

June 2015

Oil & Gas

Sonomatic breaks new ground with ROV-deployed subsea inspection system

Written by Jeremy Cresswell - 06/09/2010 2:30 am

Ultrasonic inspection specialist Sonomatic has introduced a new subsea inspection tool which, the company says, can be deployed entirely by ROV.

This should deliver significant benefits to operators, including reduced inspection costs and access to deeper waters.

The new ROV-deployed tool can operate both vertically and horizontally and has been designed for inspecting pipelines, risers, caissons and structural assets using a wide range of techniques. Key among these are corrosion mapping and time-of-flight diffraction (ToFD).

The company says it has invested £600,000 and two years in developing the new ROV inspection tool and is already assisting in BP's operation in the Gulf of Mexico.

Recent trials at Aberdeen University's Oceanlab facility are said to have attracted significant operator and supply-chain interest.

Aberdeen-based subsea project manager Ryan Phipps said development of the system would enable accurate scanning to be carried out entirely diver-free and to depths currently out of inspection range.

"The tool is deployed by the ROV, giving the pilot maximum control when manoeuvring and setting up," said Phipps.

A 10m (33ft) umbilical connects the tool to the ROV via a proprietary pod which has all electrical and motion services and can transfer all data back to the surface.

Phipps said the full functional and ultrasonic trials at Oceanlab were witnessed by BP, Wood Group unit MCS and subsea contracting major Subsea 7. The latter has also conducted a peer review of the technology.

"The trials were a great success," he said.

"Throughout, all electrical and mechanical interfacing components were monitored for performance and passed with flying colours.

"The subsea pod – which is the brains of the system – was also pressure-tested and depth-rated to 2,000m.

"The immediate next step is to build a further two tools – one 14in ROV-deployed inspection tool capable of straddling piggyback lines and an upgrade of the current 10in tool to provide one-metre scan lengths across the full 360 degrees."