



**EVERY<sup>TM</sup>**  
**SKILL.**



**CHARLOTTE, NORTH CAROLINA**

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**PROFESSIONAL SERVICE AND PARTS TRAINING**

**2010**  
**Cummins Engine**  
**Training**

**PROGRAM**  
**AND**  
**SCHEDULE**

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# CURRICULUM

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## 1. 2010 MR / ISX15 Update Qualification (2009-30Q, 2009-31Q and 2009-37Q)

This qualification update course is designed for distributor and OEM dealer technicians who are already qualified on the 2007 Automotive Midrange and ISX cm871 products. Upon successful completion of this qualification path they will be full service qualified on all 2010 MidRange and ISX15 automotive products. This aggressive troubleshooting and repair class will cover: engine systems, 2010 aftertreatment, Selective Catalytic Reduction and Diesel Exhaust Fluid, high pressure common rail fuel system troubleshooting and engine control systems diagnostics.

**Prerequisites: 2007 MidRange Engine Qualifications and ISX products and the engine Virtual College courses for ISB6.7 cm2250 (2009-30Q), ISC / L cm2250 (2009-31Q) ISX15 cm2250 (2009-37Q)**

5 Days \$1,375

## 2. 2010 ISX15 Update Qualification (2009-37Q)

This qualification update course is designed for distributor and OEM dealer technicians who are already qualified on the ISX cm871 (2007) product. Upon successful completion of this qualification path they will be full service qualified on the 2010 ISX15 automotive product. This aggressive troubleshooting and repair class will cover: engine systems, 2010 aftertreatment, Selective Catalytic Reduction and Diesel Exhaust Fluid, high pressure common rail fuel system troubleshooting and engine control systems diagnostics.

**Prerequisites: 2007 ISX cm871 engine qualification and the Virtual College courses for the ISX15 cm2250 (2009-37Q)**

4 Days \$1,100

## 3. 2010 MidRange Update Qualification (2009-30Q and 2009-31Q)

This qualification update course is designed for distributor and OEM dealer technicians who are already qualified on the 2007 MidRange products for Automotive. Upon successful completion of this qualification path they will be full service qualified on the 2010 MidRange automotive products. This aggressive troubleshooting and repair class will cover: engine systems, 2010 aftertreatment, Selective Catalytic Reduction and Diesel Exhaust Fluid, high pressure common rail fuel system troubleshooting and engine control systems diagnostics.

**Prerequisites: 2007 MidRange Engine Qualifications (2006-38Q and 2006-39Q) and the Virtual College courses for the ISB6.7 cm2250 (2009-30Q) and ISC / L cm2250 (2009-31Q) engines.**

3 Days \$825

## 4. 2010 ISX15 Qualification (2009-37Q)

This qualification course is designed for distributor and OEM dealer technicians who are NOT already qualified on the ISX cm871 (2007) product. Upon successful completion of this qualification path they will be full service qualified on the 2010 ISX15 automotive product. This aggressive troubleshooting and repair class will cover: engine systems, 2010 aftertreatment, Selective Catalytic Reduction and Diesel Exhaust Fluid, high pressure common rail fuel system troubleshooting and engine control systems diagnostics.

**Prerequisites: BETT, Insite and the Virtual College courses for the ISX15 cm2250 (2009-37Q).**

5 Days \$1,375

## 5. 2010 MidRange Qualification (2009-30Q and 2009-31Q)

This qualification course is designed for distributor and OEM dealer technicians who are NOT already qualified on the 2007 MidRange products for Automotive. Upon successful completion of this qualification path they will be full service qualified on the 2010 MidRange automotive products. This aggressive troubleshooting and repair class will cover: engine systems, 2010 aftertreatment, Selective Catalytic Reduction and Diesel Exhaust Fluid, high pressure common rail fuel system troubleshooting and engine control systems diagnostics.

