FOLEY CUSTOMER TECHNICIAN TRAINING

For more information or to enroll in a class, please email **Kim Sturkey** at **KSturkey**@foleyinc.com or call **(215) 639-4300.**
Enrollment deadline is 5 business days prior to the first day of class.

** Classes are taught by certified instructors with many years of industry experience **

CLASS TITLE	COURSE DESCRIPTION	DATE	PRICE
TIER 4 EMISSIONS SYSTEMS TECHNOLOGY INTRODUCTION AND DIAGNOSTICS	The Tier 4 Emissions Systems Technology Introduction and Diagnostics course is intended for customer service technicians. This course focuses on Cat solutions to meet EPA Tier 4 Final nonroad diesel engine emissions regulations. The engines to be covered are: C7.1, C9.3 and C13. This course provides advanced systems operation information with an emphasis on hands-on diagnostic test. Topics include the air systems, aftertreatment, fuel systems, selective catalytic reduction, and the operator interface. We will be using Electronic Technician to perform the diagnostic tests.	**Oct 29,30** 7:00 AM – 3:30 PM LOCATION: BENSALEM, PA DURATION: 2 DAYS	$1,200 / PERSON
BASIC HYDRAULIC PRINCIPLES	This course is designed for the novice technician. We will be discussing the principles of hydrodynamics and hydrostatics in relation to four key physical properties of a fluid and Pascal's Law. Participants will learn the basic layout of a hydraulic circuit, graphic symbols and the function of fluid reservoirs and hoses, basic pumps and motors, different style controls valve and their operation, various cylinder designs and actuators as well as a detailed description of the various protection devices used in today's systems. Hands on will ensure each student has the opportunity to perform proper testing and adjusting procedures on an actual hydraulic system currently used on various new equipment.	**Aug 27,28 Oct 1,2 Nov 12,13** 7:00 AM – 3:30 PM LOCATION: BENSALEM, PA DURATION: 2 DAYS	$1,200 / PERSON
BASIC ELECTRICAL SYSTEMS	This course is designed for the novice technician. Class materials will cover basic electrical principles and fundamentals, circuit construction, different connector types and servicing procedures, explanation of the proper use of a DVOM, as well as a detailed description of Caterpillar electrical schematics. Hands on will ensure each student has the opportunity to perform proper testing and adjusting procedures on an actual electrical system currently used on various new equipment.	**Aug 25,26 Dec 2,3** 7:00 AM – 3:30 PM LOCATION: BENSALEM, PA DURATION: 2 DAYS	$1,200 / PERSON
BASIC TROUBLESHOOTING	This course is designed to help the technician become a more effective troubleshooter. The ability to quickly isolate machine problems helps to reduce down-time and repair cost. Caterpillar products generally consist of the following major systems: power train, hydraulic, electrical, and monitoring. To diagnose a problem between the systems can sometimes be overwhelming. This cover teaches how to use a logical troubleshooting process to determine the root cause.	**Sep 3,4 Oct 23,24** 7:00 AM – 3:30 PM LOCATION: BENSALEM, PA DURATION: 2 DAYS	$1,200 / PERSON

TIER 4 EMISSIONS SYSTEMS TECHNOLOGY INTRODUCTION AND DIAGNOSTICS

The Tier 4 Emissions Systems Technology Introduction and Diagnostics course is intended for customer service technicians. This course focuses on Cat solutions to meet EPA Tier 4 Final nonroad diesel engine emissions regulations. The engines to be covered are: C7.1, C9.3 and C13. This course provides advanced systems operation information with an emphasis on hands-on diagnostic test. Topics include the air systems, aftertreatment, fuel systems, selective catalytic reduction, and the operator interface. We will be using Electronic Technician to perform the diagnostic tests.

Course Objectives:

After completion of this course, the participant will be able to:

- Navigate SIS Web and demonstrate use of selected service publications
- Identify the functionality and perform selected operations within Cat ET
- Summarize the function various NOX Reduction Systems, Regeneration, Fuel and SCR Systems
- Describe DEF composition, safety concerns, storage requirements, and perform a DEF concentration test
- Describe the function of the operator warning system and explain the Operator inducement strategy

Prerequisite:

- Technicians must be ready to work, with proper PPE.

DATES: Oct 29,30

PRICE: $1,200 / PERSON

7:00 AM – 3:30 PM LOCATION: BENSALEM, PA
DURATION: 2 DAYS

Cancellation Policy:
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Hands on will ensure each student has the opportunity to perform proper testing and adjusting procedures on an actual hydraulic system currently used on various new equipment.

Course Objectives:

After completion of this course, the participant will be able to:

- Describe hydrodynamics and hydrostatics in relation to hydraulic systems
- State the four key physical properties of a fluid
- State Pascal's Law and how hydraulic force can create a mechanical advantage
- Explain basic principles of flow and pressure, energy transfer, work and power
- Describe series and parallel hydraulic circuits and pressure drops
- Trace oil flow through ISO hydraulic schematics
- Identify and explain the operation of the basic hydraulic circuit components

Prerequisite:

- Technicians must be ready to work, with proper PPE.

Dates Aug 27,28 Oct 1,2
Nov 12,13

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Hands on will ensure each student has the opportunity to perform proper testing and adjusting procedures on an actual electrical system currently used on various new equipment.

Course Objectives:

After completion of this course, the participant will be able to:

- Explain and demonstrate basic electrical fundaments principles
- Identify the components and explain the operation of the various electrical circuits used on Caterpillar Equipment
- Trace oil flow through ISO hydraulic schematics
- Describe the difference between active and passive sensors
- Access the various display menus and describe their functions
- Interpret MID, CID, and FMI fault codes display sequencing for the purpose of diagnosing electronic problems
- Differentiate between active and logged faults
- Read and understand Caterpillar electrical schematics

Prerequisite:

- Technicians must be ready to work, with proper PPE.
- Must have a clear understanding of basic electrical principles

DATES: Aug 25,26 Dec 2,3

- **PRICE:** $1,200 / PERSON

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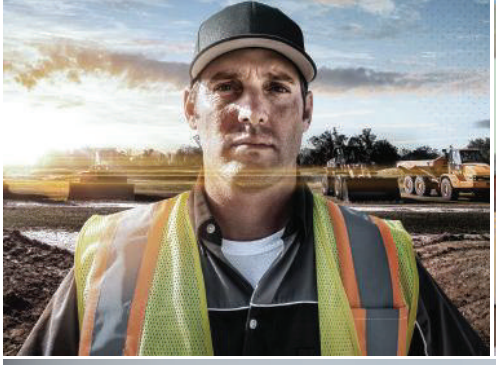
BASIC TROUBLESHOOTING



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Course Objectives:

After completion of this course, the participant will be able to:

- Use logical sequence while troubleshooting machine problems
- Make the distinction between machine problems and operational complaints
- Confidently approach product problems to find the actual causes to problems and not the resultant damage

Prerequisite:

- Technicians must be ready to work, with proper PPE.
- Must have attended Basic Hydraulic Level I and or equivalent
- Must have attended Basic Engine or equivalent
- Must have attended Basic Electrical or equivalent

PRICE: $1,200 / PERSON

DATES Sep 3,4 Oct 23,24

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