

# 3C News



## 3C METAL CARRIES OUT OTG 14 SCOPE ONBOARD SEADRILL'S WEST BOLLSTA

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#### WORKING PLATFORM FOR PETRODEC BV

3C Metal, with Dietswell Engineering, is designing and manufacturing a new working platform to be installed on a decommissioning vessel for Petrodec BV.

#### ZERO LTIS FOR OFFSHORE PROJECTS IN 2019

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# A WORD FROM 3C METAL'S PRESIDENT AND CEO

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At 3C Metal, the health, safety and wellbeing of our teams and clients remain our priority. To help mitigate the risk posed by the novel coronavirus (COVID-19), 3C Metal has put in place its response plan, taking into account the recommendations of the health authorities of the countries in which we operate.

We are diligently monitoring the situation, relaying expert advice to our employees and facilitating working-from-home arrangements for those who are able to do so. We are making every effort to ensure we are able to deliver our services with minimal disruptions in the coming weeks and months.

Our teams, systems and processes remain focused on delivering our clients the best possible service, even during these challenging times. We are 100 per cent committed to the investments we have in motion for our facilities, technology and our people.

Our UAE workshop and office expansion, which will triple the size of our facilities, is well underway. In Malaysia, we are exploring new options for our workshop facilities to better suit them to our operations in the region. In South Africa, CINCO Engineering (partly owned by 3C Metal Belmet) has secured a three-year lease for facilities in the Port of Cape Town which will help to support our activities.

The southern region of Africa still represents a vast amount of opportunities for us, particularly for our diversification activities in renewable energy, marine and mining. In response to these growing opportunities, 3C Metal has decided to establish a new entity in Maputo, Mozambique. More details about this new entity will be given in the coming weeks.

For our core activities in the oil and gas industry, we continue secure a

healthy amount of work for third-party system integrations including MPD systems. 3C Metal recently completed the first ever permanent MPD system integration for a jack-up rig (Valaris E122), which you can read about in this newsletter. In total, 3C Metal has completed 25 MPD system integration projects.

This experience with third-party system integrations on clients' assets lends well to the activities of our recently established Green Technology division. Currently this division's services are focused on assisting shipowners in retrofitting vessels with exhaust gas cleaning systems (EGCS) and ballast water treatment systems (BWTS). This division has already secured new work for 3C Metal and as we move forward we will look into new ways to expand upon its offerings.

As we look to the coming months, it's clear there are difficult times ahead. Be assured that 3C Metal is being vigilant and taking the necessary steps to protect our stakeholders and to put us on the best possible path for the future.

**Philippe Boy**  
President and CEO of 3C Metal

## 3C METAL CARRIES OUT MPD SYSTEM INTEGRATION FOR WEATHERFORD ONBOARD HEYDAR ALIYEV RIG

This quarter, 3C Metal successfully carried out a project for the integration of a Weatherford MPD system onboard semi-submersible rig, Heydar Aliyev, owned by Caspian Drilling Company.



Weatherford commissioned 3C Metal to carry out the supply, design, fabrication and installation of the structural, piping and electrical components for the integration of the MPD system. The work was carried out while the rig was located on the Shafag-Asiman offshore block in the Azerbaijan sector of the Caspian Sea.

3C Metal's engineering and project teams performed a 3D laser scanning survey onboard the vessel in order to optimize the designs and offer a prefabricated option to the client.

The piping component included the design, supply, prefabrication and installation of low pressure (LP) and high pressure (HP) lines (up to 15,000 PSI).

The scope for the structural integration included a removable mezzanine platform for the MPD manifold, a hydraulic power unit (HPU) and accumulators. Other structures included foundations for the reeler and lab cabin, a buffer

manifold and junk catcher skid placed onto the Christmas tree carrier, hose supports, access platforms and stair access modifications.

This was the first MPD upgrade to integrate the new second-generation Future Production stabbing arm. 3C Metal designed and supplied all the structures to fully incorporate this new feature onboard which included a cantilevered interface skid of the arm, a monorail support structure for a motorized banana sheave and a testing/parking receptacle porch for the hydraulic head connector and hoses.

The electrical integration was handled by 3C Metal's in-house electrical department.

