

IRSAN ANUGRAH

Ship Machinery & Docking | BKI-Certified Marine Surveyor

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Ternate, North Maluku, Indonesia



PROFESSIONAL SUMMARY

Naval Architecture graduate from Hasanuddin University with 3+ years of hands-on experience in ship machinery maintenance, docking supervision, and technical verification against classification requirements. BKI Academy-certified Marine Surveyor (2025) with formal competency in Classification & Survey, Ship Machinery & CMS, ISM Code, and MARPOL. Currently Fleet Maintenance Staff at PT ASDP Indonesia Ferry (Persero), also serving as Owner Surveyor during docking projects — conducting pre-docking joint surveys with shipyard representatives and vessel crew, attending class surveys carried out by BKI surveyors, and verifying repair work against approved technical specifications and applicable class requirements. Experienced in main and auxiliary engine monitoring, Top Overhaul / General Overhaul planning, sea valve and shafting systems, technical troubleshooting, and docking budget control. Seeking to apply three years of practical machinery and class-interface experience to design review and drawing approval work.

PROFESSIONAL EXPERIENCE

Fleet Maintenance Staff / Owner Surveyor — PT ASDP Indonesia Ferry (Persero)

Jun 2023 – Present

- Monitor running hours of main and auxiliary engines across the ferry fleet and troubleshoot onboard technical issues to minimize unscheduled downtime.
- Assess and plan spare part requirements for machinery overhaul works (Top Overhaul / General Overhaul), including technical justification and procurement coordination.
- Witness and verify machinery-related docking work items — including sea valve overhaul, propeller and shaft inspection, and stern tube works — against approved technical specifications and applicable class requirements before acceptance.
- Conduct pre-docking joint surveys together with shipyard representatives and vessel crew to establish vessel condition, agree on the scope of work, and finalize the repair list.
- Attend class surveys carried out by BKI surveyors during docking, accompanying the surveyor together with shipyard representatives and following up on findings and required corrective work.
- Serve as Owner Surveyor during vessel docking projects, supervising repair execution end-to-end from repair list finalization and progress monitoring to final inspection and sea trial prior to vessel redelivery.
- Prepare technical documentation for classification surveys by compiling machinery data, survey records, and supporting drawings to ensure documentation readiness.
- Review technical drawings and prepare drawing updates for repair works, including technical notes and inspection records for survey purposes.
- Witness hull-related work items including plate replacement, UT thickness measurement, and anchor chain calibration.
- Control docking and maintenance budgets by reviewing budget requirements, evaluating shipyard work orders, and comparing planned versus actual repair costs to support cost-optimization decisions.
- Coordinate with crew, contractors, shipyards, Biro Klasifikasi Indonesia (BKI), and Harbourmaster and Port Authority Office (KSOP) to ensure compliance with safety, technical, and regulatory standards.

Structural Engineer — PT Limov Power Structure

Jan 2023 – Jun 2023

- Reviewed and prepared revised construction drawings, validated scantling compliance, and ensured structural integrity against class and engineering standards.
- Conducted structural analysis and design adjustments for frontal frame structures at the port area, ensuring designs met actual field conditions with accurate technical specifications.
- Performed design and stability analysis of floating structures including mooring buoys, covering weight distribution, buoyancy, and structural safety.
- Carried out welding visual checks, documented non-conformities, and assisted in preparing work orders and inspection plans for repair execution.

Intern, Quality Control & Engineering — PT Dok Bahari Nusantara

Feb 2022 – Mar 2022

- Participated in Magnetic Particle Inspection (MPI) and visual inspections of vessels under repair.
- Supported weight and centre of gravity (COG) calculations of structural components and prepared inspection documentation.
- Gained hands-on understanding of ship repair workflows and basic classification requirements.

EDUCATION

Bachelor of Naval Architecture (S1) — Hasanuddin University

2022

Major: Structure | GPA: 3.67 / 4.00

CERTIFICATIONS & TRAINING

- Marine Surveyor Training — BKI Academy, PT Biro Klasifikasi Indonesia (Persero), June 2025. Passed with “Good” result. Competencies: Classification & Survey, Ship Machinery & CMS, Hull Structure, Ship Electrical, Load Line & Stability, ISM Code & MARPOL.
- Internal Auditor ISO 9001:2015.
- Basic Coating Inspection Training (4-Day Short Course) — Catur Sekawan Solusindo.

REGULATORY & TECHNICAL KNOWLEDGE

- Classification & Statutory: BKI Rules for Machinery Installations (Vol. III), BKI Rules for Piping Systems, SOLAS, MARPOL, ISM Code, IACS Unified Requirements.
- Practical familiarity with BKI survey scope and Continuous Machinery Survey (CMS) through attending class surveys carried out by BKI surveyors during docking periods.

TECHNICAL SKILLS

Machinery: Ship Machinery Maintenance • Main & Auxiliary Engine Monitoring • Spare Part Planning (TO/GO) • Sea Valve, Shafting & Propeller Systems • Troubleshooting & Technical Assessment

Engineering: Technical Drawing Review • Engineering Drawing & P&ID Reading • Structural & Stability Analysis • Technical Reporting

Survey & Docking: Survey & Joint Inspection • Docking Project Supervision • Owner Surveyor Duties • Repair List Compilation • Maintenance & Docking Budgeting

Software: AutoCAD • SolidWorks • Ansys Mechanical • SAP GUI (Transaction Codes) • Microsoft Office

Languages: Bahasa Indonesia (native) • English (working proficiency — routine use of English-language class rules, technical manuals, and survey documentation)

ORGANIZATIONAL EXPERIENCE

- Head of Religious Division — Naval Architecture Student Association, Hasanuddin University (Apr 2021 – Oct 2021).
- Staff of Education Division — Naval Architecture Student Association, Hasanuddin University (Mar 2020 – Nov 2020).
- Public Relations Committee, “Pesiar” ship prototype design competition; community service volunteer in a coastal village in Takalar Regency, South Sulawesi (traditional wooden boat construction knowledge-sharing and mangrove planting).