



# 8 VALVE ENGINE WITH TURBO DIESEL COMMON-RAIL CUTAWAY

A1

Product number  
AE36015E

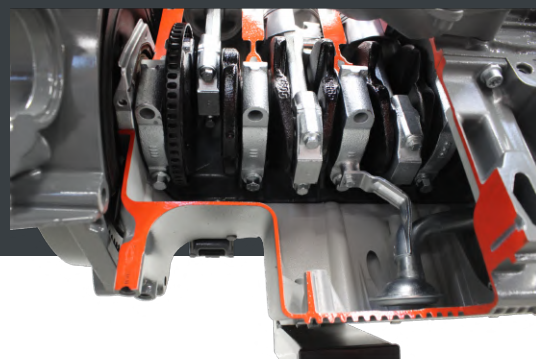
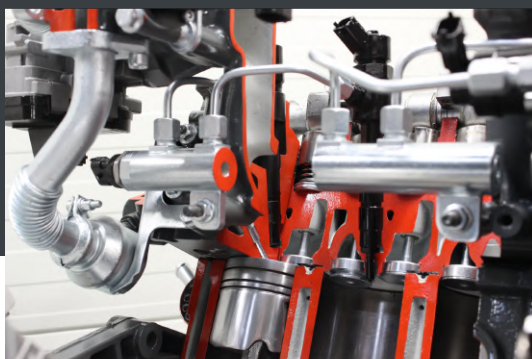


8-valve turbo diesel engine with a 1900 cm<sup>3</sup> displacement and 115 hp at 4000 RPM. This 4-stroke, 4-cylinder inline engine includes advanced components such as a turbo-supercharger, common rail direct injection system with electro-injectors, and a high-pressure pump capable of reaching 1,350 bar. It operates at a reduced speed of 220 volts for clear observation of mechanical functions, including a complete lubrication system with a gear pump and cartridge filter, as well as a cooling circuit with a water/oil exchanger. The engine's internal parts are meticulously sectioned and painted for educational clarity, making it an invaluable tool for technical training.



## Features

- 4-stroke, 4-cylinder inline, turbo diesel with a displacement of 1900 cm<sup>3</sup>.
- 115 hp at 4000 RPM.
- Common rail-type direct injection with electro-injectors, high-pressure pump (up to 1,350 bar), and common rail piping.
- Includes a fixed-geometry turbo-supercharger.
- Runs at a reduced speed for enhanced observation.
- Features a complete cooling circuit, including a radiator and water/oil exchangers, and a lubrication system with a gear pump and cartridge filter.
- Sectioned and painted to clearly differentiate various parts, with chromium-plated and galvanized components for durability.





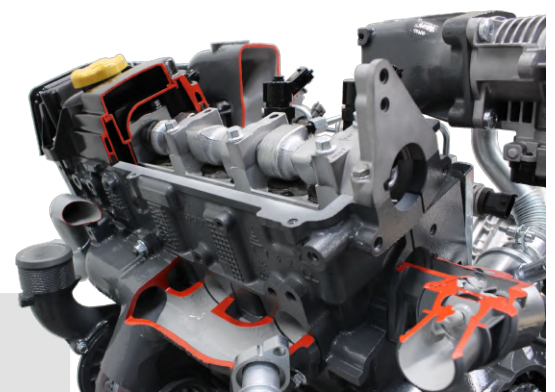
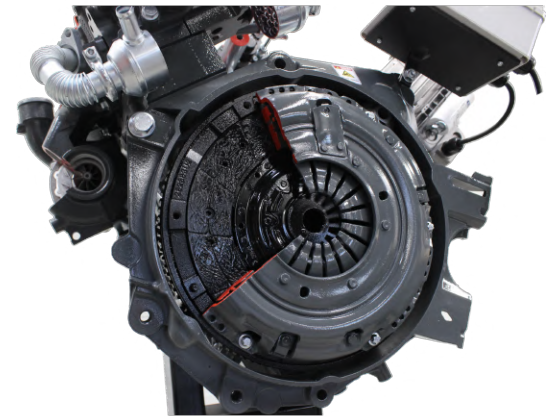
## Value for Students

- Study a 4-stroke, 4-cylinder in-line engine with a displacement of 1900 cm<sup>3</sup> and an output of 115 hp at 4000 RPM. Observe and understand the interaction between the overhead camshaft (OHC), timing belt, and 2 valves per cylinder.
- Explore the operation of the turbo-supercharger and the common rail direct injection system with electro-injectors. Gain insights into the components involved, such as the radialjet high-pressure pump and the common rail feeding piping.
- Analyze the common rail-type direct injection system with high-pressure injectors and an integrated fuel management system that allows for injection up to 100mm<sup>3</sup> and operates at pressures up to 1,350 bar.
- The engine operates at 220 volts and runs at a reduced speed, enabling students to clearly observe and understand the mechanical parts, including the lubrication system with an oil pump, filter, and cooling circuit.
- Learn about the construction and function of various engine parts, including the cylinder head, valves, timing belt, and lubrication components, all professionally painted and sectioned for clarity.



## Value for Instructors

- Utilize a cutaway engine model to demonstrate the workings of turbo diesel systems, common rail fuel injection, and mechanical components in a practical, visually accessible format.
- The cutaway design, coupled with the engine's operational capabilities, facilitates an in-depth understanding of complex engine systems, supporting both theoretical instruction and hands-on training.
- The model features chromium-plated and galvanized parts for increased longevity, ensuring reliable use over multiple training sessions.
- The engine's operation at a reduced speed allows for a safe and controlled learning environment, making it easier to teach intricate engine functions without the risks associated with full-speed operation.



## Specifications

- Dimensions: 900 x 1000 x 1200 mm (35.43 in x 39.37 in x 47.24 in)
- Weight: 150 kg (330 lb)
- Product number: AE36015E