



## **Cummins Engine - Classroom Descriptions, Days and Costs.**

**>All students registering for class MUST download the Smart Program Guide per program number listed.**

**Please Note: All Technicians attending class MUST have the following.**

**> Cummins / Power Gen Techs: Quick Serve On Line Access**

**> CVC (virtual college) Cummins Virtual College OnLine Prerequisites Completed (1) Week Prior to Class Start Date**

Familiarization courses are designed to familiarize the technician with the engine, they will not qualify the technician on the engine. For engine qualification, please follow the Engine Qualification Course Requirement matrix.

### **Mid Range Common Rail Diagnostic Proficiency Assessment Qualification (DPA) Course # 594 (1 day / \$325)**

This one time qualification testing program is for those technicians who have completed all the required prerequisites as established by Cummins Engine Company to become qualified on the or Mid-Range IS and QS Common Rail products. **This program is for technicians who have not previously qualified on a Cummins Electronic product.**

### **Mid Range Common Rail Fuel System Diagnostics, Program # 2047 (3 days / \$975)**

This program is designed to teach students advanced fuel system diagnostics using Cummins approved procedures with the use of the INSITE diagnostics software, Cummins QuickServe Online, and Cummins approved tooling. **This program is for the advanced technician who is skilled in the use of these tools.**

The course includes access to QSOL for fuel system specifications, review of fuel system clean care procedures, performing published test procedures and identifying proper test locations and tooling.

This program is 100 percent hands on training. Student knowledge will be assessed through the Midrange Common Rail Diagnostics Proficiency Assessment Course ID # 2047.

### **2013 MR/HD CM2350 Qualification, Program # 2012-22/24/25/31Q (3 days / \$975)**

This program is designed to teach students about the components and programs that are new to the 2013 ISB/ISL/ISX12 and ISX15 CM2350 Engines. These items include the new sensors, electronic changes, DEF system redesign, OBD compliancy for all 2013 products and EDS (Expert Diagnostics System).

**Please note that 2010 Heavy Duty, 2010 Mid Range and the 2010 Heavy Duty/ MidRange Combo classes will not be covering the Virtual College CD-Rom programs. Cummins Virtual College OnLine. In order to be accepted into the combo classes, all CD-Rom prerequisites must be complete within 1 week of class start date. If not, admission will be denied. The maximum class size is 6 technicians.**



**2010 ISX 15 CM2250 HD Engine Qualification, Program # 2009-37Q (4 days / \$1300)**  
**For 07 ISX Qualified Technicians Only**

This program will cover all new components, service procedures and diagnostic testing on the New ISX-15 CM2250 engine equipped with the XPI Fuel System, the Cummins Emissions Solution Aftertreatment System and the Selective Catalyst Reduction System. This program will be an intense 3 days of classroom and hands on training followed by 1 day of written and hands on certification.

**Note: This course does not meet the requirements for 07 ISX Heavy Duty Qualification. A class for techs not 07 ISX CM871 Qualified is (5 days) and will cover the specifics of that engine as well. A written exam and hands-on qualification for the ISX CM871 will also be required. Contact the Training Department for more details.**

**2010 ISX 12 CM2250 HD Engine Qualification, Program # 2010-06Q (3 days / \$975)**  
**For 2010 ISX 15 Qualified Technicians Only**

This course will cover the complete engine disassembly / assembly procedures on the new 2010 ISX 11.9 CM2250 engine. This program will focus on all special service procedures required to properly perform repairs to the engine. Fuel system and clean care steps will be practiced during class. This class is 100 percent hands on training.

**2010 MR/HD Engine Qualification, Program # 2009-30/31/37Q (5 days / \$1625)**  
**For 07 ISX and 07 MidRange Qualified Technicians Only.**

This Program will cover all new components, service procedures and diagnostic testing on the new ISX 15, ISB 6.7, ISC 8.3 and ISL 8.9 CM2250 engines. The Fuel systems, Cummins Emission Solution Aftertreatment System and the Selective Catalyst Reduction System will be covered. This program will be an intense 3 days of classroom and hands on training followed by 2 days of written and hands on certification. More >>  
**All students attending the course must be qualified on the 07 ISX CM871, 07 ISB, ISC, ISL CM2150 engines. This course does not meet the requirements for 07 ISX Heavy Duty Qualification and will not be covered in this class due to time constraints.**

