



David F. Merrion is the retired Executive Vice-President-Engineering for Detroit Diesel Corporation and currently serves as a consultant to DDC. He was the Compliance Auditor for the Consent Decree DDC signed with EPA/CARB/DOJ in 1998. He is the Chairman of David F. Merrion, LLC, his consulting company, Chairman of Truck Emission Control Technologies, Inc. on the Technical Advisory Board of Achates Power, Inc. and an expert witness

He started his career at Detroit Diesel Engine Division of General Motors in 1954 as a General Motors Institute cooperative student. He graduated from GMI with a bachelors in mechanical engineering following completion of a bachelors/master program at Massachusetts Institute of Technology where he was granted a masters degree in mechanical engineering in 1959.

Following graduation he had assignments in Product Engineering, Research & Advanced Development, and Application Engineering. In 1980 he became Director, Product Engineering for Detroit Diesel when the Series 60 engine design was started. Subsequently he became Director, Diesel Engine Sales and became General Director – Engineering for Detroit Diesel Allison Division in 1983. In 1988 assumed his Vice President position with Detroit Diesel Corporation.

He is a SAE fellow, a member of ASME. He has been the SAE Buckendale Lecturer and in 2002 was honored as the ASME Soichiro Honda Lecturer. He is the past president of the Engine Manufacturers Association, past member of the U.S. Federal Fleet Conversion Task Force, the U.S. Alternative-Fuels Council, and the U.S. EPA Mobile Source Technical Advisory Council.

In 2002 he participated in the National Academy of Science (NAS) review of the Partnership for a New Generation of Vehicles (PGNV) research program. In 2006 he was awarded a patent for a diesel electric hybrid engine / vehicle. In 2007 he served on the NAS committee reviewing the DOE 21<sup>st</sup> Century Truck Partnership. In 2008 he was appointed to the NAS committee for “Assessment of Fuel Economy Technologies for Medium and Heavy Vehicles”. In 2009 he received the ASME Soichiro Honda Medal for his contribution to the diesel engine industry. In 2010 he was appointed to the NAS Committee for the Phase 2 review of the DOE 21<sup>st</sup> Century Truck Partnership Program. In 2011 he was appointed to the NAS for “Assessment of Technologies for Improving Fuel Economy of Light-Duty Vehicles-Phase 2. In 2012 he received the SAE Powertrain Innovation Award.

# David F. Merrion

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**Objective** To provide consulting services regarding diesel engines, diesel combustion, alternative fuel engines, alternate fuels, hybrid powertrains, emissions from engines and government regulations on engines. To provide expert witness testimony regarding product liability cases and regarding asbestos in diesel engines.

**Experience** 2000 - Present David F. Merrion LLC Brighton, MI

**Consultant**

- Consultant to Detroit Diesel Corporation
- Consultant to General Motors Corporation
- Consultant to Penske Corporation
- Consultant to Eaton Corporation
- Consultant to Catalytica Energy Systems Inc.
- Consultant to Clean Diesel Technologies Inc.
- Consultant to Converter Technology Inc.
- Expert Witness for General Motors Corporation
- Expert Witness for International Truck and Engine Corporation
- Expert Witness for Freightliner LLC
- Expert Witness for Detroit Diesel Corporation
- Expert Witness: 20+ depositions
- President & CEO Entec Engine Corp. (former)
- BOD of Catalytica Energy Systems Inc. (former)
- BOD of Clean Diesel Technologies Inc. (former)
- BOD of Hy-Drive Technologies Ltd. (former)
- Chairman of BOD Truck Emission Control Technologies Inc. (current)
- Consultant to Achates Power, Inc. (current)
- Consultant to AquaFuel Inc. (current)
- Consultant to General Electric (Transportation, Power, Energy)

**Experience** 1988 - 1999 Detroit Diesel Corporation Detroit, MI

**Executive / Senior Vice President Engineering**

- Chief Technical Officer
- Worked closely with Roger Penske on many projects.
- Member of the DDC Executive Committee.
- Introduced new diesel engine in 1988 resulting in market share increasing from 3% to 28%.
- Developed several alternate fuel engines, methanol, ethanol, and natural gas.
- Developed three new diesel engine series in cooperation with Daimler Benz, Series 55, Series 2000, Series 4000.
- On team to purchase Italian engine manufacturer - VM Motori.
- On team to take DDC public in 1993.

