

William Adams



COURSE CATALOGUE

RTO NUMBER 60179

ENQUIRIES:
TRAINING@WADAMS.COM.AU
03 9566 0666



William Adams



Table of Contents

Introduction	2
FAQs	2
Course Cancellations	3
Awareness	4
Forklift Awareness	4
Lock Out Tag Out	5
Load Restraint / Packing & Strapping Techniques	6
Manual Handling Awareness	7
Overhead Crane Awareness.....	8
Working at Heights Awareness.....	9
Risk Assessment & Control Awareness	10
Nationally Accredited Training	11
Load & Unload Plant (RIIHAN308F)	11
Remove & Fit Wheel Assemblies (AURKTJ012).....	12
Test Operational Functions of Vehicles & Equipment (RIISAM301F).....	13
Technical Training	14
Common Rail Fuel Systems	14
Electrical Fundamentals	15
ET – Customer Electronic Technician	16
Electronic Engines.....	17
Diagnosing Electrical Faults.....	18
Hose & Couplings.....	19
Hydraulic Fundamentals	20
Intermediate Hydraulics.....	21
Preventative Maintenance.....	22
Tier IV Final	23
Troubleshooting Fundamentals.....	24
Undercarriage Systems	25
Caterpillar Training.....	26

Introduction

The William Adams Institute of Training has set a new benchmark in the provision of quality vocational education and training for our related industries and customers. We have achieved this by focusing on learning and development on industry solutions that satisfy your business and professional needs.

Our industry-specific learning programs utilise new and emerging technologies with immediate access to machines, components and simulators that will reinforce learning. The learning resources utilised throughout all our courses are developed through close consultation with industry and are continuously reviewed and updated to keep up with ever-changing technology and processes and ensure relevancy.

FAQs

WHERE ARE COURSES HELD?

Courses are held at our William Adams branches across Victoria & Tasmania. Caterpillar courses are held at the Caterpillar Facility at Tullamarine, Victoria.

CAN YOU COME TO MY SITE TO DELIVER TRAINING?

Yes! We can deliver training at your site – contact us for more information, including pricing.

WHAT DOES THE COURSE PRICE INCLUDE?

Prices within this document are based on a per person rate and only includes scheduled classes at a William Adams site.

Course pricing includes all course materials, lunch and refreshments. Please let us know of any dietary requirements when booking. Upon successful completion of the course, you will also receive a certificate.

HOW DO I ENROLL IN A COURSE?

Get in touch with us via email, phone, or by filling out the form on our website!

HOW MANY PEOPLE ARE IN A CLASS?

Courses have strict maximum participant limits to ensure effective learning. Each course differs, please contact us for more information.

DO YOU HAVE A CALENDAR OF UPCOMING COURSES?

A calendar is available on our website of all upcoming courses. If you have a different date in mind, contact us!

Course Cancellations

Candidates who withdraw from a course by giving written notice that is received within 7 to 14 working days before the commencement of the course, there will be no fee charge.

Candidates who withdraw with less than 7 days written notice of cancellation will be charged 50% of course fees.

Candidates who withdraw from a course with less than one week written notice will be liable for full for full payment of course fees.

WAIT reserves the right to cancel or reschedule courses. In this event, candidates will be notified and provided with alternate dates and locations.



Awareness

Forklift Awareness

Duration: 3 hours

Price: \$250 per person (excl. GST)

The course is intended to introduce and instruct candidates on the correct processes of operating a forklift within a work site, along with identifying safety devices associated with a traffic management plan, this session is also targeted at pedestrians with whom work within the same environment as a forklift.

TOPICS INCLUDE:

- Traffic Management Plans
- Workplace Procedures/Processes for Forklift Operations (Support Point)
- Loads & Loads Carrying
- Data Plate
- Load Centre Distance
- Stability
- Forklift Components
- Walk around Inspection of a Forklift
- Forklift Attachments
- Speed & Stopping distances
- Steering
- Communication
- Do's & Don'ts

TARGET AUDIENCE

Personnel who may operate a forklift or are a pedestrian working in a region of an operating forklift

PREREQUISITES

There are no prerequisites for this session

LEARNING OUTCOMES

On completion of this course, participants will be able to:

- Identify workplace Traffic Management Plans and safety devices
- Review what can affect the stability of a forklift
- Identify the effects of speed and the stopping distances of forklifts
- Review company policies and procedures specific to Forklift operations.

