



Engineer 3

Introduction

This training course is aimed at preparing marine engineers to become part of the team performing engineering watch duties or become chief engineers on ships with propulsion powers up to 750KW. Every candidate for certification as officer of watch for ships engine-room or chief engineer on vessels propulsion power up to 750KW, shall be primarily in charge of operating and monitoring the mechanical, electrical, hydraulic, refrigeration plant, pumping systems, ventilation systems and control equipment, as well as being in charge of modern ships sophisticated engine management systems and the maintenance of the machinery.

Further to the maintenance and operation of marine power plants, this training enables the marine engineer to manage the ships fuel systems, to calculate fuel consumption and storage requirements on vessels. The training is aimed at enabling the engineer with practical trade skills, good management knowledge, analytical thinking skills, good command of English, both written and verbal, including interactive communication skills, all coalesced to groom the engineer in demonstrating good leadership approach, the right kind of attitude to be decisive, be calm and be able to inspire confidence in others in a complex modern ships machinery space.

Objectives

This training integrates practical engineering maintenance work, marine engineering trade theory and problem solving exercises to enable candidates to have the required knowledge, understanding and skills to competently perform engineering watch duties or be chief engineers for ships propulsion power up to 750 KW on coastal trade.

Outline

This course content will cover the following areas.

1. **Sea Safety course**
 - a. Survival craft and rescue boats (STCW Code Table A-VI/2-1)
 - b. Advance firefighting for Officers (STCW Code Table A-VI/3)
 - c. Medical first aid (STCW Code Table A-VI/4-1)
 - d. Occupational Health and Safety (STCW Code Table A-VI/1-4)
 - e. Social responsibility (STCW Code Table A-VI/1-4)
 - f. Basic maritime security awareness (STCW Code Table A-VI/6-1) (If required)
2. **Electro technology**
 - a. Operate ships electrical and control systems
 - b. Carry out basic maintenance and repair of electrical equipment
 - c. Know basic electronic components and circuits
3. **Practical workshop and ship board projects**
 - a. Practical engine shop
 - b. Practical Electrical work-shop,
 - c. Fabrication work-shop and

- d. Practical projects on ship-board systems
4. **Motor engineering.**
 - a. Maintain marine engines ranging up to 750 KW
 - b. Operate marine engine and associated systems up to 750 KW
5. **General Engineering Knowledge**
 - a. Maintain all machinery in ships engine room.
 - b. Maintain all machinery on deck
6. **Naval Architecture and ship construction.**
 - a. Basic vessel design and construction.
 - b. Stability theory, calculations and terms associated with vessels
7. **Basic engineering science**
 - a. Mathematics
 - b. Applied Heat and Heat Engines
 - c. Applied Mechanical science

Course Outcomes

After successful completion of the course the trainee will have the required knowledge and competency to perform engineering watch duties or be chief engineer officer on vessels with propulsion power up to 750KW.

Pre-requisite

The candidate needs to have completed:

- Upper Secondary School having good grades in math, science and English language, both spoken and written.
- Engineer class 4 course and
- Gained the correct period of sea-service as an engineer officer on specified ships propulsion power.

Training Facilities

Classroom lessons and simulation activities are to be closely related to modern ships engine-room machinery settings, auxiliary machinery and associated systems related to ship board environment.

Certificates

On successful completion of the course and passing the mandatory written and oral examinations, candidates will be issued the Engineer Class 3 certificate of competency by NMSA.

Training Details and Costs

Duration:	12 months
Time:	08.00am to 04.00pm
Tuition Fees:	TBA
Venue:	PMTTC, Konedobu
Min number of persons:	10 persons

For further information please contact:

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