

NAME : **Øyvind Hosøy**
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EDUCATION:

- Civil and Ocean Engineering, M.Sc.; Norwegian Institute of Technology (1968-1972)
- Geotechnics and Foundations; Norwegian Institute of Technology (1973)
- Offshore Technology, Marine Operations and Project Management; short course modules

EXPERIENCE (summary):

- Consulting Engineering offshore projects, including commercial/contractual considerations (strong marine systems/subsea bias)
- Procedural planning of marine and subsea operations
- Engineering Projects Management (multi-discipline)
- Supervisory design of floating and subsea structures for offshore applications
- Mooring, anchoring and seabed foundation engineering

EXPERIENCE (detailed):

1997 – present, SELANTIC A/S

Marketing Manager from 1997, General Manager from 1999 and Project Manager for several contracts for Selantic Fibre and Selantic Subsea, including complete EPC deliveries of sea bed anchors and tethering systems, see attached Track Record.

Furthermore, engaged and manager for various soil sampling projects in deep waters (e.g. Ormen Lange) using Selantic deep water corer, named Selcore

1991 - 1997, SIV.ING. ØYVIND HOSØY A/S

Individual Business, Consulting Engineer. From mid 1995 in association with **Sea Steel Piling and Foundations A/S**. Formed this new company organisation with English Marine Company to improve methods of FPSO anchorings, in particular to upgrade and develop suction anchor techniques and piled anchors and foundations. To form alliances with other organisations to enable to tender for and undertake large contracts covering the full work scope of high technology anchoring; design, fabrication and provision of piling and suction driving services. Eventually these activities were brought into the Selantic organisation.

Sea Steel Piling and Foundations A/S, CCB Ågotnes (1995-1997)

- Engineering management; pre-qualification for FPSO projects (Njord, Balder, Visund, Åsgard, Troll C etc.) and preparation of tenders for EPCI contracts..
- Foundation design and co-ordination of the engineering of the Suction Riser Bases to Schiehallion FPSO, for Coflexip Stena Ltd., covering detailed engineering, fabrication drawings and comparison of two anchoring options; suction-in anchor and impact pile.
- Foundation design and co-ordination of the engineering of the Suction Riser Base to Fergus FPSO, designed, constructed and installed by Sea Steel A/S for Rockwater Ltd.

Consulting Contracts:

Statoil, Subsea Pool, CCB Ågotnes (1996-1997)

- Client's rep. for follow up mob/demob of the subsea installation equipment owned by Subsea Pool and operated by Kongsberg Offshore, to various projects: Yme Beta well completions (pilot project of the KOS Host template system), Norne pull-in operations and various repair/replacement work on Gullfaks satellites.

Marine Technology A/S, Arendal (1995)

- Subcontractor to NKT, Denmark, installation contractor for an offshore facility/unloading project (pipelines and tanker moorings) in India (Eid Parry Project), design and installation engineering; fluke anchor installation requirements, analysis of suction penetration (driveability) and foundation stability for a skirted Plem foundation.

Stolt Comex Seaway A/S (1995)

- Installation contractor for the Yme Project (Statoil), prequalification phase, initial design and comparison of pile anchors and suction anchors, mooring installation methods.

Pusnes A/S, Arendal, Heidrun Direct Shuttle Loading (DSL) Project; Engineering and Procurement Support to Conoco Norway Inc. (1994)

- Lead engineering co-ordination, general engineering and interface between vendors.
- Follow up building of subsea buoyancy elements in steel (20 off 3mx5m) for support of mooring lines at 100m water depth
- Review of installation procedures.

Ugland Oilfield Services A/S, Grimstad (1993-1994)

- Installation contractor for the DSL project, pre-engineering phase, trade off study for selection of one of three options: piles, pre-tensioned fluke anchors and suction anchors.

Stolt Comex Seaway A/S, IMR Contract for Draugen Field/Shell (1993)

- Preparation of underwater contingency manual.

