



## Course Descriptions & Price List 2010

### **Training Centre:**

10 Diesel Drive  
Toronto, Ontario  
M8W 2T8

Telephone: 416 259 3281  
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## General Information

- Class size is limited. Please register early.
- Registration can be made by faxing the registration form to (416) 259 3281  
**The total training fee + applicable taxes must be paid at this time.**

Any student not providing payment at this time will not be permitted to attend the course.

- Classes will run from 7:00am to 3:30pm or as designated by instructor.
- Students will receive manuals in class and a certificate upon completion of class.
- Appropriate dress is required for in-class and hands on training. Please come prepared with your Personal Protective Equipment. Shop coats will be provided.
- Cancellation may be made no later than 7 days prior to the start of the course; otherwise the customer will be held responsible for the entire course cost.
- **Harper Power Products Inc reserves the right to cancel or reschedule any class.**

## Custom Training

- We are pleased to offer customized training on Detroit Diesel, Allison Transmission, and Deutz products that can be tailored meet your specific needs.

To discuss designing a custom training session, please contact Pedro Correia, Instructor at 416-259-3281 ext 298 or Wendy Jewell at 416 259 3281 ext 200, email addresses are:

[pcorreia@harperpowerproducts.com](mailto:pcorreia@harperpowerproducts.com)

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## Detroit Diesel / Mercedes Benz Engine Courses

### **2007 Series 60 MBE 900 / 4000 Product Update**

**Course # CEU01 / previous # 8925**

**Duration:** 4 days

**Fee:** \$1280.00 + applicable taxes

#### *Prerequisite:*

04 Certified on either engine, Series 60, MBE 900 or 4000, plus Web-based courses 8928- 2007 Basic Diagnostics, 8929– 2007 ATS Introduction, 8930 – 2007 Update MBE 4000, 8931- 2007 Update MBE 900 & 8932- 2007 Update Series 60.

#### *Objective:*

To Provide ON-Highway Technicians with information regarding the changes in the operation, control, maintenance and repair on the 07 engine.

*Description:* Covers all three products. Includes components and systems review, advance use of Detroit Diesel Diagnostic Link (DDDL 7.x), DDEC VI, hands –on diagnostics exercises, after treatment system review and troubleshooting exercises.

### **Series 60 EGR On-Highway Major Repair V2.0**

**Course # CES08 / previous # 8960**

**Fee:** \$1280.00 + applicable taxes

#### *Prerequisites:*

All available G2 WBT courses and exams for the Series 60 product.

*Objective:* Enable service personnel to diagnose engine failures, disassemble and reassemble engines correctly, repair engine components, and perform preventive maintenance and tune-up procedures.

#### *Description:*

This course includes practical hands-on training on live engines and covers non-EGR, EGR, and exhaust after treatment engines. Students will disassemble a live engine and perform engine repair procedures and examine all pertinent features and flow systems. The engine will be reassembled and tested.



## Detroit Diesel / Mercedes Benz Engine Courses

### ***MBE 900 EGR On-Highway Major Repair V2.0***

***Course # CEN03 / Previous # 8970***

***Duration:*** 3 days

***Fee:*** \$960.00 + applicable taxes

Prerequisites:

All available G2 WBT courses and exams for the MBE 900 product.

Objective: Enable service personnel to diagnose engine failures, disassemble and reassemble engines correctly, repair engine components, and perform preventive maintenance and tune-up procedures.

Description:

This course includes practical hands-on training on live engines and covers non-EGR, EGR, and exhaust after treatment engines. Students will disassemble a live engine and perform engine repair procedures and examine all pertinent features and flow systems. The engine will be reassembled and tested.

### ***MBE 4000 EGR On-Highway Major Repair V2.0***

***Course # CEF01 / previous # 8980***

***Duration:*** 3 days

***Fee:*** \$960.00 + applicable taxes

Prerequisites:

All available G2 WBT courses and exams for the MBE 4000 product.

Objective: Enable service personnel to diagnose engine failures, disassemble and reassemble engines correctly, repair engine components, and perform preventive maintenance and tune-up procedures.

Description:

This course includes practical hands-on training on live engines and covers non-EGR, EGR, and exhaust after treatment engines. Students will disassemble a live engine and perform engine repair procedures and examine all pertinent features and flow systems. The engine will be reassembled and tested.