All the phases of this turnkey project were supervised and approved by the rig class (ABS) to ensure a safe and optimized design, fabrication and installation to all MPD system users from Weatherford, Caspian Drilling Company and BP.

# 3C METAL CARRIES OUT OTG 14 SCOPE ONBOARD SEADRILL'S WEST BOLLSTA

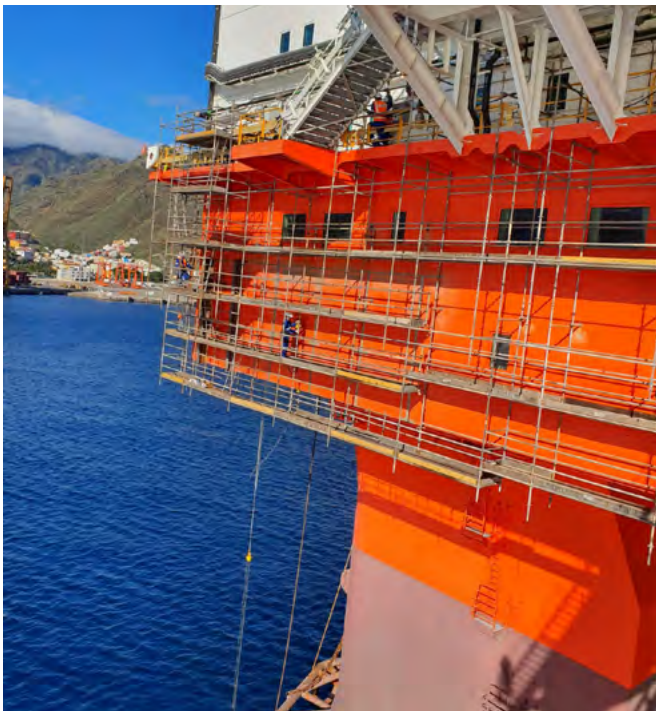
Following the issuance of DNV-GL's offshore technical guidance document (OTG) 14, and subsequent horizontal wave slamming and air gap analysis, it was found, for Seadrill's West Bollsta harsh-environment semi-submersible rig, that in order for it to continue with unrestricted worldwide operation it would require the closure of existing windows, reinforcement welding and the installation of new reinforcement girders to strengthen the forward bulkheads.

The project was ordered at the end of the third quarter of 2019, and all design, supply and prefabrication was carried out over the festive period in a combined effort from 3C Metal Belmet, in Cape Town, South Africa, and 3C Metal Middle East, in Dubai, UAE.

Upon completion of the OTG 14 scopes, several other structural and piping scopes were awarded to 3C Metal,

including the fabrication of a rotary tensioner ring tool and the design, supply, fabrication and installation of new blowout prevent (BOP) platforms, deck extensions to accommodate hose hangars and skids for ISO tanks.

The installation took place while the rig was alongside in Tenerife, Spain, and a riding crew sailed with the rig across to Norway to complete the additional scopes.



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# 3C METAL CARRIES OUT OTG 14 SCOPE ONBOARD SEADRILL'S WEST BOLLSTA

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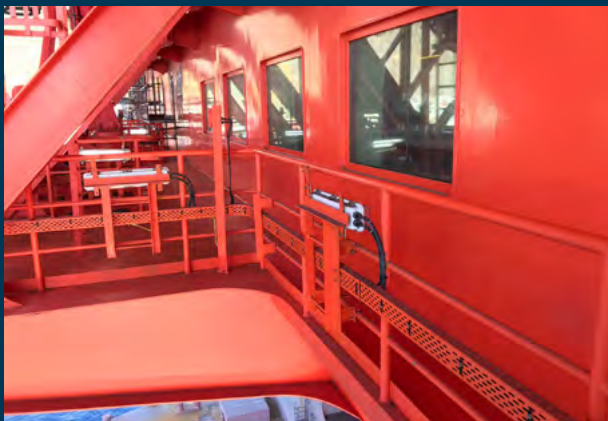
Before installation



After installation



Before installation



After installation



## ZERO LTIS FOR OFFSHORE PROJECTS IN 2019



3C Metal achieved an excellent safety milestone at the close of 2019 having received zero lost time injuries (LTIs) for offshore projects for the year.

This brought 3C Metal Group's offshore safety record to more than 2.5 million offshore man-hours achieved with zero LTIs. This excellent result is thanks to the continuous focus on safety by our teams.

