

## Diesel Engine Beginner's Course



**Explore the heart of marine power - the secrets of diesel engines**

### Course Description

Diesel engines, as an important power machine since the Industrial Revolution, are widely used in shipping, railways, agricultural machinery and other fields. With the increasingly stringent environmental regulations and the challenge of energy crisis, the demand for diesel engine technical talents is increasing. This course aims to enable students to have simple theoretical knowledge and a comprehensive understanding of diesel engines .

### Training objectives

- Understand the basic working principle, types , structure and main components of diesel engines
- simple understanding of diesel engine performance optimization technology and methods
- Understand the latest technological developments and environmental protection requirements of diesel engines

### Course Content

1. **Diesel engine development history**
  - Technological innovation from steam engine to internal combustion engine
  - The invention, early development and improvement of the diesel engine
  - Analyze the application history of diesel engines in different fields
2. **Diesel Engine Working Principle**
  - Learn the working principles and processes of four-stroke and two-stroke diesel engines.
  - Comparison of the characteristics of four-stroke and two-stroke diesel engines
  - Briefly explain the combustion process and thermal efficiency of diesel engines
3. **Technological progress, development and application of diesel engines**
  - Improvements to the fuel injection system and the adoption of supercharging technology.
  - How has the development of electronic control systems improved combustion efficiency ?
  - Different applications of two-stroke diesel engines and four-stroke diesel engines in ships, offshore engineering and other fields
4. **Diesel engine structure and main components**
  - The structure, function and various component designs of the main components of two-stroke and four-stroke diesel engines are introduced respectively.

## 5. Introduce the various working systems of diesel engines

- The following are briefly introduced for two-stroke and four-stroke diesel engines: fuel system , lubrication system , cylinder oil system; high and low temperature water system; air system, scavenging system, etc.

## 6. Environmental emission standards and solutions for diesel engines

- Brief introduction to IMO emission regulations
- Emission reduction technologies and solutions for two-stroke and four-stroke diesel engines

## 7. New Technology Introduction

- Briefly introduce the various systems of electronically controlled diesel engines
- Application of new technologies in diesel engines in the future
- Introduction to Green Fuel Technology for Diesel Engines

### Training Target

- Non-engineering professionals: office clerks, administrative staff, assistants, etc. in shipping companies, service companies, spare parts companies, and trading companies.
- Fresh graduate.
- Other technical personnel in the industry who are not specialized in engine room.

### Training conditions:

- This course is not open to individuals, but only to companies.

### Training costs

- This course is not charged separately. It is a bundled sale of benefits when ordering intermediate and advanced courses.

### Training Arrangements

- **Course duration** : 4 -5 hours
- **Teaching method**: Offline lecture
- **Training materials**: Provide comprehensive training manuals, technical materials and electronic courseware

### Training time and location

- Time: The time is arranged by the company ordering the intermediate and advanced courses.
- Location: [ Location of the company ordering the intermediate and advanced courses ]

### Contact Details

- Tel: [ +86 13512169712 ]
- Email: [ stonehou@ever-man.cn ]

### How to register

Please fill in our registration form and email the organizer .

### Contact us and register now

Start your diesel engine technology journey ! !