## Experience

1983 -1987            Detroit Diesel Allison Div. Of General Motors            Detroit, MI

### **General Director of Engineering**

- Responsible for diesel engines and automatic transmissions.
- Developed the 8.2L diesel engine and the Series 60 diesel engine.
- Developed electronic fuel injection system.
- Attempted joint venture with Deere & Co.

1983                    Detroit Diesel Allison Division                    Detroit, MI

### **Director Diesel Engine Sales**

1981 – 1983            Detroit Diesel Allison Division                    Detroit, MI

### **Director Diesel Engineering – DDA**

1959 – 1981            Detroit Diesel Allison Division                    Detroit, MI

- **Chief Engineer 71/92 engines**
- **Chief Engineer Applications**
- **Staff Engineer Research & Development**
- **Staff Engineer Emissions & Combustions**
- **Supervisor Emissions**
- **Project Engineer - Combustion**

## Experience

1954 - 1959            Detroit Diesel Engine Division GM                    Detroit, MI

### **Co-op Student**

## Experience

1954 - 1959            General Motors Institute (Kettering University)

- BSME degree (honors)

1958 - 1959            Massachusetts Institute of Technology

- MSME degree

1980                    University of Western Ontario  
Management School for six weeks

## Patents

US PTO 7,028,793 B2 April 18, 2006 – Diesel Electric Hybrid Engine / Vehicle

## Publications

“Effect of Design Revisions on Two-Stroke Cycle Diesel Engine Exhaust”, SAE1968

“Diesel and Turbine Driven Vehicles and Air Pollution” University of Missouri, 1969

“Reducing Hydrocarbons and Odor in Diesel Exhaust by Fuel Injector Design” SAE February 1970

“Some Effects of Fuel Injection System Parameters on Diesel Exhaust Emissions” SAE 1970

“Two-Stroke Cycle Diesel Engine Fuel Economy Improvement and Emission Reduction – SAE 1977 770255

“Diesel Engine Design for the 1990” SAE Buckendale Lecturer, March 1994

“Diesel Engine Reference Book” chapter 23 on trucks and buses, 1999

“Heavy Duty Diesel Emission, Fifty Years, 1960-2010” ASME Sochiro Honda Lecturer, September 2002

“Heavy Duty Diesel Emission Regulations, Past, Present Future” – SAE March 2003

“Review of the Research program of the Partnership for a New Generation of Vehicles , Seventh Report” NRC 2001

“Review of the 21<sup>st</sup> Century Truck Partnership” NRC 2008

“Technologies and Approaches to Reducing Fuel Consumption of Medium and Heavy-Duty Vehicles” NRC 2010

“Review of the 21<sup>st</sup> Century Truck Partnership – Phase 2” NRC 2011

“The Development of a Complete Family of Compression Ignition Multi-Fuel Engines” General Motors Engineering Journal, First Quarter 1964.

## **Activities**

- Member Society of Automotive Engineers – elected SAE Fellow 1995
- Member American Society of Mechanical Engineers
- Advisory Board – Wayne State University – Dean of Engineering (former)
- Advisory Board – University of California – Riverside – CCERT (former)
- US EPA Mobile Sources Technical Advisory Committee (former)
- Engine Manufacturers Association Board of Directors (former) (former President)
- Coordinating Research Council (former)
- US Alternate Fuels Council (former)
- US Federal Fleet Conversion Task Force (former)
- Chairman, Green Vision Technology, LLC
- President and CEO Entec Engine Corporation (former)
- Board of Directors, Catalytica Energy Systems, Inc. (former)
- Board of Directors, Clean Diesel Technologies Inc. (former)
- Board of Directors, Hy-Drive Technologies Ltd. (former)
- Board of Directors, Chairman; Truck Emission Control Technologies, Inc.
- National Academy of Science Committees (NRC) 4 former, one current
- Chairman, SAE John Johnson Award Committee
- Oak Pointe Homeowners Association, Past President
- Palm Island Club Villas Association Board (former)