

Conference: Marine Electrical Maintenance





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REF: C1788 DATE: 5 - 9 August 2024 Venue: Amsterdam (Netherlands) - Fee: 6145 Euro

## Introduction

In short, a marine electrician is responsible for the operation and distribution of power throughout a ship. A marine electrician maintains all onboard electrical systems, installs electrical equipment, and maintains the ships electrical system, and also ensures any onboard emergency or safety systems are operational

# **Program Objectives**

At the end of this program the participants will be able to:

- Shipboard Electrical Safety Work Practices
- Describe marine power distribution ssytems
- Discuss the performance characteristics of a DC generator
- Electrical Components Testing & Insulation Resistance Testing
- Motor Starters Direct-On-Line, Reversible, and Reduced Voltage Starters
- Fault Finding Techniques:
  - Star Delta Circuit Diagram
  - · Group Starter Panel
- · Circuit Analysis of Main Switchboard
- · Westfalia Bilge Master Fault finding

## **Targeted Audience**

- Foreign-going Seafarers: Chief Engineer
- Any engineering personal as nominated by the company for operational role as Marine, Electrical and Control Engineers.

#### Unit 1:

- Shipboard electrical distribution system
- Fault diagnostic of electrical faults & Maintenance



- Electronic & Automations, control Engineering
- High Voltage and Electric propulsion

## Unit 2:

- Operate and configure VARIABLE FREQUENCY DRIVE VFD
- · Addressing and testing of the Fire Detection and Alarm System FDAS
- · Testing of diodes and capacitor in-circuit and out-circuit
- · Testing and switching of transistors

#### Unit 3:

- · Controlling a motor using digital techniques
- Repair and maintenance on RADAR Including replacement of magnetron
- Setting of Pressure Switch Cut-in and Cut-out
- · Testing of Solenoid Valves

#### Unit 4:

- Testing and measurement of I/OIs of Programmable Logic Controller
- Fault-finding / Trouble-shooting of a process control system
- Batteries and UPS Maintenance
- Common Control Components

## Unit 5:

- Ancillary Equipment: Ships Lighting
- Design of secure ships
- Brushless 3 Phase AC Generator
- Frequency Converter
- Speed Controller
- Fire Detection System

