



Motors Major Overhaul Maintenance

Course Introduction:

The Motors Major Overhaul Maintenance course is designed to provide participants with a comprehensive understanding of the principles and practices involved in the major overhaul of electric motors. As electric motors are critical components in various industrial applications, ensuring their reliability and performance through effective maintenance is essential. This five-day course covers the theoretical aspects of motor design, failure modes, and maintenance techniques, equipping attendees with the knowledge needed to conduct thorough overhauls and extend the lifespan of motors.

Throughout the course, participants will engage in detailed discussions on motor components, diagnostic methods, and overhaul procedures. By the end of the training, attendees will be well-versed in identifying issues, performing repairs, and implementing preventive maintenance strategies, thereby enhancing the operational efficiency of electric motors in their organizations.

Course Objectives:

By the end of the program, participants will be able to:

- Understand the principles of electric motor operation and design.
- Diagnose common motor problems using various techniques and tools.
- Execute a major overhaul procedure effectively, including inspection and reassembly.
- Conduct post-overhaul testing to ensure optimal motor performance.
- Implement preventive maintenance strategies to enhance motor reliability.

Who Should Attend?

This course is intended for :-

- Maintenance technicians and engineers responsible for motor upkeep.
- Electrical engineers involved in motor selection and application.
- Operations personnel seeking to improve motor reliability.
- Quality assurance and safety professionals in industrial setting

Course Outline:

Day 1: Introduction to Electric Motors

- Overview of electric motor types and applications
- Basic principles of operation and motor design
- Understanding motor components: stator, rotor, bearings, etc.
- Common failure modes and their causes

Day 2: Diagnostic Techniques

- Methods for diagnosing motor issues and performance problems
- Tools and equipment used in motor diagnostics
- Vibration analysis and thermal imaging techniques
- Interpreting test results and identifying corrective actions

Day 3: Major Overhaul Procedures

- Step-by-step process for conducting a major overhaul
- Disassembly and inspection of motor components
- Techniques for cleaning and refurbishing parts
- Reassembly and alignment procedures

Day 4: Testing and Commissioning

- Methods for testing motor performance post-overhaul
- Voltage and current measurements, insulation testing
- Vibration and noise analysis after reassembly
- Documentation and reporting of maintenance activities

Day 5: Preventive Maintenance Strategies

- Importance of preventive maintenance in motor longevity
- Developing a maintenance schedule and checklist
- Training and safety considerations for maintenance personnel
- Future trends in motor technology and maintenance practices

Course Methodology:

A variety of methodologies will be used during the course that includes:

- (30%) Based on Case Studies
- (30%) Techniques
- (30%) Role Play
- (10%) Concepts
- Pre-test and Post-test
- Variety of Learning Methods
- Lectures
- Case Studies and Self Questionnaires
- Group Work

Course Fees:

To be advice as per course location. This rate includes participant's manual, Hands-Outs, buffet lunch, coffee/tea on arrival, morning & afternoon of each day.

Course Certificate:

International Center for Training & Development (ICTD) will award an internationally recognized certificate(s) for each delegate on completion of training.

المركز العالمي للتدريب والتطوير
International Centre For Training & Development

Course Timings:

Daily Course Timings:

08:00 - 08:20	Morning Coffee / Tea
08:20 - 10:00	First Session
10:00 - 10:20	Coffee / Tea / Snacks
10:20 - 12:20	Second Session
12:20 - 13:30	Lunch Break & Prayer Break
13:30 - 15:00	Last Session