

# ADVANCED COUPLINGS, GEARS, GEAR BOXES, BEARINGS, SEALS & LUBRICATION

*"Enhancing Equipment Reliability Through Advanced Power Transmission and Lubrication Practices"*

## Schedule

Date	Venue	Fees (Face-to-Face)
03 - 07 Aug 2026	London, UK	USD 3,495 per delegate

► **Available delivery methods:** Face-to-Face & Online Training

## Introduction

Power transmission components such as couplings, gears, gearboxes, bearings, seals, and lubrication systems are critical to the reliability and efficiency of rotating equipment. Failures in these components often lead to unplanned downtime, increased maintenance costs, and safety risks.

This intensive 5-day training provides participants with advanced technical knowledge and practical insights into the selection, operation, maintenance, and failure prevention of key mechanical components. The program emphasizes best practices, condition monitoring, lubrication excellence, and reliability-centered maintenance to maximize equipment life and performance.

## Objectives

By the end of this course, participants will be able to:

- Understand the design and operating principles of couplings, gears, and gearboxes
- Select appropriate bearings, seals, and lubrication systems
- Identify common failure modes and root causes
- Apply best practices for installation, alignment, and maintenance
- Implement effective lubrication management programs
- Improve equipment reliability and availability
- Reduce maintenance costs and unplanned downtime

## Why Attend

- Gain advanced technical knowledge of rotating equipment components
- Learn practical techniques to prevent common mechanical failures
- Improve maintenance effectiveness and equipment lifespan
- Enhance lubrication and condition monitoring practices
- Reduce downtime, rework, and maintenance costs
- Strengthen reliability and asset performance

## Target Audience

This program is designed for:

- Maintenance and reliability engineers
- Mechanical and rotating equipment engineers
- Maintenance supervisors and technicians
- Asset management professionals
- Condition monitoring and lubrication specialists
- Operations and plant engineering personnel

## Individual Benefits

Key competencies that will be developed include:

- Advanced understanding of mechanical power transmission systems
- Ability to diagnose and prevent equipment failures
- Improved lubrication selection and application skills
- Enhanced troubleshooting and problem-solving capabilities
- Greater confidence in maintenance and reliability decision-making

## Organizational Benefits

Upon completing the training course, participants will demonstrate:

- Improved equipment reliability and operational availability
- Reduced maintenance and replacement costs
- Extended asset life and improved performance
- Better lubrication control and contamination prevention
- Enhanced safety and operational stability

## Instructional Methodology

The course follows a blended learning approach combining theory with practice:

- Strategy Briefings - Advanced design, operating principles, and reliability concepts
- Case Studies - Real-world equipment failures and reliability improvements
- Workshops - Hands-on exercises in component selection, alignment, and lubrication
- Peer Exchange - Group discussions on maintenance challenges and best practices
- Tools - Maintenance checklists, failure analysis frameworks, and lubrication charts

## Course Outline

Detailed 5-Day Course Outline

Training Hours: 7:30 AM – 3:30 PM Daily Format: 3–4 Learning Modules Coffee Breaks: 09:30 & 11:15 Lunch Buffet: 01:00 – 02:00

Day 1: Fundamentals of Power Transmission Components

- Overview of couplings, gears, and gearboxes
- Operating principles and load considerations
- Common design and selection criteria

Day 2: Bearings & Sealing Systems

- Types of bearings and applications
- Bearing installation and failure modes
- Sealing technologies and contamination control

Day 3: Gearboxes – Operation, Maintenance & Failure Prevention

- Gearbox components and alignment
- Lubrication requirements and oil analysis
- Typical gearbox failures and corrective actions

Day 4: Lubrication Excellence & Condition Monitoring

- Lubricant types and selection
- Lubrication best practices
- Condition monitoring techniques (vibration, oil analysis)

Day 5: Reliability Improvement & Best Practices

- Root cause failure analysis (RCFA)
- Reliability-centered maintenance (RCM) applications
- Developing maintenance and lubrication improvement plans

## Certification

Participants will receive a Certificate of Completion in Advanced Mechanical Components and Lubrication for Reliability Engineering, validating their advanced knowledge and practical skills in maintaining and improving the reliability of rotating equipment and power transmission systems.

## Why Choose MAWA Events

- **Global Expertise:** More than 17 years of experience in professional training and consulting.
- **Industry-Leading Faculty:** Courses delivered by seasoned professionals with hands-on experience.
- **Practical Insights:** Learn to turn theory into actionable strategies for real-world business impact.
- **Client-Focused Solutions:** Customized programs designed to achieve your organisation's unique goals.

### In-House / Customized Training

Interested in running this course for your team?

Please contact us:

TEL:

**+601116373203**

EMAIL:

**info@mawaevents.net**

© Material published by MAWA Events shown here is copyrighted. All rights reserved. Any unauthorized copying, distribution, use, dissemination, downloading, storing (in any medium), transmission, reproduction or reliance in whole or any part of this course outline is prohibited and will constitute an infringement of copyright.