First Principle Design Ltd

Case Study: 9-man Saturation Dive System

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PROJECT OVERVIEW

FirstPD was engaged by Submarine Manufacturing and Products to design and project manage the delivery of a bespoke, 9man Saturation Diving System, our customer's largest project to date.

TEAM SIZE

Multi-disciplinary project team consisting of 12 core members.

PROJECT SIZE

> £15m

STANDARDS AND CONSIDERATIONS

- Designed and built in accordance with Lloyd's Register, IMCA D018 AND D024
- Production comprised new build system elements and refurbishment of legacy equipment to modern standards

DESIGN

- Container internal fitout designs
- Pressure boundary bolt joint calculations
- Structural calculations; primary load path deflections (pressure boundaries)
- Thermal calculations; Diving bell insulation
- Sea-fastening calculations; Davit and Diving Bell LARS

TESTING

- Hydrostatic pressure testing of pressure vessels for human occupation (PVHO)
- Davit load testing (pictured)
- Diving Bell LARS function and load testing

MANAGEMENT

- Project manage the complete project and manage the team of 12 core team members
- Coordinate multiple suppliers and subcontractors across a global supply chain
- Oversee third party design resources
- Client and contractual management, including the negotiation of complex contract amendments
- Financial management for a multi-million pound budget.

