

DIESEL ENGINE (REF:OTSDES002)

Course Description

This course is intended for those delegates that require a good understanding of the operations and maintenance activities as would be associated with a modern diesel engine. The course will discuss the main systems and control aspects of the engine together with a detailed examination of common engine faults and associated troubleshooting methods.

Who Should Attend

This course is aimed at technicians/engineers that require a good understanding of the operations and maintenance activities associated with a modern diesel engine. Operations staff would also benefit from attending this course.

Pre-Requisites

Candidates should have a good engineering background.

Course Objectives:

- History of the Internal Combustion Engine
- Major components of a diesel engine
- On engine systems
- Operational terminology/ fault finding
- Engine controls
- Governor
- Engine protection
- The two and four stroke cycles

Day 1 Diesel engine fundamentals

- History of the diesel engine
- Diesel Vs petrol
- Major components of a diesel engine
- Engine systems overview
- Terminology
- The Otto cycle
- The two stroke cycle
- The four stroke cycle
- Valve timing
- Fuel injection
- Fuel injection timing

Day 2 Diesel engine fundamentals

- Governor operation
- Starting circuits
- Engine protection
- Day 3 Diesel speed controls and protection
- Fuel system
- Lube oil system
- Cooling systems
- Transmission system
- Governor operation
- Starting circuits
- Engine protection

Day 3 Diesel speed controls and protection

- Basic fault finding
- Starting problems
- Engine misfires
- Lack of power
- Excessive fuel/oil consumption
- Exhaust colour
- Engine knock
- Poor compression
- Overheating
- Low/high oil pressure
- Excessive crank pressure