3C Metal takes pride in maintaining a commitment to the highest standards for safe work practices. Recently, the new Group Safety Code was introduced which sets out the principles to ensure safety remains at the forefront of all 3C Metal's operations.

# 3C METAL CONDUCTS FIRST EVER PERMANENT MPD SYSTEM INTEGRATION FOR A JACK-UP RIG

3C Metal was awarded a contract by Valaris for the integration of a Weatherford managed pressure drilling (MPD) system for the Valaris E122 jack-up rig. This was the first permanent MPD system integration for a jack-up rig worldwide.

The concept for this project was to provide the design, prefabrication, installation and class approval of the MPD piping integration (8 x MPD piping lines) and the structural integration (MPD platforms and MPD manifold assembly). The work was carried out at the Dundee Marine shipyard in the UK.

3C Metal worked closely with Valaris for the design. In the initial stages of the project, 3C Metal deployed a team to carry out an onsite survey, including 3D laser scanning. The laser scanning focused on several key integration areas of the rig, including the area from the cellar deck to the drillfloor. This allowed 3C Metal to develop accurate 3D modeling for the structures and pipe routing. 3C Metal delivered a complete quality and as-built package, a structural package review, ABS approval, and updated the rig P&IDs with the new MPD system.

The MPD structural integration involved the design, supply, prefabrication and installation of the main MPD manifold platform, folding sections of the platform, MPD manifold supports, handrails and a coaming drainage system. Temporary lifting arrangements were developed by 3C Metal to carry out the installation in sections. The MPD manifold, designed by Weatherford, was also assembled onsite by our team.

The piping scope of work covered the design, supply, prefabrication and installation of low pressure (LP) and high pressure (HP) lines (up to 15,000 PSI). This included pressure

testing of all high pressure lines (testing up to 22,500 PSI).

Prefabrication was carried out at 3C Metal's specialized workshops in Sauvelade, France, and Dubai, UAE. Sourcing and prefabrication of the valves and hoses were done in the UAE and the piping and structural material in France. The team in France provided the installation equipment including fully-equipped tool and scaffolding containers.

Careful planning was required to make sure all parties were making progress and working efficiently but, most importantly, performing the work with the highest degree of safety. The end result was a fully functional MPD system, successfully integrated with zero injuries incurred. The successful delivery of this project is yet another example of 3C Metal's capabilities for timely and cost-effective MPD integrations.



## WORKING PLATFORM FOR PETRODEC BV

3C Metal, with Dietswell Engineering, is designing and manufacturing a working platform to be installed on a decommissioning vessel for Petrodec BV.

The project will support plug and abandonment operations. Specific equipment has been manufactured including drawworks, crown and travelling blocks. The work is currently in the assembly phase.

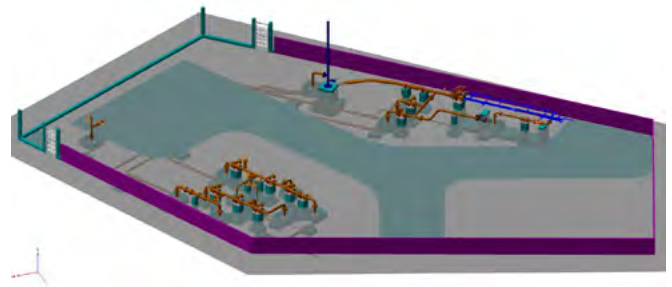
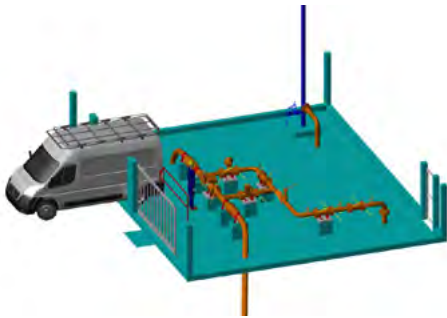


## PROJECT FOR SEVEN NEW PIPELINE GAS INTERCONNECTION GRIDS AWARDED BY TERÉGA



Teréga has awarded 3C Metal a project for the optimization of seven new pipeline gas interconnection grids.

The work is being carried out in the beautiful Aveyron and Cantal region in France. This work includes piping, civil work, electricity, instrumentation and automation and control and tie-in operations upgrades.



