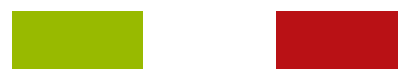


*MECHANICAL SECTIONS  
TRAINING EQUIPMENT*



*MADE IN ITALY*

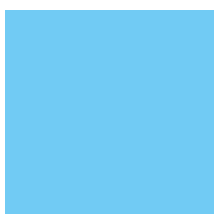


## ENGINES & MODELS

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## Engines & Models



## VB 4300 ELECTRONIC INJECTION MULTIPPOINTS ENGINE WITH PETROL/LPG FEEDING SYSTEM (on stand with wheels) - manual

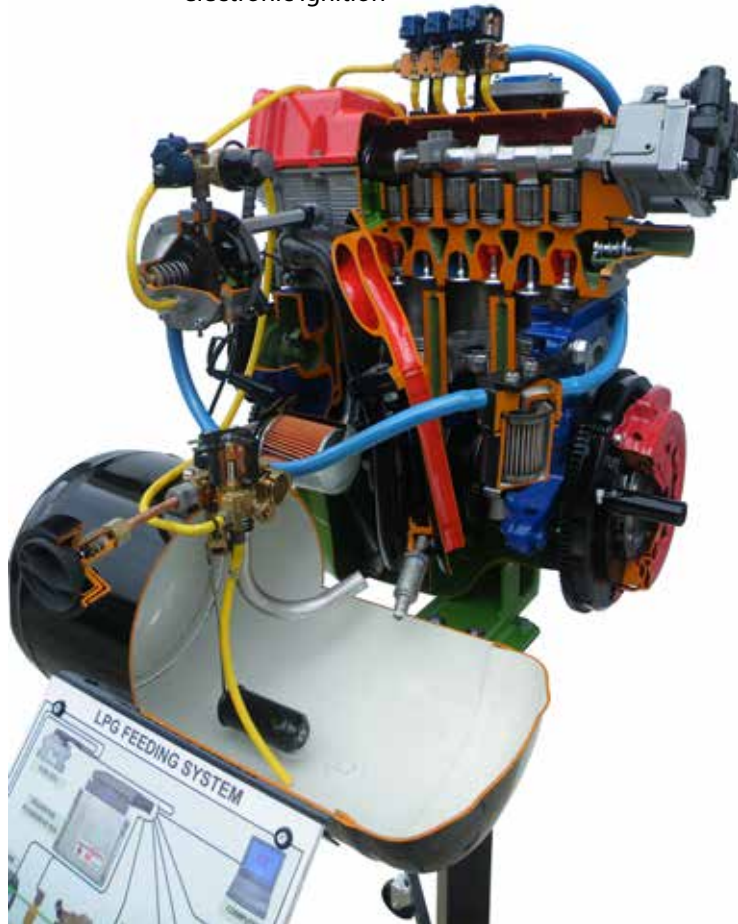
Accurate section of a FIAT engine, where the main components of the two different feeding circuits (Petrol and LPG) are sectioned:

Petrol feeding circuit:

- electro-injectors
- throttle body
- rail
- sensors/ phonic wheel
- Lambda probe
- electronic ignition

LPG feeding circuit:

- genius reducer
- LPG electrovalve
- LPG tank with float device for the charge level
- charge socket
- filter
- rail and LPG electro-injectors



For the engine specifications see [VB 5212](#) at page 32.

Schematic illustration of the different mechanical components together with its electronic and electrical connections.

### VB 4300

#### Approx. weight and dim.:

Cm: 70x80x95h

Net Weight: kg 86

Gross Weight: kg 105



## VB 4500 TOYOTA HYBRID ENGINE 1NZE-FXE HYBRID SYNERGY DRIVE - GASOLINE AND ELECTRIC (on stand with wheels)- manual

## VB 4501 TOYOTA HYBRID ENGINE 1NZE-FXE HYBRID SYNERGY DRIVE - GASOLINE AND ELECTRIC (on stand with wheels)- electrical

The Toyota hybrid system (THS) has two sources of power, the petrol engine and the electric motor. The THS recovers energy otherwise lost to heat in the brakes and uses it to supplement the power of its fuel-burning engine. MG1 (motor generator 1) generates electrical power and starts the engine; MG2 (motor generator 2) drives the vehicle. During deceleration the wheels drive MG2 which acts as a generator for regenerative power recovery. The THS uses different modes to achieve the most efficient operation in response to driving conditions.



### VB 4500

#### Main technical specifications:

- 4 cylinders
- Displacement: 1500 cc
- DOHC overhead camshaft
- 4 valves per cylinder
- Roller chain
- VVT-I system (Variable Valve Timing with intelligence) electronically controlled intake valves
- Multi-point electronic injection with throttle
- Electrical engine
- Epicyclic engine
- Generator
- Transmission belt (CTV)
- Gears
- Differential group
- Exhaust manifold with Lambda probe

The engine is mounted on a stand with wheels and it is operated manually by means of one crank handle placed on the thermal engine and one on the electric engine in order to simulate the different cycles.

### VB 4500

#### Approx. weight and dim.:

Cm:	104x80x130h
Net Weight:	kg 180
Gross Weight:	kg 250

Same as VB 4500 but operated electrically by means of two electric motors: one on the petrol engine and the other on the generator. The electric motors can be operated separately or simultaneously, according to teaching requirements.

The engine is provided with nomenclature panel.

### VB 4501

#### Approx. weight and dim.:

Cm:	130x90x155h
Net Weight:	kg 190
Gross Weight:	kg 300

## VB 4503 HYBRID AND ELECTRIC SYSTEM SIMULATOR - electrical

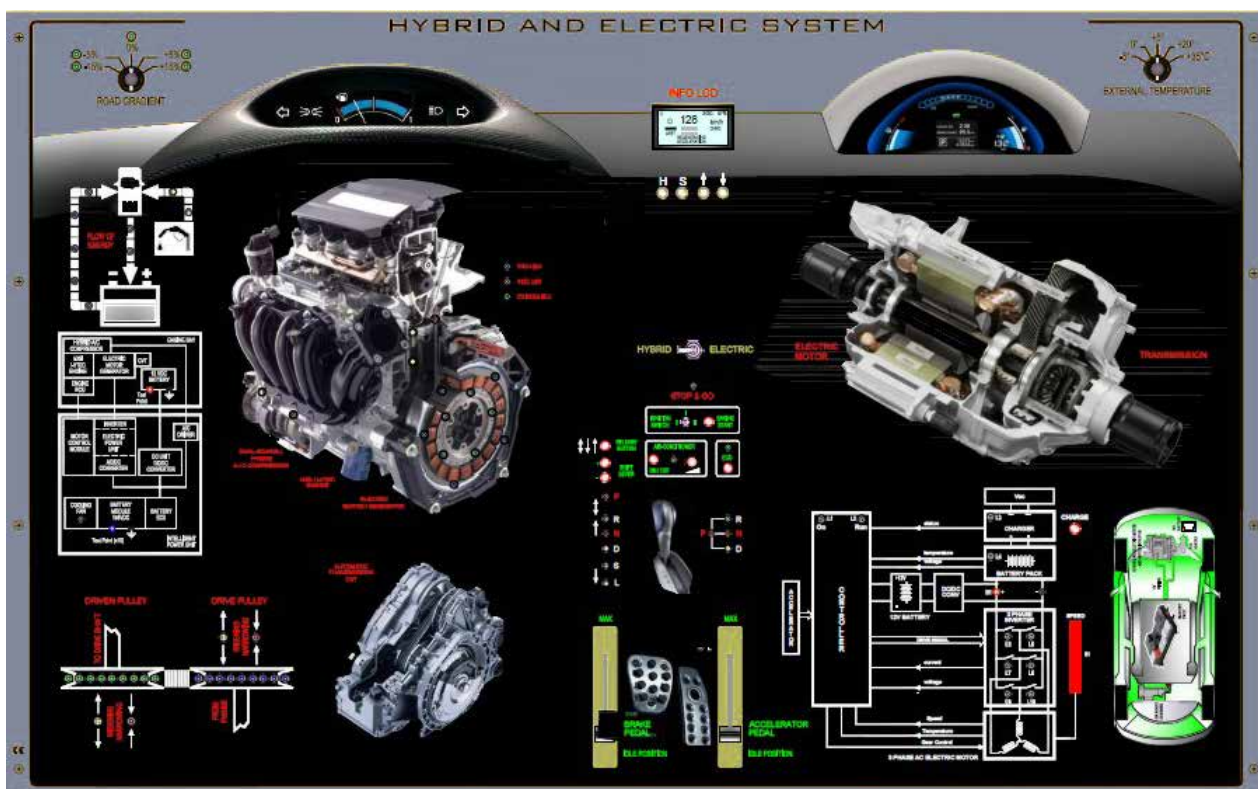
This simulator allows the study of all the operating features of an automobile with a hybrid system (internal combustion engine and electric motor) or completely electric.

It is composed of a panel operated by computer with a silk-screened diagram which explains the positioning of the car components and indicates the features of the system by showing different colours on the panel. Moreover light indicators are on the panel to show for the operation of the system.

Through the computer, the teacher can monitor the entire system and the operational states entered by the students. Moreover, the faults can be inserted and checked by the teacher and with the use of the software practical and theoretical topics can be constantly followed.

An english manual is supplied together with the unit.

The silk-screened panel shows:



### Hybrid system:

- Intelligent Power Unit
  - Battery unit (Ni-MH cells)
  - ECU battery
- Electric Unit:
  - Synchronous 3-phase Electric Motor/Generator with permanent magnets
  - Eco Assist System
- Gasoline Unit :
  - Gasoline Engine
  - i-DSI
  - i-VTEC
  - ECU
- CVT
- A/C Compressor- dual-scroll hybrid mode
- Cooling Fan
- Motor Control Module
- Electric Power Unit
- DC Unit
- A/C Driver

### Electric System

- High-voltage battery module, (Li-ion cells)
- Recharging system by external AV
- 12V battery and recharging
- Electric motor control system
- 3-phase inverter for managing the electric motor
- Inverter control signals and sensors for the voltage and current measurement
- 3-phase AC motor with integrated transmission system
- Integrated sensors in the AC three-phase motor

*The simulator is complete with Training Software and with Control Software.*

*The software guides the student through the learning, simulation and experiments performance, tests and troubleshooting.*

### VB 4503

#### Approx. weight and dim.:

Cm: 104x35x66  
Weight: kg 16



## VB 4400 MAZDA RX TWIN-ROTOR WANKEL ENGINE (on stand with wheels) - manual

Accurate section of the most common Mazda RX wankel engine, clearly showing the following main components:

- Drive shaft with flywheel
- Twin-rotor
- Suction and exhaust channels
- Chain-driven oil pump
- Water pump with thermostatic valve
- Electronic injection
- Twin-spark ignition



*The engine is operated manually by means of a handle.*

### **VB 4400**

#### **Approx. weight and dim.:**

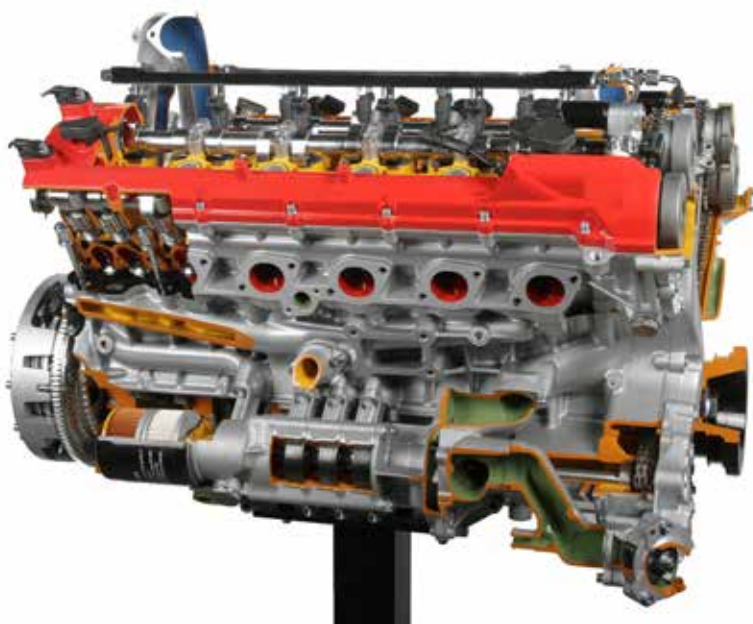
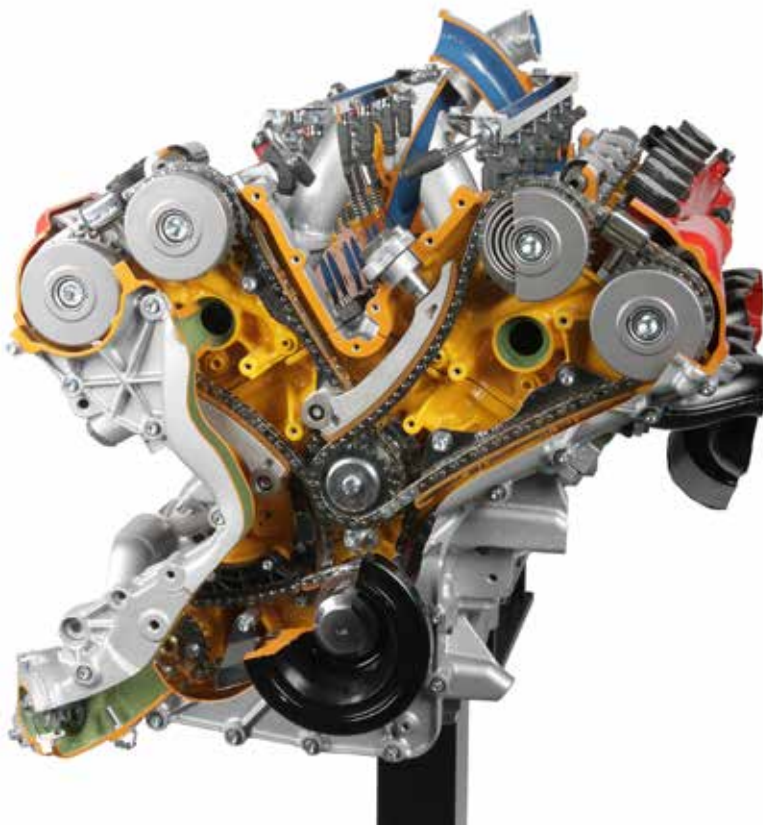
Cm: 70x70x100h

Net Weight: kg 95

Gross Weight: kg 140

**VB 4400**





### **VB 4550**

#### **Main technical specifications:**

- 12 V cylinders
- 4 valves per cylinder
- Displacement: 5999 cc
- DOHC overhead camshaft
- 4 variable timing devices on the camshaft
- Multi-point electronic injection
- Geared distribution
- 3 oil pumps
- Water pump

### **VB 4550**

#### **Approx. weight and dim.:**

Cm:	80x100x130h
Net Weight:	kg 180
Gross Weight:	kg 250

*The engine is mounted on a stand with wheels.*

**VB 4600 PETROL ENGINE WITH DIRECT INJECTION 16 VALVES MULTI-POINT ELECTRONIC INJECTION - 4 CYLINDERS 4 STROKES (on stand with wheels) - electrical**

**VB 4601 PETROL ENGINE WITH DIRECT INJECTION 16 VALVES MULTI-POINT ELECTRONIC INJECTION - 4 CYLINDERS 4 STROKES (on stand with wheels) - manual**

Petrol engines with direct injection (fuel inlet in the combustion chamber and not in the air suction duct), have high performances and are designed to comply with the most severe anti-pollution regulations.

We can provide the following:

**VB 4600/F** - TSI-FSI Audi/Volkswagen

**VB 4600/G** - GDI Mitsubishi



#### **VB 4600 F/J/G**

##### **Main technical specifications:**

- 4 in-line cylinders
- Displacement: 1400-2000 cc
- DOHC twin overhead camshaft
- Multi-point electronic injection
- 4 valves per cylinder
- Water cooling
- 12V alternator

*The engine is mounted on a stand with wheels and it operates at 220V; it runs at a reduced speed in order to let the student easily observe and understand the operation of the various mechanical parts.*

#### **VB 4601 F/J/G**

*Same as VB 4600 but operated manually by means of a crank handle.*

*This cutaway model is carefully sectioned for training purposes, professionally painted with different colours to better differentiate the various parts, cross-sections, lubricating circuits, fuel system, cooling system etc.*

#### **VB 4600 - VB 4601**

##### **Approx. weight and dim.:**

Cm: 90x110x125h  
Net Weight: kg 150  
Gross Weight: kg 210

**VB 4600 - VB 4601**



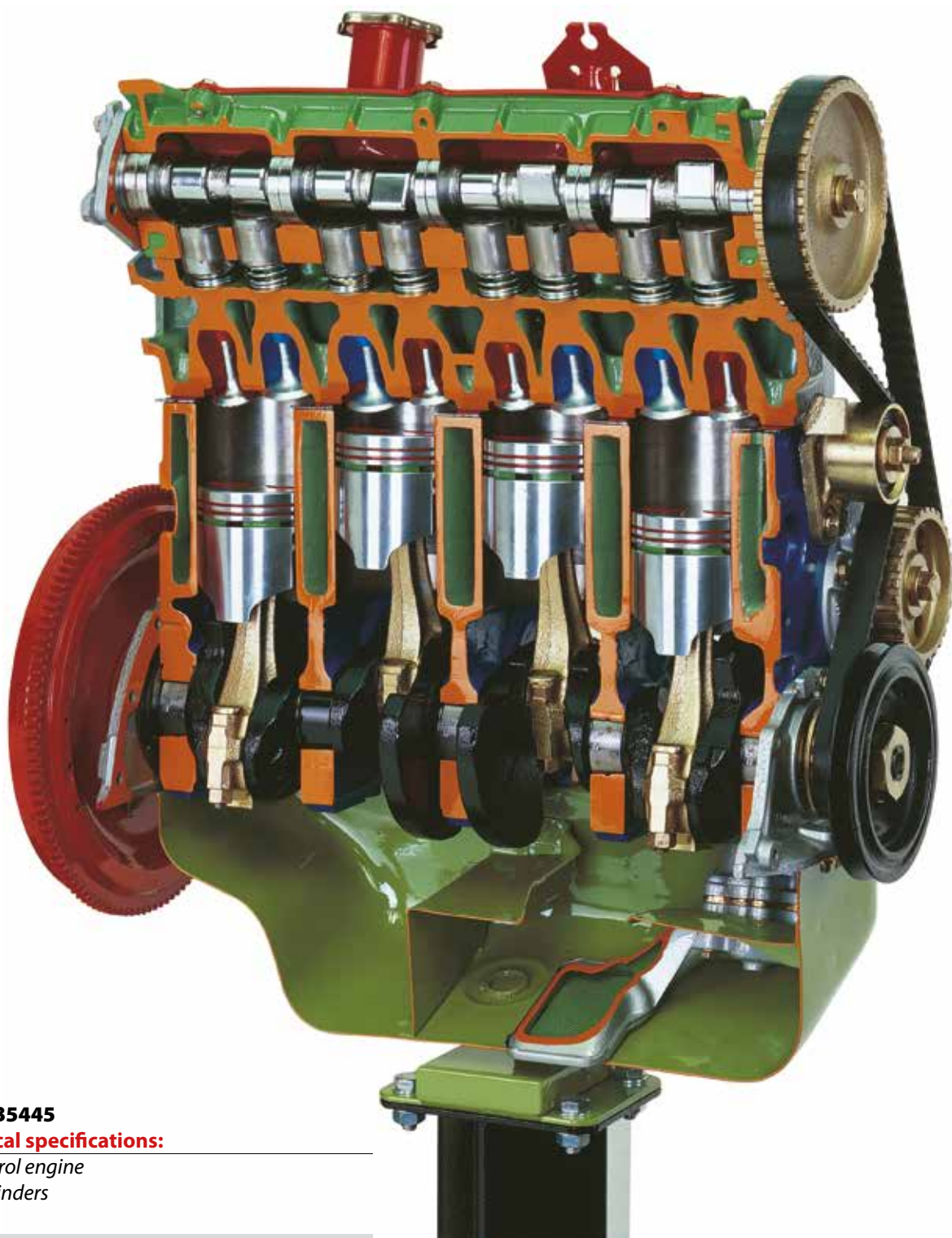
# VB 5440 - VB 5445

**VB 5440 ENGINE UNIT WITH OVERHEAD CAMSHAFT (OHC) AND TOOTHED TIMING BELT (on stand with wheels) - manual**

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**VB 5445 ENGINE UNIT WITH DOUBLE OVERHEAD CAMSHAFT (DOHC) AND TOOTHED TIMING BELT (on stand with wheels) - manual**

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## **VB 5440 - VB5445**

### **Main technical specifications:**

- 4 stroke petrol engine
- 4 in-line cylinders

*The engine is operated manually through a crank handle.*

*This cutaway model is carefully sectioned for training purposes, professionally painted with different colours to better differentiate the various parts, cross-sections, lubricating circuits, fuel system, cooling system etc. Many parts have been chromium, plated and galvanized for a longer life.*

## **VB 5440 - VB 5445**

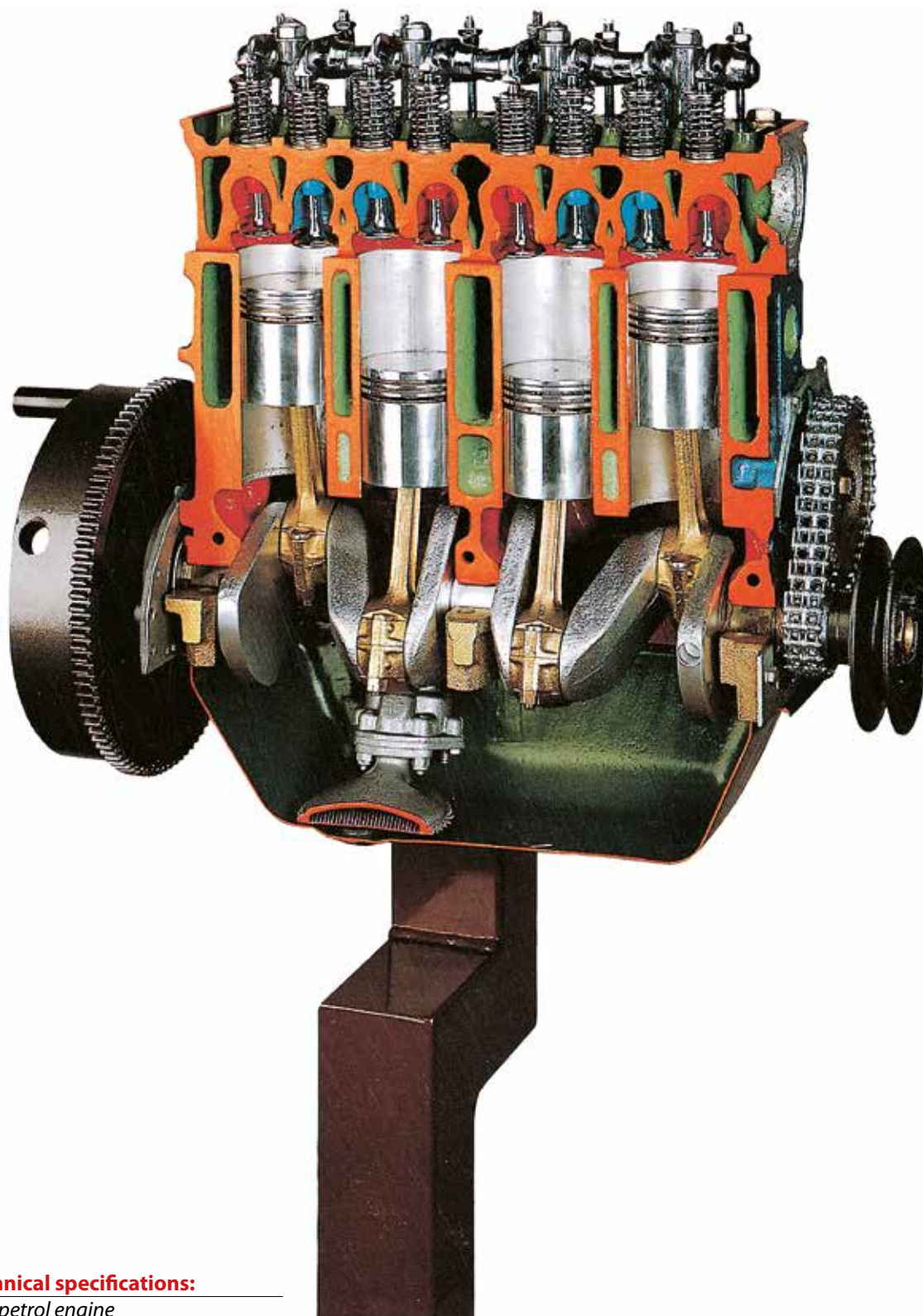
### **Approx. weight and dim.:**

Cm:	70x60x80h
Net Weight:	kg 60
Gross Weight:	kg 110



**VB 5450 ENGINE UNIT WITH OVERHEAD VALVE (OHV) AND TIMING CHAIN  
(on stand with wheels) - manual**

**VB 5450**



**VB 5450**

**Main technical specifications:**

- 4 stroke petrol engine
- 4 in-line cylinders

*The engine is operated manually through a crank handle.*

*This cutaway model is carefully sectioned for training purposes, professionally painted with different colours to better differentiate the various parts, cross-sections, lubricating circuits, fuel system, cooling system etc. Many parts have been chromium plated and galvanized for a longer life.*

**VB 5450**

**Approx. weight and dim.:**

Cm: 70x60x80h  
Net Weight: kg 60  
Gross Weight: kg 110

# VB 4800 - VB 4801

**VB 4800 16 VALVE 4 CYLINDERS FIAT ENGINE WITH MULTI-POINT ELECTRONIC INJECTION (on stand with wheels) - electrical**

**VB 4801 16 VALVE 4 CYLINDERS FIAT ENGINE WITH MULTI-POINT ELECTRONIC INJECTION (on stand with wheels) - manual**



## **VB 4800**

### **Main technical specifications:**

- 4 in-line cylinders
- Displacement: 2000 cu. cm
- DOHC twin overhead camshaft
- Multipoint electronic injection with ignition-integrated control unit
- Vibration-damping balancing shafts
- 4 valves per cylinder
- Water cooling
- 12 Volt alternator
- Membrane clutch

The engine operates electrically at 220 volts and runs at a reduced speed to let the student easily understand and observe the operation of the various mechanical parts.

