Training Program:

Gas Turbine Mechanical Maintenance

Introduction:

This course is an ideal course for those engineers/technicians wishing to gain a more detailed understanding of the mechanical design and maintenance activities associated with Gas Turbines. Together with a detailed examination of the major systems of a Gas Turbine this course also discusses the different maintenance approaches along with a description of the mechanical aspects of the typical Gas Turbine Inspections. Presenting this course at our Masaood John Brown Gas Turbine Maintenance/Repair facility will allow attendees to see practical examples of Gas Turbine Components, types of component faults and associated repair techniques.

Who Should Attend?

Electrical Engineers, Power Generation Engineers, Mechanical Maintenance Personnel, Power System Protection Engineers, Gas turbine newcomers and more experienced persons who desire an overview of the many available gas turbine technologies, Process Control Engineers & Personnel, Electrical and Instrumentation Technicians & Design Engineers, Maintenance Technicians & Supervisors, Plant Operators & Technicians, Oil & Gas Industry Personnel

Course Objectives:

By the end of this course delegates will be able to:

- Gain a detailed understanding of the mechanical maintenance activities associated with gas turbines
- Be able to describe the systems associated with a modern gas turbine

Course Outline

Introduction

Gas Turbine Components

- Major Components of a Gas Turbine
- Major Accessory Components of a Gas Turbine

Maintenance of Gas Turbine Systems

- Lube Oil System Description/Maintenance
- Hydraulic Oil System Description/Maintenance
- Fuel Systems Description/Maintenance
- Starting Systems Description/Maintenance
- Cooling and Sealing Air Description/Maintenance
- Additional Systems Description/Maintenance

Routine Inspections

Inspection Scheduling

Combustion Inspection

- Disassembly/Reassembly Procedures
- Inspection Procedures
- Criteria for re-use
- Repair or Replacement

Hot Gas Path Inspection

- Disassembly/Reassembly Procedures
- Inspection Procedures
- Criteria for re-use
- Repair or Replacement

Major Inspection

- Disassembly/Reassembly Procedures
- Alignment Checks
- Inspection of Bearings/Seals and Journals

Evaluation of Maintenance Techniques

- Breakdown Maintenance
- Scheduled Maintenance
- Preventative Maintenance

Factors Affecting Component Lifespan

Component Repair and Repair Technology

Accreditation:

BTS attendance certificate will be issued to all attendees completing a minimum of 80% of the total course duration.