**Prerequisites: BETT, Insite and the Virtual College courses for the ISB6.7 cm2250 (2009-30Q) and ISC / L cm2250 (2009-31Q) engines.**

5 Days \$1,375

## 6. 2007 Heavy Duty Qualification (2006-30Q and 2006-31Q)

Upon successful completion of this course the technician will be qualified on the ISX cm871 and the ISM cm876 heavy duty engines. Course materials include familiarization, troubleshooting and qualification on the EGR, aftertreatment systems and base engine changes. This class is only for distributor and LTA dealer technicians.

**Prerequisites: BETT, Insite and the Virtual College courses for the ISX cm871 (2006-30Q) and ISM cm876 (2006-31Q) engines.**

5 Days \$1,375

## 7. ISX cm871 Qualification (2006-30Q)

Upon successful completion of this course the technician will be qualified on ISX cm871 engines. Course materials include familiarization, troubleshooting and qualification on the EGR, aftertreatment systems and base engine changes. This class is for distributor and LTA dealers.

**Prerequisites: BETT, Insite and the Virtual College courses for the ISX cm871 (2006-30Q) engine.**

4 Days \$1,100

## 8. 2007 MidRange Qualification (2006-38Q and 2006-39Q)

Upon successful completion of this course the technician will be qualified on the ISB cm2150 and the ISC/L cm2150 MidRange engines. Course materials include familiarization, troubleshooting and qualification on the new EGR, aftertreatment systems and base engine changes. This class is for LTA dealer and distributor technicians only.

**Prerequisites: BETT, Insite and the Virtual College courses for ISB cm2150 (2006-38Q) and the ISC/L cm2150 (2006-39Q) engines.**

4 Days \$1,100

## 9. ISB cm2150 Qualification (2006-38Q)

Upon successful completion of this course the technician will be qualified on the ISB cm2150 engines. Course materials include familiarization, troubleshooting and qualification on the new EGR, aftertreatment systems and base engine changes. This class is for LTA dealers only.

**Prerequisites: BETT, Insite and the ISB cm2150 (2006-38Q) Virtual College Courses.**

3 Days \$825

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# CURRICULUM

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## 10. Heavy Duty Engine Familiarization

This familiarization course is structured for the fleet technician. Course materials include both the ISM cm876 and ISX cm871 engine familiarization, changes to the EGR system, the aftertreatment system with new faults and lights. New maintenance requirements and troubleshooting strategies will also be covered. We recommend attendance in the additional Insite Familiarization class.

2 Days \$550

## 11. MidRange Engine Familiarization

This familiarization course is structured for the fleet technician. Course materials include the ISB/C/L cm2150 engine familiarization, changes to the EGR system, the aftertreatment system with new faults and lights. New maintenance requirements and troubleshooting strategies will also be covered. We recommend attendance in the additional Insite Familiarization class.

2 Days \$550

## 12. M-11 / ISM Maintenance / Overhaul

This course covers engine systems familiarization, engine disassembly, parts inspection and assembly practices, including: injection timing, valve and injector adjustment and engine system maintenance. All hands-on activities are performed on modern engines.

3.5 Days \$950

## 13. NT / N-14 Maintenance / Overhaul

System familiarization, engine disassembly, parts reuse guidelines, inspection, and assembly practices, including injection timing, valve and injector adjustment and systems maintenance are all part of the hands-on activities on an N-14 engine.

3.5 Days \$950

## 14. ISX Maintenance / Overhaul

This course covers engine familiarization, disassembly, parts inspection and assembly procedures for the ISX engines. Base engine timing, valve and injector adjustment, gear train setup and component reuse guidelines are all part of the hands-on activities performed on modern ISX engines. Even though this is a non-qualification class, credit will be given for the ISX cm870 Virtual College course upon completion of the class.

4.5 Days \$1,225

## 15. ISX NOW Overhaul Qualification (2005-01Q)

The "ISX National Overhaul Warranty Technician Qualification Course" is a course designed to train the technician in the proper overhaul procedures and inspection criteria set forth by the National Overhaul Warranty program. Technicians will also gain a complete understanding of the NOW Program Manual and how it applies to performing the overhaul. This course also covers the proper tear down and reassembly procedures when performing an ISX overhaul.

