

2012

# Joint Training Opportunities

Presented by ABBRA and NEIT



The American Boat Builders & Repairers Association (ABBRA) and New England Institute of Technology (NEIT) are pleased to announce the 2012 boat builders and repairers training schedule.

This year's offerings include:

- Basic Diesel Engine Training Technician
- Advanced Diesel Technician Training
- Composite Certification–Introduction
- Composite Certification–Advanced
- Topcoat Application
- Gasoline EFI

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**ABBRA and NEIT: Working together to train the boat building and repair industry.**



**New England Institute  
of Technology**

# DIESEL ENGINE TRAINING

## BASIC DIESEL ENGINE TRAINING AND TECHNICIAN TRAINING

June 4–5, 2012

This two-day course is designed for the technician with experience in the service and repair of marine inboard gasoline engines. It's the training for technicians who want to advance those basic mechanical skills as they relate to marine diesel engines. Course work is a combination of classroom and extensive hands-on engine lab exercises.

### Course Fee

ABBRA Members \$495

ABBRA Non-members \$595

**For the Basic and Advanced Diesel training, NEIT uses newly acquired electronically controlled engines from Volvo for hands on testing and diagnostics.**

### Sample Curriculum

- Diesel Engine Theory
- Comparison of Diesel to Gasoline Engines
- Diesel Fuel Injection System
- Troubleshooting: Compression Testing, Smoke Analysis, Oil
- Coolant Analysis
- Cold Start Assist Systems
- Compression Testing
- Fuel Testing
- Laboratory Analysis of Engine Fluids
- Pyrometer Comparison of Cylinder Readings
- Cylinder Balance Testing

- Manometer Testing for Air Intake and Exhaust System Diagnosis
- Use of a Mechanic's Stethoscope to Locate Engine Noises
- Cooling System Pressure and Thermostat Testing
- Testing Glow Plugs and Related Circuits
- Injection System Service: injector removal and testing; injector cleaning and nozzle replacement; bleeding the fuel injection system
- Detroit Diesel Fuel Modulator System
- Turbo-Charger Function and Boost Pressure, Troubleshooting, and Repair
- Routine Maintenance Procedures: winterization, layup, spring start-up procedures, engineroom ventilation—negative suction or positive pressure
- Written Final Exam—Abbira Issues a Certificate of Completion

## ADVANCED DIESEL TECHNICIAN CERTIFICATION

June 6–8, 2012

This three-day course is designed for the diesel engine technician who has mastered the basic marine diesel engine skills as covered in the ABBRA Basic Diesel Engine Technician course (described above), and who wants to advance those skills. Course work is a combination of classroom and extensive hands-on engine lab exercises. Pre-registration testing is provided to employers who want to determine that their prospective enrollees for this program have the requisite experience to benefit from the course. The test is provided at the time of registration, or can be accessed via the ABBRA Web site at [www.abbra.org](http://www.abbra.org). The decision to enroll an employee rests solely with the employer regardless of the test results.

### Course Fee

ABBRA Members \$795

ABBRA Non-members \$895

### Sample Curriculum

- Air Intake: air induction and filtration systems; turbo charging; waste gate; boost verification; inter/after cooler systems; methods and checks; environmental concerns
- Exhaust Systems: exhaust manifolds and risers; dry exhaust; wet exhaust water injection considerations; system materials; mufflers and waterlifts; back pressure & installation considerations
- Fuel Injection: mechanical system troubleshooting; bore scope usage
- Component Test Procedures: injection pumps; nozzles; lift pumps; high-pressure pumps; unit injectors
- Introduction to Electronic Engine Systems: data inputs; data processing; control unit outputs; basic troubleshooting
- Laser Alignment: engine; running gear
- Written Final Exam—ABBRA issues a certificate testifying to each technician's successful mastery of these competencies

# COMPOSITE CERTIFICATION

## COMPOSITE REPAIR CERTIFICATION - INTRODUCTION

### INTRODUCTORY COURSE

**March 19–20, 2012**

**July 9–10, 2012**

To prepare for the hands-on certification, ABBRA offers a two-day introductory course. This course is held immediately before the three-day hands-on certification at the same venue and taught by the same instructor.

### Course Fee

ABBRA Member \$495

ABBRA Non-member \$795

### Sample Curriculum

- Shop & Worker
- Safety, Solvents
- Catalysts & Release Agents
- Resin Types
- Differences & Applications
- Secondary Bonding
- Repairs to Cored Laminates
- Vacuum Bagging & Resin Infusion Methods
- Working with Carbon Fiber & Kevlar
- Post Curing Methods
- Surface Sealing to Prevent Osmotic Blistering
- Abbra Issues a Certificate of Completion

\* You can also prepare for ABBRA's hands-on certification through two online courses offered by ProBoatE-Training.com.

## COMPOSITE REPAIR CERTIFICATION - ADVANCED

### HANDS-ON CERTIFICATION

**March 21–23, 2012**

**July 11–13, 2012**

During ABBRA's hands-on certification, each student will be provided with a damaged composite panel of varying structure, contour, and color. The student will then describe the appropriate repair procedure to the class. After each participant has expressed his/her intended repair procedures and discussed it with the other students, all students will perform the repairs to completion. Collaboration of ideas and techniques will be encouraged between students and the instructor.

The instructor will observe proficiency in safety, hand skills, time management, and communication skills.