PPE REQUIREMENTS

Appropriate high visibility work attire & safety glasses, boots & gloves.

William Adams Institute of Training

RTO: 60179 training@wadams.com.au

Last Updated: 1st September 2023, KS

Lock Out Tag Out

Duration: 2 hours

Price: \$250 per person (excl. GST)

The course is intended to introduce and instruct candidates on the correct processes of Lock Out Tag Out requirements within the workplace for mobile plant and equipment, hazard identification and risk assessment processes are discussed to reduce the likelihood of injury occurring along with the specific requirements that must be followed to ensure that all personnel are trained and understand the required responsibilities.

TOPICS INCLUDE

- OH&S Act (2004) Duty of Care
- Company Policies & Procedures
- Lock Out Tag Out Processes
- Energies associated with Mobile Plant and Equipment

TARGET AUDIENCE

Any personnel involved in the testing, maintenance, calibration, inspection and valuation processes of mobile plant and equipment.

LEARNING OUTCOMES

On completion of this course, candidates will be able to:

- Understanding site specific requirements relative to Lock Out Tag Out tasks
- Identify and locate company procedures for Lock Out Tag Out requirements
- Implement company policies and procedures specific to Lock Out Tag Out tasks
- Utilize lock out devices on plant and equipment to provide a safe work environment
- Understand the requirements of Lock Out Tag Out devices

PPE REQUIREMENTS

Appropriate high visibility work attire & safety glasses, boots & gloves.

Load Restraint / Packing & Strapping Techniques

Duration: 2 hours

Price: \$250 per person (excl. GST)

The course is intended to introduce/reinforce candidate's knowledge of the safety and site-specific requirements associated with warehousing and distribution duties, access to support point to provide policies and procedures related to specific tasks is included in the session along with guidance notes and hazard assessments to complete warehousing and associated tasks safely along with a fundamental understanding of load restraint requirements.

TOPICS INCLUDE

- Traffic Management
- Risk Control processes
- Chain of Responsibility
- Load Restraint Forces / Methods
- Load Handling
- Loading / Unloading vehicles
- Weight Distribution on vehicles
- Dunnage
- Packing and Strapping techniques

TARGET AUDIENCE

Any personnel involved in or associated with warehousing and distribution tasks

LEARNING OUTCOMES

On completion of this course, candidates will be able to:

- Apply company policies and procedures to relevant tasks
- Acknowledge Chain of Responsibilities as part their work requirements
- Utilize Support Point to access company documentation relevant to tasks
- Incorporate risk control processes for various tasks
- Develop a fundamental understanding of load restraint requirements

PPE REQUIREMENTS

There are no PPE requirements.

Manual Handling Awareness

Duration: 2 hours

Price: \$250 per person (excl. GST)

The course is intended to introduce and instruct candidates on the correct processes of manual handling tasks within the workplace, hazard identification and risk assessment processes are discussed to reduce the likelihood of injury occurring along with the utilization of mechanical aids as a substitute to manual handling tasks.

TOPICS INCLUDE

- The Legislation Framework
- Duties of employers/employees
- What is Manual Handling?
- What is Risk assessment?
- Recommended processes for tasks.

TARGET AUDIENCE

Any personnel involved in or associated with manual handling tasks

LEARNING OUTCOMES

On completion of this course, candidates will be able to:

- Acknowledge the injuries associated with manual handling.
- Complete a hazard assessment process for manual handling.
- Utilize mechanical aids as a substitute to manual handling tasks.
- Identify manual handling tasks.
- Minimize the potential injuries associated with manual handling tasks.
- Consult with employers and employees on recommendations on manual handling tasks.

PPE REQUIREMENTS

Appropriate high visibility work attire & safety glasses, boots & gloves.

Overhead Crane Awareness

Duration: 4 hours

Price: \$250 per person (excl. GST)

The course is intended to introduce and instruct candidates on the correct process of following step by step procedures and guidelines to carry out overhead crane operations following pre-assessed lifting and slinging tasks within the workplace.

