DIESEL ENGINE WITH COMMON RAIL (CR) EURO 6 EDUCATIONAL TRAINER

A9/L2

Product number
MVCR04

Fully functional diesel engine trainer featuring a EURO 6 Common Rail fuel system, complete with a high-pressure fuel pump, injectors, and electronic control unit (ECU). It includes an OBD II diagnostic connector, integrated 12V battery, and a comprehensive electrical schematic for detailed study. The trainer is designed for hands-on learning, fault simulation, and system diagnostics, providing a realistic experience of modern diesel engine operation.

Features

- Common Rail fuel system, includes a high-pressure fuel pump, fuel accumulator, and injectors, enabling detailed study of fuel injection pressure and timing.
- Electronic Control Unit (ECU) features a complete engine management system with sensors such as RPM, mass air flow, fuel pressure, and more, controlled via the ECU.
- OBD II diagnostic connector for real-time monitoring, fault code management, and system parameter adjustments.
- Control panel equipped with dashboard controls, electrical diagram with measuring contacts, fuses, ignition key, and emergency shutdown key for safe operation.
- Jumper-based fault simulation capabilities, allowing for practical troubleshooting exercises.
- Metal frame with wheels for easy mobility and classroom adaptability.
- Plug and play design, requiring no additional mountings, assembly, or special preparation for operation.

Value for instructors

- Demonstrate the intricate workings of a modern diesel engine, including its Common Rail fuel system, to provide students with practical, hands-on learning experiences.
- The integrated control panel with labeled components, jumpers, and electrical contacts simplifies the process of conducting lessons, allowing for quick setup and efficient classroom integration.
- The ability to simulate faults and manage diagnostic procedures using the OBD II connector helps teachers create realistic training scenarios that enhance student understanding.
- Removable panels that protect against hot and rotating parts, while allowing easy access to the engine for maintenance and instructional purposes.
- The mobile frame designed for easy movement and integration into various classrooms. Allows concurrent use by multiple students, promoting collaborative learning and practical training opportunities.
- Closed steel frame with internal wiring for clean and safe learning environment while maintaining the model's durability.
- Requires small adjustments to reset to default parameters, making it easy to prepare and start each lesson.

Value for students

- Fully functional OEM diesel engine with 6 Common Rail fuel system, mounted on a frame, simulating real-world automotive environments.
- Learn to diagnose and troubleshoot engine issues using the OBD II diagnostic connector, allowing for fault code retrieval, error deletion, and performance monitoring.
- Study the structure and operation of the Common Rail fuel injection system, including high-pressure fuel pumps, injectors, and the fuel accumulator, offering insights into fuel injection timing, pressure control, and fuel economy optimization.
- Utilize the provided electrical diagram to understand the interconnections between sensors, control units, and actuators, facilitating a clear comprehension of engine management systems.
- Perform various laboratory tasks, such as simulating engine failures by manipulating jumpers and observing the resultant changes in engine behavior.

Specifications

- Dimensions: 1200 x 980 x 1720 mm (47.24×38.58×67.72 in)
- Weight: approx.. 300 kg (660 lb)
- Power source: Integrated 12V battery
- Product number: MVCR04