This cutaway model is carefully sectioned for training purposes, professionally painted with different colours to better differentiate the various parts, cross-sections, lubricating circuits, fuel system, cooling system etc. Many parts have been chromium, plated and galvanized for a longer life.

## **VB 4801**

Same as VB 4800 but operated manually through a crank handle

## **VB 4800 - VB 4801**

### **Approx. weight and dim.:**

Cm: 90x120x125h  
Net Weight: kg 160  
Gross Weight: kg 210



**VB 4805 16 VALVE 4 CYLINDERS FIAT ENGINE WITH MULTI-POINT ELECTRONIC INJECTION + GEARBOX 5 FORWARD SPEEDS + REVERSE (on stand with wheels) - electrical**

---

**VB 4806 16 VALVE 4 CYLINDERS FIAT ENGINE WITH MULTI-POINT ELECTRONIC INJECTION + GEARBOX 5 FORWARD SPEEDS + REVERSE WITH TURBOSUPERCHARGER (on stand with wheels) - electrical**

---



**VB 4805 - VB 4806**

### **VB 4805**

#### **Main technical specifications:**

- 4 in-line cylinders
- Displacement: 2000 cu. cm
- DOHC twin overhead camshaft
- Multipoint electronic injection with ignition-integrated control unit
- Vibration-damping balancing shafts
- Gearbox 5 forward speeds + reverse
- 4 valves per cylinder
- Water cooling
- 12 Volt alternator
- Membrane clutch

### **VB 4805 - VB 4806**

#### **Approx. weight and dim.:**

Cm: 160x86x100h  
Net Weight: kg 195  
Gross Weight: kg 250

*The engine operates electrically at 220 volts and runs at a reduced speed to let the student easily understand and observe the operation of the various mechanical parts.*

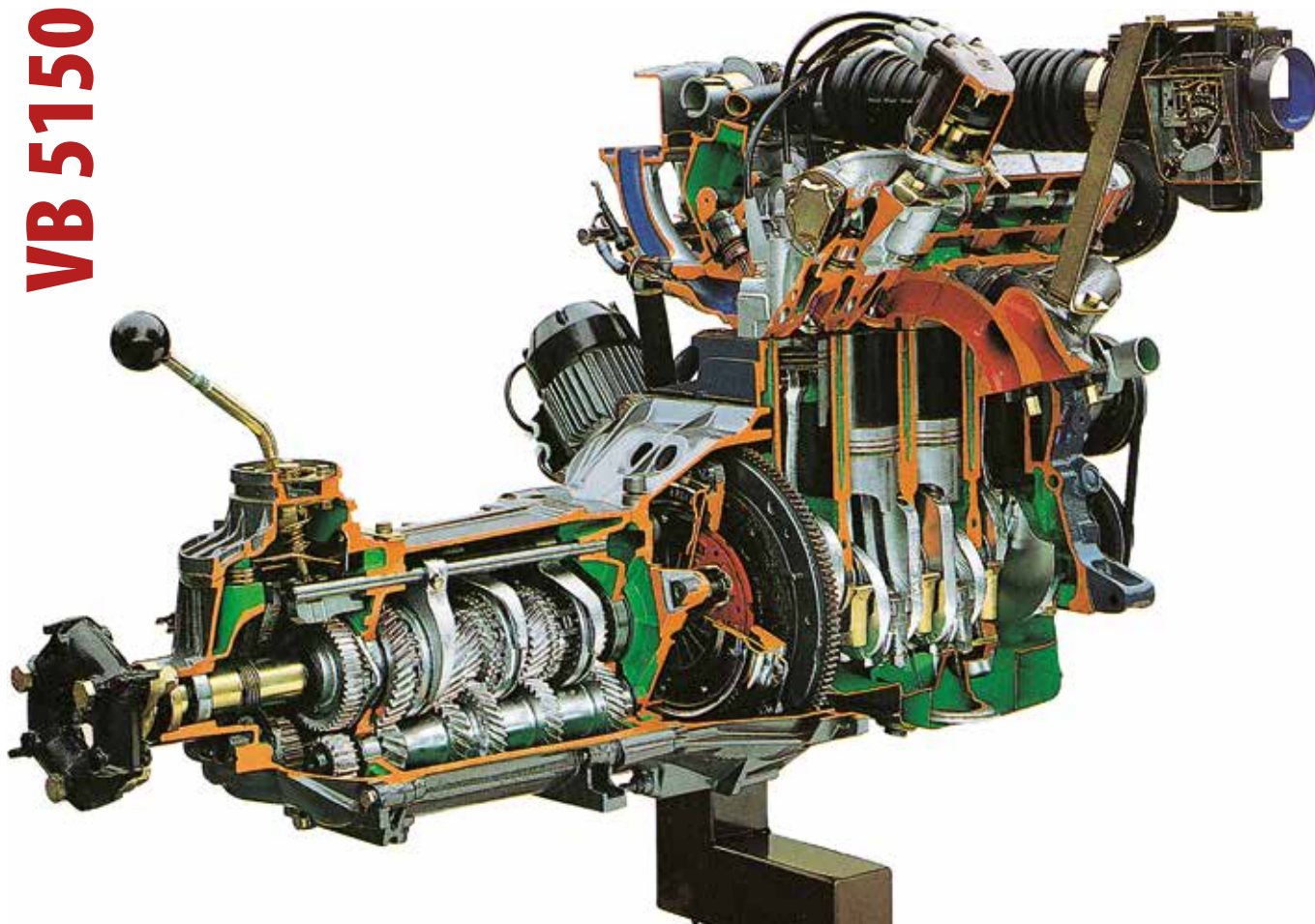
*This cutaway model is carefully sectioned for training purposes, professionally painted with different colours to better differentiate the various parts, cross-sections, lubricating circuits, fuel system, cooling system etc. Many parts have been chromium, plated and galvanized for a longer life.*



# VB 5150 - VB 5152

**VB 5150 FIAT 4 CYLINDERS PETROL ENGINE (LONGITUDINALLY MOUNTED) WITH L-JETRONIC ELECTRONIC INJECTION REAR wheel-DRIVE (on stand with wheels) - electrical**

**VB 5152 FIAT 4 CYLINDERS PETROL ENGINE (TRANSVERSALLY MOUNTED) WITH L-JETRONIC ELECTRONIC INJECTION FRONT wheel-DRIVE (on stand with wheels) - electrical**



## **VB 5150**

### **Main technical features:**

- Displacement: 2000 cu. cm
- 2 overhead camshafts
- MULTIPPOINT electronic injection
- 4 in-line cylinders
- Gearbox: 5 forward speeds + reverse
- Max power: 140 hp.
- Electronic ignition

*The engine operates electrically at 220 volts and runs at a reduced speed to let the student easily understand and observe the operation of the various mechanical parts.*

*This cutaway model is carefully sectioned for training purposes, professionally painted with different colours to better differentiate the various parts, cross-sections, lubricating circuits, fuel system, cooling system etc. Many parts have been chromium, plated and galvanized for a longer life.*

## **VB 5152 FRONT DRIVE**

*Same as VB 5150 with Gearbox 5 forward speeds + reverse and integrated differential and FRONT wheel-drive.*

## **VB 5150 - VB 5152**

### **Approx. weight and dim.:**

Cm: 80x140x110h  
Net Weight: kg 140  
Gross Weight: kg 200

**VB 5000 FIAT 4 CYLINDERS PETROL ENGINE CARBURETTOR  
(on stand with wheels) - electrical**

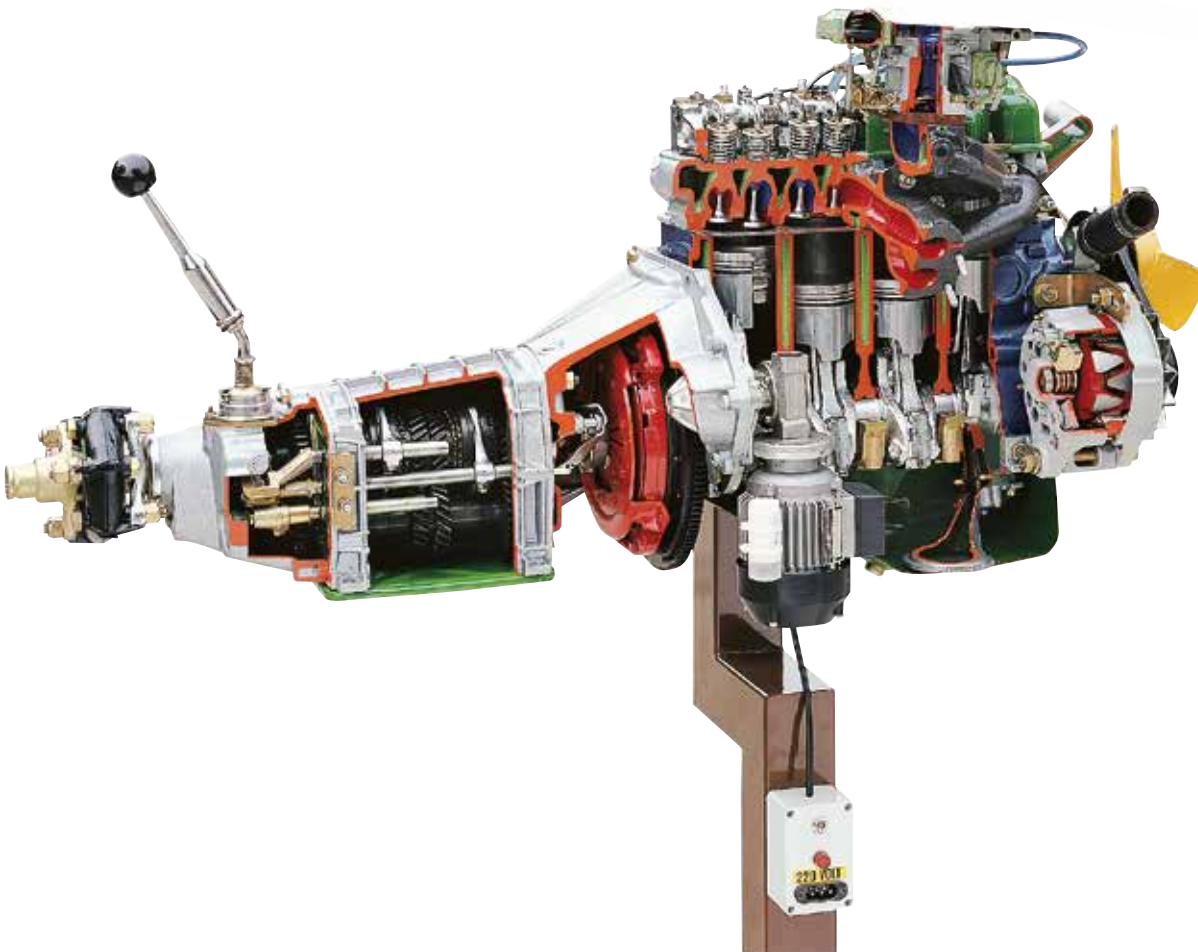
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**VB 5010 FIAT 4 CYLINDERS PETROL ENGINE CARBURETTOR WITH SIMULATED  
IGNITION (on stand with wheels) - electrical**

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**VB 5020 FIAT 4 CYLINDERS PETROL ENGINE CARBURETTOR  
(on stand with wheels) - manual**

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**VB 5000 - VB 5010 - VB 5020**

### **VB 5000**

#### **Main technical specifications:**

- Displacement: 1200/2000 cu. cm approx.
- Camshaft in the crankcase, belt/chain drive
- In-line overhead valves
- Coil ignition
- Mechanical petrol pump
- Gearbox 4 forward speeds + reverse
- Dry single-plate clutch

The engine operates electrically at 220 volts and runs at a reduced speed to let the student easily understand and observe the operation of the various mechanical parts.

This cutaway model is carefully sectioned for training purposes, professionally painted with different colours to better differentiate the various parts, cross-sections, lubricating circuits, fuel system, cooling system etc. Many parts have been chromium, plated and galvanized for a longer life.

### **VB 5010**

Same as VB 5000 with simulated ignition (small bulbs, located at the end of the relevant spark plug, lighting up during the combustion phase).

### **VB 5020**

Same as VB 5000 but operated manually through a crank handle (without geared motor and simulated ignition).

### **VB 5000 - VB 5010 - VB 5020**

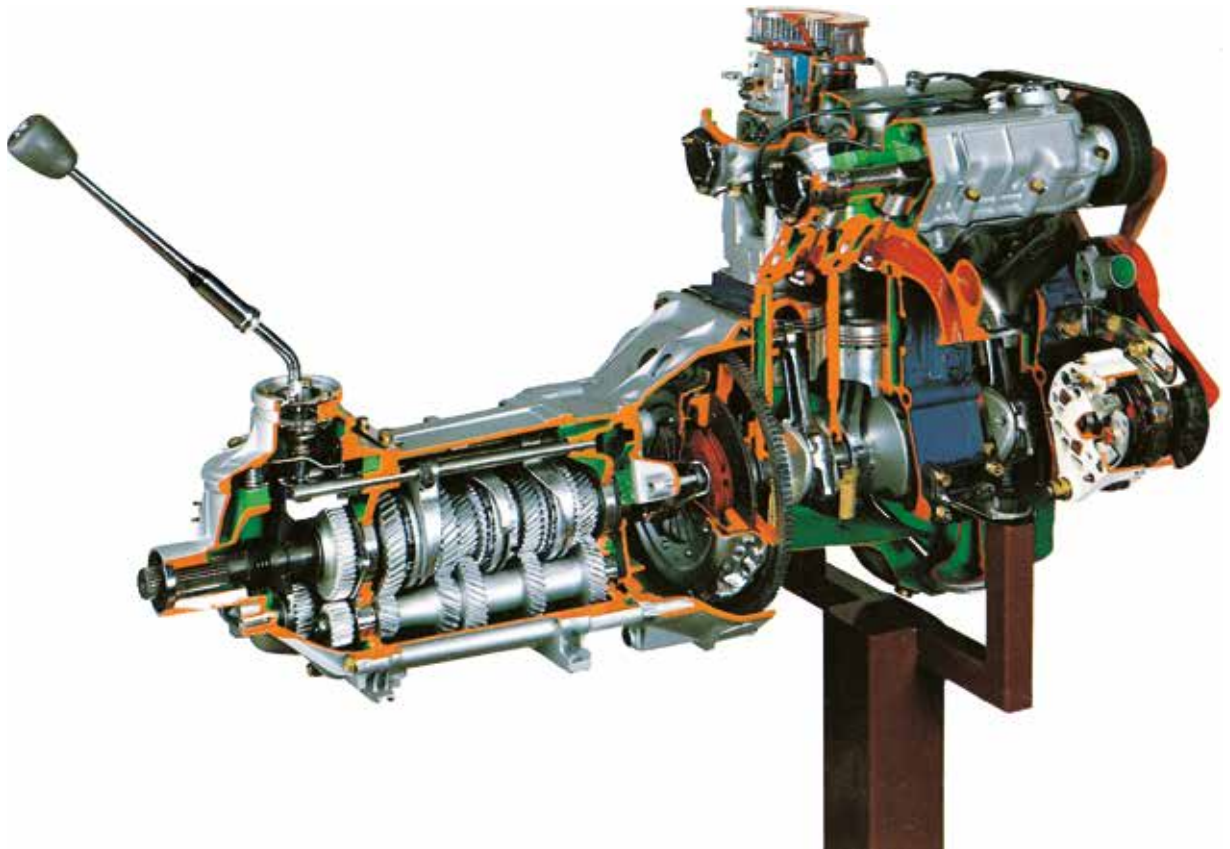
#### **Approx. weight and dim.:**

Cm: 60x155x90h  
Net Weight: kg 140  
Gross Weight: kg 185

**VB 5100 FIAT 4 CYLINDERS PETROL ENGINE TWIN-SHAFT CARBURETTOR  
(on stand with wheels) - electrical**

**VB 5110 FIAT 4 CYLINDERS PETROL ENGINE TWIN-SHAFT CARBURETTOR WITH  
SIMULATED IGNITION (on stand with wheels) - electrical**

**VB 5120 FIAT 4 CYLINDERS PETROL ENGINE TWIN-SHAFT CARBURETTOR WITH  
KKK TURBOSUPERCHARGER + PRESSURE CONTROL VALVE  
(on stand with wheels) - electrical**



## **VB 5100**

### **Main technical specifications:**

- Displacement: 1600/2000 cu. cm
- 2 overhead camshaft driven by a toothed belt
- Overhead valves with V-arrangement
- Coil ignition
- Alternator
- Twin-carburettor
- Gearbox: 5 forward speeds + reverse
- Dry single-plate clutch

*The engine operates electrically at 220 volts and runs at a reduced speed to let the student easily understand and observe the operation of the various mechanical parts.*

*This cutaway model is carefully sectioned for training purposes, professionally painted with different colours to better differentiate the various parts, cross-sections, lubricating circuits, fuel system, cooling system etc. Many parts have been chromium, plated and galvanized for a longer life.*

## **VB 5110**

*Same as VB 5100 with simulated ignition (small bulbs, located on the relevant spark plugs, light up during the combustion phase).*

## **VB 5120**

*Same as VB 5100 but complete with KKK turbo-super-charger and pressure control valve.*

## **VB 5100 - VB 5110 - VB 5120**

### **Approx. weight and dim.:**

Cm: 76x140x100h  
Net Weight: kg 150  
Gross Weight: kg 220

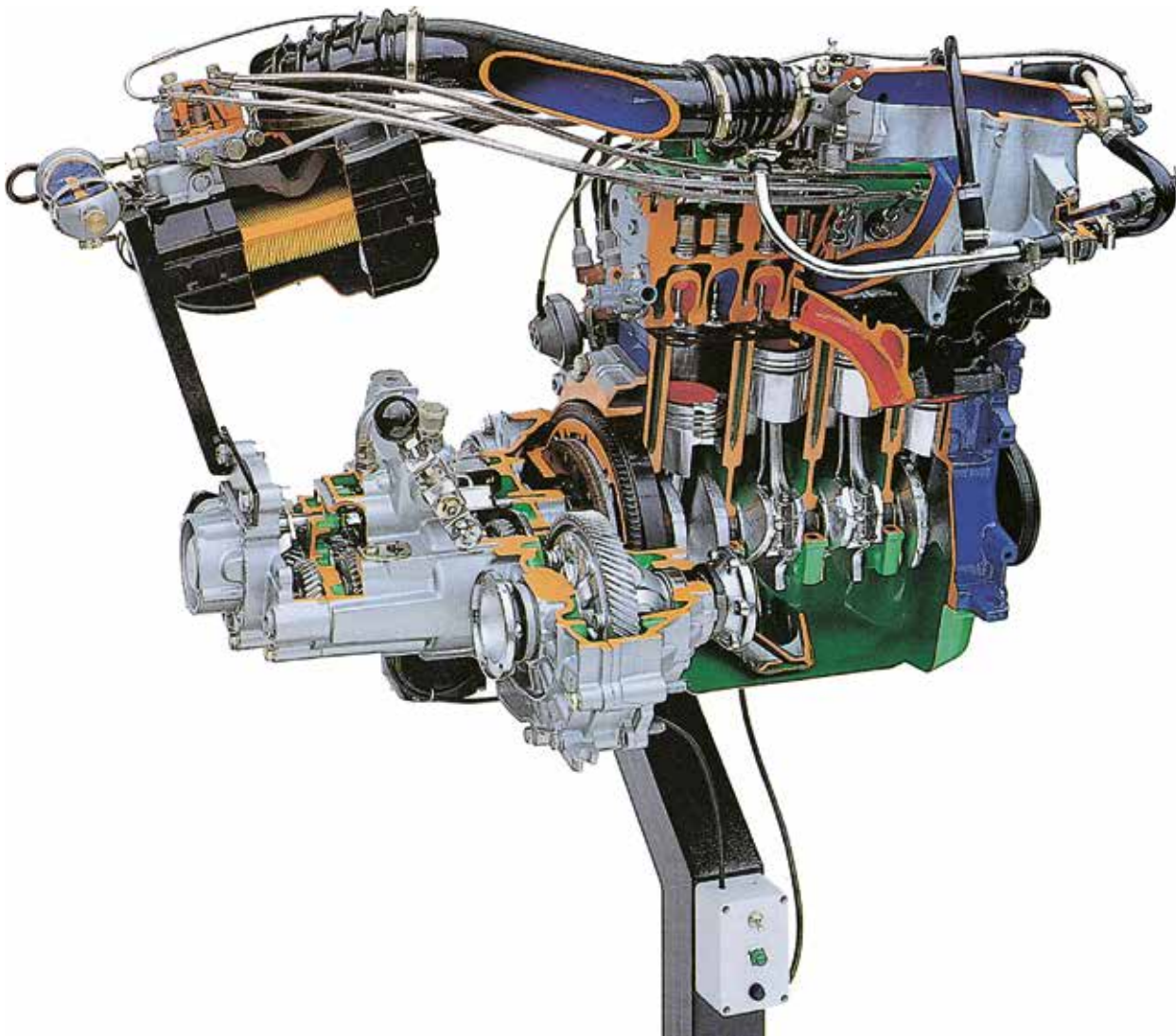


**VB 5165 VOLKSWAGEN 4 CYLINDERS PETROL ENGINE WITH K-JETRONIC INJECTION (on stand with wheels) - electrical**

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**VB 5166 VOLKSWAGEN 4 CYLINDERS PETROL ENGINE WITH MULTI-POINT ELECTRONIC INJECTION (on stand with wheels) - electrical**

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**VB 5165 - VB 5166**

**VB 5165**

**Main technical features:**

- Displacement: 1600/1800/2000 cu. cm
- Overhead camshaft (OHC)
- Distribution by means of a toothed belt
- 4 in-line cylinders
- Gearbox: 5 forward speed + reverse, with integrated differential

The engine operates electrically at 220 volts and runs at a reduced speed to let the student easily understand and observe the operation of the various mechanical parts.

This cutaway model is carefully sectioned for training purposes, professionally painted with different colours to better differentiate the various parts, cross-sections, lubricating circuits, fuel system, cooling system etc. Many parts have been chromium, plated and galvanized for a longer life.

