

Automotive

2001-01/02Q NOW Technician/Machinist Qualification

This course details the philosophy of the NOW (National Overhaul Warranty) program and plans available. It includes parts reuse and repair guidelines as well as discussion of the 17 inspected items. Each student will be required to machine an 855/N14 cylinder block for LPF liners and counterbore repair sleeves.

Tooling required:

Cummins Part #	Description
3823495	Dial Depth Gauge
3375072	Dial Bore Gauge
3823292	Dual Ring Gauge (6.294/6.334)
3823293	Dual Ring Gauge (6.750/6.770)
3822955	LPF Cuter Plate for Existing Portamatic
3823325	Complete Portamatic
3823326	Ledge Cutter (manual)
3823373	Ledge Cutter Plate
ST-1252	Cylinder Block Concentricity gauge

Class Size: 8

Days: 5

Cost: \$1250

2001-03Q NOW Technician Qualification

This course details the philosophy of the NOW (National Overhaul Warranty) program and plans available. It includes parts reuse and repair guidelines as well as discussion of the 17 inspected items.

Prerequisites: Refer to CVC Smart Program Guide

Class Size: 8

Days: 2

Cost: \$500

2002-03Q ISX CM870 Engine Qualification

This course is designed to qualify the experienced technician on the ISX CM870 engines. Emphasis is placed on the fuel system, electronic control system and EGR system. Also included in this course are INSITE, troubleshooting and wiring diagram interpretation. Practical application testing involved.

Prerequisites: Refer to CVC Smart Program Guide

Class Size: 8

Days: 3

Cost: \$750

2002-06Q ISB CM850 Engine Qualification

This course is designed to qualify the experienced technician on the ISB CM850 engines. Emphasis is placed on the fuel system, electronic control system and EGR system. Also included in this course are INSITE, troubleshooting and wiring diagram interpretation. Practical application testing involved.

Prerequisites: Refer to CVC Smart Program Guide

Class Size: 8

Days: 3

Cost: \$750

2003-23Q ISC/ISL CM554 and CM850 Engine Qualification

This course is designed to qualify the experienced technician on the ISC and ISL engines. Emphasis is placed on the fuel system, electronic control system and VGT system. Also included in this course are INSITE, troubleshooting and wiring diagram interpretation. Practical application testing involved.

Prerequisites: Refer to CVC Smart Program Guide

Class Size: 8

Days: 3

Cost: \$750

Cummins Course Descriptions

2005-01Q ISX NOW Qualification

This course details the philosophy of the NOW (National Overhaul Warranty) program and plans available. Topics covered include: proper documentation, overhaul requirements, parts inspection, cleaning procedures, parts reuse guidelines, assembly practices, and proper engine overhaul procedures. Written and practical application testing involved.

Prerequisites: ISX-CM870 Qualified

Class Size: 8

Days: 3

Cost: \$750

2005-15Q C and L Series NOW Qualification

This course details the philosophy of the NOW (National Overhaul Warranty) program and plans available. Topics covered include: proper documentation, overhaul requirements, parts inspection, cleaning procedures, parts reuse guidelines, assembly practices, and proper engine overhaul procedures. Written and practical application testing involved.

Prerequisites: Refer to CVC Smart Program Guide

Class Size: 8

Days: 3

Cost: \$750

2006-06/07/08/09Q B/C/L Gas Plus Engine Qualification

This course covers B, C and L Plus series engines that operate on compressed natural gas (CNG) and liquefied natural gas (LNG). Topics of this course include safety procedures, engine familiarization, schedule maintenance, and troubleshooting of engine systems and controls. Written and practical application testing involved.

Prerequisites: Refer to CVC Smart Program Guide

Class Size: 8

Days: 5

Cost: \$1250

2006-30/31Q 2007 ISX CM871 and ISM CM876 Engine Qualification

This course is a combination class designed to qualify the experienced technician on the 2007 ISX and ISM engines. Emphasis is placed on the changes to the electronic control systems. Changes to the EGR system and the addition of the aftertreatment system are also detailed. Also included in this course are INSITE, troubleshooting and wiring diagram interpretation. Written and practical application testing involved.