**Prerequisites: This qualification class is for distributor and dealer technicians who have previously met all the qualification requirements for the ISX cm870 engine (2002-03Q).**

3 Days \$825

## 16. ISC/ISL and QSC/QSL Maintenance / Overhaul

This course covers the automotive ISC/ISL and Tier 2 / Tier 3 versions of industrial QSC/QSL engine familiarization, maintenance and overhaul procedures, plus fuel pump to engine timing. Class also will include familiarization of the high pressure common rail fuel system. Materials issued aid the technician in rebuild and maintenance procedures.

3.5 Days \$950

## 17. Insite Familiarization

This course is designed for the end user or fleet technician and can be attended in conjunction with one of our Heavy Duty or MidRange engine familiarization courses. This hands-on class will include fault code reading, engine diagnostic tests, data monitor / logger, work orders and troubleshooting trees. Students will be demonstrating these functions in the classroom and on live engines.

1 Day \$275

## 18. Insite Qualification

This qualification class will equip distributor and dealer technicians with all the basic skills that are part of the Insite 7.x diagnostic software program. In addition to all the basic skills, the class will include ECM calibration procedures, INCAL software usage, feature / parameter adjustments, monitor / data logger and engine special test procedures.

Note: This course fulfills the requirements for Cummins' Insite qualification.

2 Days \$550

## 19. Basic Electrical Theory & Troubleshooting (BETT)

This course is a highly effective electrical course designed for all working technicians, from novice to experienced. This hands-on course explains and teaches the practical uses of all relevant electrical fundamentals needed for troubleshooting electrical systems on trucks and heavy equipment. Topics covered include logical troubleshooting, engine electrics, schematic reading, basic and advanced meter reading, electrical component testing and theory, fault code state change theory and more. Students can bring their personal digital multimeters if they own one.

Note: This course fulfills the requirements for Cummins' BETT Qualification.

4.5 Days \$1,225

## 20. Diagnostic Proficiency Assessment (Dealer and Distributor)

This assessment is the final test for a distributor or dealer technician to be qualified on a given engine model. This "class" is not a traditional class but a hands-on test. The DPA allows the technician to demonstrate that he is qualified and ready to perform warranty repairs. The minimum passing score for the assessment is 90%.

**Prerequisites: BETT and Insite Qualifications and completing appropriate Virtual College Engine Courses for the engine they wish to qualify on.**

1/2 Day \$250

# CURRICULUM

## 21. Tier 3 QSB / QSC Engine Qualification (2005-03Q) and (2006-35Q)

The Tier 3 industrial engines are the latest generation of MidRange engines. These new engines incorporate the common rail fuel system. The class will cover Tier 3 engine familiarization, system troubleshooting and diagnostic testing with Insite. Tier 3 engine qualification requires a new Diagnostic Proficiency test which will be conducted in this class.

**Prerequisites:** BETT, Insite and the engine Virtual College courses for the QSB 6.7 cm850 (2005-03Q) and QSC/L cm850 (2006-35Q) engines.

3.5 Days \$950

## 22. Marine MidRange and Heavy Duty Troubleshooting Qualification Course

This course covers the: mechanical B and C series, 480C-E, QSB, QSC, QSL and QSM11 marine engines. This course will cover unique marine engine component identification, unique marine engine system flows and subsystem troubleshooting procedures, sea trial set-up procedures, proper application of engines and ratings, and proper engine installation procedures. Upon successful completion of the prerequisites, this course and the SmartCraft 2.2 qualification the technician will be qualified to perform warrantable repairs on these engine platforms. Written competency and hands on proficiency testing will be administered at the conclusion of this course.

**Prerequisites :** MR 1,2 & 3, HD 1, 2 & 3 and MS-1 written tests, BETT, Insite and all the appropriate Virtual College courses for Smart Program Guides Marine QSB/C/L cm850 (2006-48Q) and QSM11 cm570 (2006-57Q). SmartCraft 2.2 is also a qualification requirement for these engine models.

