

RYA Diesel Engine course syllabus



The aim of this course is to give awareness of the main systems of a marine diesel engine and the ability to take simple measures to prevent mechanical breakdown at sea and rectify defects which do not require workshop support.

Introduction

- Principles of the diesel engine

The four stroke cycle

- Naturally aspirated engines
- Turbocharging
- Intercooling / aftercooling

The fuel system

- The basic system
- The tank
- The water-separating pre-filter
- Fuel lift pump
- The engine fine filter
- Injection pump
- Injectors
- Bleeding the system

The cooling system

- Seawater cooling
- Freshwater cooling
- Temperature control
- The thermostat
- The seawater impeller pump

The air systems

- The airway in and out

Engine electrical systems

- The basic system
- Battery capacity and care
- Drive belts
- The alternator

Spares and tool requirements

- Basic spares and tools

Importance of winterisation and servicing

- Engine lubrication
- Transmission lubrication
- Winterisation and servicing
- Service schedule

Fault finding

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