TOPICS INCLUDE

- Do's and Don'ts of lifting and slinging
- Definitions of terminology
- Overhead Crane / Equipment Inspections
- Understanding factors that affect Lifting Equipment
- Overhead Crane Operations
- Hazard Identification

TARGET AUDIENCE

Any personnel involved in or associated with lifting and slinging of loads within the workplace

PREREQUISITES

There are no prerequisites for this session

LEARNING OUTCOMES

On completion of this course, participants will be able to:

- Plan & prepare the area for correct equipment operation
- Access relevant site procedures and information for lifting and slinging tasks
- Safely sling, relocate, and remove slings from various loads
- Demonstrate a walk around inspection of the Overhead Crane
- Demonstrate positive communication throughout lifting and slinging tasks

PPE REQUIREMENTS

Appropriate high visibility work attire & safety glasses, boots & gloves.

Working at Heights Awareness

Duration: 4 hours

Price: \$250 per person (excl. GST)

The course is intended to introduce and instruct candidates on the correct processes and procedures relating to working at heights.

TOPICS INCLUDE

- Definitions related to working at heights
- Legislative requires
- Organisational requirements
- Prevention of falls; hierarchy of controls
- Harness awareness
- Cube awareness
- Risk management

TARGET AUDIENCE

Any personnel involved in or associated with working at heights

PREREQUISITES

There are no prerequisites for this session.

LEARNING OUTCOMES

On completion of this course, candidates will be able to:

- Identify and explain the prevention of falls hierarchy of control
- Identify and explain legislative and organizational requirements for working at heights
- Identify compliance tags and compliance information for harness
- Correctly fit harness and working in harness requirements

PPE REQUIREMENTS

Appropriate high visibility work attire & safety glasses, boots & gloves.

Risk Assessment & Control Awareness

Duration: 5 hours

Price: \$250 per person (excl. GST)

This course is to provide the skills and knowledge required to identify hazards, assess and control risks, record keeping and hazard reporting.

