



Accredited Africa Training Institute for Capacity Development

Unit FO409, Hatfield Plaza · 1122 Burnett St, Hatfield 0028 · Pretoria, Gauteng · South Africa

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COURSE BROCHURE

Engine Room Watch Keeping Duties At Sea And In Port Training

Services / Transport, Operations and Logistics

Unit Standard 114003 · NQF Level 3 · 15 Credits · 12 Days

COURSE OVERVIEW

This course equips marine engineering personnel with the essential knowledge and practical skills to perform engine room watch keeping duties safely and effectively, both at sea and in port. It covers the principles of watch keeping, monitoring of machinery, and emergency response procedures in compliance with international maritime regulations.

Category	Services
Subfield	Transport, Operations and Logistics
Unit Standard	114003
Accreditation	SAQA Accredited · NQF Level 3 · 15 Credits
Duration	12 days
Training Method	Online, On-Campus, In-House
Certificate	Issued via AATICD LMS – verifiable online

LEARNING OUTCOMES

- Apply standard watch keeping procedures to ensure continuous monitoring of engine room machinery and systems.
- Demonstrate correct responses to alarms and abnormal conditions, including fire, flooding, and machinery failures.
- Analyze engine room parameters such as temperatures, pressures, and fluid levels to detect deviations and take corrective action.
- Implement communication protocols with the bridge and engineering team during watch handovers and emergencies.
- Evaluate the condition of auxiliary machinery and main propulsion systems to maintain operational readiness.
- Design a watch keeping schedule that ensures adequate rest and compliance with maritime labor standards.

COURSE OUTLINE

Day 1: Introduction to Engine Room Watch Keeping

- Overview of engine room watch keeping duties
- Safety regulations and PPE requirements
- Engine room familiarization: main machinery and auxiliary systems
- Watch keeping principles: STCW requirements
- Communication protocols and log keeping

Day 2: Engine Room Systems and Components

- Main engine types: two-stroke and four-stroke diesels
- Cooling water systems: fresh and sea water
- Lubrication oil systems and treatment
- Fuel oil system: storage, transfer, and treatment
- Compressed air systems and starting air

Day 3: Watch Keeping Procedures at Sea

- Standard watch keeping routines (rounds, readings, checks)
- Instrumentation: temperature, pressure, level, speed sensors
- Alarm systems and response procedures
- Log book entries: data recording and reporting
- Handover procedures between watches

Day 4: Machinery Operation and Control

- Main engine control: start, stop, speed adjustments
- Generator operation and synchronization
- Boiler operation and water level control
- Automatic control systems: PLC and SCADA basics
- Common faults: overheating, vibration, leaks

Day 5: Fuel and Lubrication Management

- Fuel types: HFO, MDO, MGO; properties and specifications
- Bunkering procedures: safety, documentation, sampling
- Fuel treatment: settling, centrifuging, heating
- Lubrication oil: types, analysis, change intervals
- Waste oil and sludge handling: MARPOL requirements

Day 6: Safety and Emergency Procedures

- Fire triangle and engine room fire risks
- Fixed firefighting systems: CO2, foam, water mist
- Flooding prevention: bilge system operation
- Emergency shutdown of machinery
- Personal survival: use of breathing apparatus

Day 7: Engine Room Watch Keeping in Port

- Port watch keeping: reduced manning and responsibilities
- Auxiliary engine and boiler operation at berth
- Shore power connection and switchover
- Bunkering and cargo handling interfaces

- Port security: ISPS code and access control

Day 8: Maintenance and Repair Basics

- Preventive maintenance schedules and checklists
- Tools and equipment: spanners, torque wrenches, pullers
- Bearing and seal inspection
- Filter cleaning and replacement
- Safe isolation and lockout/tagout procedures

Day 9: Environmental Compliance and Pollution Prevention

- MARPOL Annex I: oil pollution prevention
- Oily water separator operation and monitoring
- Bilge system and holding tanks
- Garbage management: segregation and disposal
- Energy efficiency: engine optimization, waste heat recovery

Day 10: Advanced Watch Keeping and Troubleshooting

- Fault finding methodology: cause and effect
- Performance monitoring: fuel consumption, exhaust temps
- Team coordination: communication with bridge
- Crisis management: prioritizing tasks under pressure
- Case studies: common engine room emergencies

Day 11: Practical Integration and Simulation

- Full watch simulation: start to finish
- Simulated emergencies: fire, flooding, blackout
- Team roles: engineer, motorman, watch keeper
- Debrief and feedback on performance
- Documentation and reporting in simulation

Day 12: Assessment and Course Review

- Written examination on watch keeping theory
- Practical assessment: watch keeping round and log
- Oral assessment: troubleshooting scenarios
- Course review and Q&A;
- Certification process and further training paths

ASSESSMENT & CERTIFICATION

Delegates are assessed through exercises and a final test. A mark of **50% or above** earns an **AATICD Certificate of Completion**, issued digitally with a unique verification code. This course carries **15 NQF credits** at **NQF Level 3**.

PRICING (PER DELEGATE, EX-VAT)

Delegates	Training Method	Price per Delegate	Total
1	Online	R 41,000.00	R 41,000.00
1	In-House	R 53,300.00	R 53,300.00
1	On-Campus (Pretoria)	R 61,500.00	R 61,500.00

UPCOMING SESSIONS

Start	End	Method	Venue
05 Aug 2026	20 Aug 2026	On-Campus	Pretoria, South Africa
05 Aug 2026	20 Aug 2026	On-Campus	Lagos, Nigeria
06 Aug 2026	21 Aug 2026	On-Campus	Johannesburg, South Africa
07 Aug 2026	24 Aug 2026	On-Campus	Mauritius
10 Aug 2026	25 Aug 2026	On-Campus	Dubai, UAE
11 Aug 2026	26 Aug 2026	On-Campus	Pretoria, South Africa
12 Aug 2026	27 Aug 2026	On-Campus	Abu Dhabi, UAE
13 Aug 2026	28 Aug 2026	On-Campus	Mauritius

Contact us if no suitable date is listed – on-demand sessions can be arranged for groups.

HOW TO GET A QUOTE OR APPLY

- 1. Get an instant quotation online:** visit www.aaticd.co.za, open the page for this course (Unit Standard 114003) and click **Get A Quote / Apply**. Select your training method and number of delegates – your quotation is generated immediately and emailed to you with the course brochure attached.
- 2. Apply by email:** send the course title, your preferred training method (Online, In-House or On-Campus Pretoria), the number of delegates and your preferred dates to apply@aaticd.co.za – our team will reply with a formal quotation.
- 3. Apply by phone or WhatsApp:** call +27 12 004 8389 or WhatsApp +27 65 077 6310 and we will prepare your quotation and reserve your seats.
- 4. Confirm your booking:** accept the quotation and settle the invoice. As soon as payment is confirmed your delegates are enrolled and receive their AATICD LMS login details by email, along with joining instructions for their chosen training method.

Group discounts apply automatically – the more delegates you enrol, the lower the price per delegate. No payment is required to request a quotation.

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