Prerequisites: Refer to CVC Smart Program Guide

Class Size: 8

Days: 5

Cost: \$1375

2006-38/39Q 2007 ISB/C/L CM2150 Midrange Engine Qualification

This course is designed to qualify the experienced technician on the ISB/C/L CM2150 engines. Emphasis is placed on the changes to the electronic control systems. Changes to the EGR system and the addition of the aftertreatment system are also detailed. Also included in this course are INSITE, troubleshooting and wiring diagram interpretation. Written and practical application testing involved.

Prerequisites: Refer to CVC Smart Program Guide

Class Size: 8

Days: 5

Cost: \$1375

Cummins Course Descriptions

2007-28Q ISL G CM2180 Natural Gas Engine Qualification

This course covers design and operation of the ISL G CM2180 natural gas engine. Emphasis of the CM2180 electronic control system, governor control system, CNG and LNG natural gas fuels, stoichiometric fuel system, electronic ignition control system, troubleshooting skills, service and maintenance procedures, safety procedures, tooling, and exhaust aftertreatment.

Prerequisites: Refer to CVC Smart Program Guide
B/C/L Gas Plus Engine Qualification (for distributor technicians only)

Class Size: 8 **Days: 4** **Cost: \$1100**

2009-30/31Q ISB6.7/ISC8.3/ISL9 CM2250 Full Service Qualification (EPA 2010)

This course is structured to qualify the experienced technician on the 2010 ISB6.7/ISC8.3/ISL9 CM2250 engines. Emphasis is placed on changes to the fuel system, fully integrated electronic control system, next generation cooled EGR system, advanced VG Turbocharger, improved aftertreatment system, and the addition of Selective Catalytic Reduction (SCR) to ensure 2010 EPA Nox compliance. Also included in this course are current version INSITE support, diagnostic troubleshooting techniques, and wiring diagram interpretation. Written and practical application testing will be required.

Prerequisites: Completion of the applicable courses detailed in the Midrange CVC Library p/n 4091856 and 2006-38/39Q 2007 ISB/C/L CM2150 Midrange Engine Qualification.

Class Size: 6 **Days: 3** **Cost: \$825**

2009-37Q ISX15 CM2250 Full Service Qualification (EPA 2010)

This course is structured to qualify the experienced technician on the 2010 ISX CM2250 engine. Emphasis is placed on the changes to the fuel system (XPI Common Rail), fully integrated electronic control system, next generation cooled EGR system, advanced VG Turbocharger, improved aftertreatment system, and the addition of Selective Catalytic Reduction (SCR) to ensure 2010 EPA Nox compliance. Also included in this course are current version INSITE support, diagnostic troubleshooting techniques, and wiring diagram interpretation. Written and practical application testing will be required.

Prerequisites: Completion of the applicable courses detailed in the CVC Heavy Duty Library p/n 4091874 and 2006-30/31Q 2007 ISX CM871 and ISM CM876 Engine Qualification.

Class Size: 6 **Days: 4** **Cost: \$1100**

Heavy Duty Fleet Familiarization & Troubleshooting

Familiarization of the M11/M11Plus, ISM, ISX and Signature engines. Injector removal and installation, gauge troubleshooting, manual usage and basic electrical theory. The student is also introduced to Cummins Electronic Fuel Systems and the INSITE program.

Prerequisites: None

Class Size: 12 **Days: 5** **Cost: \$1250**

Cummins Course Descriptions

Midrange Fleet Familiarization & Troubleshooting

Familiarization of the B5.9, ISB, C8.3 and ISC/ISL engines. Injector removal and installation, gauge troubleshooting, manual usage and basic electrical theory, and digital meter reading are covered in this program. The student is also introduced to Cummins Electronic Fuel Systems and the INSITE program.

Prerequisites: None

Class Size: 12

Days: 5

Cost: \$1250

Industrial

1995-15Q

QSK19 CM500 Engine Qualification

This course is to qualify a technician to troubleshoot and repair the original QSK19 base engine and subsystems. The course will familiarize technicians with electronic controls and the fuel system. Also included in this course are INSITE, troubleshooting and wiring diagram interpretation. Written and practical application testing involved.

Prerequisites: Refer to CVC Smart Program Guide

Class Size: 8

Days: 4

Cost: \$1100

2003-05Q

CNGE Industrial Natural Gas Engine Qualification

This course is designed to familiarize technicians with all engine systems and subsystems of the stationary natural gas or propane products. Emphasis is placed on fuel systems, ignition systems and commissioning. Troubleshooting and adjusting fuel and ignition systems. Written and practical application testing involved.