**VB 5165 - VB 5166**

**Approx. weight and dim.:**

Cm: 60x155x90h  
Net Weight: kg 155  
Gross Weight: kg 205

**VB 5170 BMW 6 CYLINDERS PETROL ENGINE WITH L-JETRONIC INJECTION**  
(on stand with wheels) - electrical

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**VB 5175 BMW 6 CYLINDERS PETROL ENGINE WITH K-JETRONIC INJECTION**  
(on stand with wheels) - electrical

---

**VB 5176 BMW 6 CYLINDERS PETROL ENGINE 24 VALVES WITH MULTI-POINT ELECTRONIC INJECTION AND TWIN OVERHEAD CAMSHAFT (DOHC)**  
(on stand with wheels) - electrical

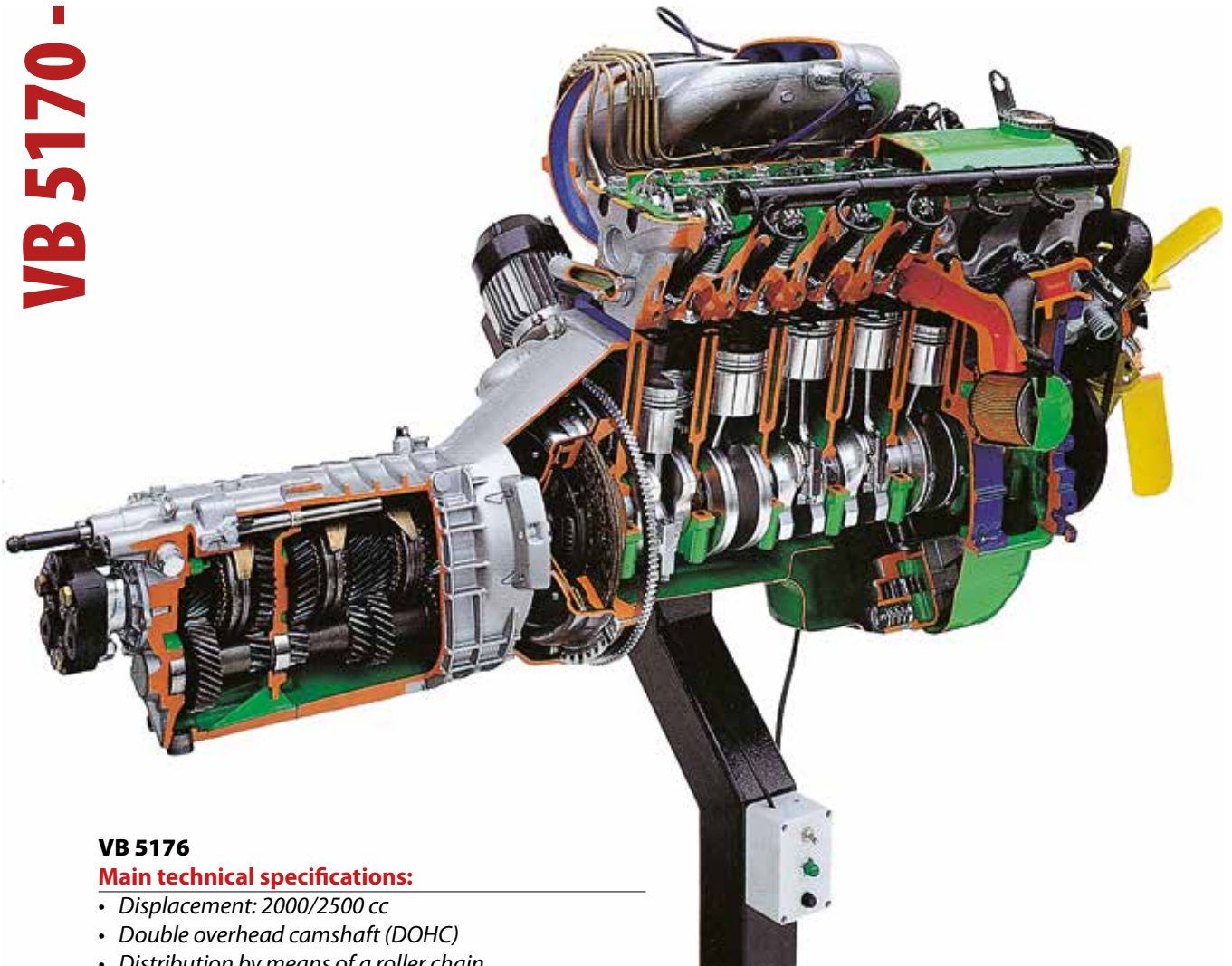
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**VB 5170 - VB 5175**

**Main technical specifications:**

- Displacement: 2000/3200 cu. cm
- Overhead camshaft (OHC), valves with V-arrangement
- Distribution by means of a roller chain
- 6 in-line cylinders
- Gearbox: 5 forward speeds + reverse

The engine operates electrically at 220 volts and runs at a reduced speed to let the student easily understand and observe the operation of the various mechanical parts.



**VB 5176**

**Main technical specifications:**

- Displacement: 2000/2500 cc
- Double overhead camshaft (DOHC)
- Distribution by means of a roller chain
- 4 valves per cylinder
- 6 in-line cylinders
- Gearbox: 5 forward speeds + reverse

This cutaway model is carefully sectioned for training purposes, professionally painted with different colours to better differentiate the various parts, cross-sections, lubricating circuits, fuel system, cooling system etc. Many parts have been chromium, plated and galvanized for a longer life.

**VB 5170 - VB 5175 - VB 5176**

**Approx. weight and dim.:**

Cm:	140x80x100h
Net Weight:	kg 180
Gross Weight:	kg 265



**VB 5178 TOYOTA LEXUS ENGINE 8 V-TYPE CYLINDERS 32 VALVES  
(on stand with wheels) - manual**

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**VB 5179 TOYOTA LEXUS ENGINE 8 V-TYPE CYLINDERS 32 VALVES + GEARBOX  
(on stand with wheels) - manual**

---

**VB 5178**

**Main technical features:**

- Displacement 3968cc
- 8 V-type cylinders
- 4 valves per cylinder (32 total)
- DOHC (double over-head camshaft)
- Bore and stroke 87,5x82,5
- Compression ratio 1:10
- Multi-point electronic fuel injection
- Electronic ignition
- 12V alternator
- Centrifugal water pump

**VB 5179**

Same as VB 5178, provided with AISIN AW automatic gearbox with 4 forward speeds.



**VB 5178**

**Approx. weight and dim.:**

Cm: 100x90x150h  
Net Weight: kg 180  
Gross Weight: kg 270

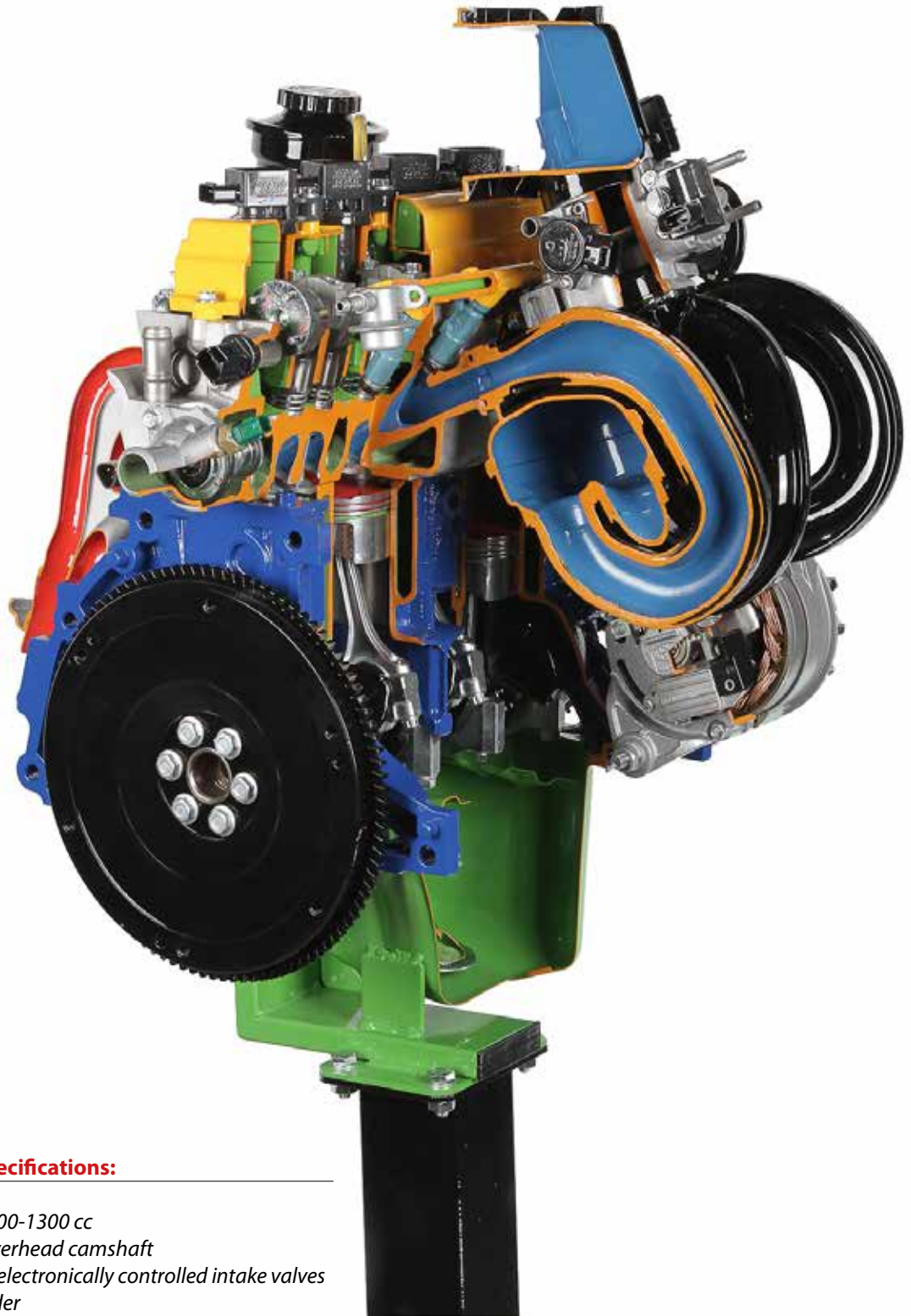
The engine is operated manually by means of a crank handle.

**VB 5179**

**Approx. weight and dim.:**

Cm: 140x90x160h  
Net Weight: kg 230  
Gross Weight: kg 340

**VB 5178 - VB 5179**



### VB 5181

#### Main technical specifications:

- 4 cylinders
- Displacement: 1000-1300 cc
- DOHC - double overhead camshaft
- VVT.I system with electronically controlled intake valves
- 4 valves per cylinder
- Roller chain
- Multi-point electronic injection with throttle
- 12V alternator
- Thermostatic valve

The engine is operated manually by means of a crank handle.

This cutaway model is carefully sectioned for training purposes, professionally painted with different colours to better differentiate the various parts, cross-sections, lubricating circuits, fuel system, cooling system etc.

### VB 5181

#### Approx. weight and dim.:

Cm:	70x90x100h
Net Weight:	kg 60
Gross Weight:	kg 110



**VB 5190 6 V CYLINDERS PETROL ENGINE CARBURETTOR (on stand with wheels) - electrical**

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**VB 5195 6 V CYLINDERS PETROL ENGINE WITH MULTI-POINT ELECTRONIC INJECTION (on stand with wheels) - electrical**

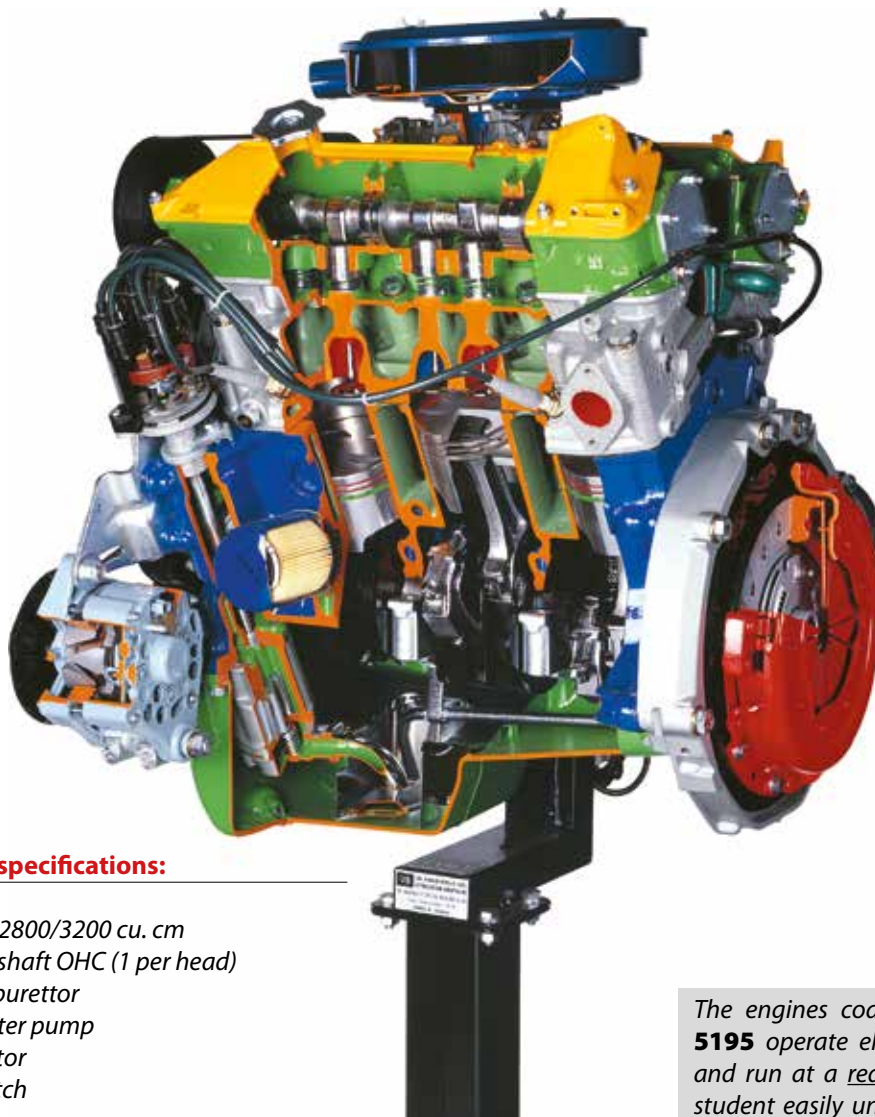
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**VB 5200 6 V CYLINDERS PETROL ENGINE CARBURETTOR (on stand with wheels) - manual**

---

**VB 5205 6 V CYLINDERS PETROL ENGINE WITH MULTI-POINT ELECTRONIC INJECTION (on stand with wheels) - manual**

---



#### **VB 5190**

##### **Main technical specifications:**

- 6 V cylinders
- Displacement: 2800/3200 cu. cm
- Overhead camshaft OHC (1 per head)
- Twin-body carburettor
- Centrifugal water pump
- 12 Volt alternator
- Membrane clutch

*This cutaway model is carefully sectioned for training purposes, professionally painted with different colours to better differentiate the various parts, cross-sections, lubricating circuits, fuel system, cooling system etc. Many parts have been chromium, plated and galvanized for a longer life.*

#### **VB 5195**

##### **Main technical specifications:**

- 6 V cylinders
- Displacement: 2000-3000 cc
- DOHC (2 per head)
- Multi-point E.I.
- Centrifugal water pump
- 12V alternator

*The engines code **VB 5190** and **VB 5195** operate electrically at 220 volts and run at a reduced speed to let the student easily understand and observe the operation of the various mechanical parts.*

#### **VB 5200**

*Same as VB 5190 but operated manually through a crank handle.*

#### **VB 5205**

*Same as VB 5195 but operated manually through a crank handle*

#### **VB 5190 - VB 5195 - VB 5200 - VB 5205**

##### **Approx. weight and dim.:**

Cm:	120x60x100h
Net Weight:	kg 190
Gross Weight:	kg 260

**VB 5190 - VB 5195 - VB 5200 - VB 5205**

**VB 5210 C FIAT PETROL ENGINE CARBURETTOR FEEDING (on stand with wheels) - electrical**

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**VB 5210 IE FIAT PETROL ENGINE WITH ELECTRONIC FUEL INJECTION - MONOJETRONIC (on stand with wheels) - electrical**

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**VB 5212 IE FIAT PETROL ENGINE WITH ELECTRONIC FUEL INJECTION - MULTI-POINT (on stand with wheels) - electrical**

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### **VB 5210 C**

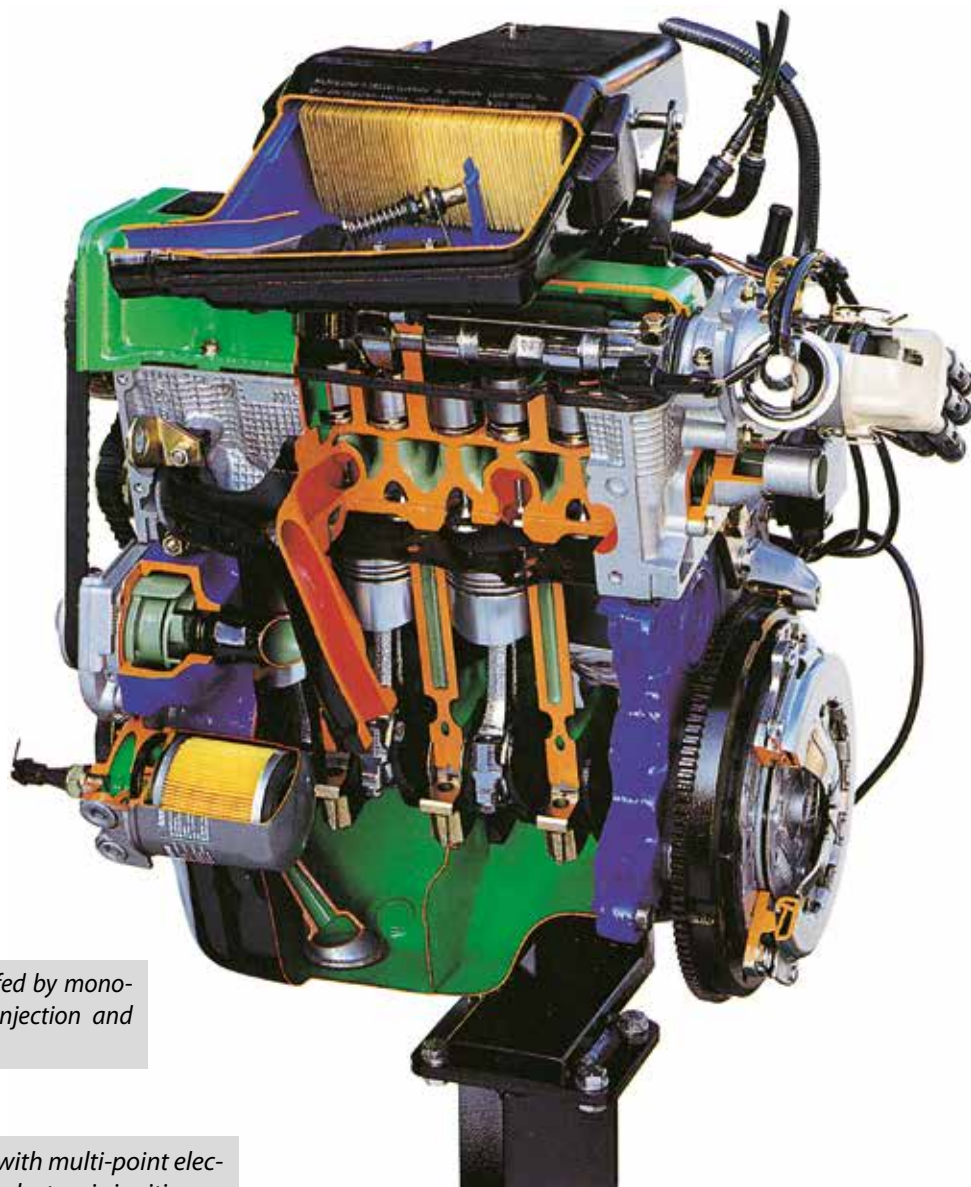
#### **Main technical specifications:**

- 4 in-line cylinders
- Displacement: 1000/1300 cu. cm
- Overhead camshaft
- Carburettor
- Electronic ignition
- Alternator
- Toothed belt

### **VB 5210 IE - VB 5212 IE**

#### **Main technical specifications:**

- 4 in-line cylinders
- Displacement 1245 cc
- Overhead camshaft
- Electronic injection
- Electronic ignition
- Toothed belt
- Alternator



### **VB 5210 IE**

*Same as VB 5210 C but fed by mono-jetronic electronic fuel injection and electronic ignition.*

### **VB 5212 IE**

*Same as VB 5210 IE but with multi-point electronic fuel injection and electronic ignition.*

*The engine operates electrically at 220 volts and runs at a reduced speed to let the student easily understand and observe the operation of the various mechanical parts.*

### **VB 5210 - VB 5212**

#### **Approx. weight and dim.:**

Cm: 67x87x85h  
Net Weight: kg 60  
Gross Weight: kg 120



**VB 5211 C FIAT PETROL ENGINE CARBURETTOR FEEDING (on stand with wheels)  
- manual**

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**VB 5211 IE FIAT PETROL ENGINE WITH ELECTRONIC FUEL INJECTION -  
MONOJETRONIC (on stand with wheels) - manual**

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**VB 5213 IE FIAT PETROL ENGINE WITH ELECTRONIC FUEL INJECTION -  
MULTI-POINT (on stand with wheels) - manual**

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**VB 5211 C**

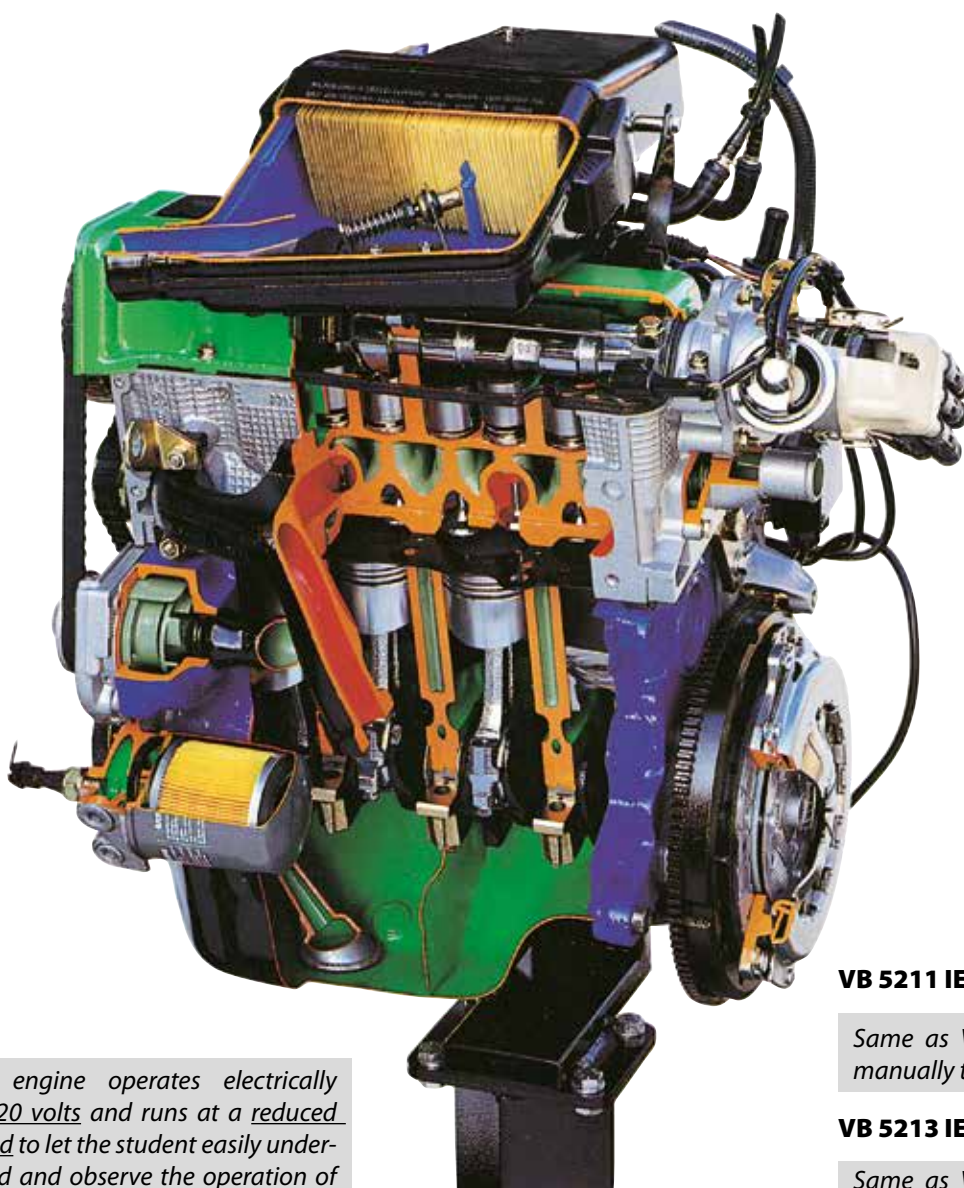
**Main technical specifications:**

- 4 in-line cylinders
- Displacement: 1000/1300 cu. cm
- Overhead camshaft
- Carburettor
- Electronic ignition
- Alternator
- Toothed belt

**VB 5211 IE - VB 5213 IE**

**Main technical specifications:**

- 4 in-line cylinders
- Displacement 1245 cc
- Overhead camshaft
- Electronic injection
- Electronic ignition
- Toothed belt
- Alternator



The engine operates electrically at 220 volts and runs at a reduced speed to let the student easily understand and observe the operation of the various mechanical parts.

**VB 5211 IE**

Same as VB 5210 IE but operated manually through a crank handle.

**VB 5213 IE**

Same as VB 5212 IE but operated manually through a crank handle.

**VB 5211 C**

Same as VB 5210 C but operated manually through a crank handle.