TARGET AUDIENCE

The course applies to all those working in operational roles

PREREQUISITES

There are no pre-requisites for this course

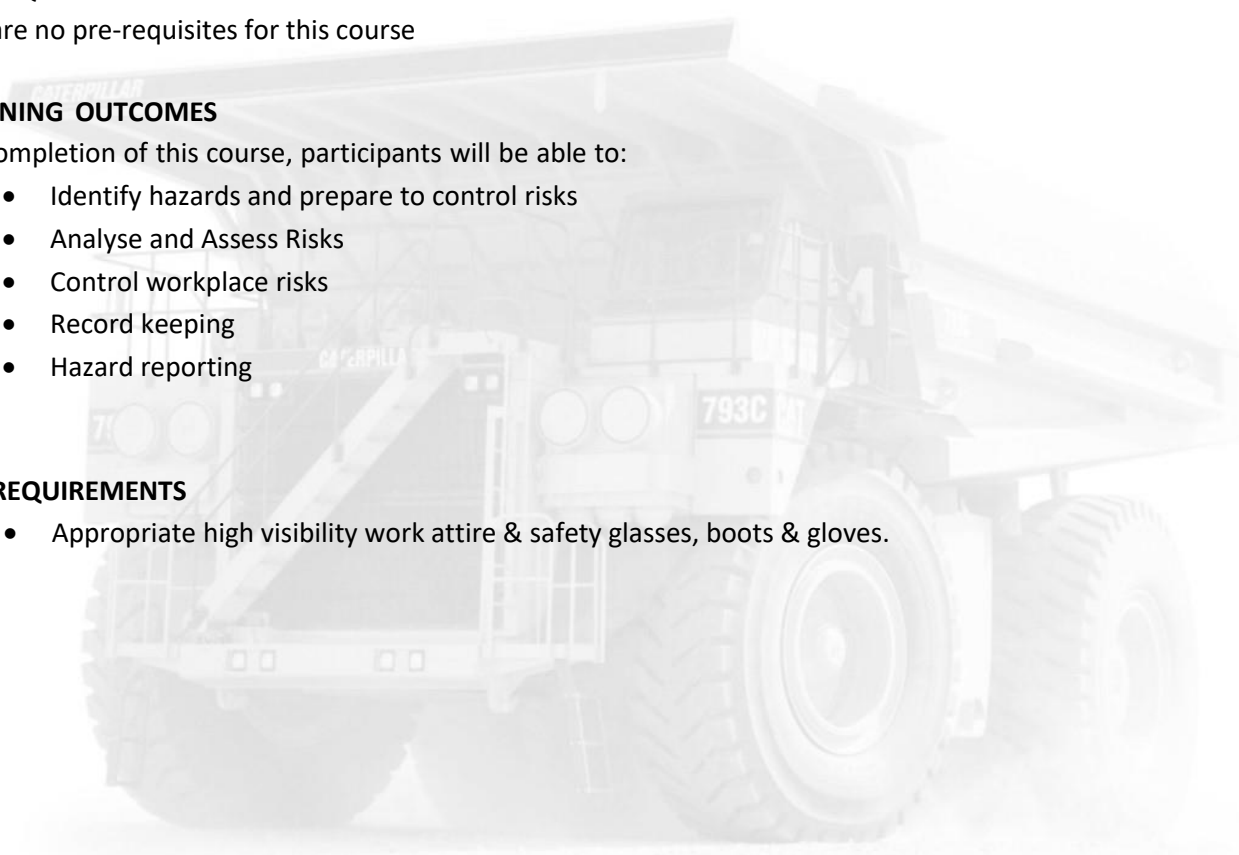
LEARNING OUTCOMES

On completion of this course, participants will be able to:

- Identify hazards and prepare to control risks
- Analyse and Assess Risks
- Control workplace risks
- Record keeping
- Hazard reporting

PPE REQUIREMENTS

- Appropriate high visibility work attire & safety glasses, boots & gloves.



Nationally Accredited Training



Load & Unload Plant (RIIHAN308F)

Duration: 2 Days

Price: \$1,000 per person (GST exempt)

The course will give candidates an understanding of the requirements for the safe loading, securing, and unloading a minimum of two types of machines.

TOPICS INCLUDE:

- Plan & Prepare
- Chain of Responsibility
- Positioning the load
- Equipment requirements
- Lashing points
- Serviceability of chains and equipment
- Safe loading areas
- Workplace inspections

TARGET AUDIENCE

Any personnel involved in or associated with the loading, securing, and unloading of equipment including those responsible for consigning and receiving.

PREREQUISITES

Candidates must be over the age of 18 years to complete the assessment

LEARNING OUTCOMES

On completion of this course, participants will be able to:

- Plan & prepare the area and equipment for relocation
- Load plant/equipment
- Secure plant/equipment
- Unload plant/equipment
- Develop an understanding of chain of responsibility
- Develop an understanding load restraint system

PPE REQUIREMENTS

Appropriate high visibility work attire & safety glasses, boots & gloves.

Upon successful completion candidates will be issued with a statement of attainment for the above-mentioned unit.

Remove & Fit Wheel Assemblies (AURKTJ012)

Duration: 2 Days

Price: \$1,000 per person (GST exempt)

This course will provide knowledge and understanding of removal and fitting of wheel assemblies. It includes: planning and preparing for work, assessing the risk in wheel assembly removal, removing wheel assemblies, inspecting wheel assemblies and fasteners, selecting and use of the appropriate tooling and fitting wheel assemblies. The candidate will acquire skills to identify the assembly and identify any damage of varying wheel types.

TOPICS INCLUDE:

- Plan for work
- Prepare for work
- Assess risk in wheel assembly removal
- Understanding wheel assemblies
- Remove wheel assembly
- Inspect wheel assemblies and fasteners
- Fit wheel assembly

TARGET AUDIENCE

This course is intended for Service Technicians including apprentices who are required to remove & fit wheel assemblies on mobile plant equipment

PREREQUISITES

Workshop experience on mobile equipment.