5 Days \$1,375

## 23. QSD Marine Engine Qualification Course:

This course describes the QSD2.0L, QSD2.8L, and QSD4.2L Marine Engines, their unique marine components, and proper operation of the engines in a recreational vessel. This course covers the electronic controls, harness and sensors, wiring diagram, and system operation. The course explains the new Bosch HPCR fuel system used on these engines, various engines systems flows and troubleshooting of these systems. This course also provides an update on the previous non HPCR engines. An overview of DTS electronics will include the ECS, MAB, Wiring Diagram, VesselView, CDS Simulations and the Vessel Integration Panel (VIP). A brief introduction to multiplexed networks, system operation, and troubleshooting practices will be covered as well. Written competency and hands on proficiency testing will be administered at the conclusion of the course.

**Prerequisites:** BETT virtual college PN - 3898967 (or VEST course # 14), Vessel Performance troubleshooting virtual college PN – 4091841 and SmartCraft 2.2 qualification.

3 Days \$825

Continued next page

# REQUEST FOR ENROLLMENT

This completed form is to be forwarded to the TRAINING DEPARTMENT.

Mail this form or fax to (704) 596-3038.

Name of Student \_\_\_\_\_ Business Phone ( ) \_\_\_\_\_

Company \_\_\_\_\_ City \_\_\_\_\_

Mailing Address \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

Method of Payment: Check # \_\_\_\_\_ Company Purchase Order \_\_\_\_\_

Desired Class Name and Date

1st Choice # \_\_\_\_\_ Date \_\_\_\_\_

2nd Choice # \_\_\_\_\_ Date \_\_\_\_\_

3rd Choice # \_\_\_\_\_ Date \_\_\_\_\_

ENROLLMENT AUTHORIZATION

Name \_\_\_\_\_

## 2010 Curriculum

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|---|---|---|
| <ol style="list-style-type: none"> <li>1. 2010 MR / ISX 15 Update<br/>5 days \$1,375</li> <li>2. 2010 ISX15 Update Qual.<br/>4 days \$1,100</li> <li>3. 2010 MR Update Qual.<br/>3 days \$825</li> <li>4. 2010 ISX15 Qual.<br/>5 days \$1,375</li> <li>5. 2010 Midrange Qual.<br/>5 days \$1,375</li> <li>6. 2007 Heavy Duty Qual.<br/>5 days \$1,375</li> <li>7. ISX cm871 Qual.<br/>4 days \$1,100</li> <li>8. 2007 MidRange Qual.<br/>4 days \$1,100</li> <li>9. ISB cm2150 Qualification<br/>3 days \$825</li> <li>10. Heavy Duty Familiarization<br/>2 days \$550</li> </ol> | <ol style="list-style-type: none"> <li>11. MidRange Familiarization<br/>2 days \$550</li> <li>12. M11/ISM Maintenance/Overhaul<br/>3.5 days \$950</li> <li>13. N14 Maintenance/Overhaul<br/>3.5 days \$950</li> <li>14. ISX Maintenance/Overhaul<br/>4.5 days \$1,225</li> <li>15. ISX NOW Overhaul Qual.<br/>3 days \$825</li> <li>16. ISC/ISL and QSC/QSL Maintenance/Overhaul<br/>3.5 days \$950</li> <li>17. Insite Familiarization<br/>1 day \$275</li> <li>18. Insite Qual.<br/>2 days \$550</li> <li>19. BETT<br/>4.5 days \$1,225</li> <li>20. Diagnostic Proficiency Assessment<br/>1/2 day \$250</li> </ol> | <ol style="list-style-type: none"> <li>21. Tier 3 QSB/QSC Qual.<br/>3.5 days \$950</li> <li>22. Marine MR and HD Troubleshooting Qualification<br/>5 days \$1,375</li> <li>23. QSD Marine Engine Qual.<br/>3 days \$825</li> <li>24. SmartCraft 2.2 Qual.<br/>2 days \$550</li> <li>25. ISLG Qual.<br/>4 days \$1,100</li> <li>26. Warranty Qualification<br/>1.5 days \$400</li> </ol> |
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# CURRICULUM

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## 24. SmartCraft 2.2 Qualification (2007-01Q)

SmartCraft 2.2 Vessel electronics is the latest in the evolution in Cummins MerCruiser Diesel engine/vessel controls. SmartCraft 2.2 is currently used on vessels equipped with Cummins MerCruiser Diesel QSD engine platforms (2.0, 2.8 & 4.2 liter) and effective June 2009 is used on all CMD equipped vessels. This class teaches the evolution of SmartCraft beginning with version 1.0 through the current version 2.2. Also included in this course is familiarization of CMD Axis SternDrive. This qualification is part of the qual. path for QSD/B/C/L and QSM11 engines.