**VB 5211 - VB 5213**

**Approx. weight and dim.:**

Cm: 67x87x85h  
Net Weight: kg 60  
Gross Weight: kg 120

**VB 5211 C - VB 5211 IE - VB 5213 IE**

**VB 5220 C FIAT PETROL ENGINE WITH CARBURETTOR + GEARBOX  
(on stand with wheels) - electrical**

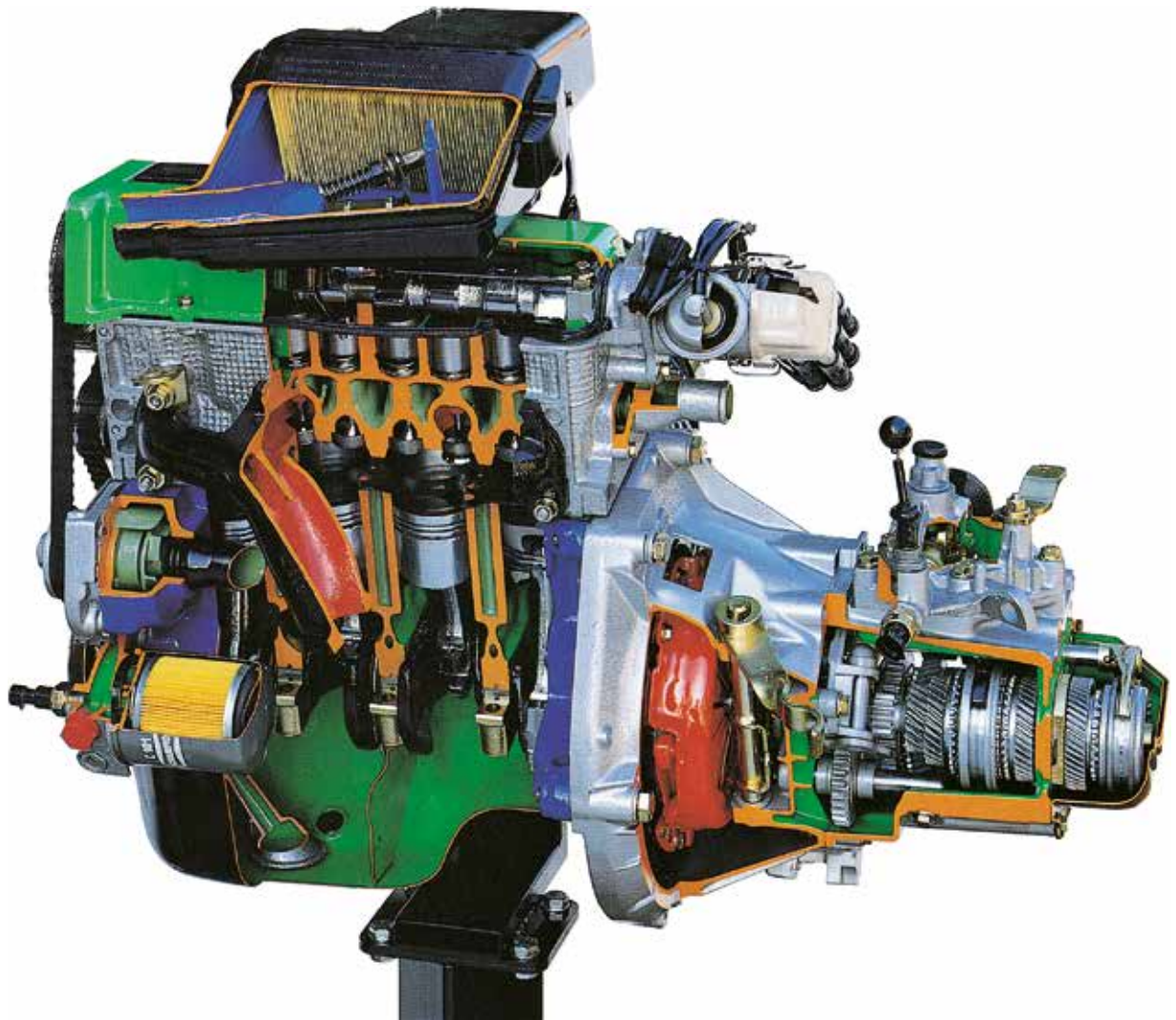
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**VB 5220 IE FIAT PETROL ENGINE WITH ELECTRONIC INJECTION -  
MONOJETRONIC + GEARBOX (on stand with wheels) - electrical**

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**VB 5222 IE FIAT PETROL ENGINE WITH MULTI-POINT ELECTRONIC INJECTION +  
GEARBOX (on stand with wheels) - electrical**

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### **VB 5220 C**

#### **Main technical specifications:**

- 4 in-line cylinders
- Displacement: 1000/1300 cu. cm
- Overhead camshaft
- Carburettor
- Electronic ignition
- Timing belt distribution
- Gearbox: 5 forward speeds + reverse with differential

The engine operates electrically at 220 volts and run at a reduced speed to let the student easily understand and observe the operation of the various mechanical parts.

### **VB 5222 IE**

#### **Main technical specifications:**

- 4 in-line cylinders
- Displacement: 1250 cc
- Overhead camshaft
- Electronic ignition
- Multi-point electronic injection
- Gearbox with 5F + R + differential

### **VB 5220 IE**

Same as VB 5220 C but with electronic mono-jetronic fuel injection.

### **VB 5220 - VB 5222**

#### **Approx. weight and dim.:**

Cm: 120x70x100h  
Net Weight: kg 90  
Gross Weight: kg 140



## VB 5230 FIAT 2 CYLINDERS PETROL ENGINE FROM FIAT 500 (on base) - manual

### Main technical specifications:

- Air cooling
- Displacement: 500 cu. cm
- Camshaft in the crankcase
- Single body carburettor
- Overhead valves

*The engine is operated manually through a crank handle.*

### Approx. weight and dim.:

Cm: 60x50x75h  
Net Weight: kg 55  
Gross Weight: kg 85



VB 5230

## VB 5240 FIAT 4 CYLINDERS PETROL ENGINE (on stand with wheels) - manual

### Main technical specifications:

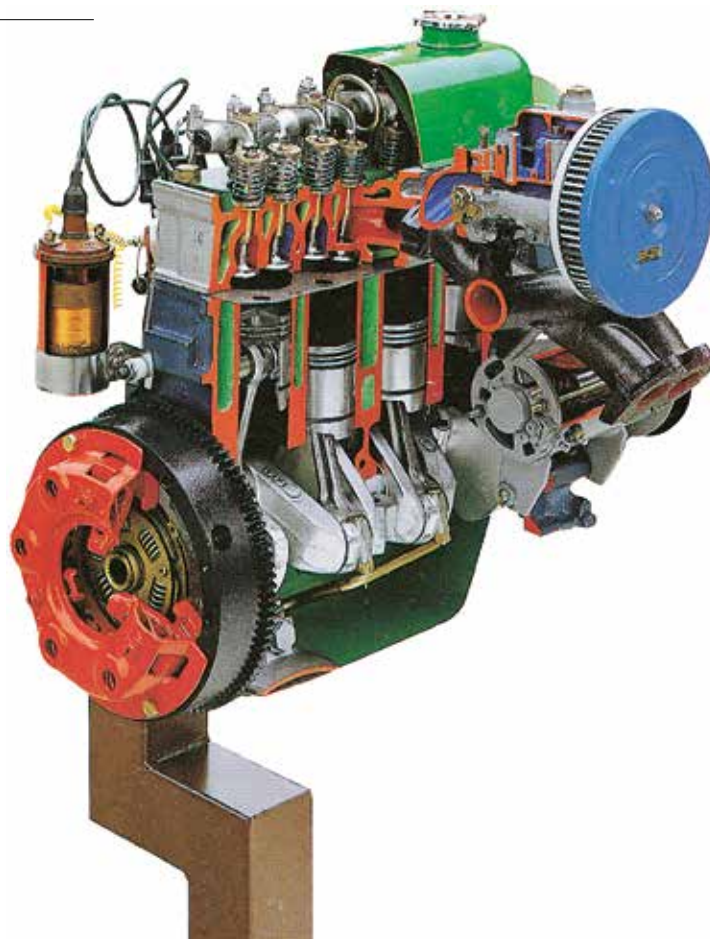
- Displacement: 1200/2000 cu. cm approx.
- Camshaft in the crankcase, Toothed chain
- Overhead valves in line
- Coil ignition
- Mechanical petrol pump
- Dry single-plate clutch

*The engine is operated manually through a crank handle.*

### Approx. weight and dim.:

Cm: 70x80x100h  
Net Weight: kg 100  
Gross Weight: kg 160

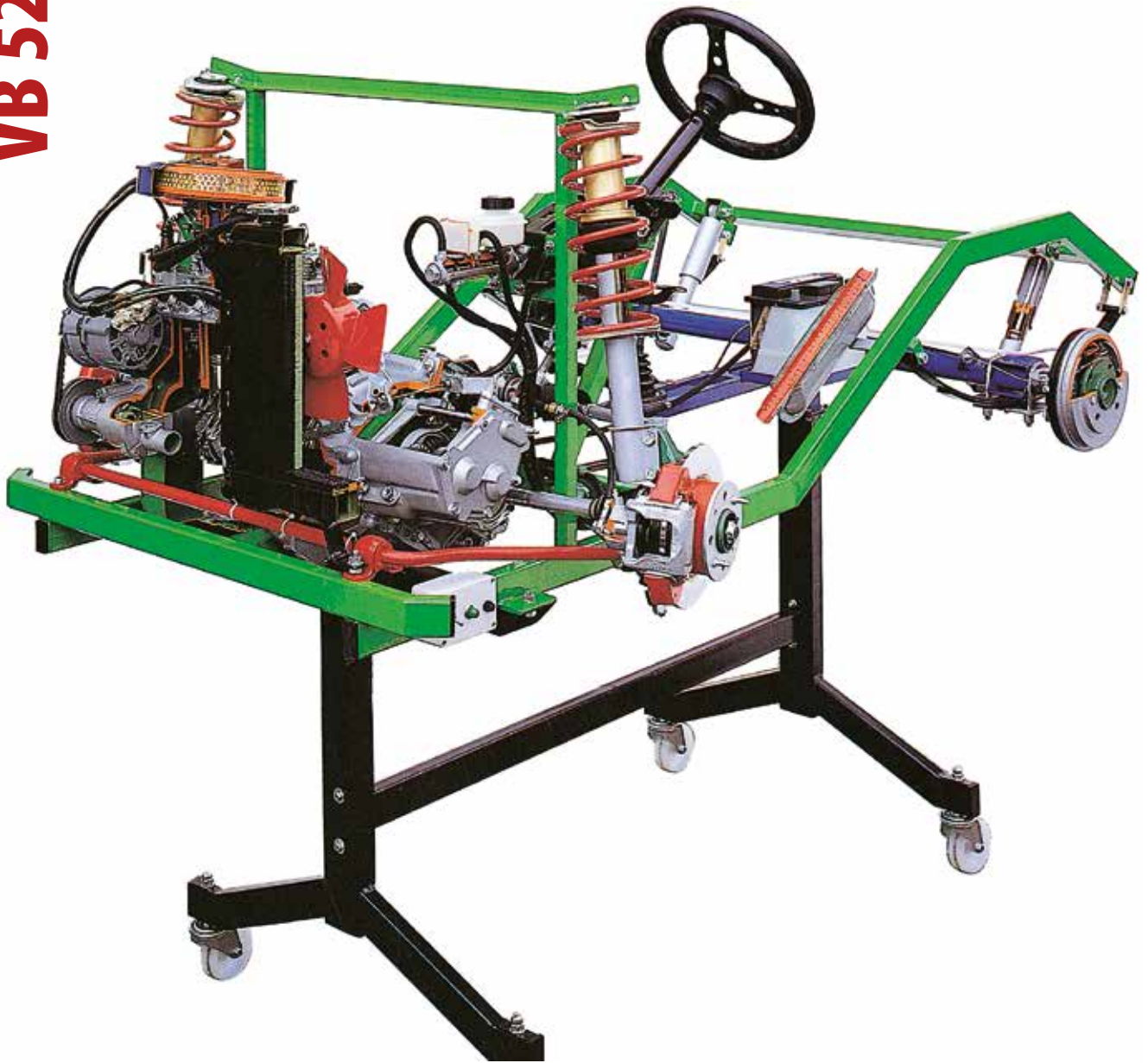
*These cutaway models are carefully sectioned for training purposes, professionally painted with different colours to better differentiate the various parts, cross-sections, lubricating circuits, fuel system, cooling system etc. Many parts have been chromium plated and galvanized for a longer life.*



VB 5240

## CARBURETTOR CHASSIS

**VB 5250 P FRONT DRIVE PETROL ENGINE CHASSIS WITH CARBURETTOR  
(on stand with wheels) - electrical**



### VB 5250 P

#### Main technical specifications:

- Displacement: 900 cu. cm approx.
- Camshaft in the crankcase
- Single body carburettor
- Coil ignition
- Gearbox: 4 forward speed + reverse, with differential
- Mc Pherson front suspension
- Rear suspensions + leaf spring
- Hydraulic shock absorbers
- Front disc brake/rear drum brake
- Rack steering box

**Working light system on request.**

*The engine operates electrically at 220 volts and runs at a reduced speed to let the student easily understand and observe the operation of the various mechanical parts.*

*This cutaway model is carefully sectioned for training purposes, professionally painted with different colours to better differentiate the various parts, cross-sections, lubricating circuits, fuel system, cooling system etc. Many parts have been chromium, plated and galvanized for a longer life.*

### VB 5250 P

#### Approx. weight and dim.

Cm:	140x210x90h
Net Weight:	kg 250
Gross Weight:	kg 350



## INJECTION CHASSIS

**VB 5272 PETROL MULTI-POINT ENGINE CHASSIS WITH ABS AND HYDRAULIC POWER STEERING + WORKING LIGHT SYSTEM (on stand with wheels) - electrical**

**VB 5273 PETROL MULTI-POINT ENGINE CHASSIS WITH ABS AND HYDRAULIC POWER STEERING (on stand with wheels) - electrical**



**INDICATIVE PICTURE FOR REFERENCE ONLY**

### **VB 5272**

#### **Main technical specifications:**

- Fiat chassis with front drive (transversally mounted engine)
- Petrol engine, 4 cylinders, displacement: 1200 Cu. Cm, complete of all accessories
- Electronic injection MPI (Multipoint) and electronic ignition controlled by a single electronic ECU (engine control unit)
- Catalytic converter with oxygen (Lambda) sensor
- Gearbox: 5 forward speeds+reverse+ differential
- Hydraulic power steering with double-jointed steering column
- Brake system with 4 sensors ABS
- Radiator with electric fan
- Front-disc brake
- Rear-drum or disc brake
- Independent wheels McPherson front suspension with oscillating arms
- Rear independent suspensions with oscillating arms
- Working front and back lighting system controlled by a dashboard

The engine operates electrically 220 volts and runs at a reduced speed to let the student easily understand and observe the operation of the various mechanical parts.

*This cutaway model is carefully sectioned for training purposes, professionally painted with different colours to better differentiate the various parts, cross-sections, lubricating circuits, fuel system, cooling system etc. Many parts have been chromium, plated and galvanized for a longer life.*

### **VB 5273**

Same as VB 5272, but without light system.

### **VB 5272 - VB 5273**

#### **Approx. weight and dim.:**

Cm: 220x160x115h  
Net Weight: kg 290  
Gross Weight: kg 400

**VB 5272 - VB 5273**

**VB 5260 PETROL ENGINE CHASSIS 4 WHEEL DRIVE WITH MULTI-POINT E.I.  
(on stand with wheels) - electrical**

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**VB 5262 PETROL ENGINE CHASSIS 4 WHEEL DRIVE WITH MONO-JETRONIC E.I.  
(on stand with wheels) - electrical**

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**VB 5264 PETROL ENGINE CHASSIS 4 WHEEL DRIVE WITH CARBURETTOR  
(on stand with wheels) - electrical**

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**Main technical features:**

- 4 cylinders, 4 strokes
- Displacement: 1000/1100 cc
- OHC distribution
- Multi-point/mono-point/carburettor feeding
- Electronic ignition
- Centrifugal pump water cooling
- 12V alternator
- 4x2 front wheel-drive
- 4x4 wheel-drive by means of mechanical lever
- Gearbox 5+R
- Differential: 4x2 helical bevel inside gearbox; 4x4 front helical bevel inside gearbox together with rear axle delay conical wheel; rear conical wheel
- Suspensions: front McPherson, rear solid axle with hydraulic shock-absorber
- Brakes: front disc, rear drum, independent double-circuit brake booster, emergency braking and hand brake
- Steering rack

*Where provided, equipped with fully functioning light system complete with parking lights, low-beam lights, high-beam lights and relevant indicators/switches; front and rear blinkers, emergency lights with relevant indicators; rear parking lights, stoplights, rear fog lights, back-up light, horn.*

**VB 5260 - VB 5262 - VB 5264**

**Approx. weight and dim.:**

Cm:	220x140x100h
Net Weight:	kg 260
Gross Weight:	kg 320

**VB 5260F PETROL ENGINE CHASSIS 4 WHEEL DRIVE WITH MULTI-POINT E.I. AND WORKING LIGHTS SYSTEM (on stand with wheels) - electrical**

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**VB 5262F PETROL ENGINE CHASSIS 4 WHEEL DRIVE WITH MONO-JETRONIC E.I. AND WORKING LIGHTS SYSTEM (on stand with wheels) - electrical**

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**VB 5264F PETROL ENGINE CHASSIS 4 WHEEL DRIVE WITH CARBURETTOR AND WORKING LIGHTS SYSTEM(on stand with wheels) - electrical**

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**VB 5260 - VB 5262 - VB 5264**

## INJECTION CHASSIS

**VB 5274 STANDARD PETROL MULTI-POINT ENGINE CHASSIS WITH WORKING LIGHT SYSTEM (on stand with wheels) - electrical**

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**VB 5275 STANDARD PETROL MULTI-POINT ENGINE CHASSIS (on stand with wheels) - electrical**

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**VB 5276 PETROL SINGLE-POINT ENGINE CHASSIS WITH WORKING LIGHT SYSTEM (on stand with wheels) - electrical**

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**VB 5277 PETROL SINGLE-POINT ENGINE CHASSIS (on stand with wheels) - electrical**

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### **VB 5274**

#### **Main technical specifications:**

- Fiat chassis with front drive (transversally mounted engine)
- Petrol engine, 4 cylinders, displacement: 1200 Cu. Cm, complete of all accessories
- Electronic injection MPI (Multi-point) and electronic ignition controlled by a single electronic ECU (engine control unit)
- Catalytic converter with oxygen (Lambda) sensor
- Gearbox: 5 forward speeds+reverse+ differential
- Driving box gauge line with double-jointed steering column
- Radiator with electric fan
- Double circuit brake system with servo brake
- Front-disc brake
- Rear-drum brake
- Working front and rear light system controlled by a dashboard

### **VB 5276**

#### **Main technical specifications:**

- Fiat chassis with front drive (transversally mounted engine)
- Petrol engine, 4 cylinders, displacement: 1100/1200 Cu. Cm, complete of all accessories
- Electronic injection SPI (Single-point) and electronic ignition controlled by a single electronic ECU (engine control unit)
- Gearbox: 5 forward speeds+reverse+ differential
- Driving box gauge line with double-jointed steering column
- Radiator with electric fan
- Double circuit brake system with servo brake
- Front-disc brake
- Rear-drum brake
- Independent wheels McPherson front suspensions with oscillating arms
- Rear independent suspension with coil spring and gas shock absorbers
- Working front and rear light system controlled by a dashboard

### **VB 5275**

*Same as VB 5274, but without light system.*

*The engine operates electrically at 230 Volts/50Hz and runs at a reduced speed to let the student easily understand and observe the operation of the various mechanical parts.*

*This cutaway model is carefully sectioned for training purposes, professionally painted with different colours to better differentiate the various parts, cross-sections, lubricating circuits, fuel system, cooling system etc. Many parts have been chromium, plated and galvanized for a longer life.*

### **VB 5277**

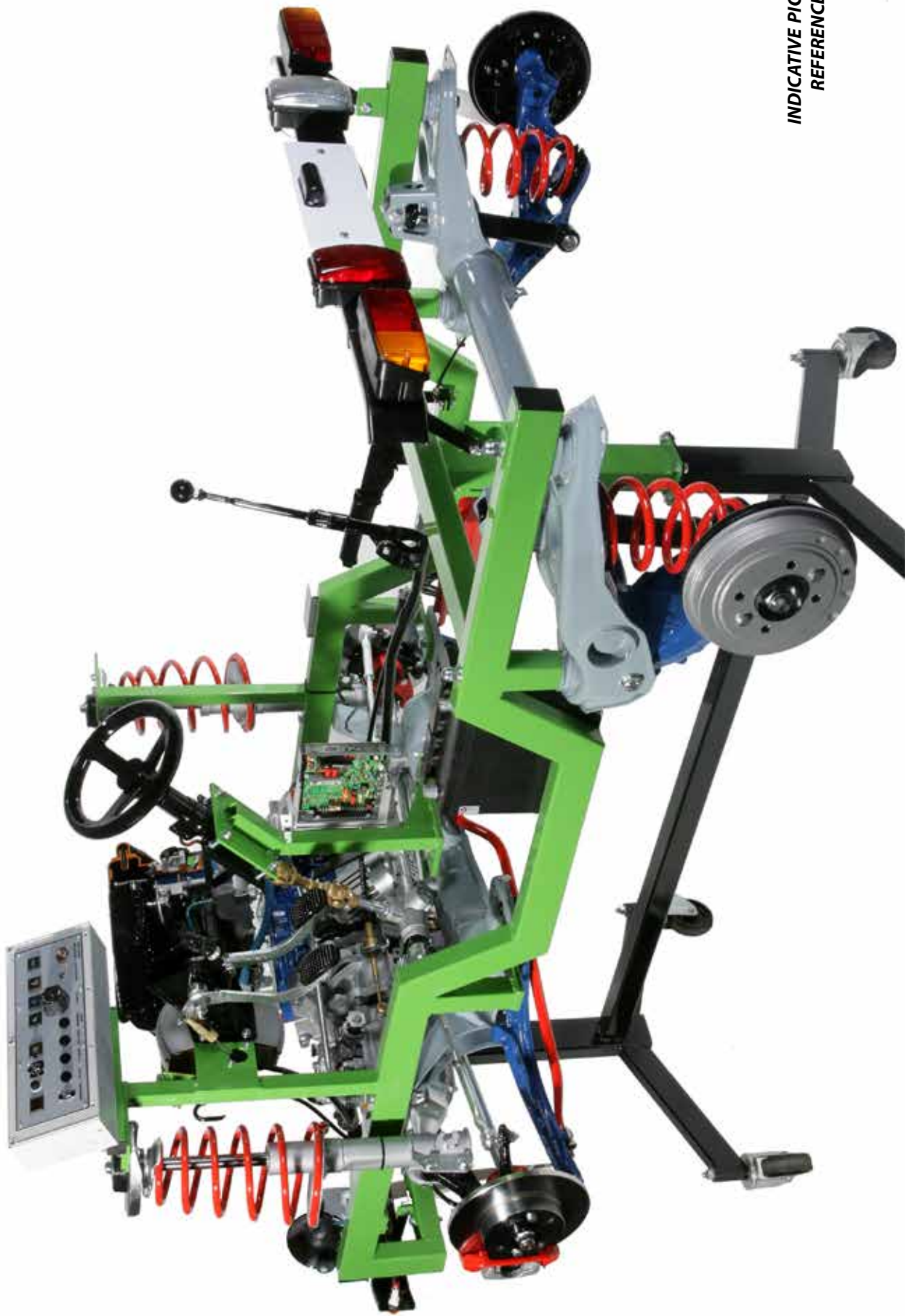
*Same as VB 5276, but without light system.*

### **VB 5274 - VB 5275 - VB5276 - VB 5277**

#### **Approx. weight and dim.:**

Cm:	220x160x115h
Net Weight:	kg 290
Gross Weight:	kg 400





INDICATIVE PICTURE FOR  
REFERENCE ONLY

**VB 5274 - VB 5275 - VB 5276 - VB 5277**

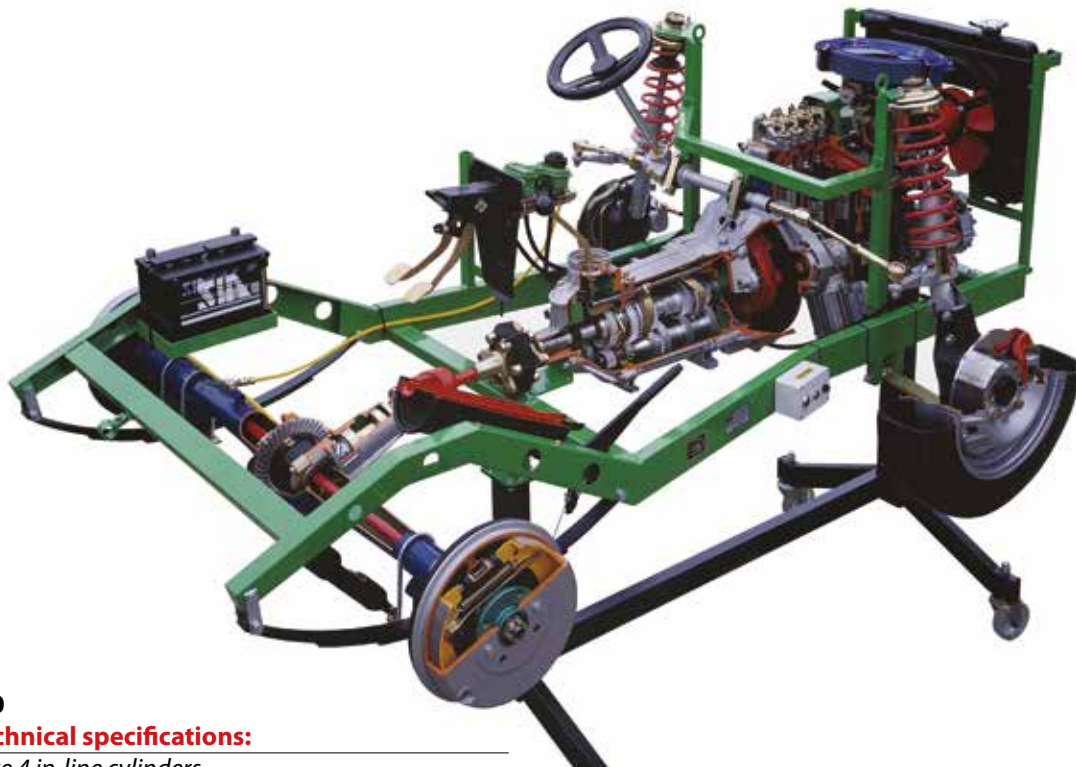
**CARBURETTOR CHASSIS**

**VB 5300 FIAT CAR CHASSIS FRONT ENGINE CARBURETTOR WITH REAR DRIVE (on stand with wheels) - electrical**

**VB 5310 FIAT CAR CHASSIS FRONT ENGINE CARBURETTOR WITH REAR DRIVE WITH SIMULATED IGNITION (on stand with wheels) - electrical**

**VB 5320 FIAT CAR CHASSIS FRONT ENGINE CARBURETTOR WITH REAR DRIVE (on stand with wheels) - manual**

**VB 5330 FIAT CAR CHASSIS FRONT ENGINE CARBURETTOR WITH REAR DRIVE WITH WORKING LIGHT SYSTEM (on stand with wheels) - electrical**



**VB 5300**

**Main technical specifications:**

- 4-stroke 4 in-line cylinders
- Displacement: 2000 cu. cm
- Gearbox: 4/5 forward speeds + reverse
- Hypoid differential
- Camshaft in the crankcase
- Vertical twin carburettor
- Water cooling
- Spring single plate clutch
- McPherson front suspension
- Front disc brakes and rear drum brakes
- Rack steering box
- Drive shaft with mechanical and flexible joint
- Rear leaf spring suspension

The engine operates electrically at 220 volts and runs at a reduced speed to let the student easily understand and observe the operation of the various mechanical parts.