**2010 ISB 6.7 CM2250 Engine Qualification, Program # 2009-30Q (3 days / \$975)**  
**For 07 ISB CM2150 Qualified Technicians Only.**

This program will cover all new components, service procedures and diagnostic testing on the new ISB 6.7 CM2250 engine. The Cummins Emission Solution Aftertreatment System and the Selective Catalyst reduction System will be covered. This program will be an intense 2 day of classroom and hands on training followed by 1 day of written and hands on certification. **All students attending the course must be 07 ISB CM2150 qualified.**



**2010 Midrange Qualification, Program # 2009-30Q and 2009-31Q (3 days / \$975)**  
**For 07 ISB, ISC, ISL CM2150 Qualified Technicians Only.**

This program will cover all new components, service procedures and diagnostic testing on the new ISB 6.7, ISC 8.3 and ISL 8.9 CM2250 engines. The Cummins Emission Solution Aftertreatment System and the Selective Catalyst Reduction System will be covered. This program will be an intense 2 days of classroom and hands on training followed by 1 day of written and hands on certification. **All students attending the course must be 07 ISB, ISC and ISL CM2150 qualified.**

**Note: For technicians not 07 Qualified the course is (5 days). The course consists of the 2010 information and an additional 2 days will be required to cover the 07 engines with written and hands on qualification on those products. Contact the Training Department for more details.**

**Please note that both 07 Heavy Duty and Mid Range Combo classes will not be covering the Virtual College CD-Rom programs. Cummins Virtual College OnLine. In order to be accepted into the combo classes, all CD-Rom pre-requisites CVCOL must be complete within 1 week of class start date. If not, admission will be denied.**

**07 ISM/ISX HD Engine Qualification, Program # 2006-30 and 31Q (5 days / \$1625)**

This program will cover all new components, service procedures, and diagnostic testing on the ISM-CM876 and ISX-CM871 engines equipped with the Cummins Emissions Solutions Aftertreatment System. This program will be an intense 3 days of classroom and hands on training followed by 2 days of written and hands on certification.

**07 ISM Heavy Duty Engine Qualification, Program # 2006-31Q (4 days / \$1300)**

This program will cover all new components, service procedures, and diagnostic testing on the New ISM-CM876 engine equipped with the Cummins Emissions Solution Aftertreatment System. This program will be an intense 3 days of classroom, Virtual College CD Rom Cummins Virtual College OnLine and hands on training followed by 1 day of written and hands on certification.

**07 ISX Heavy Duty Engine Qualification, Program # 2006-30Q (4 days / \$1300)**

This program will cover all new components, service procedures, and diagnostic testing on the new ISX-CM871 engine equipped with the Cummins Emissions Solution Aftertreatment System. This program will be an intense 3 days of classroom, Virtual College CD Rom Cummins Virtual College OnLine and hands on training followed by 1 day of written and hands on certification.

**07 ISB/ISC/ISL Engine Qualification, Program # 2006-38Q & 39Q (4 days / \$1300)**

This program will cover all new components, service procedures, and diagnostic testing on the new ISB, ISC/ISL CM2150 engines equipped with the Cummins Emissions

Solution Aftertreatment System. This program will be an intense 2 days of classroom and hands on training followed by 2 days of written and hands on certification.



**07 ISB Mid Range Engine Qualification, Program # 2006-38Q (3 days / \$975)**

This program will cover all new components, service procedures, and diagnostic testing on the new ISB-CM2150 engine equipped with the Cummins Emissions Solution Aftertreatment System. This program will be an intense 2 days of classroom, [Virtual College CD Rom](#) [Cummins Virtual College OnLine](#) and hands on training followed by 1 day of written and hands on certification.

**07 ISC/ISL Mid Range Engine Qualification, Program # 2006-39Q (3 days / \$975)**

This program will cover all new components, service procedures, and diagnostic testing on the new ISC/ISL-CM2150 engine equipped with the Cummins Emissions Solution Aftertreatment System. This program will be an intense 2 days of classroom, [Virtual College CD Rom](#) [Cummins Virtual College OnLine](#) and hands on training followed by 1 day of written and hands on certification.