LEARNING OUTCOMES

- Apply legislative, organisation and site requirements and procedures
- Apply risk assessment procedures
- Apply enterprise procedures
- Observe safety precautions
- Access, interpret and apply technical information
- Apply lift and support procedures for vehicles and/or machines
- Apply wheel changing requirements and procedures including removing and fitting wheels or rims
- Apply tyre or tube deflating and inflating procedures
- Apply tyre and wheel assembly handle procedures
- Apply wheel assembly fastener tightening, torque, and re-torque procedures

PPE REQUIREMENTS

Appropriate high visibility work attire & safety glasses, boots & gloves.

Upon successful completion candidates will be issued with a statement of attainment for the above- mentioned unit.

Test Operational Functions of Vehicles & Equipment (RIISAM301F)

Duration: 2 Days

Price: \$1,000 per person (GST exempt)

The course is intended to introduce and instruct candidates on the correct process of conducting a walk around inspection, starting, moving, shutting down and basic test of equipment as per the owner's operation & maintenance manual. This task will be completed on at least two different types of equipment.

TOPICS INCLUDE

- Plan & Prepare
- Walk around inspections
- Machine start up and shut down
- Basic machine operations
- Emergency situations
- Basic testing
- Resource education (SIS, Part Store & Operation and Maintenance Manual)

TARGET AUDIENCE

Any personnel involved in or associated with the movement and testing of heavy equipment

LEARNING OUTCOMES

On completion of this course, participants will be able to:

- Plan & prepare the area for correct equipment operation
- Conduct a walkaround inspection and safely start the equipment
- Safely test and move the equipment
- Safely shut down the equipment
- Safety requirements for emergency situations

PPE REQUIREMENTS

Appropriate high visibility work attire & safety glasses, boots & gloves.

Upon successful completion candidates will be issued with a statement of attainment for the above-mentioned unit.

Technical Training

Common Rail Fuel Systems

Duration: 1 day

Price: \$500 per person (excl. GST)

This course provides an introduction and describes the components, systems operation, maintenance, and testing and adjusting procedures for the C4.2/C6.4 and the C4.4/C6.6 ACERT™ engines used in Caterpillar machines.

TARGET AUDIENCE

Service personnel who understand the principles of machine system operation, diagnostic equipment, and procedures for testing/adjusting.

PREREQUISITES

There are no prerequisites for this session

LEARNING OUTCOMES

Upon completion of the course, participants will be able to:

- Identify the safety and contamination control requirements when working with Common Rail Diesel Fuel Systems
- Identify the components used in the low-pressure fuel circuit
- Identify the components used in the high-pressure fuel circuit
- Explain the basic operation of the Common Rail Diesel Fuel Circuit
- Correctly check and adjust the valve tappet clearances
- Identify the required parts that are needed after replacing a fuel injector
- Understand the basic operation of the engine electrical system that controls the fuel injection

PPE REQUIREMENTS

Safety glasses with side shield, safety shoes or hard toed.

Work clothing is suggested.

Electrical Fundamentals

Duration: 1 day

Price: \$500 per person (excl. GST)

This course is designed to assist technicians in understanding the Fundamentals of Electrical as used on the Caterpillar products.

TOPICS INCLUDE

- Ohm's Law
- Series Circuit
- Parallel Circuits
- Series/Parallel Circuits
- Basic Troubleshooting
- Digital Multi-Meters (DMM)
- Connectors as used on Caterpillar products

TARGET AUDIENCE

Apprentices & Service technicians (Refresher)

PREREQUISITES

Online training via Dealer Performance Centre:

- ELE C01 - Key Features of Electricity – 40113 (1.5 hours)
- ELE C02 - Electrical Schematics – 40114 (1.5 hours)
- ELE C03 - Measuring Electrical Circuits – 40115 (1.5 hours)

LEARNING OUTCOMES

Upon completion of this course, candidates will be able to:

- Understand the fundamentals of electricity.
- Understand the proper use of a digital multimeter (DMM).
- Understand Ohm's Law and its importance in troubleshooting electrical/electronic systems.
- Understand Series circuits, Parallel circuits, Series-Parallel (combination) circuits,
- Understanding the basic circuit faults and how to troubleshoot them.
- Identify types of connectors used on Caterpillar products and to demonstrate the ability to service those connectors

PPE REQUIREMENTS

Appropriate high visibility work attire & safety glasses, boots & gloves.