This cutaway model is carefully sectioned for training purposes, professionally painted with different colours to better differentiate the various parts, cross-sections, lubricating circuits, fuel system, cooling system etc. Many parts have been chromium, plated and galvanized for a longer life.

**VB 5310**

Same as VB5300, but with simulated ignition (small bulbs, located on the relevant spark plug, which light up during the combustion phase).

**VB 5320**

Same as VB 5300, but operated manually through a crank handle (without geared motor and simulated ignition).

**VB 5330 FIAT SINGLE SHAFT CHASSIS WITH LIGHTS**

Same as VB 5300 complete with working light system. Complete with regulation lights, rear fog lights, reverse and emergency lights, etc. The electrical controls are assembled on a dashboard complete with warning lights.

**VB 5300 - VB 5310 - VB 5320 - VB 5330**

**Approx. weight and dim.:**

Cm:	145x220x100h
Net Weight:	kg 300
Gross Weight:	kg 420



## INJECTION CHASSIS

**VB 5340 FIAT DOUBLE SHAFT (DOHC) WITH MULTI-POINT ELECTRONIC INJECTION WITH LIGHT SYSTEM (on stand with wheels) - electrical**

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**VB 5350 FIAT DOUBLE SHAFT (DOHC) WITH MULTI-POINT ELECTRONIC INJECTION (on stand with wheels) - electrical**

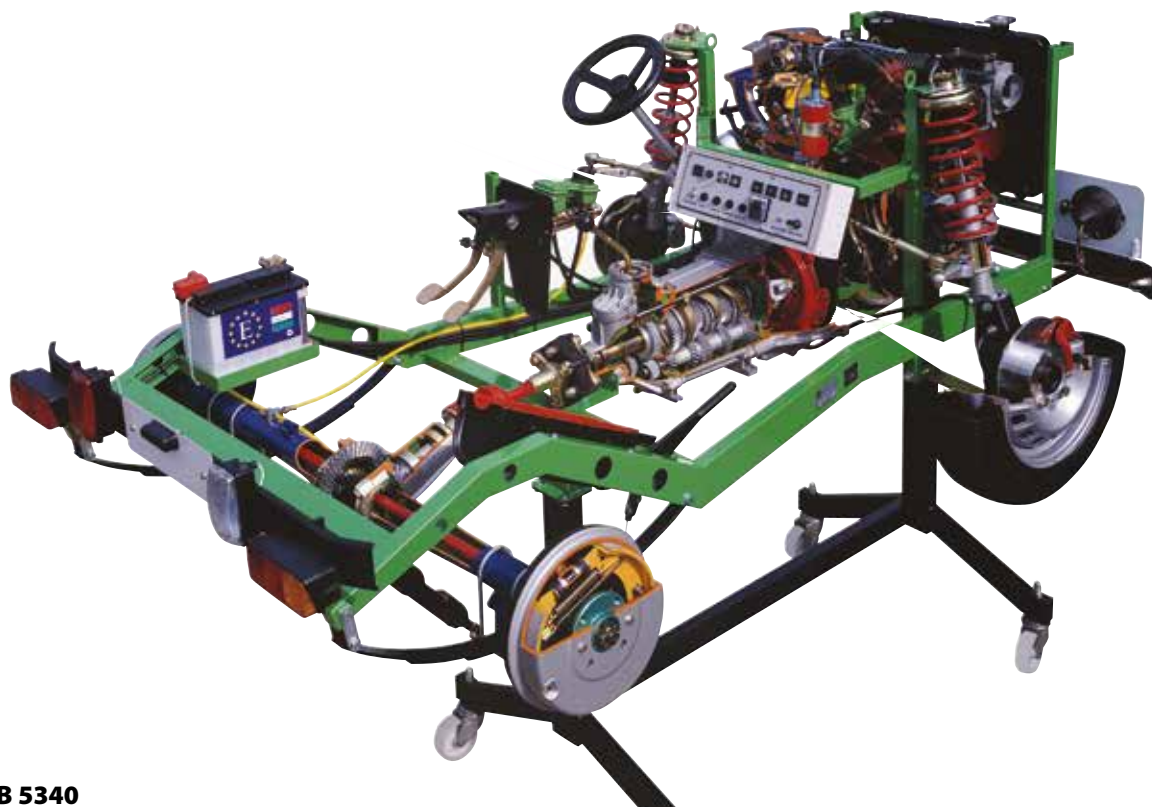
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**VB 5360 FIAT DOUBLE SHAFT (DOHC) WITH PETROL ENGINE CARBURETTOR (on stand with wheels) - electrical**

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**VB 5370 FIAT DOUBLE SHAFT (DOHC) WITH PETROL ENGINE CARBURETTOR WITH WORKING LIGHT SYSTEM (on stand with wheels) - electrical**

---



### VB 5340

#### Main technical specifications:

- 4-stroke petrol engine 4-cylinders
- Displacement: 2000 cu. cm
- Gearbox: 5 forward speeds + reverse
- Differential with hypoid crown wheel and pinion
- Twin overhead camshaft driven by a toothed belt
- Electronic ignition
- Dual braking circuit
- McPherson front suspension
- Front disc brakes and rear drum brakes
- Rack steering box
- Rear leaf spring suspension

#### Working light system

The engine operates electrically at 220 volts and runs at a reduced speed to let the student easily understand and observe the operation of the various mechanical parts.

This cutaway model is carefully sectioned for training purposes, professionally painted with different colours to better differentiate the various parts, cross-sections, lubricating circuits, fuel system, cooling system etc.

Many parts have been chromium, plated and galvanized for a longer life.

### VB 5350

Same as VB 5340, but without working light system.

### VB 5360

Same as VB 5350, but with petrol engine double shaft (DOHC) carburettor (same engine as of VB 5100)

### VB 5370

Same as VB 5360 complete with working light system.

### VB 5340 - VB 5350 - VB 5360 - VB 5370

#### Approx. weight and dim.:

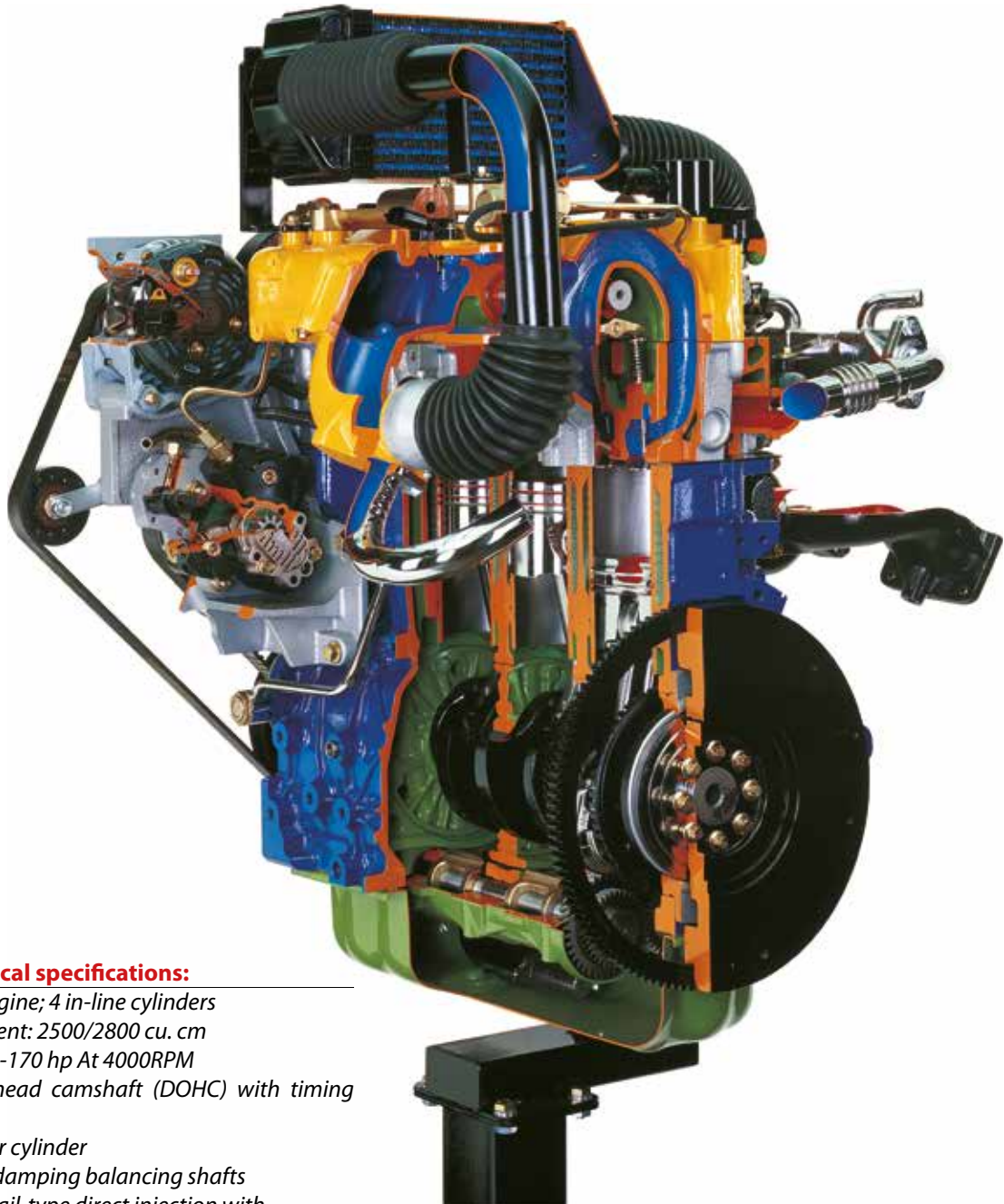
Cm:	145x220x100h
Net Weight:	kg 300
Gross Weight:	kg 420

**VB 5340 - VB 5350 - VB 5360 - VB 5370**

# VB 6010 - VB 6011

**VB 6010 16 VALVE CHRYSLER TURBO DIESEL ENGINE WITH COMMON-RAIL INTERCOOLER (on stand with wheels) - electrical**

**VB 6011 16 VALVE CHRYSLER TURBO DIESEL ENGINE WITH COMMON-RAIL INTERCOOLER (on stand with wheels) - manual**



## **VB 6010**

### **Main technical specifications:**

- 4 stroke engine; 4 in-line cylinders
- Displacement: 2500/2800 cu. cm
- Power: 150-170 hp At 4000RPM
- Twin overhead camshaft (DOHC) with timing belt
- 4 valves per cylinder
- Vibration-damping balancing shafts
- Common rail-type direct injection with electro-injectors
- Turbo-supercharger with air-air intercooler
- Alternator-oil filter-oil pump

*The engine operates electrically at 220 volts and runs at a reduced speed to let the student easily understand and observe the operation of the various mechanical parts.*

*This cutaway model is carefully sectioned for training purposes, professionally painted with different colours to better differentiate among the various parts, cross-sections, lubricating circuits, fuel system, cooling system etc. Many parts have been chromium, plated and galvanized for a longer life.*

## **VB 6011**

*Same as VB 6010 but operated manually through a crank handle.*

## **VB 6010 - VB 6011**

### **Approx. weight and dim.:**

Cm: 90x90x120h  
Net Weight: kg 200  
Gross Weight: kg 270



**VB 6015 FIAT / ALFA ROMEO 8 VALVE ENGINE WITH TURBO DIESEL  
COMMON-RAIL (on stand with wheels) - electrical**

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**VB 6016 FIAT / ALFA ROMEO 8 VALVE ENGINE WITH TURBO DIESEL  
COMMON-RAIL (on stand with wheels) - manual**

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**VB 6015**

**Main technical specifications:**

- 4 stroke engine; 4 in-line cylinders
- Displacement: 1900 cu. cm
- Power: 115 hp. At 4000 RPM
- Overhead camshaft (OHC) with timing belt
- 2 valves per cylinder
- Common rail-type direct injection with electro-injectors
- Turbo-supercharger
- Alternator-oil filter-oil pump

The engine operates electrically at 220 volts and runs at a reduced speed to let the student easily understand and observe the operation of the various mechanical parts.

This cutaway model is carefully sectioned for training purposes, professionally painted with different colours to better differentiate the various parts, cross-sections, lubricating circuits, fuel system, cooling system etc. Many parts have been chromium, plated and galvanized for a longer life.

**VB 6016**

Same as VB 6015 but operated manually through a crank handle.

**VB 6015 - VB 6016**

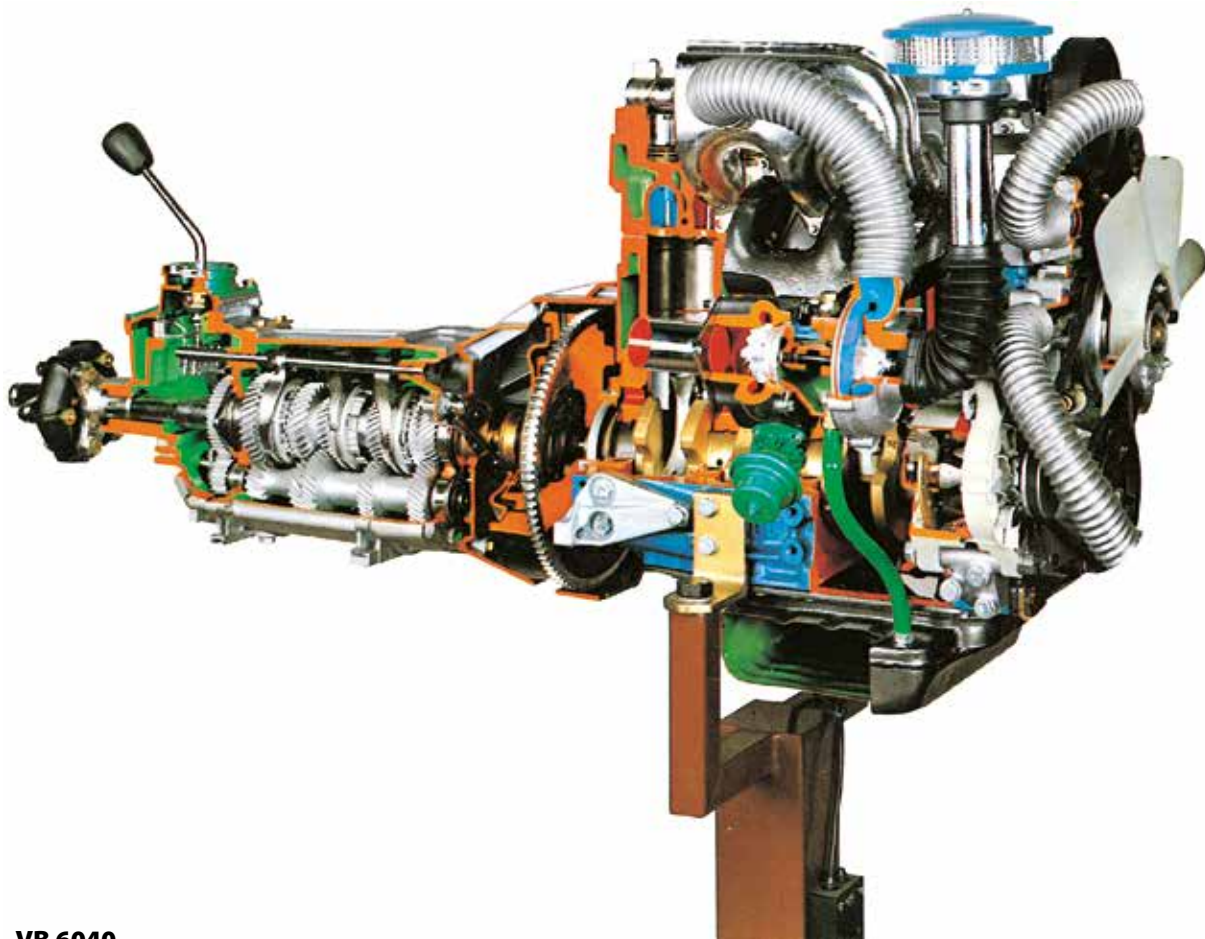
**Approx. weight and dim.:**

Cm: 90x100x120h  
Net Weight: kg 150  
Gross Weight: kg 210

**VB 6015 - VB 6016**

## VB 6020 FIAT TURBO DIESEL ENGINE FOR CAR AND LORRY (on stand with wheels) - electrical

## VB 6040 FIAT DIESEL ENGINE FOR CAR AND LORRY WITHOUT TURBOSUPERCHARGER (on stand with wheels) - electrical



### VB 6020 - VB 6040

#### Main technical specifications:

- 4 stroke engine; 4 in-line cylinders
- Displacement: 1900 cu. cm
- Indirect injection
- VE Bosch type rotary injection pump
- Overhead camshaft (OHC)
- Distribution through a toothed belt
- Alternator
- Thermostatic valve
- Gearbox: 5 forward speeds + reverse
- Water cooling

The engine operates electrically at 220 volts and runs at a reduced speed to let the student easily understand and observe the operation of the various mechanical parts.

This cutaway model is carefully sectioned for training purposes, professionally painted with different colours to better differentiate the various parts, cross-sections, lubricating circuits, fuel system, cooling system etc. Many parts have been chromium, plated and galvanized for a longer life.

### VB 6020 - VB 6040

#### Approx. weight and dim.:

Cm:	85x160x100h
Net Weight:	kg 220
Gross Weight:	kg 280



**VB 6070 REAR DRIVE TURBO DIESEL ENGINE WITH CLUTCH GEARBOX**  
(on stand with wheels) - electrical

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**VB 6071 REAR DRIVE DIESEL ENGINE WITH CLUTCH GEARBOX WITHOUT**  
**TURBOSUPERCHARGER** (on stand with wheels) - electrical

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**VB 6070 - VB 6071**

**VB 6070**

**Main technical specifications:**

- 4 stroke engine; 4 cylinders in line
- Displacement: 1300/1700 cu. cm
- Indirect injection
- Feeding by turbosupercharger
- VE Bosch type rotary injection pump
- Overhead camshaft (OHC)
- Distribution through a toothed belt
- Alternator
- Thermostatic valve
- Gearbox: 4 forward speeds + reverse
- Single-plate clutch with diaphragm
- Water cooling

**VB 6071**

Same as VB 6070 but without turbo-supercharger.

The engine operates electrically at 220 volts and runs at a reduced speed to let the student easily understand and observe the operation of the various mechanical parts.

This cutaway model is carefully sectioned for training purposes, professionally painted with different colours to better differentiate the various parts, cross-sections, lubricating circuits, fuel system, cooling system etc. Many parts have been chromium, plated and galvanized for a longer life.

**VB 6070 - VB 6071**

**Approx. weight and dim.:**

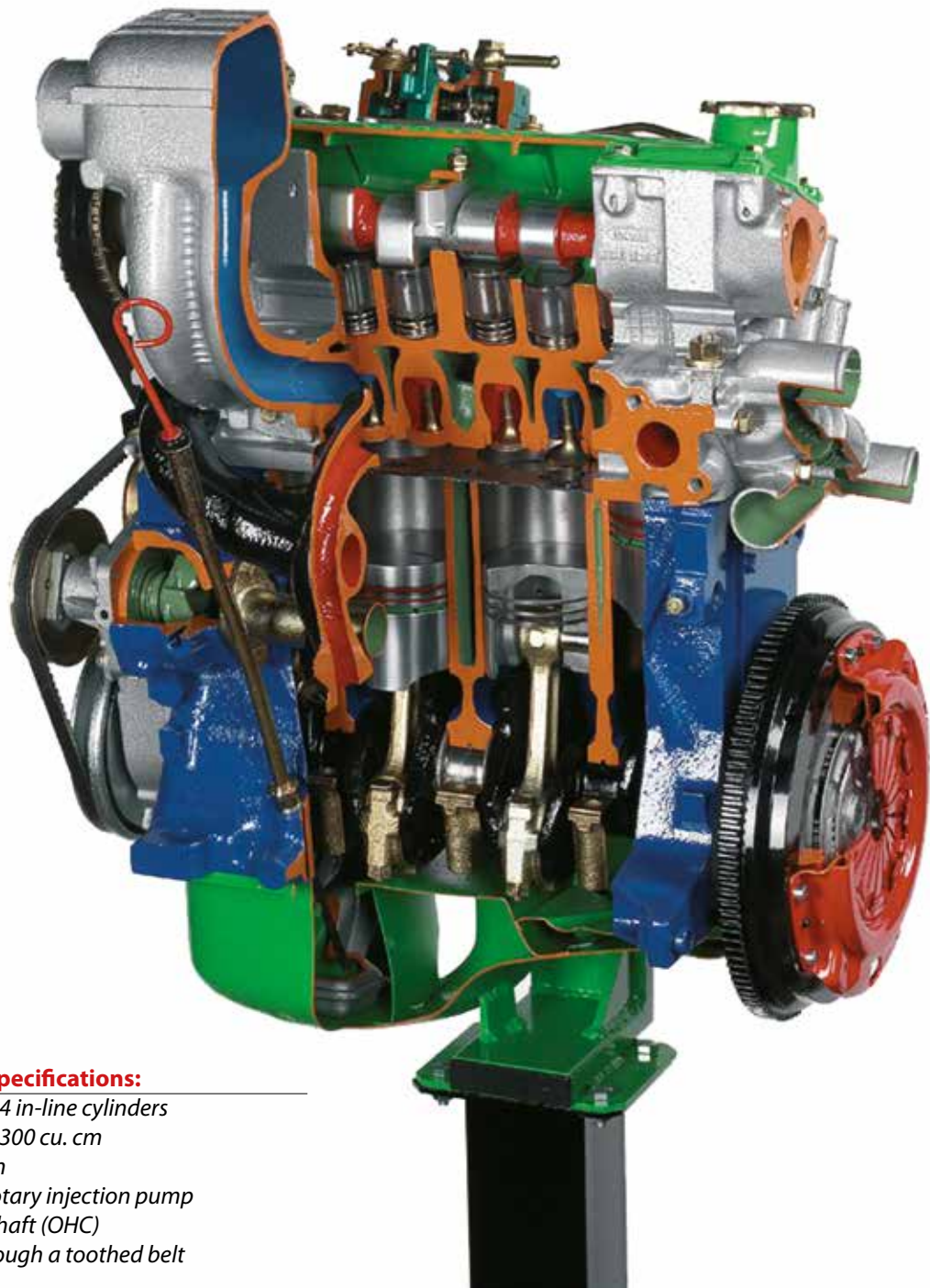
Cm: 60x160x100h  
Net Weight: kg 150  
Gross Weight: kg 210



# VB 6065 - VB 6066

**VB 6065 DIESEL ENGINE FOR SMALL CAR (on stand with wheels) - electrical**

**VB 6066 DIESEL ENGINE FOR SMALL CAR (on stand with wheels) - manual**



## **VB 6065**

### **Main technical specifications:**

- 4 stroke engine; 4 in-line cylinders
- Displacement: 1300 cu. cm
- Indirect injection
- VE Bosch type rotary injection pump
- Overhead camshaft (OHC)
- Distribution through a toothed belt
- Alternator
- Thermostatic valve
- Power: 45 hp.
- Water cooling

The engine operates electrically at 220 volts and runs at a reduced speed to let the student easily understand and observe the operation of the various mechanical parts.