Stolt Comex Seaway A/S, Piling Support Group (1992-1993)

- Design, project co-ordination for design and fabrication of initiation pile for pipeline installation (Frost pipe).
- Preparation of piling procedures (various projects).

Stolt Comex Seaway A/S, Commercial Department (1992-1993)

- Preparation of tenders, engineering co-ordinator for tender to Norsk Hydro on pre-installation of the mooring system of the Troll West Floater.
- Various tenders for installation of subsea flow lines/umbilicals and templates, responsible for cost estimates and technical aspects relating to protective tunnels/mattresses and trenching operations.

Stolt Comex Seaway A/S, Brage Project (Norsk Hydro) (1992-1993)

- Participated in the engineering of the Brage Tee Station. Preparation and design of rock dump, specification for rock dump installation, structural analysis of embedded expansion spool, deck layouts and seafastening arrangements.

ABB Seatech A/S (1991-1992)

Assistant Project Manager

- Involved in the completion work and commissioning testing of the remotely operated maintenance vehicle system (ROMV) of the Snorre TLP Platform.

1989 - 1991, AKER STORD A/S

Senior Engineer - Snorre TLP Project

Participated in building of Snorre TLP deck. Preparation of the operation manual for the deck mating and follow up of the installation and certification of the in-shore mooring system for the mating operation.

1987 - 1989 - Consulting Engineer (offshore and onshore)

Consulting Contracts (with various companies located in the city of Bergen):

- Installation of sea lines (Inocean).
- Preparation of methods for supporting pipelines and pipe/cable bundles (Bergen Engineering).
- Preparation of market survey regarding concrete inspection (for an onshore inspection company)
- Conceptual preparation of an own proposal for floating crossing of the Salhusfjord (1400m) outside the city of Bergen.

1986 - 1987, NORWEGIAN UNDERWATER BRIDGE A/S

Own company, supported by Veritec A/S (DNV), Bergen Engineering A/S and financial interests in building of "Fjordcrossings", with the purpose of promoting the further development of the Submerged

Tube Bridge Concept ("Rørbrokonseptet") and preparing this national product for the international market.

General Manager

- Preparation of detailed 3 year project plan program for development of the Submerged Tube Bridge Concept.
- Studies of design requirements, cost effectiveness of subsea work tasks.
- Financial analysis of the project.

1983 - 1986, NORWEGIAN UNDERWATER TECHNOLOGY CENTRE (NUTEC)

Senior Engineer

- Planning and cost estimates of various seabed foundation installation methods.
- Total intervention system analysis, definition of work tasks and conceptual layout.
- In-house projects, tender work and planning of test facilities.
- Detailed Anchor Installation Study relating to Submerged Tube Bridge Concept (prepared for the Norwegian Road Administration).
- Consultant for 13 industrial companies in relation to development project for subsea products, services and market opportunities.

1981 - 1982, A/S BERGEN MEKANISKE VERKSTEDER (BMV)

- Engineering and business development.

1981 - 1981, KONGSBERG ENGINEERING A/S, Asker (Marine Department)

- Marine operation studies and design engineering.
- Business development.
- Prepared a JIP proposal on use of fibre ropes for vertically tethered TLP platforms and Guyed Towers.

1978 - 1981, AKER ENGINEERING A/S, Oslo (Research & Development and Department of Marine Technology)

- Participated in several projects including development and evaluation of design concepts in the areas of exploration and production of oil in the North Sea and Arctic Ocean.
- Alternative sources of energy (OTEC and Wave Power Plant).
- Secretary for the Aker Group Development Committee.

1973 - 1978 SHIPPING RESEARCH SERVICES A/S

Shipping and Offshore Division

- Development of multi-purpose support and fire control vessel («Uncle John»). Conversion of existing vessels to support salvage operations.
- Arrangements for diving systems and guide/deployment gear for bells and subsea equipment.

