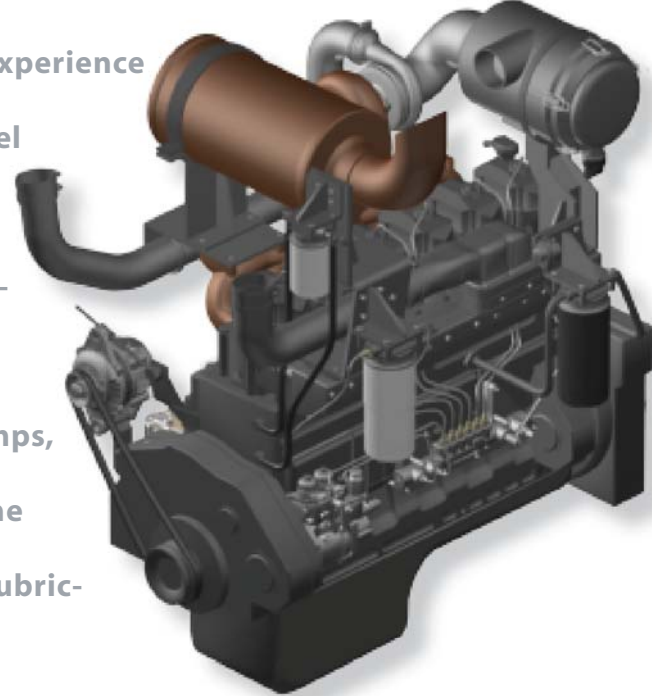


Diesel Engines

Model 47913

Our Diesel Engines course delivers an interactive training experience designed to help you understand the fundamentals of Diesel Engines. Begin by learning combustion fundamentals and a brief history of diesel engines. Identify the various components of a typical diesel engine and how these components function and interact with each other. Understand fuel pumps, fuel injectors, and intake and exhaust systems, and study the components of the diesel fuel system. Learn about engine lubrication and see how engine cooling systems work.



- **Combustion Fundamentals** Begin this course with an overview of the history of diesel engines. Learn to differentiate between the two-stroke and four-stroke engine. Master the basic terminology connected with engine output such as energy, force, work, torque, and horsepower.
- **Engine Components** Differentiate between direct and indirect injection engines. Identify their components and the functions of the cylinder head, the cylinder block, and the engine. Describe the process of engine combustion and how a diesel engine turns latent chemical energy into mechanical power.
- **Air Intake and Exhaust** Diesel engines are designed around an intake and exhaust system. Discover how to regulate these systems for efficient engine performance.
- **Diesel Fuel Systems** Study the functions of the components of the diesel fuel system. Explore fuel storage and handling issues as well as common alternative fuels.
- **Fuel System Components** Further investigate fuel system components such as the variety of fuel pumps, fuel injectors, and governors.
- **Engine Lubrication** Study the importance of oil in a working engine. Learn the varied and vital functions oil performs in an internal combustion engine, beyond simply lubrication.
- **Engine Cooling** Discover how a cooling system controls engine temperature to prevent engine failure due to overheating. Study the components of an engine cooling system and their functions.
- **Electrical System** Learn how the battery, charging, and starting systems integrate with the fuel system to supply power to a vehicle.
- **Diesel Exhaust Emissions** Review the sources and types of regulations governing emissions and how they effect the construction and function of a diesel engine. Summarize the technology that reduces these emissions, and become familiar with the testing procedures used to ensure compliance.

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