This cutaway model is carefully sectioned for training purposes, professionally painted with different colours to better differentiate the various parts, cross-sections, lubricating circuits, fuel system, cooling system etc. Many parts have been chromium, plated and galvanized for a longer life.

## **VB 6066**

Same as VB 6065 but operated manually through a crank handle.

## **VB 6065 - VB 6066**

### **Approx. weight and dim.:**

Cm: 85x130x100h  
Net Weight: kg 160  
Gross Weight: kg 220

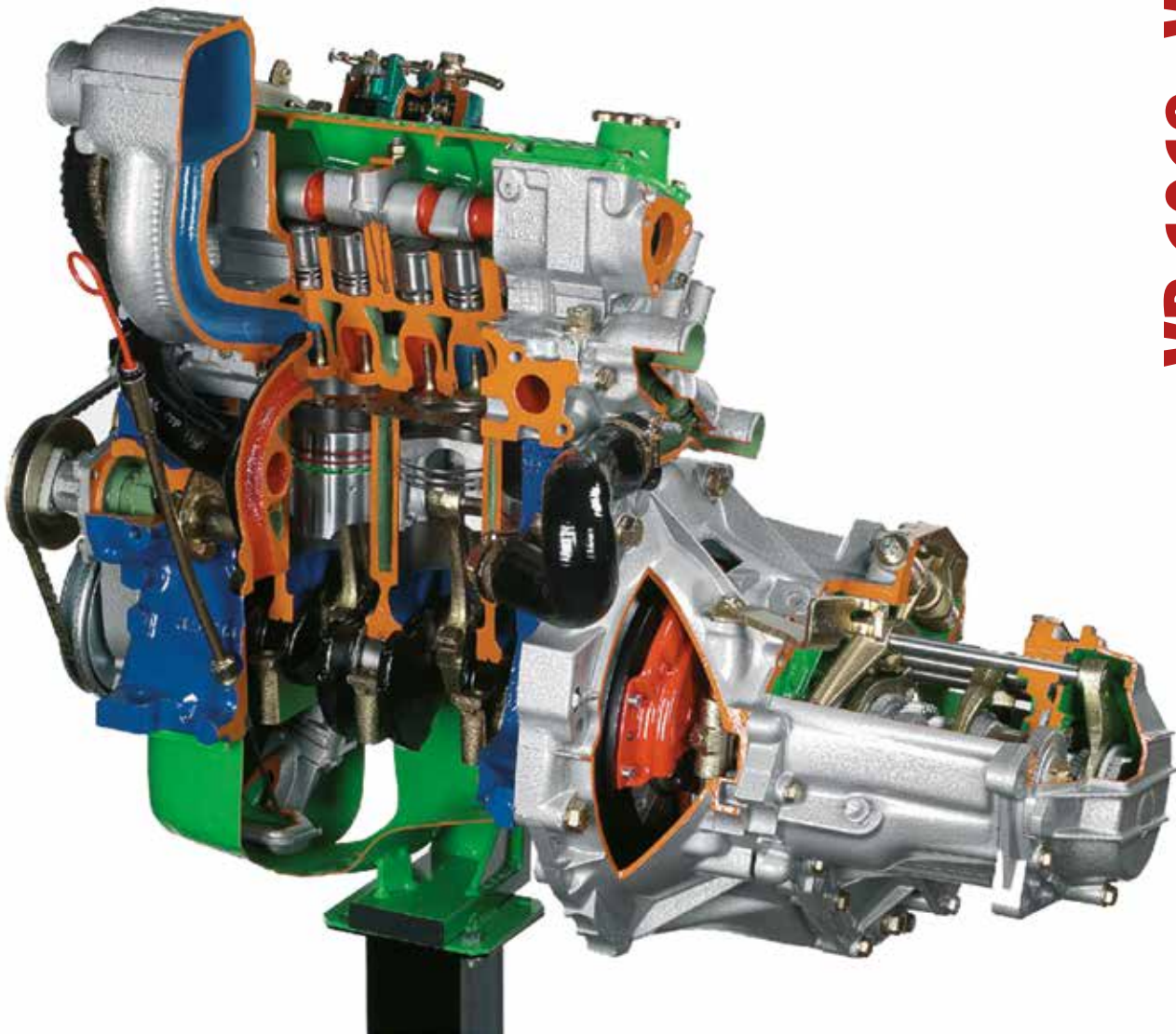
**VB 6068 FRONT DRIVE DIESEL ENGINE WITH CLUTCH-GEARBOX**  
(on stand with wheels) - electrical

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**VB 6069 FRONT DRIVE DIESEL ENGINE WITH CLUTCH-GEARBOX**  
(on stand with wheels) - manual

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**VB 6068 - VB 6069**



**VB 6068**

**Main technical specifications:**

- 4 stroke engine; 4 in-line cylinders
- Displacement: 1300 cu. cm
- Indirect injection
- VE Bosch type rotary injection pump
- Overhead camshaft (OHC)
- Distribution through a toothed belt
- Alternator
- Thermostatic valve
- Power: 45 hp.
- Gearbox: 5 forward speeds + reverse and differential
- Single-plate clutch with diaphragm

The engine operates electrically at 220volts and runs at a reduced speed to let the student easily understand and observe the operation of the various mechanical parts.

This cutaway model is carefully sectioned for training purposes, professionally painted with different colours to better differentiate the various parts, cross-sections, lubricating circuits, fuel system, cooling system etc. Many parts have been chromium, plated and galvanized for a longer life.

**VB 6069**

Same as VB 6068 but operated manually through a crank handle.

**VB 6068 - VB 6069**

**Approx. weight and dim.:**

Cm: 130x86x100h  
Net Weight: kg 140  
Gross Weight: kg 200



# VB 6075 - VB 6076

**VB 6075 TURBO DIESEL ENGINE (CAR AND LORRY) WITH DIRECT FUEL INJECTION**  
(on stand with wheels) - electrical

**VB 6076 TURBO DIESEL ENGINE (CAR AND LORRY) WITH INDIRECT FUEL INJECTION**  
(on stand with wheels) - electrical



## **VB 6075 - VB 6076**

### **Main technical specifications:**

- 4 stroke engine; 4 in-line cylinders
- Displacement: 2500 cu. cm
- Direct/indirect injection
- Feeding by turbo-supercharger
- VE Bosch type rotary injection pump
- Overhead camshaft (OHC)
- Distribution through a toothed belt
- Alternator
- Thermostatic valve
- Intercooler water-oil
- Water cooling

The engine operates electrically at 220 volts and runs at a reduced speed to let the student easily understand and observe the operation of the various mechanical parts.

This cutaway model is carefully sectioned for training purposes, professionally painted with different colours to better differentiate the various parts, cross-sections, lubricating circuits, fuel system, cooling system etc. Many parts have been chromium, plated and galvanized for a longer life.

## **VB 6075 - VB 6076**

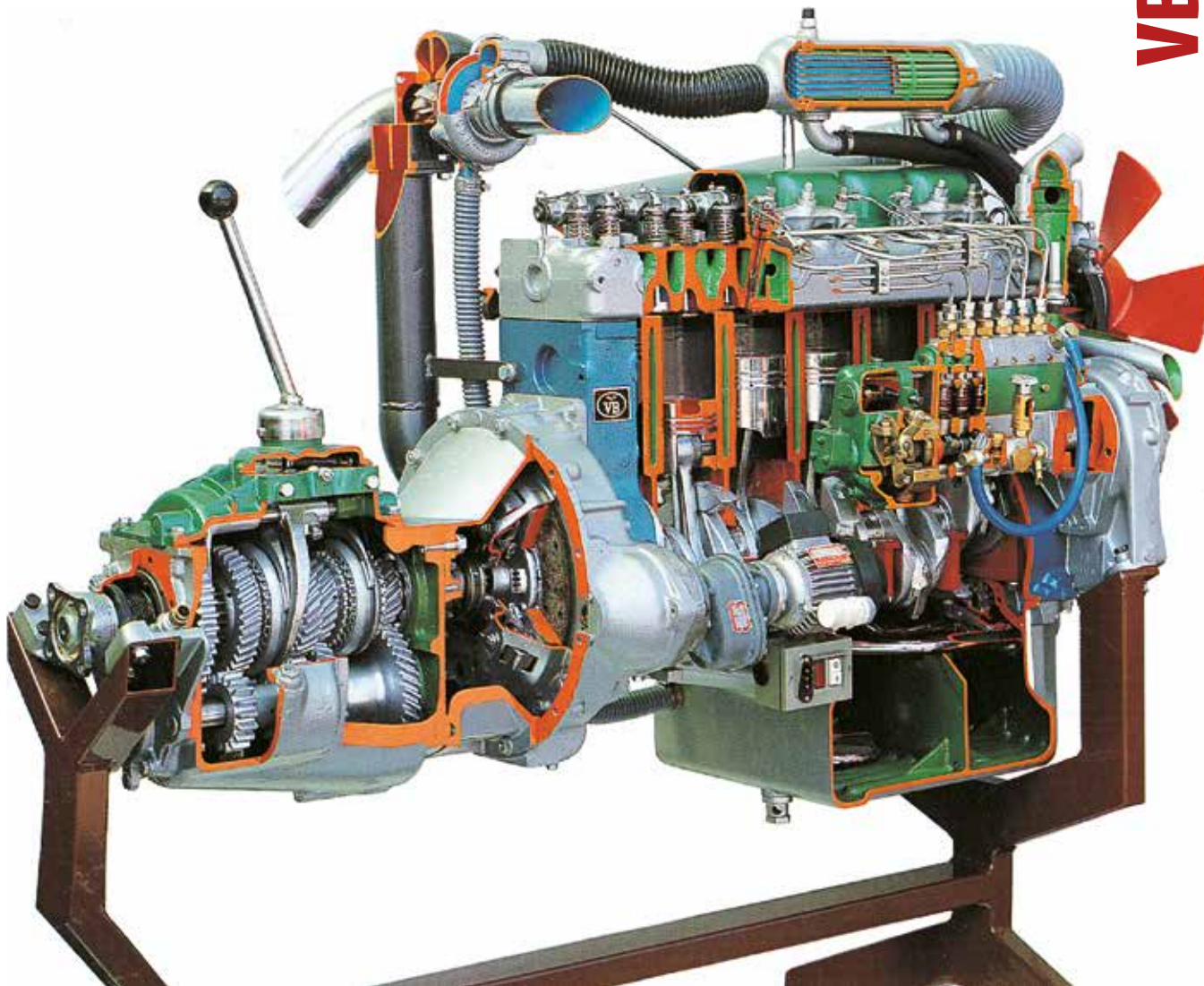
### **Approx. weight and dim.:**

Cm:	90x100x120h
Net Weight:	kg 200
Gross Weight:	kg 260



**VB 6080 6 CYLINDERS INTERCOOLER TURBO DIESEL ENGINE 5200 CU.CM  
(for trucks) (on a sturdy stand with wheels) - electrical**

**VB 6080**



**VB 6080**

**Main technical specifications:**

- 4 stroke engine; 6 in-line cylinders
- Displacement: 5200 cu. cm
- Direct injection
- Bosch type in-line injection pump with mechanical governor
- Intercooler air-air
- Camshaft in the crankcase
- Spring single-plate clutch
- Fuel fed by turbo-supercharger and intercooler
- Gearbox: 4 forward speeds + reverse
- Geared distribution

The engine operates electrically at 220 volts and runs at a reduced speed to let the student easily understand and observe the operation of the various mechanical parts.

This cutaway model is carefully sectioned for training purposes, professionally painted with different colours to better differentiate the various parts, cross-sections, lubricating circuits, fuel system, cooling system etc. Many parts have been chromium, plated and galvanized for a longer life.

**VB 6080**

**Approx. weight and dim.:**

Cm:	90x180x170h
Net Weight:	kg 450
Gross Weight:	kg 560

## VB 6083 6 CYLINDERS DIESEL ENGINE TRUCK "IVECO" CURSOR WITH ELECTRONICALLY CONTROLLED PUMP INJECTORS (on a sturdy stand with wheels) - electrical



### VB 6083

#### Main technical specifications:

- Displacement: 7790/10380 cu. Cm. according to what is available
- 4 stroke; 6 in-line cylinders
- 4 valves per cylinder
- Maximum power 310/450hp according to what is available
- Water cooling
- Turbo-compressor
- Pump injectors electronically controlled
- Pre-heating device

The engine operates electrically at 220 volts and runs at a reduced speed to let the student easily understand and observe the operation of the various mechanical parts.

This cutaway model is carefully sectioned for training purposes, professionally painted with different colours to better differentiate the various parts, cross-sections, lubricating circuits, fuel system, cooling system etc. Many parts have been chromium, plated and galvanized for a longer life.

### VB 6083

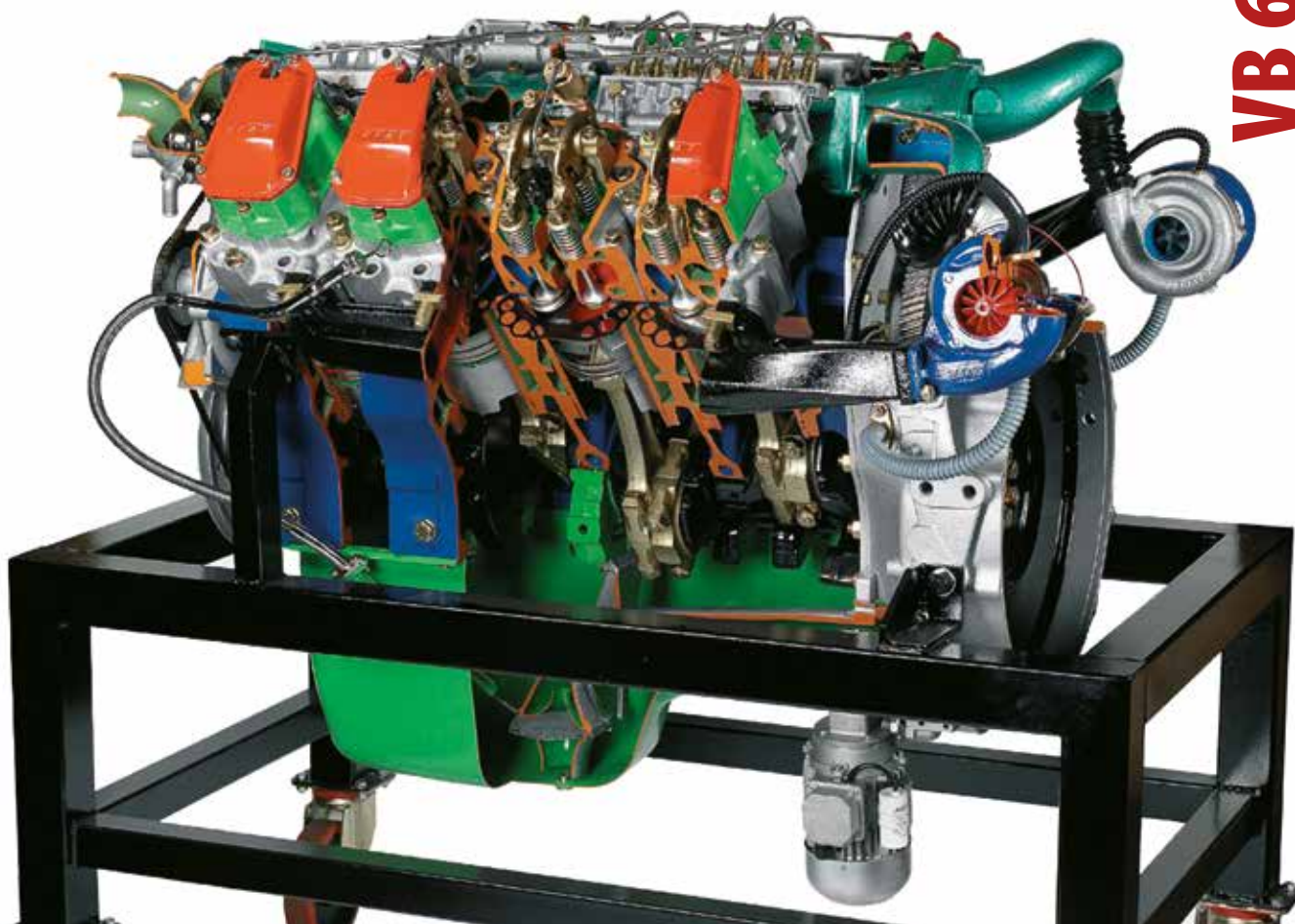
#### Approx. weight and dim.:

Cm:	200x105x150h
Net Weight:	kg 950
Gross Weight:	kg 1200



**VB 6084 8 V CYLINDERS TURBO DIESEL ENGINE FOR TRUCK "IVECO TURBOSTAR  
190-38" 17.200 CU.CM (on a sturdy stand with wheels) - electrical**

**VB 6084**



**VB 6084**

**Main technical specifications:**

- 4 strokes, 8 V cylinders
- Displacement: 17.200 cu. cm
- Power: 380 hp
- Direct injection
- Bosch type in-line injection pump with mechanical governor
- Intercooler water-oil
- 4 valves per cylinder
- Camshaft in the crankcase
- 2 turbo-superchargers
- Geared distribution



The engine operates electrically at 220 volts and runs at a reduced speed to let the student easily understand and observe the operation of the various mechanical parts.

This cutaway model is carefully sectioned for training purposes, professionally painted with different colours to better differentiate the various parts, cross-sections, lubricating circuits, fuel system, cooling system etc. Many parts have been chromium, plated and galvanized for a longer life.

**VB 6084**

**Approx. weight and dim.:**

Cm:	120x185x150h
Net Weight:	kg 1100
Gross Weight:	kg 1400



## VB 6090 6 HORIZONTAL CYLINDERS DIESEL ENGINE FOR BUSES (on a sturdy stand with wheels) - electrical

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### VB 6090

#### Main technical specifications:

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- 4 stroke engine; 6 horizontal cyl.
- Direct injection
- Bosch type in-line injection pump with mechanical governor
- Geared distribution
- Camshaft in the crankcase

The engine operates electrically at 220 volts and runs at a reduced speed to let the student easily understand and observe the operation of the various mechanical parts.

### VB 6090

#### Approx. weight and dim.:

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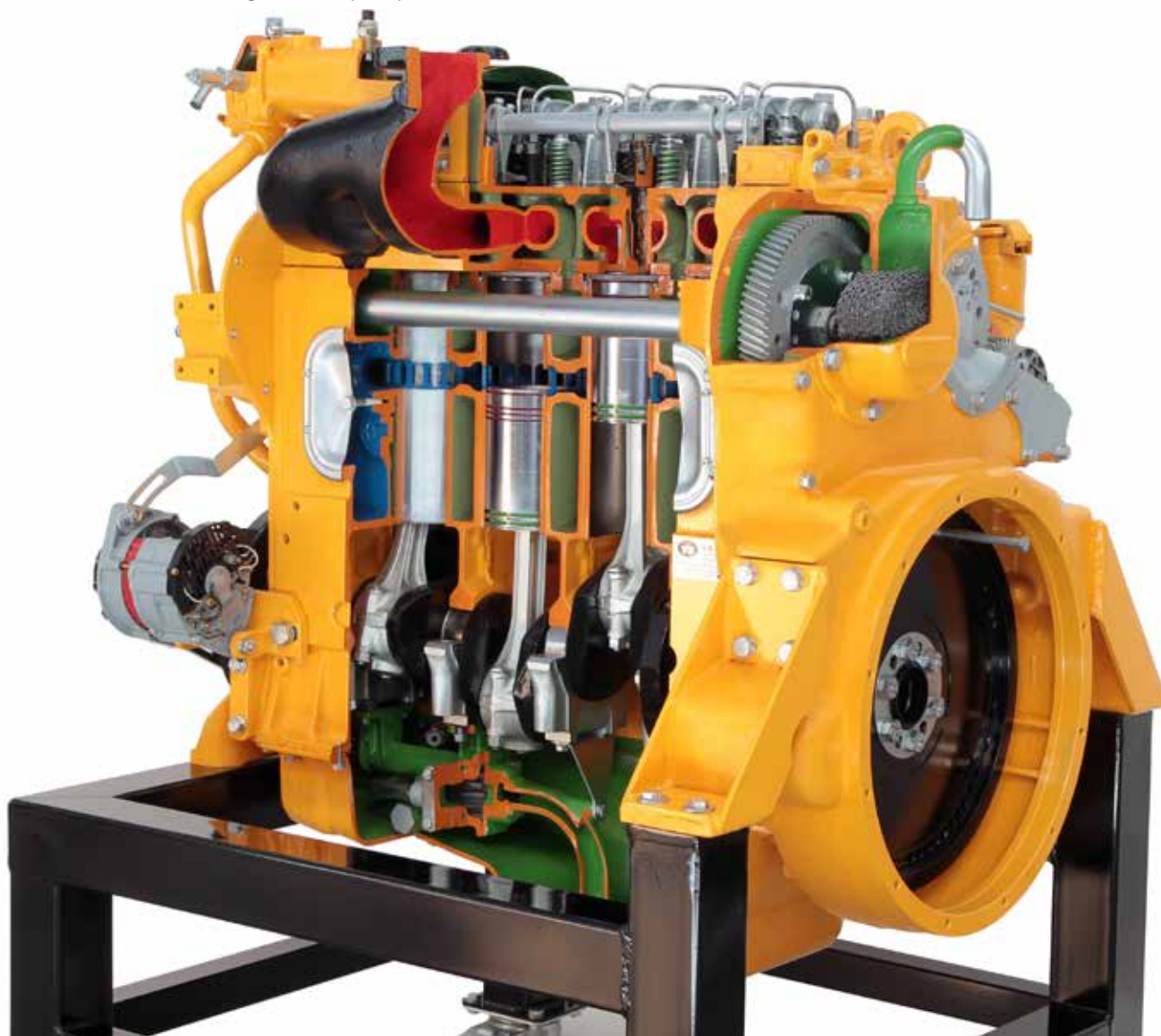
Cm: 150x120x140h  
Net Weight: kg 460  
Gross Weight: kg 600

## VB 6122 2 STROKE 4 CYLINDERS DETROIT DIESEL ENGINE (on stand with wheels) - electrical

Accurate section of a real industrial engine produced by the American Detroit Diesel; this engine is widely used in industrial and nautical fields.