Shipyard Division

- General planning in production of ships/offshore structures.
- Building of Beryl A concrete platform.

PUBLISHED PAPERS AND LECTURES (Not updated)

- Lecture at the University of Gothenburg on the design aspects of Wave Power plants, Gothenburg 1980.
- “Tomorrow’s Anchoring Systems”, presented to the Norwegian Society of Chartered Engineers (NIF), ‘Rogalandsdagene’, Stavanger 1981.
- Lectures at the Haugesund Maritime University covering various aspects of the design of high technology deep water moorings and seabed foundations, Haugesund 1982
- “Anchoring of Floating Crossings - Emphasis on the Installation Aspects”, presented at the International Symposium on Strait Crossings, Stavanger 1986.

**TRACK RECORD
SEABED ANCHORS AND TETHERS**

Project	Customer	Delivery	Design Life	Contract / Product
Eid Parry Project, India	NKT	09-95	10 years	Design and installation engineering of a Suction Plem Foundation
Fergus	Rockwater Ltd	07-96	20 years	EPCI of 1x Suction Riser Base, 52t
Schiehallion	Coflexip Ltd	05-97	25 years	Design, Engineering and manufacturing drawings of two riser base options: Suction-in and Impact Pile.
Åsgard A	Stolt Offshore	08-98	20 years	EPC of 3xUmbilical Anchors 30t w/tethers
Troll C	Stolt Offshore	08-98	30 years	PC of 3xSuction Anchors 54t for preinstalled rig moorings
Troll C	Stolt Offshore	08-99	30 years	PC of 6xSuction Anchors 54t for preinstalled rig moorings
Åsgard B	Stolt Offshore	05-99	20 years	EPC of 3xUmbilical Anchors 30t w/tethers
Åsgard B	BRES/RW	07-99	N/A	EPC of Pull-in Anchoring System for A02 Bundle
Snorre B	Coflexip Norge	02-00	25 years	Design, Engineering and manufacturing drawings of 15x Riser Anchors, 30-80t
Heidrun	Halliburton	02-00	20 years	EPC of 2x Hold Back Anchors w/tethers
Mikkil	Halliburton	05-02	20 years	EPC of 1x Umbilical Anchor w/tether
Kristin	Technip Offshore Norge	2003-2004	25 years	EPC of 30 x Suction/Gravity Riser Anchors 30-60t, with tethers and ROV suction interface + installation criteria
Norne	Stolt Offshore	2004-2005	25 years	EPC of 2 x Suction/Gravity Riser Anchors 45t with tethers
Visund	Stolt Offshore	2005	25 years	EPC of 2 x Suction/Gravity Riser Anchors 45-60t with tethers
Vøring	ENI Norge AS	2006	NA	EPCI of 2 off Well Base for pre-installed conductors
Moho-Bilondo	Acergy SA	2007	15 years	EPC of 4 x Suction/Gravity Riser Anchors 25t, with tethers
Tyrihans	Technip Offshore Norge	2008	25 years	EPC of 12 x Suction/Gravity Riser Anchors 30-60t, with tethers and ROV suction interface + installation criteria
Peon	Statoil Hydro	2008-2009	NA	Design, fabrication drawings and installation engineering of Suction Well Foundations (CAN's) for preinstalled conductors, 6m x 12 m x 80 Te
Troll B GI Project	Subsea 7	2009	21 years	EPC of 1 x Combined Suction/Gravity Riser Anchor and Pipeline Initiation Pile + supply of ROV suction interface + all riggings
BP Skarv Project	Subsea 7	2009	2 years	EPC of 2 x Combined Suction/Gravity Pipeline Initiation Pile + supply of ROV suction interface and installation / retrieval critetia + all riggings
Troll B GI Project	Subsea 7	2010	21 years	EPC of 1 x Vertical Riser Anchor and 2 x Horizontal Anchor Systems + all riggings