## Detroit Diesel / Mercedes Benz Engine Courses

### ***DD 15 Major Repair***

**Course # CEP01 / previous # 8950**

**Duration:** 5 days

**Fee:** \$1600.00 + applicable taxes

Prerequisites:

All available G2 WBT courses and exams for the DD15 product. The list of WBT classes are as follows: Product Intro – Introduction / Fuel / Cooling / Air / Lubrication / Tune-up; DDEC VI; DDEC Reports; 2007 After treatment; 2007 Basic Diagnostics; DD15 Maintenance

Objective:

Enable service personnel to diagnose engine concerns, disassemble and reassemble engines correctly, repair engine components, and perform preventive maintenance and tune-up procedures.

Description:

This course includes classroom instruction and hands-on training on a live engine. Students will disassemble the engine, examine its features and general construction, the air, fuel, lube and cooling systems, electronic controls and exhaust after treatment system. After reassembly, tune-up adjustments will be made, and electronic and mechanical diagnostic test will be performed on a running engine.

### ***EPA 04 Engine Diagnostics***

**Course # CED01 / previous # 8930**

**Duration:** 5 Days

**Fee:** \$1600.00 + applicable taxes

Basic Course Information:

1. This course combined with the 4 web courses (QES06-DDEC IV / V Electronics QEE06-MBE Electronics, OER-DDEC Reports, and OEE06-Basic Diagnostic 6.3) is designed to replace the following instructor Lead Training (1LT) courses: DDC8857-MBE Electronics and DDC8880-DDEC Electronics.
2. This course is a necessary component of the 2004 technician's certification requirements. If the technician has already completed the DDC8857-MBE Electronics or DDEC8880-DDEC Electronics ILT course; they **do not** need to take the CED01-EPA'04 Engine Diagnostics course.



## Detroit Diesel / Mercedes Benz Engine Courses

CED01-EPA04 Engine Diagnostics Course Prerequisites:

- OES06-DDEC IV / V Electronics – web course
- OEE06-MBE Electronics – web course
- OER01-DDEC Reports – web course
- OEE06-Diagnostic 6.3 – web course
- 1 Major Repair (one of the following):

CEN03-MBE900  
CEF01-MBE 4000  
CES08 Series 60

**All students are required to bring their own Multi-Meter to this class**

CED01-EPA04 Engine Diagnostics Course Description:

This 4 day course is designed to give students a practical, comprehensive look at all phases of troubleshooting process for EPA'04 (Series 60) and MBE (900 and 4000) engines. The course material includes.

- How to effectively gather and assess preliminary information prior to beginning the diagnostic process (including the first course on using DDCSN).
- Understanding basic electrical concepts, tools, and wiring diagrams.
- Hands-on troubleshooting of faults using the latest electronic tools.
- Practical problem solving using snapshot data.
- Practical problem solving methods to examine fuel economy issues.
- Practical problem solving for issues caused by incorrect parameter settings.
- Understanding cylinder diagnostics using electronic tools.
- Developing an effective methodology for troubleshooting problems by examining real life case in an interactive format.



## Detroit Diesel / Mercedes Benz Engine Courses

### ***DD15 Engine Diagnostics***

***Course # CEP02***

***Duration:*** 5 Days

***Fee:*** \$1600.00 + applicable taxes

DD15 Engine Diagnostics Course Prerequisites:

- CEP01 DD15 Major Repair Certification
- CEU01 2007 Product Update (recommended only)

DD15 Engine Diagnostics Course Description:

This 5 day course is designed to give students a practical, comprehensive look at all phases of the troubleshooting process for DD15 engine and electronics.

Review of each engine system including;

- EGR
- Fuel
- After treatment
- Electronic
- Vehicle Electronics
- Trouble Shooting Methods

The course material includes

- How to effectively gather and assess preliminary information prior to beginning the diagnostic process.
- Hands-on troubleshooting of faults using the latest electronic tools.
- Practical problem solving using Log Files.
- Practical problem solving methods to examine fuel economy issues.
- Practical problem solving for issues caused by incorrect parameter settings.
- Understanding cylinder diagnostics using electronic tools.
- Developing an effective methodology for troubleshooting problems by examining real life case in an interactive format.