The following components are clearly shown and highlighted:

- Air intake channels
- Lobe-type volumetric compressor
- Exhaust valves (2 or 4 per cylinder) controlled by camshaft in the monobloc
- Direct injection by means of a pump/injector for each cylinder
- Vibration-damping balancing shafts
- Water cooling with centrifugal pump
- Lubrication circuit with geared oil pump



*The engine operates electrically by means of a 220V gear-motor.*

### VB 6122

#### Approx. weight and dim.:

Cm:	110x100x150h
Net Weight:	kg 630
Gross Weight:	kg 780



VB 6122



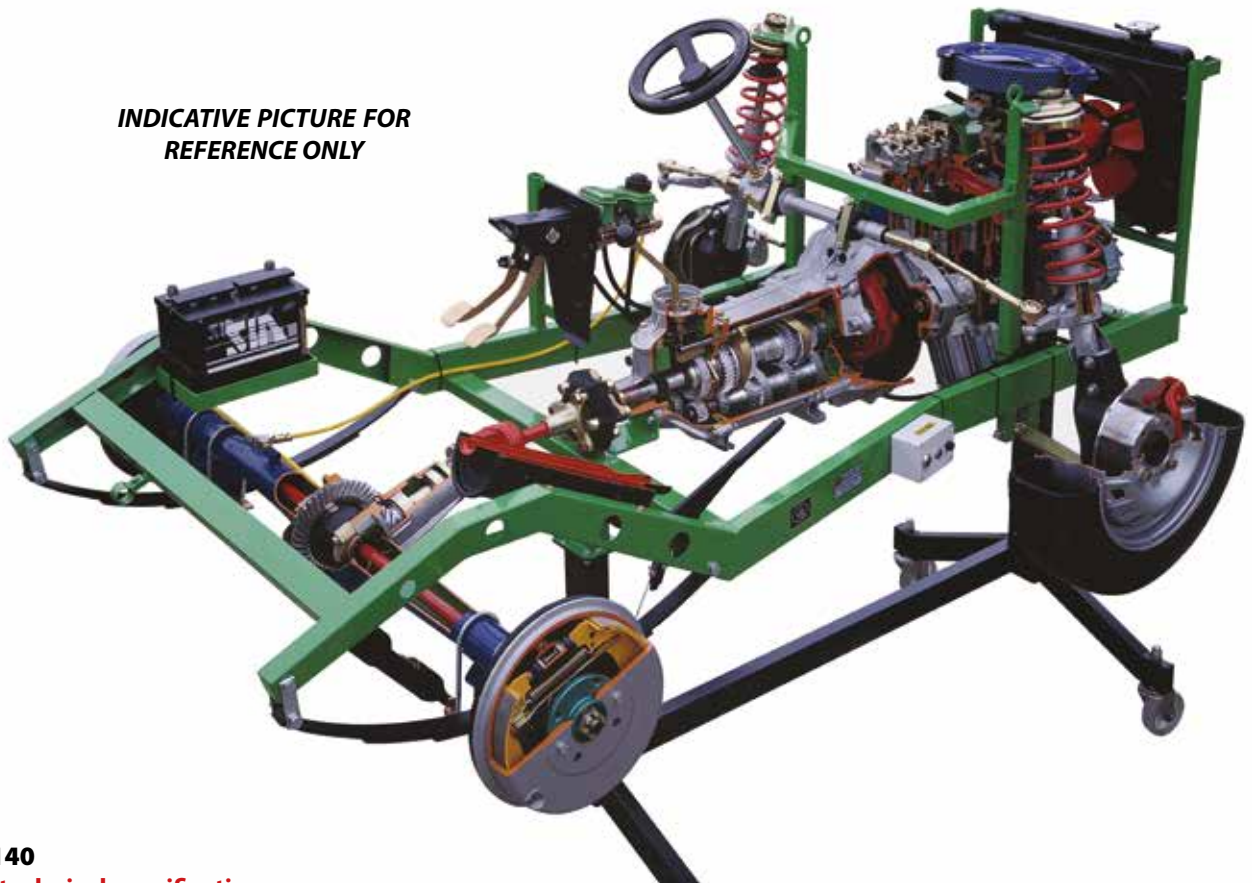
**VB 6140 FIAT TURBO DIESEL REAR DRIVE CHASSIS  
(on a sturdy stand with wheels) - electrical**

**VB 6150 FIAT DIESEL REAR DRIVE CHASSIS WITHOUT TURBOSUPERCHARGER  
(on a sturdy stand with wheels) - electrical**

**VB 6160 FIAT TURBO DIESEL REAR DRIVE CHASSIS WITH WORKING  
LIGHT SYSTEM (on a sturdy stand with wheels) - electrical**

**VB 6170 FIAT DIESEL REAR DRIVE CHASSIS WITHOUT TURBOSUPERCHARGER +  
WORKING LIGHT SYSTEM (on a sturdy stand with wheels) - electrical**

**INDICATIVE PICTURE FOR  
REFERENCE ONLY**



**VB 6140**

**Main technical specifications:**

- 4 stroke engine; 4 in-line cylinders
- Displacement: 2000/2500 cu. cm
- Gearbox: 5 forward speeds+reverse
- Single-plate clutch with diaphragm
- Propeller shaft with mechanical and flexible joint
- Hypoid differential
- Front disc brakes; rear drum brakes with double circuit
- Rear leaf spring suspension
- McPherson suspension front
- Rack steering gear

The engine operates electrically at 220 volts and runs at a reduced speed to let the student easily understand and observe the operation of the various mechanical parts.

This cutaway model is carefully sectioned for training purposes, professionally painted with different colours to better differentiate the various parts, cross-sections, lubricating circuits, fuel system, cooling system etc. Many parts have been chromium, plated and galvanized for a longer life.

**VB 6150**

Same as VB 6140 without turbo-supercharger.

**VB 6160**

Same as VB 6140 complete with working light system, regulation light, rear fog lights, reverse and emergency lights, etc...

The electrical controls are assembled on a dashboard complete with warning lights.

**VB 6170**

Same as VB 6150 complete with working lighting system, regulation light, rear fog lights, reverse and emergency lights, etc...

The electrical controls are assembled on a dashboard complete with warning lights.

**VB 6140 - VB 6150 - VB 6160 - VB 6170**

**Approx. weight and dim.:**

Cm:	145x220x100h
Net Weight:	kg 420
Gross Weight:	kg 560



## VB 6175 FIAT TURBO DIESEL CHASSIS WITH FRONT DRIVE AND WORKING LIGHT SYSTEM (on a sturdy stand with wheels) - electrical

## VB 6176 FIAT TURBO DIESEL CHASSIS WITH FRONT DRIVE (on a sturdy stand with wheels) - electrical



INDICATIVE PICTURE FOR  
REFERENCE ONLY

VB 6175 - VB 6176

### VB 6175

#### Main technical specifications:

- Fiat chassis with front drive (engine transversally mounted)
- Diesel engine displacement: 1700 cu. Cm.; 4 cylinders
- Indirect injection with pre-chamber
- Bosch VE rotary injection pump
- Turbo-compressor with waste-gate valve
- Gearbox: 5 forward speed+reverse+differential
- Hydraulic power steering with double-jointed steering column
- Radiator with electric fan
- Front disc brake
- Rear drum brake
- Independent wheels McPherson front suspension with oscillating arms
- Rear independent suspension with coil spring and gas shock absorbers
- Front and rear working light system controlled by a dashboard

The engine operates electrically at 230 volts/50Hz and runs at a reduced speed to let the student easily understand and observe the operation of the various mechanical parts. ELECTRICAL SYSTEM IN COMPLIANCE WITH EC STANDARDS

This cutaway model is carefully sectioned for training purposes, professionally painted with different colours to better differentiate the various parts, cross-sections, lubricating circuits, fuel system, cooling system etc. Many parts have been chromium plated and galvanized for a longer life.

### VB 6176

Same as VB 6175, without light system.

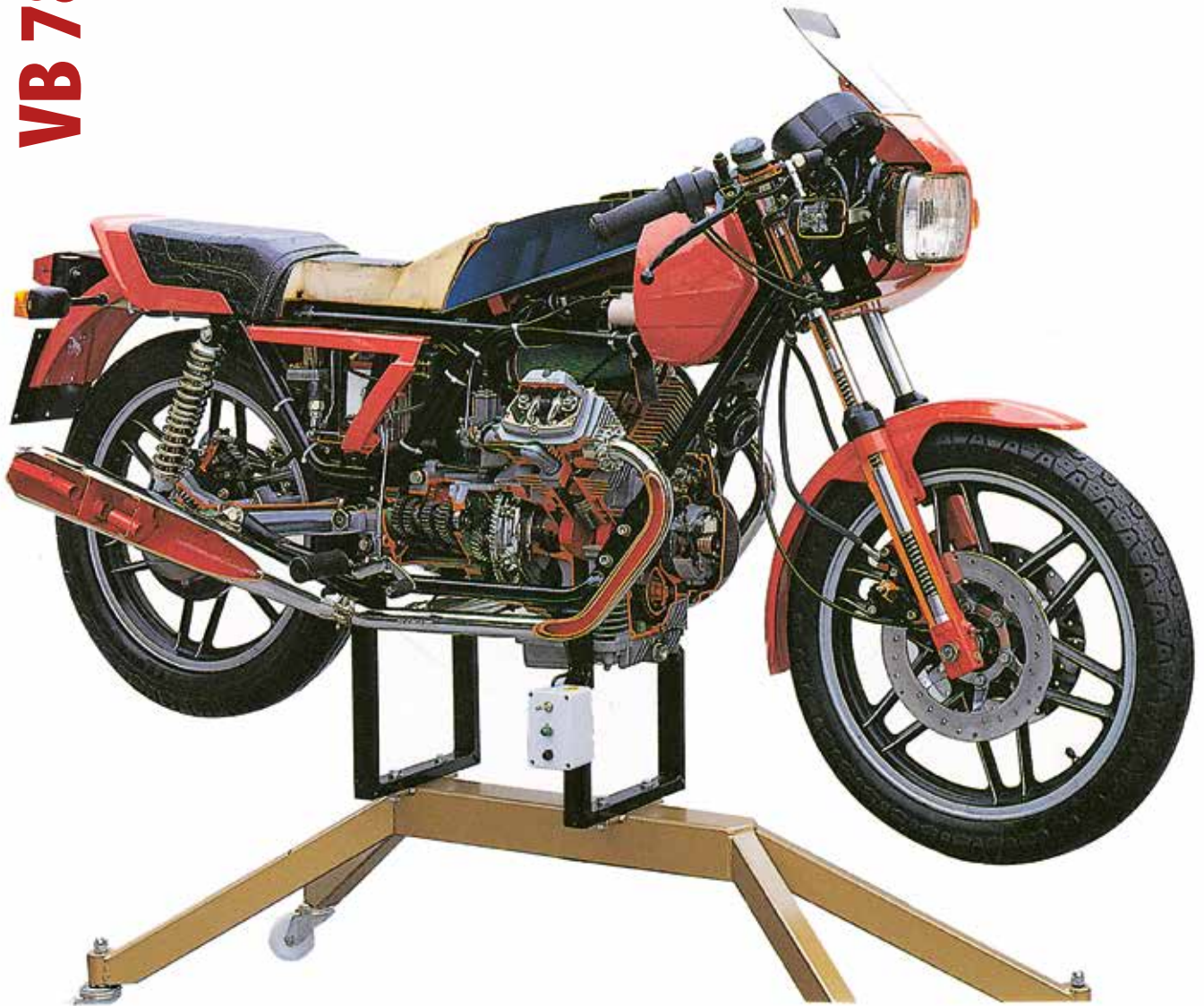
### Upon Customer's request, it can be provided with ABS

The electrical controls are assembled on a dashboard complete with warning lights.

### VB 6175 - VB 6176

#### Approx. weight and dim.:

Cm: 220x160x115h  
Net Weight: kg 400  
Gross Weight: kg 545



### VB 7800

Careful and complete section of the "Guzzi" motorcycle with V-type twin-cylinder 350/500 cu. cm. engine. All internal parts are clearly shown: battery, tank, silencer, suspensions, carburettor, coil, pistons, connecting rods, driving shaft, gearbox, selector, etc.

The engine operates electrically at 220 volts and runs at a reduced speed to let the student easily understand and observe the operation of the various mechanical parts.

This cutaway model is carefully sectioned for training purposes, professionally painted with different colours to better differentiate the various parts, cross-sections, lubricating circuits, fuel system, cooling system etc. Many parts have been chromium, plated and galvanized for a longer life.

### VB 7800

#### Approx. weight and dim.:

Cm:	200x70x130h
Net Weight:	kg 160
Gross Weight:	kg 230



**VB 7810 CVT ENGINE 4 STROKES SINGLE-CYLINDER WITH CARBURETTOR**  
(on stand with wheels) - manual

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**VB 7815 CVT ENGINE 4 STROKES SINGLE-CYLINDER WITH ELECTRONIC INJECTION** (on stand with wheels) - manual

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**VB 7830 CVT ENGINE 2 STROKES SINGLE-CYLINDER WITH CARBURETTOR**  
(on stand with wheels) - manual

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**VB 7810 - VB 7815 - VB 7830**

**Main technical specifications:**

- Electronic ignition
- Water cooling system (VB 78115 - VB 7830)
- Air cooling system (VB 7810)
- CVT automatic clutch
- Disc brake
- Silencer

*The engine is operated manually through a crank handle.*



*This cutaway model is carefully sectioned for training purposes, professionally painted with different colours to better differentiate the various parts, cross-sections, lubricating circuits, fuel system, cooling system etc. Many parts have been chromium, plated and galvanized for a longer life.*

**VB 7810 - VB 7815 - VB 7830**

**Approx. weight and dim.:**

Cm: 100x60x80h  
Net Weight: kg 50  
Gross Weight: kg 75

**VB 7810 - VB 7815 - VB 7830**

# VB 7820

## VB 7820 "DUCATI" MOTORCYCLE PETROL ENGINE (on table support) - manual

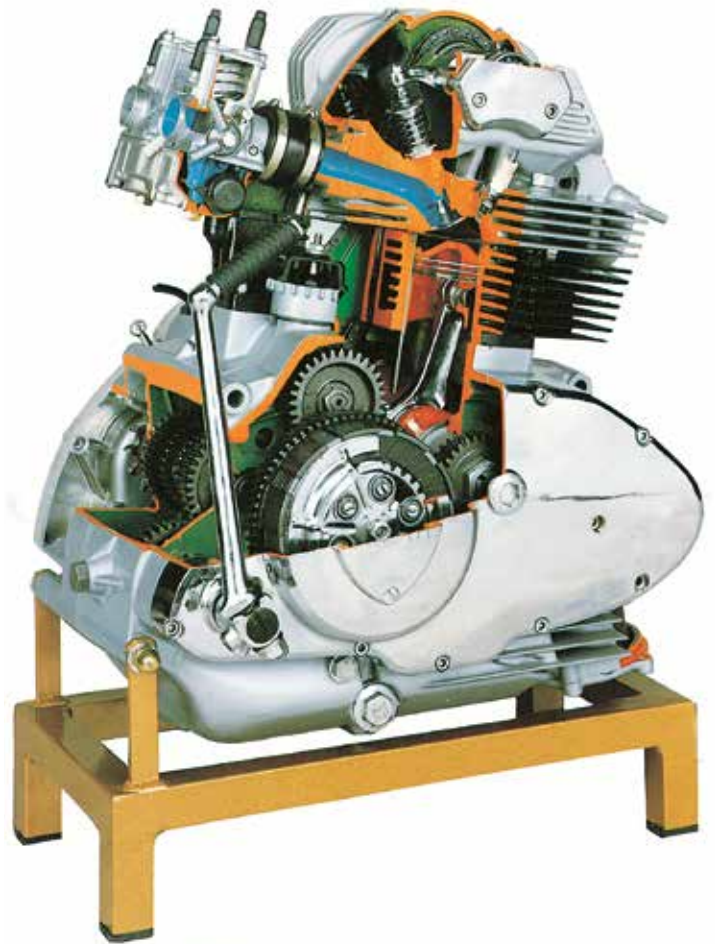
### Main technical specifications:

- 4 stroke engine; 2-cylinders
- Displacement: 350/500 cu. cm
- Gearbox: 5 forward speeds
- Camshaft in the crankcase
- Point ignition
- Alternator;
- Oil bath plate-clutch
- Air cooling

*The engine is operated manually through a crank handle.*

### Approx. weight and dim:

Cm: 50x45x70h  
Net Weight: kg 67  
Gross Weight: kg 80



# VB 7840

## VB 7840 "VESPA - PIAGGIO" 2 STROKE ENGINE (on stand with wheels) - manual

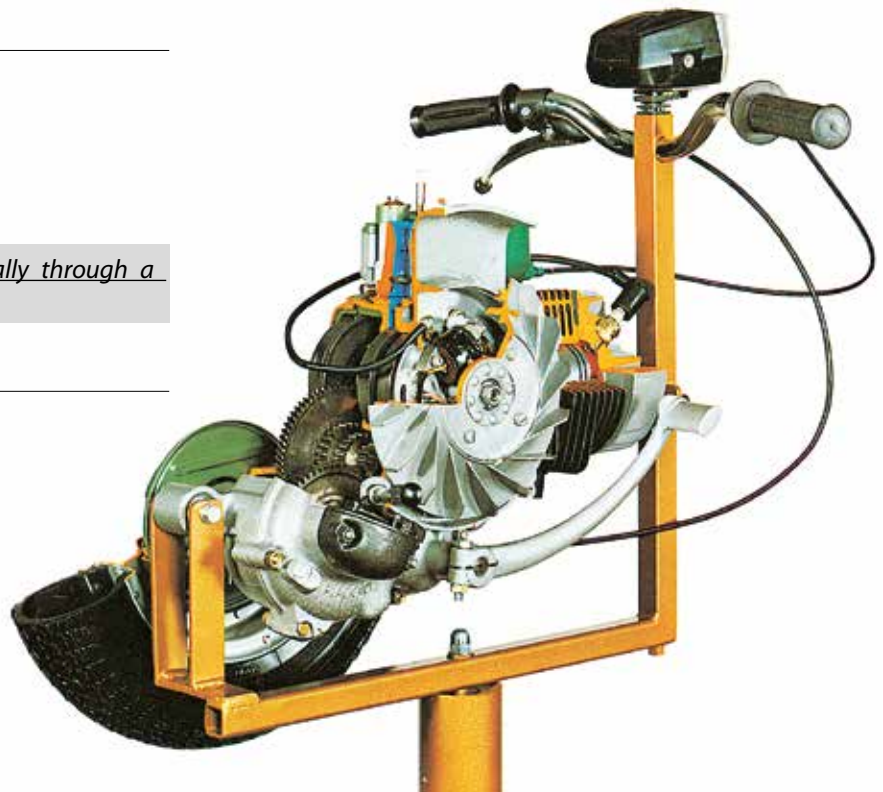
### Main technical specifications:

- Displacement: 125/150 cu. cm
- Multiple-disc clutch
- Distribution by rotary valve
- Carburettor
- Gearbox: 3/4 forward speeds

*The engine is operated manually through a crank handle.*

### Approx. weight and dim:

Cm: 80x80x60h  
Net Weight: kg 30  
Gross Weight: kg 45



*These cutaway models are carefully sectioned for training purposes, professionally painted with different colours to better differentiate the various parts, cross-sections, lubricating circuits, fuel system, cooling system etc. Many parts have been chromium, plated and galvanized for a longer life.*



**ON CUSTOMER'S REQUEST IT IS POSSIBLE TO REALIZE CUTAWAY MOTORCYCLE  
ENGINES AS PER ITEMS VB 7820 - VB 7800 BRANDS YAMAHA - HONDA - KAWASAKI**



***INDICATIVE PICTURE FOR  
REFERENCE ONLY***

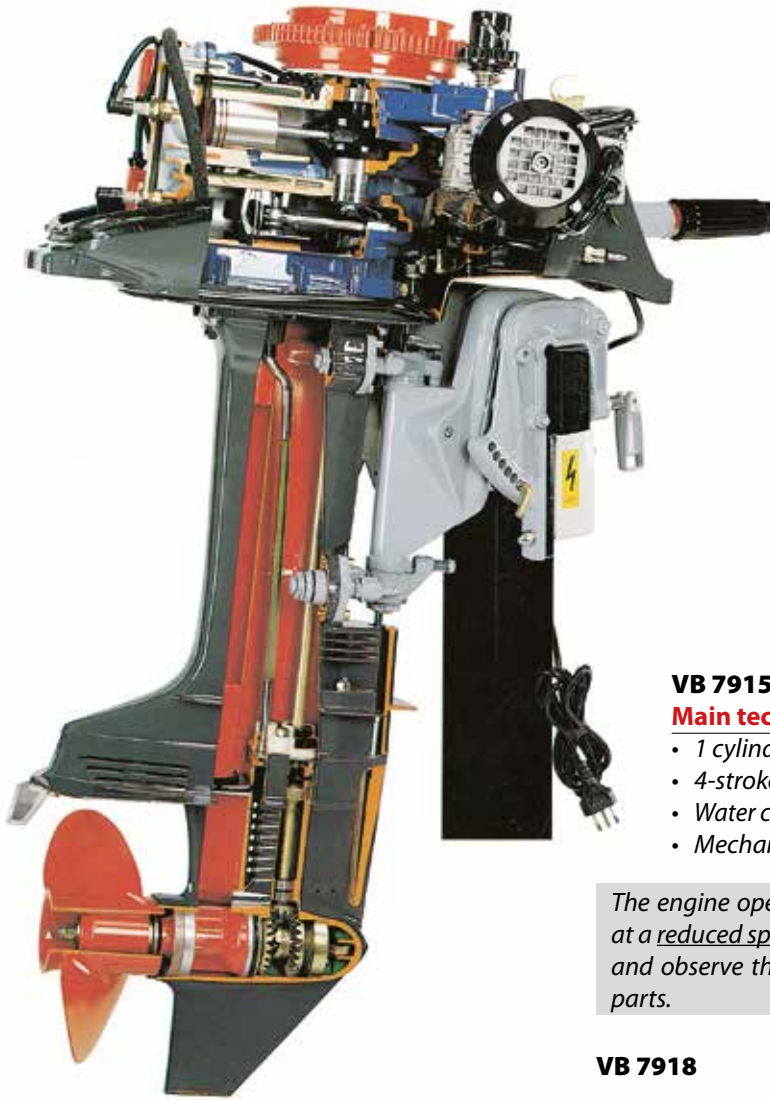


**VB 7900 MARINE OUTBOARD ENGINE 2 STROKES (on stand with wheels)**  
- electrical

**VB 7910 MARINE OUTBOARD ENGINE 2 STROKES (on stand with wheels)**  
- manual

**VB 7915 MARINE OUTBOARD ENGINE 4 STROKES (on stand with wheels)**  
- electrical

**VB 7918 MARINE OUTBOARD ENGINE 4 STROKES (on stand with wheels)**  
- manual



**VB 7900**

**Main technical specifications:**

- 2/3 cylinders
- 2-stroke engine
- Water cooling system with centrifugal pump
- Mechanical type converter

*The engine operates electrically at 220 volts and runs at a reduced speed to let the student easily understand and observe the operation of the various mechanical parts.*

**VB 7910**

*Same as VB 7900 but operated manually through a crank handle.*

**VB 7915**

**Main technical specifications:**

- 1 cylinder
- 4-stroke engine
- Water cooling system with centrifugal pump
- Mechanical type converter

*The engine operates electrically at 220 volts and runs at a reduced speed to let the student easily understand and observe the operation of the various mechanical parts.*

**VB 7918**

*Same as VB7915 but operated manually through a crank handle.*

*This cutaway model is carefully sectioned for training purposes, professionally painted with different colours to better differentiate the various parts, cross-sections, lubricating circuits, fuel system, cooling system etc. Many parts have been chromium, plated and galvanized for a longer life.*

**VB 7900 - VB 7910 - VB 7915 - VB 7918**

**Approx. weight and dim:**

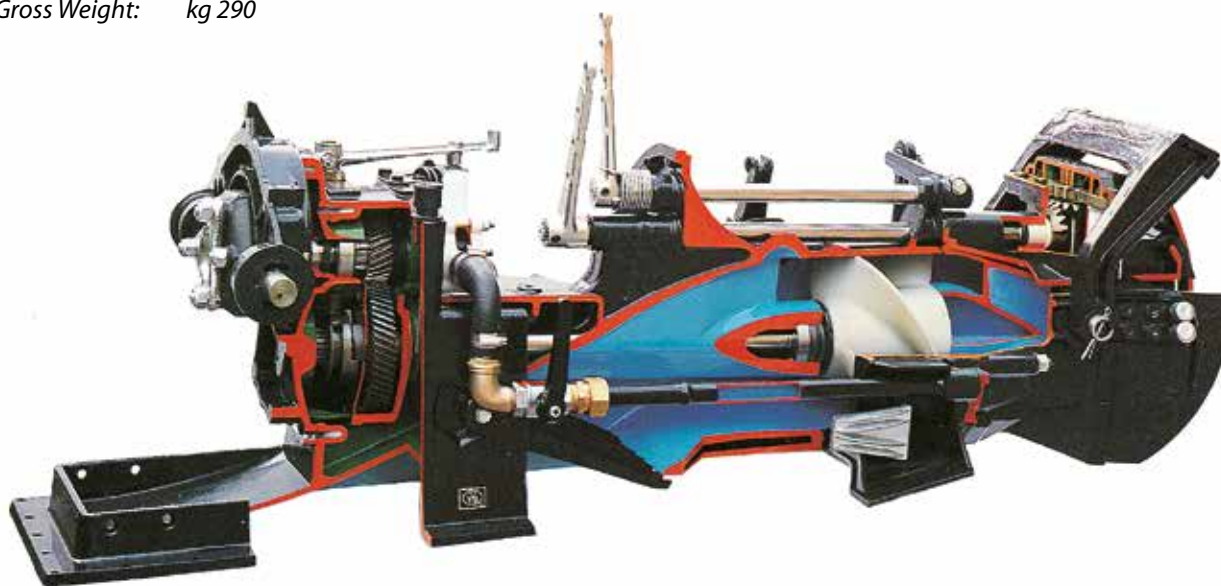
Cm:	80x80x150h
Net Weight:	kg 60
Gross Weight:	kg 100