### Course Fee

ABBRA Member \$795

ABBRA Non-member \$995

### Register for the Introductory and Hands-On Certification and Pay:

ABBRA Member \$1,195, save \$95

ABBRA Non-member \$1,495 save \$295

\* You can also prepare for ABBRA's hands-on certification through two online courses offered by ProBoatE-Training.com.

### Materials will include

- Resins
- Gelcoat
- Pigments, Solvents
- Fabrics
- Fairing Compounds
- Peel-Ply
- Breather
- Initiators/Hardeners
- Core
- Abbra Issues a Certificate of Completion

# TOPCOAT APPLICATION

## TOPCOAT APPLICATION

**February 21–24, 2012**

**October 2–5, 2012**

The three-day ABBRA Topcoat Application program will advance both the beginning and experienced topcoat applicator's level of expertise in boat surface preparation, deepen the understanding of topcoat systems and application equipment and techniques, build skills in estimating and troubleshooting the job, and ensure thorough comprehension of current shop and personnel safety practices. Students will have plenty of shop projects to practice their mastery by preparing fiberglass panels for finish topcoat applications in a state-of-the-art paint workshop.

### Course Fee

ABBRA Members \$995

ABBRA Non-members \$1,195

### Sample Curriculum

- Shop & Worker Safety
- Setting Up Your Paint Shop
- Product Overview-Selecting
- The System
- The Spray Gun
- Surface Preparation
- Sanding-Abrasives
- Primers and Application
- Use of High Build Primers
- Fairing and the Use of Fairing
- Compounds
- The Topcoat and Mixing
- Application of Topcoats
- Detailing the Finished Product
- Repairing Topcoats
- Estimating Paint Work
- Written Final Exam—ABBRA issues a certificate testifying to each technician's successful mastery of these competencies.

# GASOLINE EFI TRAINING

## GASOLINE EFI TRAINING

**March 21–23, 2012**

**October 2–4, 2012**

This three-day training program provides marine technicians with "hands-on" gasoline electronic fuel injection (EFI) training. It covers fuel and electrical EFI component function and testing procedures for GM-based EFI inboard and I/O engines. Sessions will include both lecture and hands-on training labs. Lectures will have quick lab demonstrations associated with them as well. As 50-question certification exam will be administered at the conclusion of the training program.

### Course Fee

ABBRA Members \$795

ABBRA Non-members \$900

### Requirements

Participants for this program should have at least two years of field experience in the marine industry and should be proficient in reading service manuals and related wiring schematics. Participants should have general knowledge of electrical basics and be comfortable with using digital multimeters.

### Sample Curriculum

- Gasoline EFI Engine Sensors
- Testing Engine Sensors for Resistance, Opens, and Shorts
- Testing Wiring Harnesses for Resistance, Opens, and Shorts
- Repairing Metripack and Weatherpack Terminals
- Testing High- and Low-Pressure Fuel Pumps
- Testing and Diagnosing Fuel Pump Electrical Systems for Faults
- ECM Engine Related Functions
- Written Final Exam—ABBRA issues a certificate testifying to each technician's successful mastery of these competencies.



# General Information

## To Register

To register, call NEIT at 401-780-4345.

## Location

Courses are held at NEIT's Rhode Island Marine Technology Center,  
106 Access Road, Warwick, RI.

NEIT: A state-of-the-art facility conveniently located near T.F. Green Airport (PVD).



## About NEIT

New England Institute of Technology is a private, non-profit co-educational technical college accredited by the New England Association of Schools and Colleges, Inc. The New England Tech/ABBRA training initiative allows the members of ABBRA to utilize the resources and expertise of the college's Associate in Science degree program in Marine Technology. ABBRA and NEIT have an eight-year relationship to provide critical training to this industry.

## Class Size

Class sizes are limited to 15 participants to ensure hands-on experience.

## Cancellation

A refund of fees paid will be made if NEIT receives your cancellation in within 15 days of the course's start date, LESS a service fee of \$150.00. After that date refunds will be made only if your seat in the course has been resold. Your registration is fully transferable to someone else in your company ONLY if they fully meet the admission requirements of the course.

## Instructors

These training programs have been designed by leaders in the marine industry and feature hands-on learning for the participants. Instructors are drawn from leading industry experts and experienced staff from NEIT.

## Certification

The Fiberglass and Basic Diesel Repair Technician Certification Programs has been accepted by the Marine Industry Certification (MIC) Board for MIC credits. For ABBRA members, ABBRA certification also leads to savings on boatyard and marine-services facility insurance premiums through the exclusive ABBRAGARD marine underwriting program.

## About ABBRA

The American Boat Builders and Repairers Association (ABBRA), founded in 1943, strengthens and encourages professionalism in the boat building and marine service industry by providing its members with timely information, training, education, and business services.

ABBRA: Dedicated to the Service and Repair Industry.



American Boat Builders &  
Repairers Association  
50 Water St.  
Warren, RI 02885  
[www.abbra.org](http://www.abbra.org)

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## Inside:

2012 Training & Education Opportunities \* Basic & Advanced Diesel Repair \* Fiberglass Repair \* Topcoat Application \* Gasoline EFI \* Marine Service Management Course \* \* Marine Equipment Operator Training



**To Register or Learn More:**  
**Call NEIT at 401-780-4345**