AMUND HENRIKSEN

Senior Structural Engineer | M.Sc. Mechanical Engineering | IWE Certified

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PROFESSIONAL SUMMARY

Senior Structural Engineer with over 15 years of cross-disciplinary expertise across offshore energy, heavy industry, and defense sectors. Possesses a unique "T-shaped" engineering profile, combining deep technical proficiency in FEA/structural analysis and welding technology (IWE) with broad leadership in multidisciplinary project management. Proven track record of delivering safe, compliant, and value-optimized solutions for global clients including NOV, Equinor, Aibel, and the Norwegian Navy.

CORE COMPETENCIES

- **Analysis & Simulation:** Ansys (Workbench/APDL), STAAD.Pro, Mathcad, Fatigue Analysis, Dynamic Analysis (Eigenfrequencies), CFD (Flow3D).
- **Design & 3D:** Creo, SolidWorks, E3D/PDMS (Siemens NX equivalent), AutoCAD Inventor, Vault, Parametric 3D Modeling, GD&T.
- **Standards & Compliance:** NORSOK, DNV, Eurocode, API, ASME, ISO 9001, ISO 3834, CE Marking, Machine Directive.
- **Disciplines:** Mechanical, Structural, Piping, Welding, Fabrication, and Project Management.

PROFESSIONAL EXPERIENCE

Senior Structural Engineer **2025 – Present**
NOV | Molde / Asker / Trondheim

- Execute FEM/FEA structural analysis (STAAD.Pro, ANSYS, MATHCAD) for major offshore contracts across Europe, Asia, America, and Africa (including Oseberg D, Gjøa, Heidrun, Njord, Visund).
- Prepare and verify complex calculation reports in accordance with DNV, NORSOK, ASME, API, and Eurocode standards.
- Perform cross-disciplinary communication and design checks for studies, execution projects, and maintenance modifications.

Senior Structural Engineer **2022 – 2025**
Aibel AS | Asker / Hammerfest

- Delivered M&M/EPCI engineering for Equinor's Hammerfest LNG and AastaHansteen projects.
- Developed comprehensive work packages, fabrication drawings (IFC/As-built), and technical documentation (MTO, EETs, SDRs).
- Provided multidisciplinary advisory across structural, mechanical, prefab/welding, and piping disciplines.
- Utilized STAAD.Pro, E3D/PDMS, Proarc, STID, Procossy, and SAP for design, estimation, and progress reporting.

Operations Support Engineer / Project Manager **2021 – 2022**
Apply AS | Stavanger / Hammerfest

- Led multidisciplinary project execution on the Goliat FPSO, managing scopes from study to decommissioning.
- Directed estimation, planning, risk management, and offshore installation follow-up (PCHE replacement, Fragment Collector, electrical outlets).
- Managed multicultural project teams, ensuring adherence to KPI milestones, budgeting, and ERP time control (SAP, IFS).

Senior Mechanical Engineer IWE **2019 – 2021**
Zenit Engineering AS | Odda / Bergen

- Executed FEA/FEM analysis, fatigue calculations (NS-ISO), and design of heavy steel structures for Tizir, Boliden, and Hydro.
- Coordinated directly with the Norwegian Navy at Håkonsvern, delivering critical piping solutions for HNoMS Maud, the Helge Ingstad replacement, and various defense projects.
- Managed technical documentation, CE marking, site surveys, and welding coordination (WPS/NDT/ISO 3834).

Professional Mechanical Educator & Section Leader **2009 – 2019**
FFK Hammerfest | Hammerfest

- Led the Mechanical Section, managing courses/budgets, workshop equipment procurement, and safety protocols.
- Mentored apprentices in advanced mechanical disciplines including lathe/mill CNC, CAD, assemblies, and QA/QC.
- Bridged the gap between education and industry, ensuring a highly skilled, job-ready technical workforce.

Student Engineering Projects **2004 – 2008**
NAMMO, LKAB, FLO/BTV

- Executed applied engineering projects including CFD/Navier-Stokes analysis (NAMMO), bucket wheel excavator design (LKAB), and military-grade optics modelling (FLO/BTV).

EDUCATION & CERTIFICATIONS

- **M.Sc. Mechanical Engineering Design** – University of Tromsø (UiT)
- **B.Sc. Mechanical Engineering Industrial Technology** – Narvik University College (HiN)
- **Certified International Welding Engineer (IWE)** – University of Agder (UiA)
- **Certified Professional Educator Mechanics (PPU)** – University of Tromsø (UiT)

TECHNICAL SKILLS & ADDITIONAL INFORMATION

- **Software:** Ansys, STAAD.Pro, Mathcad, Creo, SolidWorks, Autodesk Inventor and Vault, E3D/PDMS, Matlab, Python, SAP, WeldEye, TrueView/Pointcloud.
- **Languages:** Norwegian (Native), English (Fluent), German (Conversational), Chinese (Basic). Sami
- **Volunteer Leadership:** SISA Cultural Center (Integration support for 30-50 refugees, 2013-2020); HV-17 Home Guard (Observation Troop, 2011-2013).