ET – Customer Electronic Technician

Duration: 6 hours

Price: \$500 per person (excl. GST)

This course is designed to assist technicians with learning the capabilities of E.T.

TOPICS INCLUDE

- View active and logged diagnostic codes
- View the status of a group of parameters
- View events where irregularities are logged on the ECM
- Graphing a group of status parameters
- Performing diagnostic test
- Performing calibrations
- Creating product status reports.

TARGET AUDIENCE

- Field Service Personnel
- Resident Mechanics
- Service Technicians
- Apprentices and other Service Personnel.

PREREQUISITES

There are no prerequisites for this session

LEARNING OUTCOMES

Upon completion of this course the candidate will be able to:

- Identify basic user functions available with the service tool disconnected.
- Identify basic user functions available with the service tool connected
- Retrieve Diagnostic Codes and Events.
- Identify and perform selected Diagnostic Tests available within ET.
- Perform calibration.
- Perform Data Logging.
- Print reports and diagnostic tests.

PPE REQUIREMENTS

Appropriate high visibility work attire & safety glasses, boots & gloves.

Electronic Engines

Duration: 2 days

Price: \$1,000 per person (excl. GST)

Candidates will study the principles of MEUI (Mechanically Actuated, Electronically Controlled Unit Injection), HEUI (Hydraulically Actuated Electronically Controlled Unit Injection)

TOPICS INCLUDE

- Basic Diesel Engine principals
- MEUI Engine Electronic Operation and Repair
- HEUI Engine Electronic Operation and Repair

TARGET AUDIENCE

- Field Service Personnel
- Resident Mechanics
- Service Technicians
- Apprentices

PREREQUISITES

There are no prerequisites for this session

LEARNING OUTCOMES

On the completion of this course, candidates will be able to diagnose service and repair electronic fuel systems as currently used on Caterpillar engines.

PPE REQUIREMENTS

Appropriate high visibility work attire & safety glasses, boots & gloves.

Diagnosing Electrical Faults

Duration: 1 Day

Price: \$500 per person (excl. GST)

This course is designed to educate service technicians with the process of Diagnosing Electrical Faults.

TOPICS INCLUDE

- Diagnostic Process
- System Operation
- Pull up Voltage
- Types of Switches, sensors, and solenoids
- Fault Finding

TARGET AUDIENCE

Field Service Personnel, Resident Mechanics, Service Technicians and Apprentices

PREREQUISITES

Electrical Fundamentals (Instructor led training)

LEARNING OUTCOMES

Upon completion of this course the candidate will be able to:

- Understand the Diagnostic process.
- Explain the system's operation.
- Understand the meaning of "Pull up voltage".
- Measure the electrical values of switches, solenoids and electrical sensors found on the Cat equipment.
- Carry out fault finding using the Diagnostic process.

PPE REQUIREMENTS

Appropriate high visibility work attire & safety glasses, boots & gloves.

Hose & Couplings

Duration: 3 Days

Price: \$1,500 per person (excl. GST)

This course is intended to give knowledge and understanding of hose, couplings and assembly, and the correct use of tooling required to assemble and clean the hose and couplings. The candidate will acquire skills to identify the assembly of Hydraulic hoses used on Elphinstone machines during classroom and practical activities.

TOPICS INCLUDE

- Correctly identify hoses, couplings, assemblies, O-rings, split flange clamps, and adapters
- Correctly use reference materials, tooling, and measuring tools.
- Correctly clean a hose in accordance with Caterpillar's contamination control guidelines
- Assemble a hose using 423-4362 hose press

TARGET AUDIENCE

This Hose and coupling instructor led training course is intended for Service Technicians, Parts and warehouse people required to assemble hose and coupling on Elphinstone equipment.

PREREQUISITES:

Online Learning via Dealer Performance Centre:

- Hose and Coupling Assemblies (1.5 hours)

LEARNING OUTCOMES

Upon successful completion on this course, candidates will be able to:

- Correctly identify hoses, couplings, assemblies, O-rings, split flange clamps, and adapters.
- Correctly use reference materials, tooling, and measuring tools.
- Build a quality hose assembly using 423-4362 hose press

PPE REQUIREMENTS

- Appropriate high visibility work attire & safety glasses, boots & gloves.

