DXI ENGINE BENCH

Réf : SYS-BM.DXI5

The proposed engine bench is a new technology which allows the manufacturer to comply with the EURO 4 and EURO 5 norms. It is equipped with an injection system (*common rail type*) and with an urea injection system with a catalyst. This modern unit allows to study, in addition to the injection system, a very large range of motorization aspects (load circuit, starting circuit, oversupply, cooling, lubrication, fixing…)
The model respects perfectly the vehicle's structure.

Présentation :

The model is constituted of:

The engine :

- DXI 5 type 4 cylinders 4.7 L cubic capacity 220 HP (158 KW).
- Oversupply by turbo compressor with a spill valve.
- Driving brake on exhaust.
- Cooling circuit with radiator and surge tank.
- Starter controlled by the engine management calculator.
- Engine management calculator EMS2.
- Fuel tank and urea tank.
- Urea management calculator ADS.
- Catalyst with urea injector, temperature probe and Nox sensor.

A board with calculators necessary for the good working of the CAN network :

- Screen IC05.
- Accelerator pedal.
- Vehicle management calculator VECU.
- Car radio satellite.
- Relay fuse case EJB.
- Diagnosis plug

Safety components :

- A vat for the liquids retention.

- A battery cut system, an emergency stop system, and a starting contactor.
- Protections for the revolving parts, warm parts and batteries (revolving parts directive).

A lot of measures (captors) allowing further pedagogic operations, integrated in :

- Starting circuit
- Cooling circuit
- Fuel circuit

Pedagogic activities :

The student is going to acquire the following competences :

- Identify the different components of a thermic engine.
- Describe and analyze the engine behaviour (distribution)
- Realize adjustment and fixing operations.
- Identify, describe and analyze the air circuit (oversupply)
- Identify, describe and analyze the exhaust circuit (oversupply and brake)
- Identify, describe and analyze the injection system behaviour and the pollution reduction system.
- Identify, describe and analyze the working of the load circuit, starting circuit, cooling circuit, lubrication.
- Identify and analyze the engine electronic architecture and the exchanges between different calculators.
- Use the diagnosis tools : screen and diagnosis tools (Diag NG3)
- Read and apply the electric diagrams.
- Carry out measures on different sensors and actuators and analyze their principle of operation and their piloting mode.
- Diagnose the different engine systems and specially the injection system.

A complete documentation is delivered with the engine bench giving the trainers the tools to implement quickly the different provided exercises. Its pedagogic exploitation is very broad. This engine bench complies with the requirements from BEP to BTS (French National Education). The proposed model allows incomparable accessibility and visibility.

Characteristics:

Dimensions : (mm) :	Weight (Kg) :
Length= 1500 Width= 1100 Height= 1500	900

Software and documentation supplied on USB key

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POIDS LOURDS