



LAND DRILLING PARTS & SERVICE



ENGINE MAINTENANCE & DIAGNOSTIC COURSES

Become an engine maintenance and diagnostics expert. Enroll in online Cat[®] Dealer Performance Center (DPC) courses for anytime, anywhere learning. Get virtual technician training, access resources, track your progress — and advance your career.

BUILT FOR IT.[™]

COURSE CATALOG

PREVENTIVE AND PLANNED MAINTENANCE COURSES

30280: BASIC PREVENTIVE MAINTENANCE

Learn the fundamentals to maintain Cat engines to specified standards and frequencies.

- Know what components are most commonly worn or damaged
- Provide advice to customers on filters, fluids and gasket replacement schedules

33492: BASIC TA1 WALK-AROUND INSPECTION: COMMERCIAL ENGINE FAMILY

Learn how to perform a Technical Analysis (TA1) Visual Walk-Around Inspection on a commercial engine safely, efficiently and effectively. As you proceed through this course, you'll learn best practices that will:

- Improve your proficiency in performing a TA1 Visual Walk-Around Inspection on a commercial engine
- Provide your customers with the most reliable equipment possible

33917: PM4 MAINTENANCE INTERVAL SCHEDULE (MIS): COMMERCIAL ENGINE FAMILY

Get acquainted with the unique and critically important steps required to conduct a PM4 on a commercial engine. As you proceed through this course, you'll learn best practices that will:

- Improve your proficiency in conducting a PM4 MIS within the commercial engine family
- Increase your knowledge of important safety steps in the PM4 on a commercial engine
- Raise your confidence in performing the critically important steps of the PM4 on a commercial engine
- Provide you with an understanding of the steps that are unique in the PM4 for the commercial engine family

41189C: EQUIPMENT MAINTENANCE AND RELIABILITY

Understand the importance of maintenance on component and engine life. Improve efficiency of customer engines and reduce failures.

- Gain a knowledge of key component maintenance
- Improve engine life for your customers

40833: PREVENTIVE MAINTENANCE

Learn the advanced engine maintenance techniques for specific standards and frequencies.

- Know what components are most commonly worn or damaged
- Provide advice to customers on filters, fluids and gasket replacement schedules
- Improve inspection and maintenance efficiency

42436: CAT OIL & GAS ENGINE TROUBLESHOOTING TIPS

Cat Oil & Gas land drilling customers operate their rigs over long periods of time. To keep this operation non-stop, it's important to quickly identify and resolve engine problems.

- Be able to identify the most common engine problems in land drilling operations
- Diagnose engine problems based on the most common symptoms
- Know the best approaches to resolve engine problems

COURSE CATALOG

DIAGNOSTIC COURSES

26917: 7-STEP DIAGNOSTIC PROCESS

Know our 7-step process for troubleshooting an engine for systematic diagnosing.

- Reduce troubleshooting time
- Gain confidence in diagnosing engine problems
- Intro to Applied Failure Analysis Management

33400: INTRO TO APPLIED FAILURE ANALYSIS — MANAGEMENT

The course consists of classroom instruction and laboratory exercises, and concludes with case studies of failures that have occurred in the field.

- Know the basic principles of wear and fractures
- Manage the failure analysis process to arrive at the most probable root cause of failure
- Be able to apply the fundamentals to major components of diesel engines

33401: INTRO TO APPLIED FAILURE ANALYSIS — VISUAL EXAMINATION

The course consists of classroom instruction and laboratory exercises, and concludes with case studies of failures that have occurred in the field.

- Know the basic principles of wear and fractures
- Identify the most probable cause of failure by walk-around inspections
- Be able to apply the fundamentals to major components of diesel engines

33402: INTRO TO APPLIED FAILURE ANALYSIS — PRINCIPLES OF WEAR

Learn about:

- Components that experience the most wear
- Thresholds for acceptable wear
- The most probable cause of unexpected or extreme component wear

33403: INTRO TO APPLIED FAILURE ANALYSIS — PRINCIPLES OF FRACTURES

Understand:

- The nature of heat and pressure on component fractures
- How to identify fractures in early stages and the most probable cause of fractures per component

33407: INTRO TO APPLIED FAILURE ANALYSIS — METALLURGY

Gain a basic knowledge of:

- Physical and chemical components of our engine parts
- Heat, pressure and friction effects

COURSE CATALOG

ENGINE SYSTEMS COURSES

33810: INTRODUCTION TO TIER 3 ACERT™ TECHNOLOGY PART 1

Learn the fundamentals of:

- The Cat internal engine system
- ACERT technology

33811: INTRODUCTION TO TIER 3 ACERT TECHNOLOGY PART 2

Gain an advanced understanding of:

- The Cat internal engine system
- ACERT technology

26915: CAT C15 ENGINE ELECTRONIC CONTROL SYSTEM

Gain a basic knowledge of Cat C15 control systems including:

- Operation
- Troubleshooting
- Updating damaged systems

26916: CAT C9 ENGINE ELECTRONIC CONTROL SYSTEM

Gain a basic knowledge of Cat C9 control systems including:

- Operation
- Troubleshooting
- Updating damaged systems

41304: CAT DIESEL ENGINE LUBRICATION SYSTEM

This course is an introduction to the Cat diesel engine lubrication system components.

- Know the lubrication system to better understand its operation and capabilities
- Be able to diagnose concerns

41305: CAT DIESEL ENGINE OIL PUMPS

This course is an introduction to the Cat diesel engine oil pumps and components.

- Know about oil pumps and components to better understand their operation and capabilities
- Be able to diagnose concerns

41302: DIESEL ENGINE COOLING SYSTEM AND RADIATOR

This course is an introduction to the key components of the Cat diesel engine cooling system and radiator.

- Know the key components of the cooling system and radiator to better understand its operation and capabilities
- Be able to diagnose concerns

41303: DIESEL ENGINE COOLING SYSTEM COMPONENTS

This course is an introduction to the Cat diesel engine cooling system key components.

- Know the key components of the cooling system to better understand its operation and capabilities
- Be able to diagnose concerns