Hydraulic Fundamentals

Duration: 1 day

Price: \$500 per person (excl. GST)

This course is intended to give knowledge and understanding of basic hydraulic principles, components, functions, graphical symbols, and systems used on Caterpillar machine systems. The candidate will acquire skills to identify, adjust, maintain and troubleshoot hydraulic systems during classroom and practical activities.

TOPICS INCLUDE

- Basic hydraulic principles
- Hydraulic components
- Symbols
- Schematics
- Functions of various valves
- Machine applications
- Troubleshooting techniques

TARGET AUDIENCE

This Hydraulic Fundamentals instructor led training course is intended for Service Technicians required to work on Caterpillar equipment.

PREREQUISITES

There are no prerequisites for this session

LEARNING OUTCOMES

On completion of this course, candidates will be able to:

- Understand basic hydraulic principles
- Identify various hydraulic components
- Identify various hydraulic components using related symbols on schematics
- Explain the function of various hydraulic components
- Understand hydraulic troubleshooting techniques
- Explain how engine performance affects hydraulic performance

PPE REQUIREMENTS

Appropriate high visibility work attire & safety glasses, boots & gloves.

Intermediate Hydraulics

Duration: 3 Days

Price: \$1,500 per person (excl. GST)

This course is intended to give knowledge and understanding of various hydraulic systems, components, functions, graphical symbols, and procedures used on Caterpillar machine systems. The candidate will acquire skills to identify, adjust, maintain, and troubleshoot hydraulic systems during classroom and practical activities.

TOPICS INCLUDE

- Hydraulic systems
- Hydraulic pumps
- Control valves
- Hydraulic schematics
- Testing & adjusting components
- Systems related to machines

TARGET AUDIENCE

This Intermediate Hydraulic instructor led training course is intended for all Service technicians required to work on Caterpillar equipment.

PREREQUISITES

Hydraulic Fundamentals instructor led or prior experience

LEARNING OUTCOMES

- On completion of this course, candidates will be able to.
- Understand hydraulic systems
- Dismantle various hydraulic pumps
- Explain the functions of various hydraulic pumps
- Dismantle various hydraulic control valves
- Explain the function of various hydraulic control valves
- Carry out hydraulic troubleshooting procedures
- Carry out testing & adjusting procedures on various machines / systems

PPE REQUIREMENTS

Appropriate high visibility work attire & safety glasses, boots & gloves.

Preventative Maintenance

Duration: 1 Day

Price: \$500 per person (excl. GST)

This course will cover the preventive maintenance of Caterpillar machines including oil sampling, filter replacement, TA1 Technical analysis and walk around inspections.

TOPICS INCLUDE

- Perform adjustments required in interval servicing
- Perform fluid and filter changes
- Lubrication requirements
- Correct schedule oil sampling procedures
- Technical analysis walk-around inspection
- Using the MIS maintenance interval schedule

TARGET AUDIENCE

This course is intended for all service technicians, field, workshop & apprentices, and lube truck operators.

LEARNING OUTCOMES

Upon completion of this course the candidate will be able to:

- Define and understand the importance of preventive maintenance.
- Be able to identify and describe the key properties and types of lubrication oil, coolant, and diesel fuel.
- Understand the importance of contamination control and will be familiar with the best practices to prevent the adverse conditions caused by contamination.
- Be familiar with practices used to properly maintain fluids and lubricate all the systems on a wide variety of caterpillar machines. Be familiar with practices used to properly maintain filters on caterpillar systems.
- Understand the component checks, tests, and adjustments that must be made on caterpillar systems and components.
- Be familiar with inspecting and replacing tasks listed in the operation and maintenance manual for most caterpillar machines. Be familiar with the cleaning tasks typically performed by a preventive maintenance technician.

PPE REQUIREMENTS

Appropriate high visibility work attire & safety glasses, boots & gloves.

