

GS-Hydro References Marine

Non-welded technology for the Seven Atlantic Diving Support

IHC Merwede



Land

Marine

Offshore

GS-Hydro References

GS-Hydro has delivered a non-welded piping system to the Seven Atlantic, which is a fully Dynamic Positioned Diving Support. It is an example of a unique project with the non-welded technology benefits from GS-Hydro.



GS-PIPING WITHOUT WELDING™





Non-welded technology for the Seven Atlantic Diving Support

IHC Merwede

The Seven Atlantic was designed and built in the Netherlands by the IHC Merwede, the world leader in specialised offshore subsea construction vessels. With a capacity for 150 personnel, a heave compensated 120 ton crane and a large deck area of 1 200 square metres; the vessel is the most versatile and advanced of its kind. It is an offshore construction vessel, which is suitable for unrestricted worldwide operation, specifically designed for saturation and air diving support work in environmental conditions which existing tonnage cannot cope with.

Scope of supply

In 2009, GS-Hydro's UK subsidiary installed over 10 kilometres of non-welded stainless steel and tungum piping solutions on the Seven Atlantic, an Offshore Construction Vessel (DSV). GS-Hydro supplied the hydraulic piping for the Air Dive System Equipment, Hoop Boom, Constant Tension Winches, and Triple Drum Winches, and the vital gas piping for the diving spread. For the diving spread, GS-Hydro supplied non-welded piping systems for gas management, the divers' environmental control unit (ECU) and the ancillary systems.

GS success factors

GS-Hydro won the contract due to its ability to rapidly implement piping in co-operation with the suppliers of the diving spread, the well treatment, the robotically operated vehicles (ROV), and the crane equipment. During the contract negotiation phase, GS-Hydro was best able to meet the yard's requirements for delivery, hook-up and commissioning times in synchronisation with other suppliers' engineering and production stages. Internally, GS-Hydro benefited from being able to bring together expertise from several global subsidiaries.

Diving Support Vessels (DSV) are designed to facilitate air and saturation diving. By saturating their bloodstream with inert helium and spending their rest periods also at similar deep sea pressures, divers avoid the need for time consuming frequent decompression and the risk of decompression sickness. Saturation diving spreads have been developed to allow divers to work effectively on oil or gas wells and piping deep underwater for long periods of time. Saturation divers operate in some of the harshest

conditions known to man. In the Seven Atlantic, the diving spread has a total of eight chambers, twin diving bells and two observation class robotically operated vehicles. The diving spread will enable up to 24 divers in eight teams to work up to a depth of 350 metres and live under the equivalent seawater pressure for up to 28 days at a time. Non-welded piping was a clear choice for the cleanliness needed in the breathing systems for the diving spread. GS-Hydro's non-welded technology ensures that the divers breathe gas mixtures free of contamination.

The Seven Atlantic is part of the largest single contract award in the history of the UK subsea sector. The project was delivered on schedule and is a high profile showcase for GS-Hydro's capabilities. Further services such as pressure testing and flushing completed this project, which were accomplished in co-operation with GS-Hydro Benelux BV.



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