore personnel.

The reel drive system is part of an MDL flex-lay spread at Delmar Systems' Port Fourchon facility in Louisiana. The project follows hot on the heels of the announcement of a partnership between the two companies to establish a permanent base in Port Fourchon hosting a full suite of MDL products (see page 4).

Tom O'Malley, Project Manager at Subsea 7, said: "From start to finish MDL delivered a high-quality solution for the umbilical installation campaign. The service personnel operated safely and were responsive to any client requests offshore.

"We continue to be impressed with the technology and innovation that MDL brings to the industry and look forward to seeing what's next."

Mark Williamson, President of MDL Americas, said: "This project gave MDL the ability to showcase just how portable our equipment is, how flexible our approach is to customer service, and the various ways this combination can add value to any offshore project.

"Additionally, it was particularly pleasing for me to see the customer benefiting from us joining forces with Delmar, as we were able to demonstrate project cost savings as a direct result of the partnership, providing the most efficient flex-lay services base in the Gulf of Mexico for mob/demob activities.

"This project was a great example of the level of service MDL is able to deliver to our GoM customers as we continue to increase our local service capability."

This MDL maiden project in the Gulf will soon be followed by another deepwater flexible installation in the basin, using the MDL TTS-4/310 Series Tensioner, a 110-tonne 4-track system (page 10).

MDL RDS 400-02 mobilised for its first GoM project

Thanks to MDL's portable technology, the RDS – like all of the systems forming the flex-lay spread – can be transported by road, and then assembled and commissioned by MDL personnel within a 12-hour period.

Depending on mission requirements, the system can then be easily mobilised onto the installation vessel if present at port, or loaded onto a Platform Supply Vessel (PSV), transported to the installation vessel offshore and transferred onto the installation vessel by the vessel's onboard crane.

Following the project, the system is fully demobilised off the installation vessel within 12 hours.

These features reduce, and in some cases, eliminate sea-transit of equipment, cutting out unnecessary costs of non-mission critical operations.

The MDL and Delmar offshore team, comprising of experienced supervisors, as well as electrical, software and hydraulic technicians who participate in the complete system delivery at home, ensure the mobilisation, operation and management of the systems are carried out to the maximum safety and efficiency levels. The offshore team is fully supported by an in-house onshore team on a 24/7 basis.

MDL's biggest tensioner to make Gulf of Mexico debut

Maritime Development's largest pipelay tensioner is en-route to the Gulf of Mexico to complete a deepwater installation.

The MDL TTS-4/310 Series Tensioner will be used to install a deepwater umbilical as part of a subsea tieback. It will be operated by experienced MDL personnel, and supported by a 24/7 onshore team at home – all forming part of the MDL Offshore Service.

Ahead of the project, MDL completed a pull test with the product using in-house test beds at its Peterhead, UK, facility.

The 110-tonne 4-track system was unveiled at MDL's testing facility in Peterhead in autumn 2016 and soon after was deployed for its first job in the Indian Ocean.

The beach-pull project, which connected an onshore processing terminal with a subsea distribution unit demonstrated the benefits of using a single, compact solution for horizontal lay.

The operation took two weeks to lay just under 25km of umbilical and was completed 15 days ahead of schedule.

As with all MDL products, the tensioner is designed to reduce vessel days and mobilisation/demobilisation costs thanks to its modular design, which makes it suitable to be transported by road or in standard shipping containers.

Mike Gaskin, MDL Rental Director, said: "Ever since the delivery of our first patented tensioner in 2014, the interest for the solution has been on a constant rise.

"After proving the system's capabilities on our first Offshore Service project in the East, we're really looking forward to putting it to use in the Gulf of Mexico where it will demonstrate to operators across the basin how the careful forward-thinking design reduces risk and cost on flex-lay projects."

MDL's family of patented pipelay tensioners is expanding further with the imminent delivery of the 150Te model.

The TTS-4/375 Series Tensioner will be capable of 150-tonne pull force and, like the rest of the range, can be used in vertical or horizontal mode, and on an incline, while maintaining all the MDL TTS-4 safety features.

The 150Te model will be lighter than existing counterparts on the market, making it the first of its kind to be fully road-transportable.

A tight grip on safety

Since its inception, MDL has achieved growth through a "cost savings through safety" approach.

This approach, embracing safety measures that also reduce time and costs across the flex-lay process, remains key to the deployment of MDL's growing family of pipelay tensioners across the globe, including in the Gulf of Mexico.

MDL's range of 4-track tensioners, including the TTS-4/375 Series Tensioner with a 150-tonne line pull, offers unique safety and operational features which make them the safest in their field.

One of the key elements is the failsafe grip system, which automatically grips the product in the event of hydraulic or electrical power loss.

This negates the effect of single-point failure such as a single burst hose or black out, which – in the case of conventional tensioners – could potentially result in losing the grip on the product and dropping it.

The MDL failsafe grip system ensures maintained hold of the product under constant tension until the issue is resolved.

Whether operational or on stand-by, dual load monitoring ensures the product is always handled in the most optimum conditions, taking its composition and age into account.

Added peace of mind comes from the uninterruptible power supply (UPS) which keeps the control system running even when supply power is lost; while Profisafe infrastructure comes into play when operations have to be stopped instantaneously.

The system's health is monitored onboard and by the MDL onshore 24/7 support team at base with the use of remote diagnostics, and all operations are carried out under the watchful eye of expert crews, who can safely take up the best viewing position whilst maintaining a safe distance from any potential hazards, thanks to the WAB (Walk About Box).

Mike Gaskin, MDL Rental Director, said: "At MDL, our mission has always been to solve back-deck challenges faced by our customers – from increasing efficiency to reducing operation costs. But what if increasing safety also meant cutting costs?

"As we delivered on this mission, we've grown to being a market leader in our niche; and, as such, we recognised our responsibility to provide the safest solutions to tackle our clients' problems.

"That is why we have ensured that every piece of MDL equipment sets the benchmark for hazard-free flex lay."

MDL maximises focus in the Americas with new appointment

Maritime Developments has strengthened its sales force with the appointment of Andrew Blaquiere as Vice President , MDL Americas.

Blaquiere joins MDL from a flex-lay equipment rental supplier where he held various positions including Business Development Manager and Proposal/Project Manager. His experience spans multiple subsea service disciplines including flex-lay construction and installation, riser and mooring engineering design and ROV tooling.

He joins Mark Williamson, President, MDL Americas, in Houston to support the company's continued growth in the offshore Americas market, with a significant focus on offering its cost-effective and innovative suite of products in the Gulf of Mexico.

Blaquiere said: "MDL has an excellent track record of being a technology partner with key clients in the subsea installation sector.

"I'm thrilled to be joining a forward-thinking business and be a part of its growth journey."

The news follows shortly after the announcement of MDL's partnership with Delmar Systems, a global mooring specialist, which will see a complete MDL flex-lay spread set a permanent base in the Gulf of Mexico at Delmar's Port Fourchon, Louisiana facility.

Derek Smith, MDL CEO said: "It's been a busy time for MDL as we've been ramping up our American operations.

"We have grown our physical presence in this key region twofold: firstly by moving our equipment across to set up a dedicated base for the Gulf, but also by expanding our customer-focused team.

"We quickly recognised Andrew shares our passion for delivering value to customers through personal service and targeted solutions, and so we're pleased to welcome him as part of the MDL team."

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