**Prerequisites: BETT, Insite, the SmartCraft 2.2 Distance Learning Course #7004 (Online CMD Marine Academy) and the MR / HD Troubleshooting qualification course.**

2 Days            \$550

## 25. ISLG Qualification (2007-28Q)

This training course covers the 2007 and later ISL G engine that operates on compressed natural gas (CNG) and liquefied natural gas (LNG). Topics of this course include safety procedures, engine familiarization, scheduled maintenance and troubleshooting of the engine systems and electronics controls. Written and hands-on testing are also a part of this qualification class.

**Prerequisites: BETT, Insite and the Virtual College courses for the ISLG CM2180 engine.**

4 Days            \$1,100

## 26. Warranty Qualification

This class will qualify dealer and distributor personnel under the new training requirement guidelines. This 8 hour class is a follow up to the required prerequisite (Warranty Virtual College course # 4091832). All dealer and distributor warranty repair locations are required to have at least one person complete this Warranty Training path. This all new training material discusses some topics that were covered in previous training but, more emphasis is applied to topics not detailed in previous training. New topics include: RAPIDSERVE Web, QuickServe on-line, SRT/SAR challenge and Cummins Warranties new communication strategy. Understanding correct administrative procedures and how to accurately determine applicable coverage limits are still addressed. The class includes both Written and Hands-on assessments in order to complete the qualification path.

**Prerequisites: Warranty Virtual College course # 4091832**

1.5 Days            \$400

Place Stamp Here
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**Atlantic**

**Cummins Atlantic LLC  
3700 Jeff Adams Drive  
Charlotte, NC 28206**

Attention: Training Department

# General Information

## ENROLMENT PROEDURES

1. Fill out enclosed request form or call the Training Department for enrollment.
2. Forward to Cummins Atlantic LLC.
3. Upon receipt, the Training Department will confirm, in writing, your class assignment.
4. Classes are limited to 8 to 12 students based upon curriculum.
5. Comfortable clothing and safety shoes suitable for working on engines and hardware are recommended.  
**Shorts, tennis shoes and sandals are not considered appropriate.**
6. Any questions should be directed to the Training Department (704) 596-7690.

## PAMENT PROEDURES

1. **Payment is due the first day of class.**
2. Prepayment by check is requested with enrollment or can be hand carried by the student. Make check payable to Cummins Atlantic LLC. Attn: Training Department.
3. Prior credit approval is necessary for all company purchase orders.
4. **CANELLATIONS / REFUNDS:**  
Cancellations made less than 3 working days prior to the class start date are subject to a \$50.00 cancellation fee. Refunds WILL NOT be granted after class begins. If for any reason the class is cancelled, participants will be notified and the tuition will be fully refunded.

**ALL CLASSES WILL BEGIN 830 THE FIRST DAY OF CLASS UNLESS OTHERWISE NOTED IN CLASS DESCRIPTION**



**Cummins Atlantic LLC**  
3700 off Adams Drive  
Charlotte, NC 28206



# 2010 SCHEDULE

## Charlotte Training Center

3700 Jeff Adams Drive Charlotte, NC 28206  
704/596-7690 Fax: 704/596-3038

### January

11-15 2010 MR Qual.  
18-22 2010 ISX 15 Qual.  
25-29 2010 MR / ISX 15 Update Qual.

### February

9-10 Warranty Qualification  
9-11 2010 MR Update Qual.  
23-26 2010 ISX 15 Update Qual.