## EPC CONTRACT UNDERWAY IN FRANCE FOR TERÉGA

Teréga recently awarded 3C Metal an EPC contract as part of the RECOMP project in France.

The contract is underway and consists of the integration of two new gas compressors in the Lussagnet Gas storage facility. Located in the Lacq commune in southwestern France, the Lussagnet site is an underground natural gas storage facility operated by Teréga. The site supplies natural gas to distribution and transport grids in the far southwest, as well as parts of Spain and the rest of France. The new gas compressors will change the existing process of sending the decompressed gas to the atmosphere by re-injecting the gas back into the system.



## WORKSHOP AND OFFICE UPGRADE IN THE MIDDLE EAST CONTINUES

As announced in Q4 2019, 3C Metal Middle East finalized the purchase of two neighboring plots in the Jebel Ali Free Zone (JAFZA), Dubai.

The new plots are being used to upgrade and expand the existing office and workshop facilities. Once complete the facilities will be triple the original size.



## COOL TEAM BUILDING EXPERIENCE FOR DUBAI OFFICE

In February, 3C Metal Middle East completed their team building activity at one of Dubai's most iconic locations – the indoor ski facility, Ski Dubai.

Staff were divided into five teams and worked together to complete challenges in a sub-zero environment. The challenges included snow skis, a blind minefield challenge, a caterpillar race and a build-a-snowman challenge.

After the activities the team enjoyed some free time to enjoy the ski facility. To end the day the group headed next door to the Kempinski Hotel for a buffet dinner and drinks to celebrate.



# RACE TO FUND BREAST CANCER SUPPORT

Earlier this year, a small team of runners from 3C Metal Middle East pledged to run the 10km race during the Dubai Marathon which was held on Friday 24 January.

As part of the team's involvement, the Dubai office raised funds for the Al Jalila Foundation's breast cancer support group "Brest Friends" which funds research, treatment and support services for people impacted by breast cancer.

The Dubai office got behind the cause by wearing pink to work on Thursdays, wearing pink ribbons and badges and taking part in food fundraisers at the office. On the day before the race, the Dubai office enjoyed a charity sausage sizzle, helping to raise much needed funds.

Hundreds of dollars were donated by staff which was then matched by 3C Metal. In total more than (US) \$1,500 was raised for Brest Friends.

Manager of Partnerships and Sustainability at Al Jalila Foundation, Arti Bhagwani, extended her gratitude on behalf of the foundation to 3C Metal's staff and management for their incredible efforts and amazing support.



## 3C METAL DIRECTOR FINISHES CAPE TO RIO YACHT RACE

On 4 January, Director of 3C Metal Belmet, Pieter Kroon, and his wife Magdaleen Kroon, embarked on the Cape to Rio 2020 yacht race. As part of a crew of six, with Pieter as skipper, they sailed the Northern Light yacht from Cape Town, South Africa, to Rio de Janeiro, Brazil.

The Cape to Rio is the longest continent-to-continent yacht race in the Southern Hemisphere. This was the second time the pair had taken part in the Cape to Rio, having competed in the race back in 2017.

This time around they finished the race in 27 days. In their ocean crossing they endured exhaustion, sleep deprivation, near collisions and storms - including one severe electrical storm on the night before their arrival.

After nearly a month at sea, the crew arrived in Rio de Janeiro and celebrated with some beers and caipirinhas.

Documenting the journey on social media, Magdaleen Kroon said that it was a surreal experience to have crossed an ocean and to arrive on another continent.

"I'm super proud of this feat. It's been wonderful to get to know some of the other crews better and to share stories. Not a single person I've talked to were unchallenged by this journey," Mrs Kroon said.

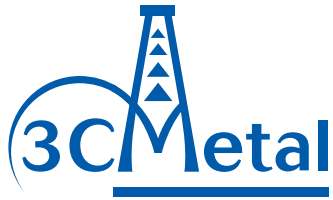
Pieter Kroon said competing in the race for the second time did not make it any easier.

"Exhaustion, stress and sleep deprivation are inevitable on a journey like this," Mr Kroon said.

"There are some high points and low points and you learn not to take anything for granted, especially when the weather is good," he said.

"All in all the crew worked tirelessly and I'm proud of everything we achieved."





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