**ISB/QSB CM850 Common Rail Overhaul Training, Program # 2006-36F (4 days / \$1300)**

This program covers the maintenance and overhaul practices on the Cummins ISB-CM850 common rail diesel engine to meet Cummins guidelines and Environmental Protection Agency (EPA) emission levels. Includes training on the following engine systems: fuel, lubrication, cooling, and air intake. Engine disassembly and reassemble, checking engine component reuse as per Cummins guidelines, engine and valve timing, fuel injection system inspection, testing and proper engine maintenance.

**ISC/QSC/ISL Overhaul Training, Program # 2006-37F (4 days / \$1300)**

This program covers the maintenance and overhaul practices on the Cummins ISC/QSC/ISL diesel engine to meet Cummins guidelines and Environmental Protection Agency (EPA) emission levels. Includes training on the following engine systems: fuel, lubrication, cooling, and air intake. Engine disassembly and reassemble, checking engine component reuse as per Cummins guidelines, engine and valve timing, fuel injection system inspection and testing and proper engine maintenance.

**ISM/QSM/M11 Overhaul Training, Program # 1999-26F (5 days / \$1625)**

This program covers the maintenance and overhaul practices on the Cummins M11/ISM diesel engine to meet Cummins guidelines and Environmental Protection Agency (EPA) emission levels. Includes training on the following engine systems: fuel, lubrication, cooling, and air intake. Engine disassembly and reassemble, checking engine component reuse as per Cummins guidelines, engine and valve timing, fuel injection system inspection and testing and proper engine maintenance.



**ISX/QSX Overhaul Training, Program # 1999-31F (5 days / \$1625)**

This program covers the maintenance and overhaul practices on the Cummins ISX diesel engine to meet Cummins guidelines and Environmental Protection Agency (EPA) emission levels. Includes training on the following engine systems: fuel, lubrication, cooling, and air intake. Engine disassembly and reassemble, checking engine component reuse as per Cummins guidelines, engine and valve timing, fuel injection system inspection and testing and proper engine maintenance.

**ISC/ISL NOW (National Overhaul Warranty) Program # 2005-15Q (3 days / \$975)**

The ISC/L National Overhaul Warranty Technician Qualification Course is designed to train the technicians in the proper overhaul procedures and inspection criteria set forth by the National Overhaul Warranty Program.

**ISX NOW (National Overhaul Warranty) Program # 2005-01Q (3 days / \$975)**

The ISX National Overhaul Warranty Technician Qualification Course is a course designed to train the technicians in the proper overhaul procedures and inspection criteria set forth by the National Overhaul Warranty Program.

**ISM CM876 NOW (National Overhaul Warranty) Program # 2011-16Q (3 days / \$975)**

The ISM CM876 National Overhaul Warranty Technician Qualification Course is designed to train the technicians in the proper overhaul procedures and inspection criteria set forth by the National Overhaul Warranty Program.

**ISX Counterbore Qualification, Program # 2011-15Q (2 days / \$650)**

This program is designed to teach students the required procedures for the ISX mid stop counterbore seat repair. The program will have the students perform the actual machine work on an ISX cylinder block using the factory approved repair tools.

**ISX15 / QSX15 CM570/870/871 Injection Static Timing Qualification, Course # 3114 and 3115 (1 day / \$325)**

This is a new qualification class introduced during 2011 & pertains to the ISX CM570/870/871 Engine. The symptom based troubleshooting trees have been written to include this procedure & directs the technician to measure the static injection timing using dial indicators. This qualification is a requirement for the technician to maintain current heavy duty full service qualification status. There will be a written & hands on assessment included. This course is found on **CVC HD 34 (pn 4092007)** [Cummins Virtual College OnLine](#).



**B/C Gas Plus Engine Qualification, Program # 2006-06Q & 07Q (5 days / \$1625)**

This course is designed to familiarize students on maintenance, troubleshooting and general service procedures on the Cummins B5.9G/C8.3G Plus Natural gas engine.

**Course Material Includes:**

Natural gas familiarization. B5.9G / C8.3G Plus engine familiarization. B5.9G / C8.3 Plus maintenance, troubleshooting and service procedures.