Prerequisites: Knowledge of base engine mechanicals

Class Size: 8

Days: 3

Cost: \$750

2005-02Q

QSK19 CM850 MCRS Engine Qualification

This course is to qualify a technician to troubleshoot and repair the QSK19 CM850 MCRS (Tier III) base engine and subsystems. The course will familiarize technicians with electronic controls and the common rail fuel system. Also included in this course are INSITE, troubleshooting and wiring diagram interpretation. Written and practical application testing involved.

Prerequisites: Refer to CVC Smart Program Guide

Class Size: 8

Days: 3

Cost: \$825

2005-03Q/2006-35Q QSB and QSC/L CM850 Engine Qualification

This course is designed to qualify the experienced technician on the Quantum Midrange engines in industrial applications. Emphasis is placed on the fuel systems and electronic control systems. Also included in this course are INSITE, troubleshooting and wiring diagram interpretation. Practical application testing involved.

Prerequisites: Refer to CVC Smart Program Guide

Class Size: 8

Days: 4

Cost: \$1000

2006-40Q

QSX15 Qualification

This course is designed to qualify the experienced technician on the QSX engines in industrial applications. Emphasis is placed on the fuel systems and electronic control systems. Also included in this course are INSITE, troubleshooting and wiring diagram interpretation. Practical application testing involved.

Prerequisites: Refer to CVC Smart Program Guide

Class Size: 8

Days: 3

Cost: \$825

Cummins Course Descriptions

2007- 31Q

Industrial Gas CM558 (SLB & LE) Engine Qualification

This course covers the new CM558 Industrial Gas engines. Both SLB (simple lean burn) and LE (low emissions) using a catalyst technology is covered. Emphasis is placed on natural gas as a fuel, natural gas analysis, initial engine setup and adjustments, Cummins Gas Analysis web tool, elevation & timing adjustments, exhaust O2 level adjustments, Nox level adjustments, gas pressure, fuel system plumbing and filtration, carburetor adjustment, ignition system, troubleshooting skills, service & maintenance procedures, safety procedures, service tools, exhaust aftertreatment, and information resources. Written and hands-on testing assures competency.

Prerequisites: Refer to CVC Smart Program Guide

Class Size: 8

Days: 5

Cost: \$1250

Marine

2006-48/57Q

Marine WSB5.9 CM850/QSC8.3/QL9 CM850 Midrange Engine Marine QSM11 CM570 Heavy Duty Engine

This 5 day program has replaced the following previous Qualified Marine Technician (QMT) courses: QMT-I (A), QMT-III, QMT IV, and QMT-VI. Current marine technicians who have successfully completed all of the previous QMT Midrange and Heavy Duty courses will be "Grandfathered" into this new program. New marine technicians and those who have completed only part of the previous 4 QMT courses will be required to attend this new program to remain qualified. Upon completion of the program, technicians will become competent in installation/application requirements, initial start-up review, sea trial procedures, and unique troubleshooting techniques relative to all Midrange and Heavy Duty marine engines. Those models include mechanical B/C, 480C-e, QSM11, QSB, QSC, and QSL marine engines.

Prerequisites: Refer to CVC Smart Program Guide

Class Size: 8

Days: 5

Cost: \$1375

Non Engine Products

2005-06Q

Cummins Worldwide Warranty Qualification

Familiarizes the student with an understanding of the proper claim preparation, documentation and procedures. The warranty workshop includes a review of Cummins Rapid Serve procedures. Qualification testing is required.

Prerequisites: Refer to CVC Smart Program Guide

Class Size: 12

Days: 1

Cost: \$250

WebCUMPAS/Quickserve Familiarization

This workshop familiarizes the student with an understanding of the various functions of WebCUMPAS, QuickServe Online and RapidServe. Emphasis will be placed on navigation, search capabilities and guidelines needed to fully utilize these programs. This course is recommended for all service supervisors, parts professionals and warranty administrators. This workshop complements the Warranty Qualification class and it is held in conjunction with scheduled Warranty classes.

Prerequisites: Active Log-on ID for QSOL (Contact Training Center for process)

Class Size: 8

Days: 1/2

Cost: \$100