



CATERPILLAR[®]

G3600 LEARNING PROGRAM

EMPOWERING YOU TO GO FURTHER

WE ARE ABOUT PEOPLE

Empowering Learning Solutions

This journey is for everyone and each level will empower you to go further. If you are ready to become an official Accredited Commissioning Technician, you will need to complete a final skills assessment to validate your competency.

Select Your Learning Style



Online
Assessment



Structured
On the Job
Training



Blended
Learning



Certification





FOLLOW
YOUR OWN
LEARNING PATH

L1

L2

L3

LEVEL 1

OPERATIONS & MAINTENANCE

Technician can maintain a running engine within Caterpillar specs, adequately provide information on system issues or malfunctions, and use information resources to locate/find answers and know when to "call" for help.



Technical Knowledge

- Engine Systems Operations and Control Panels
- S•O•S Program
- Information Resources (i.e. GERP, TMI, SisWeb, Service Manuals, etc)
- Combustion Principles (i.e. Rich/Lean mixture, detonation, misfire)
- Gaseous Fuels and Impact on Engine Performance
- Vibration Principles

Technician Capability

- Perform 2,000 & 5,000hrs Preventive Maintenance (PMs)
- Monitor and evaluate engine operating parameters to determine maintenance schedules
- Collect critical engine performance data & determine corrective action
- Identify REAL Detonation and/or Misfire
- Take vibration readings to ensure package is within frequency order



LEVEL 2

ENGINE REPAIR & PERFORMANCE

Technician has the essential skills to repair, test, and adjust the engine performance.



Technical Knowledge

- Mechanical service procedures for engine
- Alignment procedures, their importance, proper tool usage, and data interpretation
- Applied Failure Analysis principles and Component Reuse procedures
- Engine configuration, electronics troubleshooting, startup parameters, control strategy, and customer interface connections

Technician Capability

- Perform engine overhauls (i.e. Top End, in-frame) and alignment procedures
- Prepare failed components and documentation for failure analysis and warranty claims
- Identify the right operation suitable for component reuse vs replacement
- Troubleshoot ECUs, CAN and CDL datalinks, and fault codes related to input/output circuits
- Perform Initial Start-Up procedure and tune the engine to achieve optimum performance and emissions compliance as per Caterpillar specifications

LEVEL 3

SYSTEMS TROUBLESHOOTING / APPLICATION & INSTALLATION

Technician exhibits the highest level of capability and serves as mentor/coach to others within the industry.



Technical Knowledge

- Gas Compression Industry and Product Application
- Driven Equipment Operations
- Package Issues
- Product Health
- Application & Installation Guides
- Systems Calculations and Data Interpretations

Technician Capability

- Compare the installation characteristics with the recommendations given in the A&I guides for each one of the engine systems
- Set the engine as per the fuel gas analysis and performance characteristics and validate performance at full load
- Use the troubleshooting guide to diagnose engine symptoms affecting systems performance
- Interpret diagnostic & event codes to troubleshoot and validate engine performance parameters



G3600 ACCREDITED COMMISSION TECHNICIAN

Technician validates the installation as per the A&I Guides and confirms engine performance during commissioning. Furthermore, participates in annual Commissioning Conference and is required to commission one engine per year at a minimum to keep the certification current.

Technical Knowledge

- Complete the online assessment to determine your knowledge gap
- Assisted the commissioning of one (1) G3600 with an accredited commissioning technician before registering for the Skills Assessment

Technician Capability

- Determine satisfactory and unsatisfactory systems; provide comments and recommendations for non-conformance issues; and document findings for each engine systems
- Gas engine tuning including emissions
- Interaction with Customer and contractors
- Gather all the data and submit Commissioning Report
 - Attention to detail
 - Completeness
 - Accuracy with A&I Guide
 - Use of current documentation



LARSON STATION

At the Miami Lakes Learning Center, your classroom is the Larson Station, Caterpillar's first application-specific training lab, featuring a Cat G3606 A4 driving an Ariel Compressor. No simulations. No distractions. Just a controlled environment to get the real-world experience you need.

- ✓ Asset Monitoring
 - ✓ Operator Training
 - ✓ Engine Performance and Troubleshooting
 - ✓ Installation Verification
 - ✓ Mounting, Alignment and Vibration
 - ✓ Commissioning
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G3600 LEARNING CAPABILITY LOCATIONS

- CATERPILLAR LEARNING CENTER LOCATIONS
- REGIONAL DEALER LEARNING LOCATIONS



1

Miami Lakes Learning Center

Miami Lakes, Florida

- Operations & Maintenance
- Engine Repair
- Performance & Troubleshooting
- Full Package Commissioning

2

Málaga Demonstration & Learning Center

Málaga, Spain

- Operations & Maintenance
- Engine Repair
- Performance & Troubleshooting

3

Melbourne Learning Center

Melbourne, Australia

- Operations & Maintenance
- Engine Repair
- Performance & Troubleshooting

4

Louisiana Cat Training Center

New Iberia, Louisiana

- Engine Repair

5

Finning Regional Training Centre

Calgary, Canada

- Engine Repair

LET'S DO THE WORK.™

To learn more about this program, register at MyTools for Oil & Gas, a portal where dealers and customers can find valuable documents, up to date information, and quick links to important pages.

Visit site: <https://caterpillar.sharepoint.com/teams/MyToolsforOilGas>

MyTools registration requires a valid business email and at least one valid CAT engine serial number.

MyTools is now part of Microsoft SharePoint and requires Office 365.

Need access or have questions?
Email: CAT_OIL_AND_GAS@CAT.COM



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