## Allison Automatic Transmission Courses

### ***Allison Doc™ Diagnostic Tool Training for Qualified Body Builders and OEMs***

***Duration:*** 2 days

***Fee:*** \$640.00 + applicable taxes

*Description:*

Allison DOC™ for PC (Diagnostic Optimized Connection) is the essential tool for use with 1000/2000/3000/4000 Product Families of automatic transmissions. This program provides a systematic approach to perform system diagnostics, troubleshooting, and reprogramming of selected parameters. The first day of training provides an understanding of the transmission operations, specific electronic input/output functions and circuitry, and mandatory vehicle interface connections. The second day covers specifics of Allison DOC™ including navigation through the tool's computer screens, using the demo mode/graphics monitor/strip chart option, accessing specific troubleshooting manual pages within the tool and instruction on use of the TRANSHEALTH™ feature.

### ***1000/2000 Product Families Maintenance ILT***

***Duration:*** 2 days

***Fee:*** \$640.00 + applicable taxes

*Description:*

This two-day instructor-led training program is available upon completion of the E-Lear WBT 1000 & 2000 Product Families Maintenance Technician Training Path. Covered topics provide reinforcement and practical application of WBT modules and focus on transmission diagnostics. Upon successful completion, attendees receive TCM Preprogramming Certification, which can be provided to SPX-Kent Moore for Allison DOC™ Reprogramming activation.

*Training topics include:*

- Available Technician and Diagnostic Resources
- Preventive Maintenance Procedures and Resources
- Maintenance Technician Repairs
- Diagnostic First Steps
- General Troubleshooting procedures and Scenarios



## Allison Automatic Transmission Courses

### ***3000/4000 Product Families Maintenance ILT***

***Duration:*** 2 days

***Fee:*** \$640.00 + applicable taxes

***Description:***

This two-day instructor-led training program available upon completion of the E-Lear WBT 3000 & 4000 Product Families Maintenance Technician Training Path. Covered topics provide reinforcement and practical application of WBT modules and focus on transmission diagnostics. Upon successful completion attendees receive TCM Preprogramming Certification which can be provided to SPX-Kent Moore for Allison DOC™ Reprogramming activation.

***Training topics include:***

- Available Technician and Diagnostic Resources
- Preventive Maintenance Procedures and Resources
- Maintenance Technician Repairs
- Diagnostic First Steps
- General Troubleshooting procedures and Scenarios

### ***3000/4000 Product Families Combined Overhaul***

***Duration:*** 3 days

***Fee:*** \$900.00 + applicable taxes

***Description:***

This program provides a thorough understanding of transmission overhaul. The three-day instructor-led course focuses on a specific Product Family (3000 or 4000) for two days and uses the third day to introduce the differences between the 3000 and 4000 Product Families. Training includes hands-on lab activities using transmissions from both Product Families. Upon successful completion, attendees receive 3000 Product Family and 4000 Product Family Overhaul Technician accreditation.



***4<sup>th</sup> Generation Controls Familiarization***

***Duration:*** 2 days

***Fee:*** \$640.00 + applicable taxes

***Description:*** This course will cover Allison 4<sup>th</sup> Generation controls released in 2005, which is used on the 1000, 2000, 3000, and 4000 series Allison Transmissions. Subject matter covered in this 2 day course will be:

- Components
- Vehicle Interface
- Hydraulics
- J1939 Data Link
- Diagnostics using Allison DOC

***AT/ MT/ HT Service Training***

***Duration:*** 3 days

***Fee:*** \$900.00 + applicable taxes

***Description:***

This program covers the operational theory, preventive maintenance and Troubleshooting of the Allison AT-500, MT-600 and HT-700 transmissions. Basic operation of torque converter clutches, gearing and hydraulic controls; including maintenance, inspection, adjustments, and troubleshooting will be discussed in the class room.



## Allison Automatic Transmission Courses

### ***AT & MT Overhaul Training***

***Duration:*** 5 days

***Fee:*** \$1600.00 + applicable taxes

#### *Description:*

AT 500 MT 600 training as a combined course. This program provides an understanding of the transmission operation, construction, service requirements, and troubleshooting. Classroom topics include torque converter operation, power flows, clutches, retarder operation (where applicable), hydraulic control systems, and preventive maintenance. Hands-on exercises cover disassembly and reassembly of a transmission.

### ***HT Overhaul Training***

***Duration:*** 5 days

***Fee:*** \$1500.00 + applicable taxes

#### *Description:*

HT 700 Series Overhaul Training program provides an understanding of the transmission operation, construction, service requirements, and trouble shooting. Classroom topics include torque converter operation, power flows, clutches, retarder operation (where applicable), hydraulic control systems, and preventive maintenance. Hands-on exercises cover disassembly and reassembly of a transmission.