

ABB Marine Academy course description

DEC20 - Azipod® vessel operation, operational level

Course goal

This course prepares deck officers for safe watch keeping and bridge communication on twin-Azipod vessels in normal and special operational conditions.

Learning objectives

Upon completion of this training, the participants will know the operational principles of diesel-electric (DE) Azipod propulsion systems. They will understand the flexibility of the system and will be able to identify potential malfunctions and to cope with them without sacrificing vessel safety. They will be able to communicate about the different aspects of the propulsion system in a clear and concise manner.

Contents

Diesel electric Azipod vessel system functionalities

- Power plant, distribution and propulsion drives
- Azipod thrusters
- Propulsion control

DE Azipod vessel operation with emphasis on pilot voyage and harbor maneuvers

- Speed control
- Transverse thrust
- Station keeping
- Control of pivot point
- External forces

Power plant behavior in different load conditions

- Optimizing power plant loading
- Reverse power
- Increase/decrease-function

Effects of power plant and propulsion system malfunctions

- Special conditions

Methods

Hands-on exercises on a full mission bridge simulator
Practical lessons and discussions on diesel electric Azipod propulsion

Participants

Vessel deck personnel at operational level on vessels using Azipod propulsion systems.



Prerequisites

Experience of watch-keeping of modern (preferably Azipod propelled) vessels, and of bridge simulator training.

Duration

3 - 5 days

Venue

Helsinki, Finland

Additional information

Maximum 6 participants

This workshop is run in conjunction with an approved maritime simulation center.

DEC20 - Officer of the watch course on vessels with Azipod® propulsion systems

Course outline

Azipod® is the registered trademark of ABB Oy.

Day 1

- Introduction
- Azipod controls
- Speed control
- Harbor maneuvers, basics
- Simulator exercises

Day 2

- Harbor maneuvers, continued
- Diesel electric Azipod propulsion
- Simulator exercises

Day 3

- Potential propulsion malfunctions
- Azipod vessel emergency operations: crash stop, Williamson turn
- Simulator exercises