

## EXPERT PROFILE



**DR. ALASTAIR  
WALKER**  
**TECHNICAL EXPERT**

### Qualifications:

FREng  
BSc(Hons)  
MSc Thermodynamics  
PhD  
DSc

### Memberships and Associations:

Fellow of the Royal Academy of  
Engineering  
Fellow of the Institution of  
Mechanical Engineers

### Contract Experience:

ICE  
Bespoke

### Sectors:

Energy  
Marine  
Oil and Gas

### Geographic experience:

Americas  
Asia Pacific  
Europe  
Middle East  
United Kingdom

### Highlights:

- Over 45 years' experience in the oil and gas sector
- Extensive experience in non-linear analysis and design of subsea pipelines
- Extensive experience in research and development of fundamental mechanics

### Summary:

Dr. Walker has extensive experience in the non-linear analysis and design of subsea pipelines, where he has led the development of Limit State and Strain Based design with practical applications to major offshore and onshore pipeline projects including high temperature and high pressure pipe-in-pipe systems.

He has over 45 years' experience in research and development of fundamental mechanics and analysis in the fields of non-linear structural and pipeline engineering. He has led the development of methods of static and dynamic analysis of advanced forms of structures and pipelines. He has been manager of a number of projects involving the advanced analysis and design of deep water and high temperature pipeline systems. He is experienced in the application of risk and reliability analysis relevant to structural components and pipeline systems. He has been lead engineer for pipeline weld strength assessments including Level 2 and Level 3 ECA's for girth welds in CRA lined and clad high temperature pipelines installed by reeling or S-lay.

He has acted as an expert witness giving evidence at the High Court in London and has prepared expert witness reports and provided technical support in a number of litigation cases concerning structural systems generally and offshore pipelines.

He has been lead engineer in the design of pipelines for requiring numerical analysis for lateral buckling and walking. He has been lead designer and a consultant for the development for methods for design of ultra-deep water pipelines. He has been the project manager for a number of Joint Industry Projects concerned with developing design methods for subsea pipelines on a wide range of topics, including upheaval buckling, strain based design and assessment of limit state design to accommodate high pressures and temperatures, span assessment.

This expert has recently been instructed by:

- Hogan Lovells International LLP