**COURSE OBJECTIVES:**

- Completely understand the characteristics of compressed and liquid natural gas.
- Describe the unique components of the B5.9G/C8.3 Plus engine and describe their function.
- Properly maintain the B5.9G / C8.3 Plus engine & properly diagnose and troubleshoot the fuel and electrical systems.

**ISL-G CM2180A Cummins Engine Qualification, Program # 2007-28Q (5 days / \$1625)**

This course is offered to technicians who require warranty level repair qualification on the current CM2180A Stoichiometric alternative fuel engine. Material covered will include electronic controls, electronic ignition system, stoichiometric fuel system, cooled EGR, and three way aftertreatment system. Through instruction and hands on training, the technician will show competency of understanding the material covered. The technician will be required to pass both a written and hands on test upon completion of the course.

**ISX-12 CM2180EJ Cummins Engine Qualification Course, Program #2012-35Q: (4/\$1300)**

This course is offered to technicians who are not currently qualified on the ISL G CM2180A but require warranty level repair qualification on the current ISX 12 CM2180EJ Stoichiometric alternative fuel engine. The course material will be presented and assessed as individual competencies covering Fuel System Diagnostics (5051), Air & EGR System Diagnostics (5052), Ignition System Diagnostics (5053), Control System Diagnostics (5054) and Expert Diagnostic System, EDS, (1181)

Upon completion of the classroom training the technician will be required to pass a written test before attempting to pass a hands-on qualification assessment for the listed competencies.

**Prerequisites:**

BETT & INSITE Updates are required, [Alternative Fuels Library #4091983](#), [Cummins Virtual College OnLine](#). Completion of ISX 11.9/12 CM2250 Heavy Duty Engine Qualification Course #2010-06Q.



Please note: Technicians already qualified on the ISL G CM2180A engine, to qualify on the ISX12 G CM2180, must download their ISX12 G CM2180 smart program guide (which includes successful completion of ISX11.9/12 CM2250 Heavy Duty Engine Qualification Course #2010-06Q) and **upload the scores to the Service Training Database**. These technicians will not be required to attend the ISX12 CM2180EJ classroom training.



**Dealer Warranty Administrator, Program # 2005-06Q (1 day / \$325)**

This class will cover the Cummins Warranty Administration Manual, and claim submitting procedures, including Rapid Serve phone claims and Rapid Serve Web claims. The Rapid Serve website will be demonstrated as well as the areas of QSOL that will be beneficial to Warranty Administrators. Students will be updated on changes to Cummins warranty procedures and coverage.

**Marine QSB 6.7 CM2250 / Smart Craft 2.5, Program # 2011-13Q (5 days / \$1625)**

This course is designed for Cummins distributor & dealer marine technicians to perform warranty repairs on the latest QSB CM2250 engine. Content shall include construction, operation, maintenance & engine identification. The maintenance & troubleshooting of all secondary systems; intake air, exhaust, fuel, lube oil & cooling shall be discussed in depth during this class. As part of this class, the current smart craft 2.5 will be introduced. Theory will consist of vessel electronics & engine controls, wiring diagrams & use of G-3 diagnostic tooling. There will be a written & hands-on assessment included.

**C-Command & C-Command Elite, Course # 7007 &7008 (3 days / \$975)**

This course is based on the new Cummins Marine Control and Instrumentation Panel which is used on the High Horsepower MCRS engines.

The course covers panel familiarization, component layout and wiring. This course is required for any marine technician who is to be qualified on any Tier 2 High Horsepower Marine Engine.

**Marine Mid Range / Heavy Duty Troubleshooting, Course # 38 & 39 (5 days / \$1625)**

This course will include the following Marine Diesel Engines:

- QSB, QSC, QSL, 480CE, QSM11

The technician will receive qualification status upon successful completion of this course which includes a written test and hands on qualification.

**Course instruction includes:**

- Hands-On Engine Training.
- Marine Engine secondary systems (intake air, exhaust, lube oil, cooling, fuel and electronics) operation and diagnostics.

- Maintenance, operation and installation requirements, marine specific. components, sea trial and marine application requirements.
- Working with Insite, Data Link Adapters and Electronic Control Modules.