

# CASE COSL DRILLING EUROPE AS: RELIABLE OIL DRILLING THROUGH DYNAMIC MAINTENANCE PLANNING

ENERGY  
ENVIRONMENT  
ECONOMY



## COSL DRILLING EUROPE SIGNS COMPREHENSIVE SERVICE AGREEMENT FOR THREE OIL RIGS

“Wärtsilä is one of our most important suppliers. Engines and thrusters are the heart and lungs of an oil rig and it is of utmost importance for our operations that they function well. Hence, it was important to sign a service agreement with Wärtsilä. The five-year agreement, with an option for five more, shows that we are thinking long-term about our co-operation with Wärtsilä”, says **Magnar Fagerbakke**, Vice President Marketing & Contract at COSL Drilling Europe AS.



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## COMPANY WITH HIGH AMBITIONS

COSL Drilling Europe began its activities in 2005 as Offshore Rig Services. In 2007 Awilco Offshore bought the company and in 2008 China Oilfield Services Limited (COSL) acquired Awilco and started the subsidiary COSL Drilling Europe. COSL Drilling Europe operates eight jack-up rigs from Singapore and two accommodation rigs in the North Sea. In addition, the first new build drilling unit COSLPioneer started her first operations for Statoil on NCS in August 2011.

The parent company COSL is the sixth biggest supplier of drilling services for the oil and gas industry in the world and provides 90 per cent of the services on the Chinese continental shelf. COSL has activities in more than 20 countries and regions and operates 31 rigs plus a number of tankers, supply vessels, tugs and seismic vessels.

– COSL’s ambitions do not end here. By 2020 our vision is to be the third biggest

supplier in the world. And we are going to do our part of that job, explains Magnar Fagerbakke.

## MAINTENANCE AGREEMENT FOR THREE NEW RIGS

COSL Drilling Europe’s niche is to provide drilling services in water depths up to 750 metres. Within the next year, two more new semi-submersible rigs will be taken into use. The first unit, COSLPioneer, arrived already in April 2011 and is presently on operations in the North Sea on the field called Skinfaks Sør.

– This is the second well to be drilled by the rig since the start-up and the operations



on the first well performed excellently according to Statoil's exploration management team, says Fagerbakke. Start-up for the two other rigs, COSLInnovator and COSLPromoter, is planned for the second and fourth quarters of 2012.

COSL Drilling Europe will soon also order a new semi-submersible drilling unit from a yard in China. This new unit will be capable of working in water depths down to 1500 metres. Furthermore, this rig will be equipped for operations in harsh environments, such as Arctic areas like the Barents Sea, Greenland and Canada.

**CONTINUOUS MONITORING IMPROVES SECURITY ONBOARD THE RIGS.**

As the new drilling rigs are to be used for long-term contracts, it is important that the engine and thruster operation is reliable.

– We signed a quite extensive maintenance agreement with Wärtsilä for the new rigs, which includes 18 engines and 18 thrusters, says Fagerbakke.

The scope of the maintenance agreement includes Dynamic Maintenance Planning (DMP) for the three semi-submersible drilling rigs.

– The idea of this concept is that Wärtsilä, together with COSL Drilling Europe, plans the maintenance schedule. In addition, sensors on the engines monitor the equipment 24/7, while the data is transferred ashore for analysis, explains **Deanne Lill Fossedal**, Account Manager at Wärtsilä.

**BETTER PLANNING – BETTER PREDICTABILITY**

The service agreement improves the planning of the operation and maintenance.

– We are able to better predict and plan our operations and minimize the downtime of the rigs. Our customers set a monthly time limit on downtime. If we exceed that limit we start losing money. The maintenance agreement with Wärtsilä simply gives us the possibility to fulfil the demanding requirements from our customers, clarifies Magnar Fagerbakke.



| Challenges   | Solution   | Benefits   |
|--|--|--|
| <ul style="list-style-type: none"> <li>– Customer's installations needed to be up and running with minimum downtime</li> <li>– A total of 18 engines and 18 thrusters needed to be taken care of</li> <li>– Monthly time limits to guarantee minimum downtime</li> <li>– Needed to be able to detect possible failures in advance</li> </ul> | <ul style="list-style-type: none"> <li>– Tailor-made maintenance agreement to keep the installations productive</li> <li>– Dynamic maintenance planning to minimize downtime</li> <li>– Sensors monitoring the installations' condition</li> </ul> | <ul style="list-style-type: none"> <li>– Improved planning of operation and maintenance</li> <li>– Less downtime and longer service intervals</li> <li>– Improved security onboard the rigs</li> <li>– Less resources onboard when analysis is done onshore</li> </ul> |

He adds that the advanced continuous "live" monitoring is totally in line with COSL Drilling Europe's strategy; to be a front-runner for new technology.

– Thanks to the continuous monitoring, our goal is to detect 80 to 90 per cent of possible failures before they even occur and affect the equipment. This will significantly improve the security and the regularity of the drilling operations onboard the rigs, states Fagerbakke.

Monitoring also means that service intervals can be longer.

– Another benefit for us is the transferring of the sensor data electronically ashore for analysis, which means that the analysis task can be moved away from the rigs. That is an advantage for us, says Fagerbakke.

**OPEN RELATIONSHIP WITH WÄRTSILÄ**

Fagerbakke is so far very satisfied with the fairly new co-operation with Wärtsilä. The discussions have been held in an open atmosphere.

– We have come up with good solutions and have learned to trust each other, which is important in a service co-operation that builds on the concept of partnership, declares Fagerbakke.

In the future Fagerbakke expects Wärtsilä's maintenance personnel to continue to be professional in their work and do their tasks effectively according to the plans.

– So far Wärtsilä's engineers have been solution-oriented and able to communicate well with our own staff. They have been proactive and have set about doing other tasks if they for some reason have needed to wait for something. This kind of attitude gives us clear added value, concludes Magnar Fagerbakke from COSL Drilling Europe AS.

**Wärtsilä contact for further information about the maintenance agreement with COSL Drilling Europe AS:**

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