Email :
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Product Name :	**Product Code :**
Engine Trainer Diesel Common Rail engine with all components, Break-Out Boxes and OBD	LIM-CAT-L0072-00059

Description :

Engine Trainer Diesel Common Rail engine with all components, Break-Out Boxes and OBD

Technical Specification :

Engine Trainer: Diesel Common Rail engine with all components, Break-Out Boxes & OBD
Built on a mobile frame made of high-strength aluminum profile
Instrument cluster, fuse block, ignition start switch, emergency stop switch and component simulation are installed on the control panel on the front side.
Component simulation with representation of different operating conditions and emergency running characteristics
manipulation of single sensors possible
Reaction of the engine management e.g. by evaluation of measured value blocks or error entries visibly comprehensible
Original OBD interface
Interface for student measuring stations
Possibility of connecting workshop-standard diagnostic systems
Pull-out drawer for measuring instruments, laptop or work documents
Built-in and lockable fault circuit with 24 different electrical faults within the engine control system, the voltage supply system, the fuel injection system and the fuel supply system switchable
Resulting malfunctions enable the instructor to perform various realistic learning situations.

Troubleshooting with break-out boxes with test adapter for engine management available

Signals and voltage values of all system-relevant parts and components can be measured or diagnosed
Optionally, parallel measuring adapters can be installed at the plug connections of the components to which faults can be applied
Dismantling-free measurement of the electrical line connections, including in hard-to-reach places.
Residual bus simulation for the generation of required signals of drive components that are not installed, in order to ensure proper function and diagnostic capability without restriction
Rotating components and assemblies with high operating temperatures are protected against accidental contact.
All components used for real function are original components of the respective manufacturers.
Details:
Testing and repair of mechanical, electrical and electronic circuits and systems
Assembly and disassembly work on the engine
Working with maintenance and circuit diagrams
Measuring electrical variables and signals, as well as documenting and evaluating them
Identifying individual components and becoming familiar with their operating characteristics and parameters
Learning to use standard workshop diagnostic equipment
Working with electrical and mechanical measuring and testing devices, e.g. return flow measurement
Checking components in order to be able to decide on necessary repair measures
Learning objectives:
Working with maintenance plans, circuit diagrams, circuit symbols, terminal designations, lines, line connections
Naming mechanical, electrical and electronic components, assemblies and systems
Testing and repairing mechanical, electrical and electronic circuits and systems
Selecting and using mechanical and electrical measuring and testing devices
Measuring and evaluating electrical quantities and signals
Documenting work results and evaluating them by comparing them with calculated variables and manufacturer specifications
Utilize the capabilities of shop diagnostic equipment
Incorporating problem-solving strategies or alternatives during diagnosis
Documenting measured values, signals and error logs and analyzing and evaluating them
Checking individual components and deciding on necessary repair measures.

Scope of Delivery:
Ready-to-use and mobile functional model incl. fault circuit, data sheets, circuit diagrams and operating instructions and interface for student measuring station.
All original components of the respective manufacturer required for function
Control panel with instrument cluster, ignition start switch, emergency stop switch and OBD connection
Lockable component condition simulation for manipulating various sensor values and for displaying emergency running characteristics
Interface for student measuring station
Fuel tank made of sheet steel (20 liters) with original inline fuel pump, control unit for fuel pump and closed original tank venting system
Level indicator via instrument cluster
Battery master switch
Adapter cable set
Break- Out Boxes ECU incl. Mounting frame.