### March

8-12 2010 MR / ISX 15 Update Qual.  
16-19 ISX cm871 Qual.  
23-26 2010 ISX 15 Update Qual.  
30-31 Insite Qualification

### April

5-9 2010 ISX 15 Qual.  
13-15 2010 MR Update Qual.  
19-23 2010 MR / ISX 15 Update Qual.  
26-30 ISX Maintenance / Overhaul

### May

3-7 2010 MR Qual.  
11-14 2010 ISX 15 Update Qual.  
18-20 ISB cm2150 Qual.  
24-28 2010 MR / ISX 15 Update Qual.

### June

8-11 2007 MR Combo Qual.  
8-9 Warranty Qualification  
21-25 2007 HD Combo Qual.  
28-7/2 BETT  
29-7/1 ISX NOW Qualification

### July

13-15 2010 MR Update Qual.  
19-23 2010 MR Qual.  
27-28 MidRange Engine Familiarization  
29 Insite Familiarization

### August

2-6 2010 ISX 15 Qual.  
10-11 HD Engine Familiarization  
12 Insite Familiarization  
16-20 2010 MR / ISX 15 Update Qual.  
24-27 ISLG Qual.

### September

14-17 2010 ISX 15 Update Qual.  
21-23 2010 MR Update Qual.

### October

12-13 Warranty Qualification  
12-15 M11 / ISM Maintenance / Overhaul  
18-22 2010 MR / ISX 15 Update Qual.

### November

16-19 2010 ISX 15 Update Qual.

### December

6-10 2010 MR / ISX 15 Update Qual.

# Motel Information

Lodging, meals and transportation are the responsibility of the student. The following motels are offering a discount to our students. When making reservations and during check in, it is necessary to tell them you are attending the Cummins Atlantic LLC Training School to receive the student discount. Prior authorization for direct billing required.

## 1. Sleep Inn

8525 North Tryon Street  
Charlotte, NC 28262  
\$59.95 per night \*ask for Cummins rate\*  
Free hot breakfast buffet  
In room microwaves, refrigerators, coffee makers and iron.  
Free Access to Peak Fitness  
Free wireless internet & business center  
Walking distance to shopping, dining and entertainment  
Phone: 704-549-4544

## 2. Drury Inn & Suites

415 West W.T. Harris Blvd.  
Charlotte, NC 28262  
\$62.00/Night \*ask for Cummins rate\*  
Free full, hot breakfast buffet  
Free evening beverages & snacks each night  
Free wireless internet, Free long distance,  
Fitness Center, Indoor/outdoor pool  
Microwave and refrigerator in every room  
Walking distance to several local restaurants  
Phone: 704-593-0700

## 3. Candlewood Suites

8812 University East Drive (Harris blvd, east of Old Concord Rd)  
Charlotte, NC 28213  
\$49.99 + tax/ night for studio suite \*ask for Cummins rate\*  
Enjoy a spacious suite that includes a full kitchen, DVD/VCR combo, &  
Free high speed internet. Complimentary features include: laundry  
facility, fitness center, Local calls, Movies, & CD's. Help yourself to snacks  
at the Candlewood Cupboard, our honor system grocery store.  
Phone: 704-598-9863

## 4. Comfort Suites

7735 University City Blvd.  
Charlotte, NC 28213  
\$59.95 per night \*ask for Cummins rate\*  
All suites with microwaves, compact fridge, coffee maker & wet bar. Free  
wireless HSIA. Free full, hot, breakfast buffet daily.  
Free Evening Reception Tue-Wed.  
Free fitness center, Gym membership & seasonal pool.  
Toll free: 1/877-547-0049 local: 704/547-0049

## 5. Holiday Inn University Executive Park

8520 University Executive Park Drive  
Charlotte, NC 28262  
\$59.00 per night, plus tax \*Ask for Cummins rate\*  
Full service restaurant, gaming area, and lounge featuring  
breakfast, dinner, and room service.  
Weekly manager's reception with complimentary cocktails and  
appetizers.  
Complimentary wireless internet, 24 hour business center, 24 hour  
fitness center, complimentary access to off-site fitness facility, and  
seasonal outdoor pool.  
In room refrigerators, microwaves, coffee makers, and irons.  
Walking distance to shopping, dining, and entertainment.  
Phone: 704.547.0999

## Map of Training Center and Motel Locations