Tier IV Final

Duration: 5 Days

Price: \$2,500 per person (excl. GST)

The Tier 4 Final Emissions Systems Diagnostics course is intended for Cat Dealer service training instructors, technical communicators, and dealer/customer service technicians. This course focuses on Cat solutions to meet EPA Tier 4 Final, Tier 4 Interim, EU Stage 4 and EU Stage 5 non road diesel engine emission regulations. This course provides advanced systems operation information with an emphasis on hands-on diagnostic and repair techniques. Topics include the air systems, aftertreatment systems, fuel systems, selective catalytic reduction, operator interface, NOx reduction system and diesel exhaust fluid

TARGET AUDIENCE

Service Technicians, Diagnostic Technicians, Field Service Technicians

PREREQUISITES

The online course prerequisites allow the participant to review their current knowledge on Tier 4 systems and is designed to prepare you for the course.

The following e-learning modules must be completed on DPC prior to attending.

- Tier 4 Final C7.1 to C18 Engine Systems Overview 40223 (1 hour)
- Tier 4 Final Operator Interface Warnings and Inducements 40917 (1 hour)
- Tier 4 Final C1.5 and C2.2 Systems Overview 40805 (1 hour)
- Tier 4 Final C4.4 and C7.1 Systems Overview 42255 (1 hour)
- Tier 4 Interim Knowledge Assessment 41913 (1 hour)

LEARNING OUTCOMES

On completion of this course, participants will be able to:

- Identify and explain how the Tier 4 system components operate
- Find the location of Tier 4 system components
- Explain the difference between Tier 4 Final and Tier 4 Interim
- Explain how the diesel particulate filter system operates
- Explain how the selective catalytic reduction system operates
- Explain how the NOx reduction system operates
- Learn how to test exhaust system components using CAT ET
- Perform simulated diagnostic faults using CAT ET
- Test electrical circuits related to exhaust system regeneration
- Diagnose various mechanical and electrical faults using CAT ET and SIS2.0

PPE REQUIREMENTS

Appropriate high visibility work attire & safety glasses, boots & gloves.

Troubleshooting Fundamentals

Duration: 1 Day

Price: \$500 per person (excl. GST)

This course is intended to give knowledge and understanding of varying forms of troubleshooting processes used on Caterpillar machine systems. The candidate will acquire skills to identify, utilize and implement troubleshooting techniques during classroom and practical activities.

TOPICS INCLUDE

- What is troubleshooting?
- The importance of troubleshooting
- Troubleshooting techniques
- Troubleshooting tools
- Common sense to troubleshooting

TARGET AUDIENCE

This Troubleshooting Fundamentals instructor led training course is intended for all field & workshop service technicians required to work on Caterpillar equipment.

PREREQUISITES

There are no prerequisites for this session

LEARNING OUTCOMES

On completion of this course, candidates will be able to:

- Follow troubleshooting processes
- Apply troubleshooting processes
- Identify the difference between the cause and the effects of a problem
- Verify repair/s
- Analyse the repair/s
- Utilize various troubleshooting methods / tools

PPE REQUIREMENTS

Appropriate high visibility work attire & safety glasses, boots & gloves.

Undercarriage Systems

Duration: 1 Day

Price: \$500 per person (excl. GST)

This Course will cover the undercarriage components, purpose, and operation of these components. Test and adjust undercarriage of track type tractors, track loaders and excavators. This course covers low sprocket and elevated sprocket machines.

TOPICS INCLUDE

- Low sprocket systems
- Elevated sprocket systems
- Undercarriage components and location
- Testing and adjustment of undercarriage.
- Safety with undercarriage
- How undercarriage works and wears.

TARGET AUDIENCE

This course is intended for all service technicians, field and workshop and apprentices, product support representatives and track press operators.

PREREQUISITES

There are no prerequisites for this session

LEARNING OUTCOMES

Upon successful completion of this course, candidates will be able to:

- Identify the components and function of undercarriage system
- Understand how the undercarriage works and wears
- Correct testing and adjusting of the undercarriage system

PPE REQUIREMENTS

Appropriate high visibility work attire & safety glasses, boots & gloves.

Caterpillar Training

COMMON COURSES INCLUDE:

- Applied Failure Analysis 1 & 2
- Component Re-use
- Digital Communications Troubleshooting
- Electronic Troubleshooting
- Gas Engines 1 & 2
- Hose & Coupling Assembler Training
- Master Mechanic – Various Machines

Further courses and course details available on enquiry.