## VB 7920 HYDROJET (on stand with wheels) - manual

### Approx. weight and dim:

Cm: 200x60x120h  
Net Weight: kg 220  
Gross Weight: kg 290



*"Castoldi" jet drive marine propeller. The unit is carefully sectioned to show every detail.*

*The engine is operated manually through a crank handle.*

## VB 7930 OUTBOARD MARINE REVERSER (on base) - manual

*Mechanical type reverse, universal type, installed on marine outboard motors.*

*The engine is operated manually through a crank handle.*

### Approx. weight and dim:

Cm: 50x40x75h  
Net Weight: kg 8  
Gross Weight: kg 15

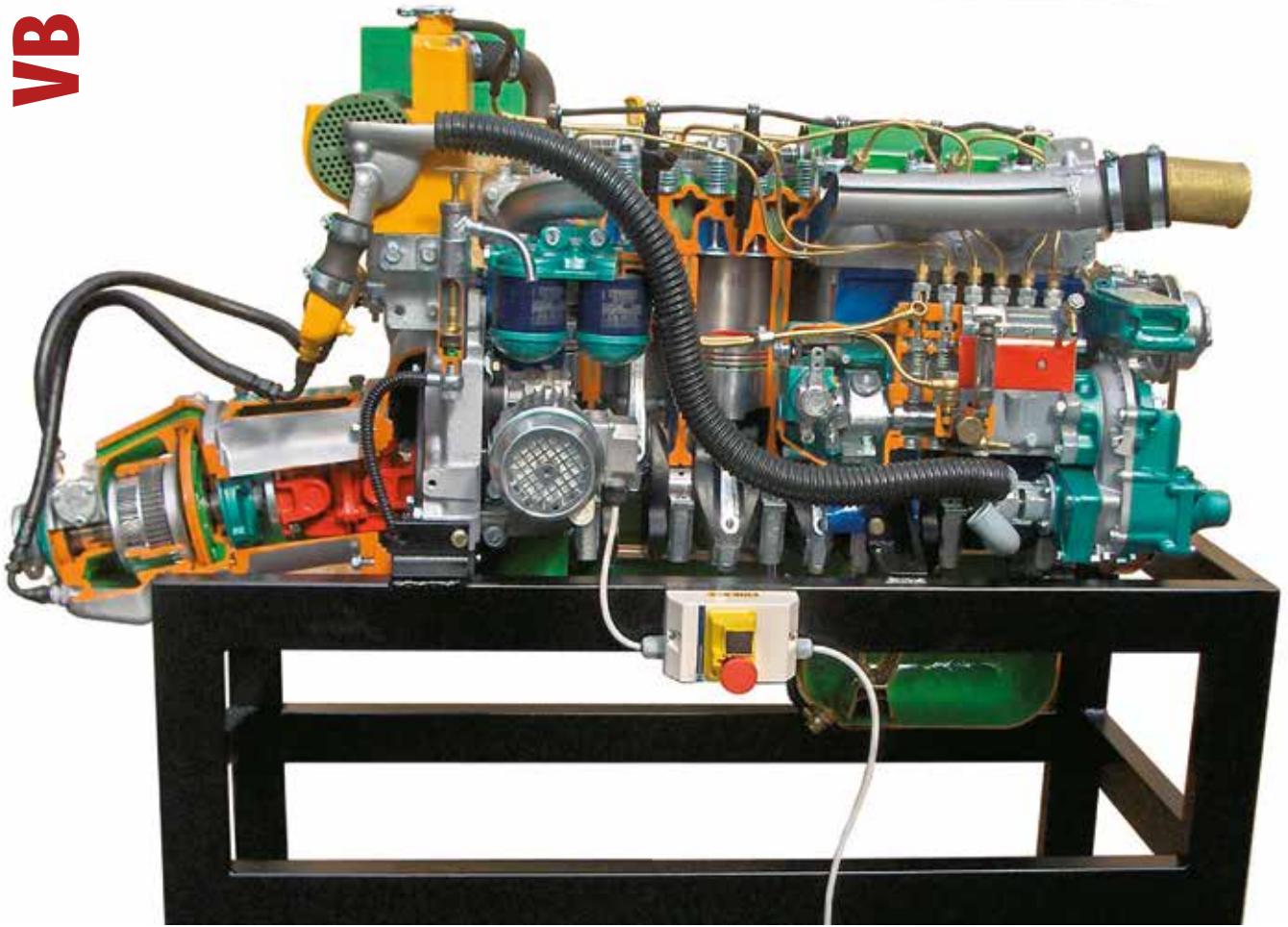
*These cutaway models are carefully sectioned for training purposes, professionally painted with different colours to better differentiate the various parts, cross-sections, lubricating circuits. Many parts have been chromium, plated and galvanized for a longer life.*



**VB 7920**

**VB 7930**

## VB 7940 MARINE INBOARD DIESEL ENGINE WITH INVERTER - 4/6 CYLINDERS (on stand with wheels) - electrical



### VB 7940

#### Main technical specifications:

*4 cylinders in line engine or 6 cylinders in line engine according to market availability.  
Complete of accessories and closed circuit.*

*The engine operates electrically at 220 volts and runs at a reduced speed to let the student easily understand and observe the operation of the various mechanical parts.*

*This cutaway model is carefully sectioned for training purposes, professionally painted with different colours*

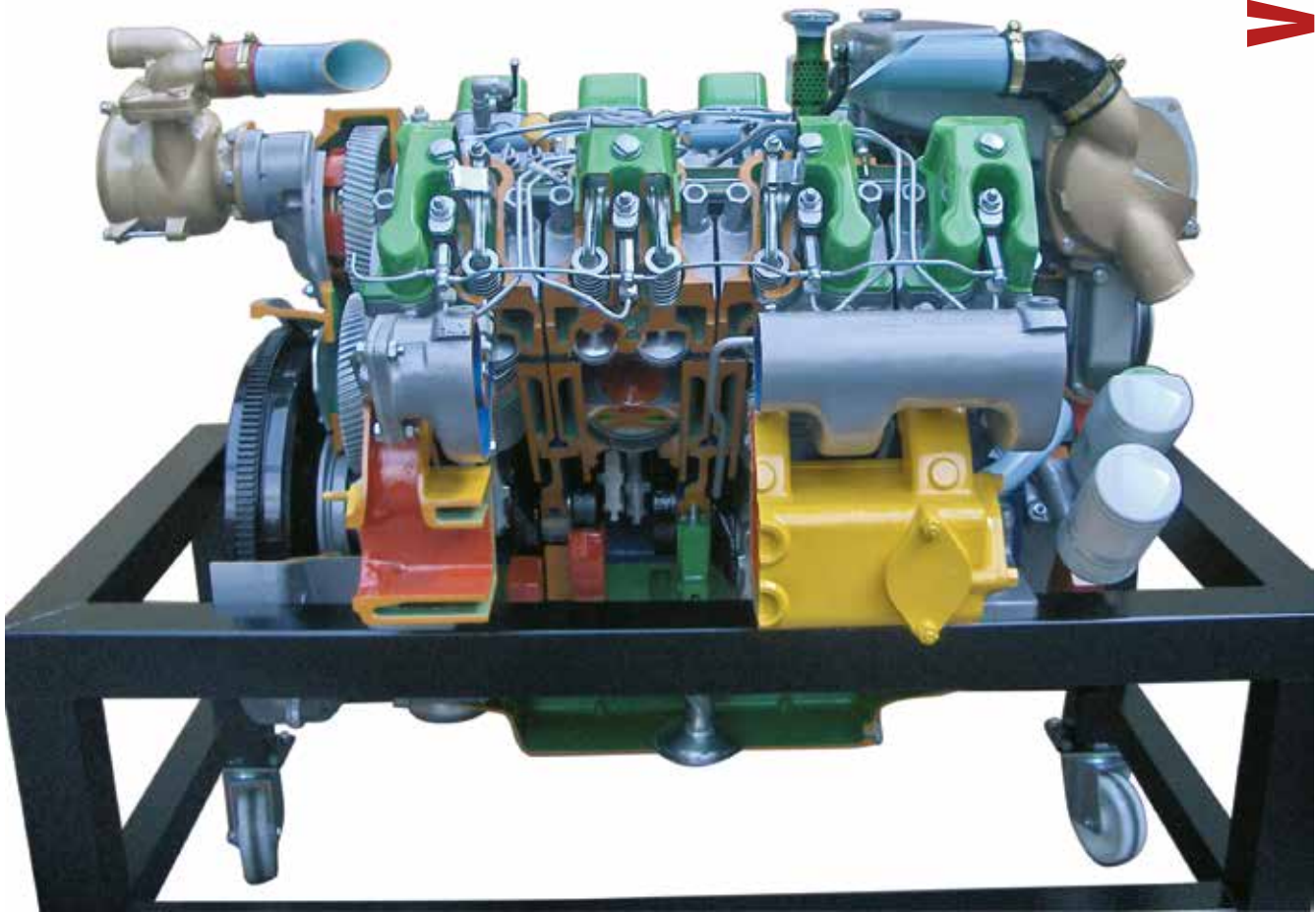
*to better differentiate the various parts, cross-sections, lubricating circuits, fuel system, cooling system etc. Many parts have been chromium, plated and galvanized for a longer life.*

*Packing details are provided upon request according to the engine type (4 or 6 cylinders).*



**VB 7950 MARINE INBOARD DIESEL ENGINE 6/8 V-CYLINDERS WITHOUT INVERTER (on stand with wheels) - electrical**

**VB 7950**



**VB 7950**

**Main technical specifications:**

*6 V-cylinders engine or 8 V-cylinders engine according to market availability.*

*Complete of accessories and closed cooling circuit.*

*The engine operates electrically at 220 volts and runs at a reduced speed to let the student easily understand and observe the operation of the various mechanical parts.*

*This cutaway model is carefully sectioned for training purposes, professionally painted with different colours*

*to better differentiate the various parts, cross-sections, lubricating circuits, fuel system, cooling system etc. Many parts have been chromium, plated and galvanized for a longer life.*

*Packing details are provided upon request according to the engine type (6 or 8 cylinders).*



### VB 8000

Accurate section of a small tractor with several interesting technical features for educational purposes.

#### Main technical specifications:

- 4-stroke diesel engine 20hp/ 16Kw
- water cooling system
- lubrication of trochoid pump
- in-line injection pump
- dry single-disc clutch
- Gearbox: 6 speeds + 2 reverse with gear reducer
- 2 speed power take-off
- rear differential with mechanical locking
- possibility of disengaging the front drive
- rear drum brakes
- sector steering gear box
- hydraulic lifter

The engine operates electrically at 220 volts and runs at a reduced speed to let the student easily understand and observe the operation of the various mechanical parts.

This cutaway model is carefully sectioned for training purposes, professionally painted with different colours to better differentiate the various parts, cross-sections, lubricating circuits, fuel system, cooling system etc. Many parts have been chromium, plated and galvanized for a longer life.

### VB 8000

#### Approx. weight and dim.:

Cm:	190x110x160h
Net Weight:	kg 345
Gross Weight:	kg 500

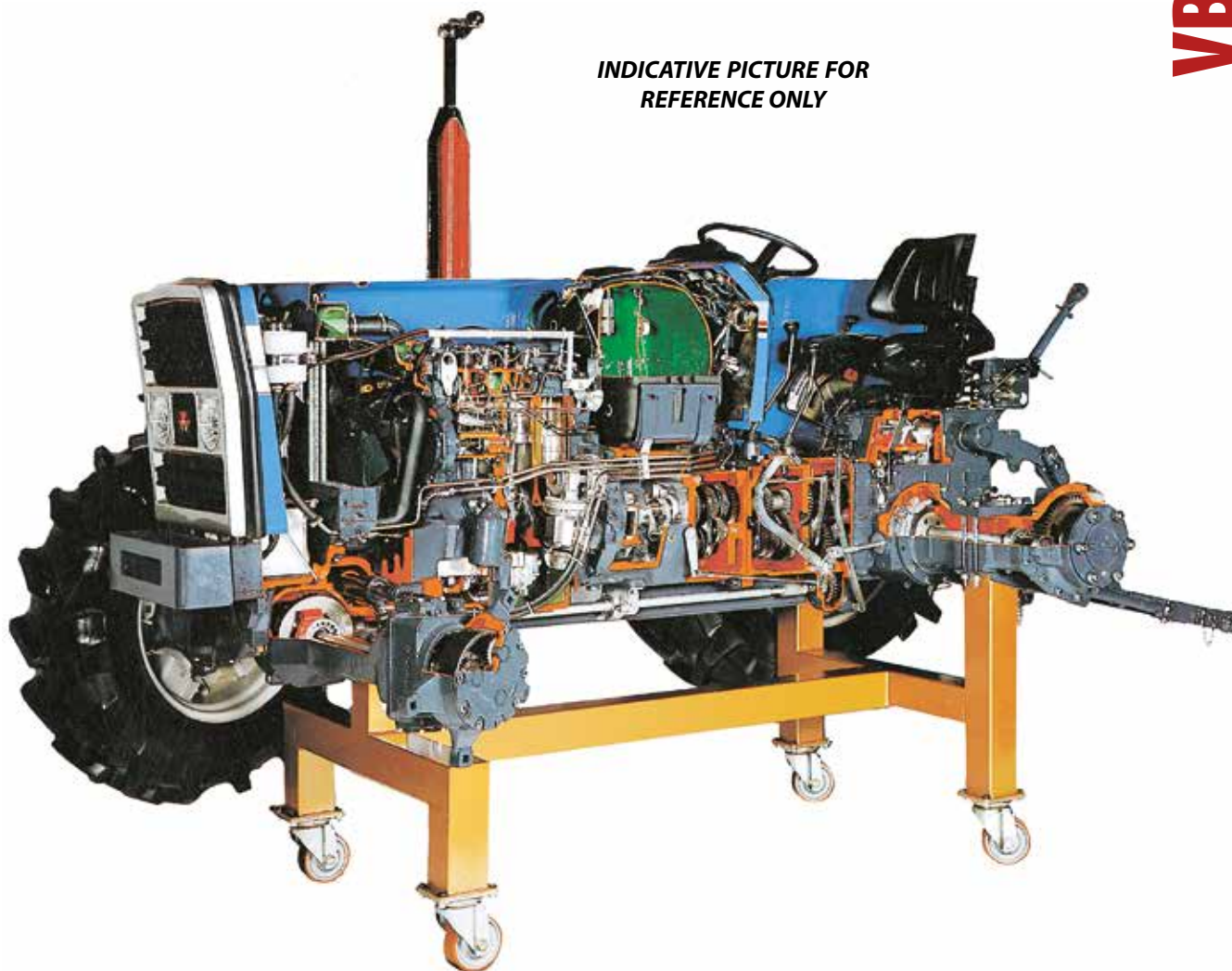


**VB 8300 "MASSEY-FERGUSON"/"LANDINI" FARM TRACTOR 4 DRIVING WHEELS  
(on stand with wheels) - electrical**

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**VB 8300**

**INDICATIVE PICTURE FOR  
REFERENCE ONLY**



**VB 8300**

**Main technical specifications:**

- 4 cylinders Perkins diesel engine
- direct injection
- CAV rotary injection pump
- single-disc clutch
- speed gear with reduction unit
- rear hydraulic lifter with rear differential locking and insertion of the front drive
- PTO

The engine operates electrically at 220 volts and runs at a reduced speed to let the student easily understand and observe the operation of the various mechanical parts.

This cutaway model is carefully sectioned for training purposes, professionally painted with different colours to better differentiate the various parts, cross-sections, lubricating circuits, fuel system, cooling system etc. Many parts have been chromium, plated and galvanized for a longer life.

**VB 8300**

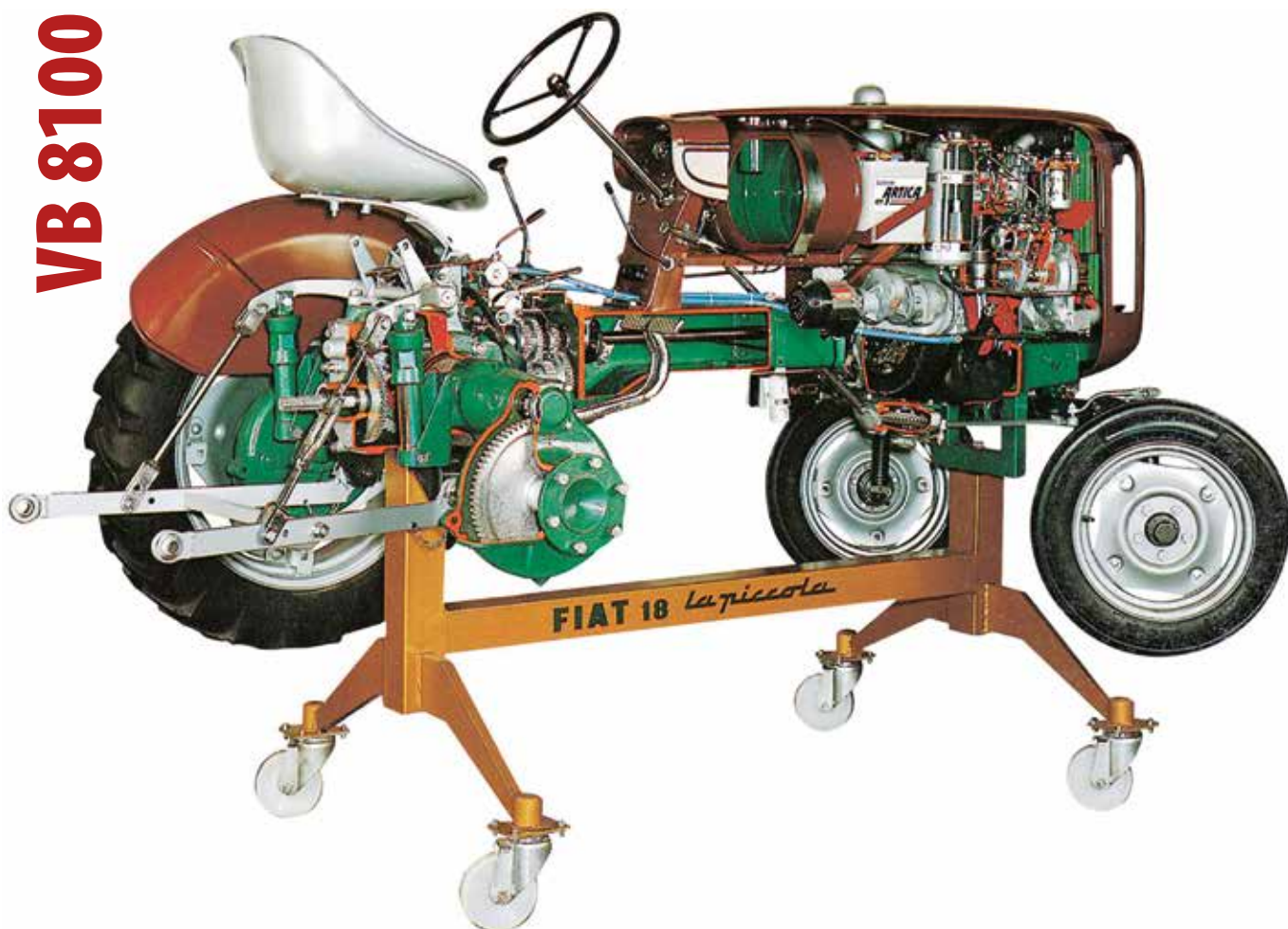
**Approx. weight and dim.:**

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Cm:	360x185x215h
Net Weight:	kg 2000
Gross Weight:	kg 2470

**VB 8100 TYRE-WHEELED FARM TRACTOR WITH DIESEL ENGINE - FIAT "La Piccola"  
(on stand with wheels) - electrical**

**VB 8110 TYRE-WHEELED FARM TRACTOR WITH DIESEL ENGINE - FIAT "La Piccola"  
+ HYDRAULIC HOIST (on stand with wheels) - electrical**



## **VB 8100**

### **Main technical specifications:**

- 4-stroke – 2 cylinders engine
- Indirect injection
- Water cooling system
- Overhead valves
- In-line injection pump
- Globe-shaped steering box
- Gearbox: 6 forward speeds + 2 reverse

*The engine operates electrically at 220 volts and runs at a reduced speed to let the student easily understand and observe the operation of the various mechanical parts.*

*This cutaway model is carefully sectioned for training purposes, professionally painted with different colours to better differentiate the various parts, cross-sections, lubricating circuits, fuel system, cooling system etc. Many parts have been chromium, plated and galvanized for a longer life.*

## **VB 8110**

*Same as VB 8100 with hydraulic hoist.*

## **VB 8100 - VB 8110**

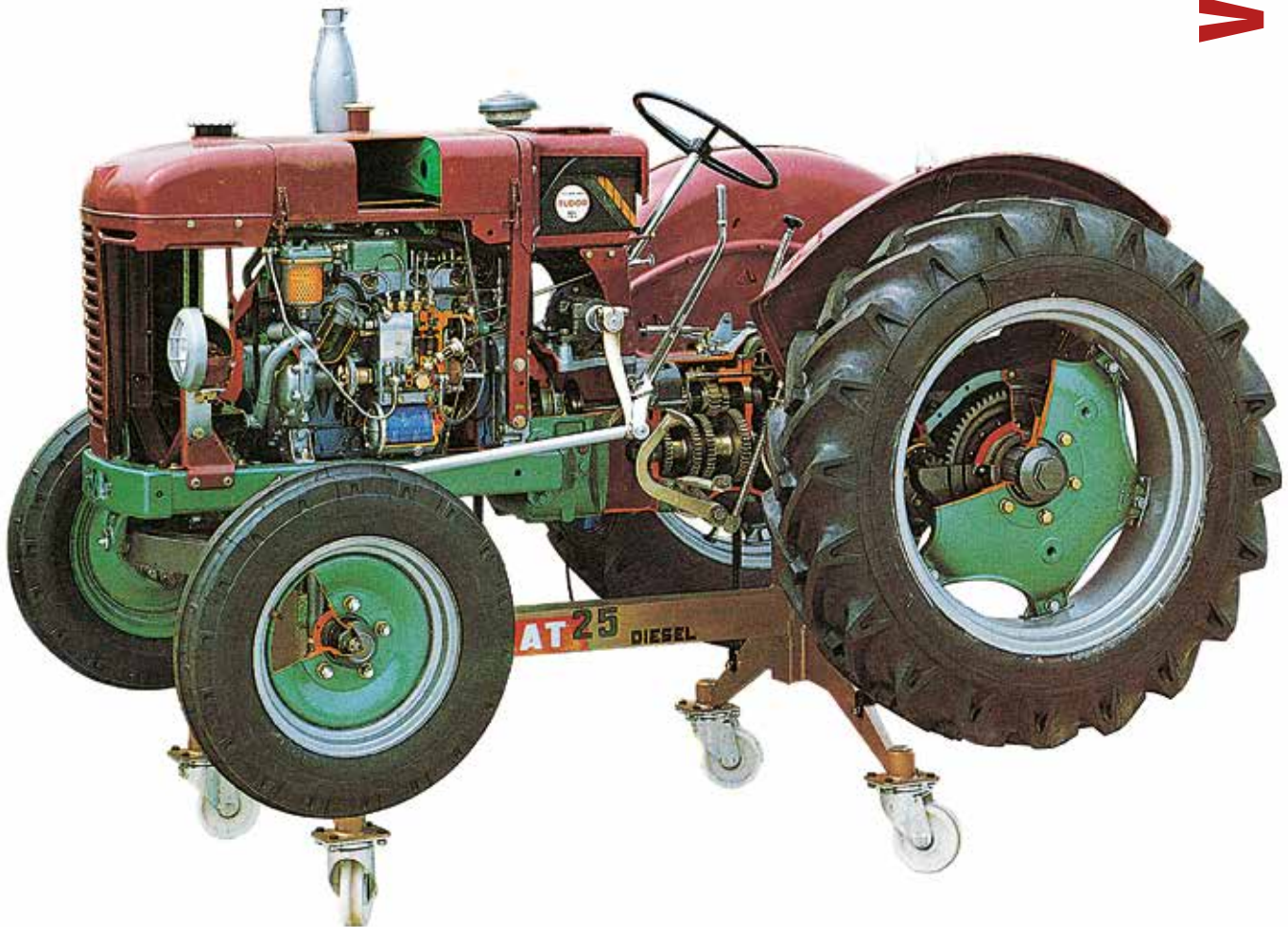
### **Approx. weight and dim.:**

Cm: 265x160x180h  
Net Weight: kg 650  
Gross Weight: kg 830



**VB 8200 TYRE-WHEELED FARM TRACTOR WITH DIESEL ENGINE - FIAT 25R**  
(on stand with wheels) - electrical

**VB 8200**



**VB 8200**

**Main technical specifications:**

- 4-stroke – 4 cylinders engine
- Displacement: 2000 cu.cm
- Indirect injection
- Water cooling system
- Overhead valves
- In-line injection pump
- Globe-shaped steering box
- Gearbox: 4 forward speeds + reverse

The engine operates electrically at 220 volts and runs at a reduced speed to let the student easily understand and observe the operation of the various mechanical parts.

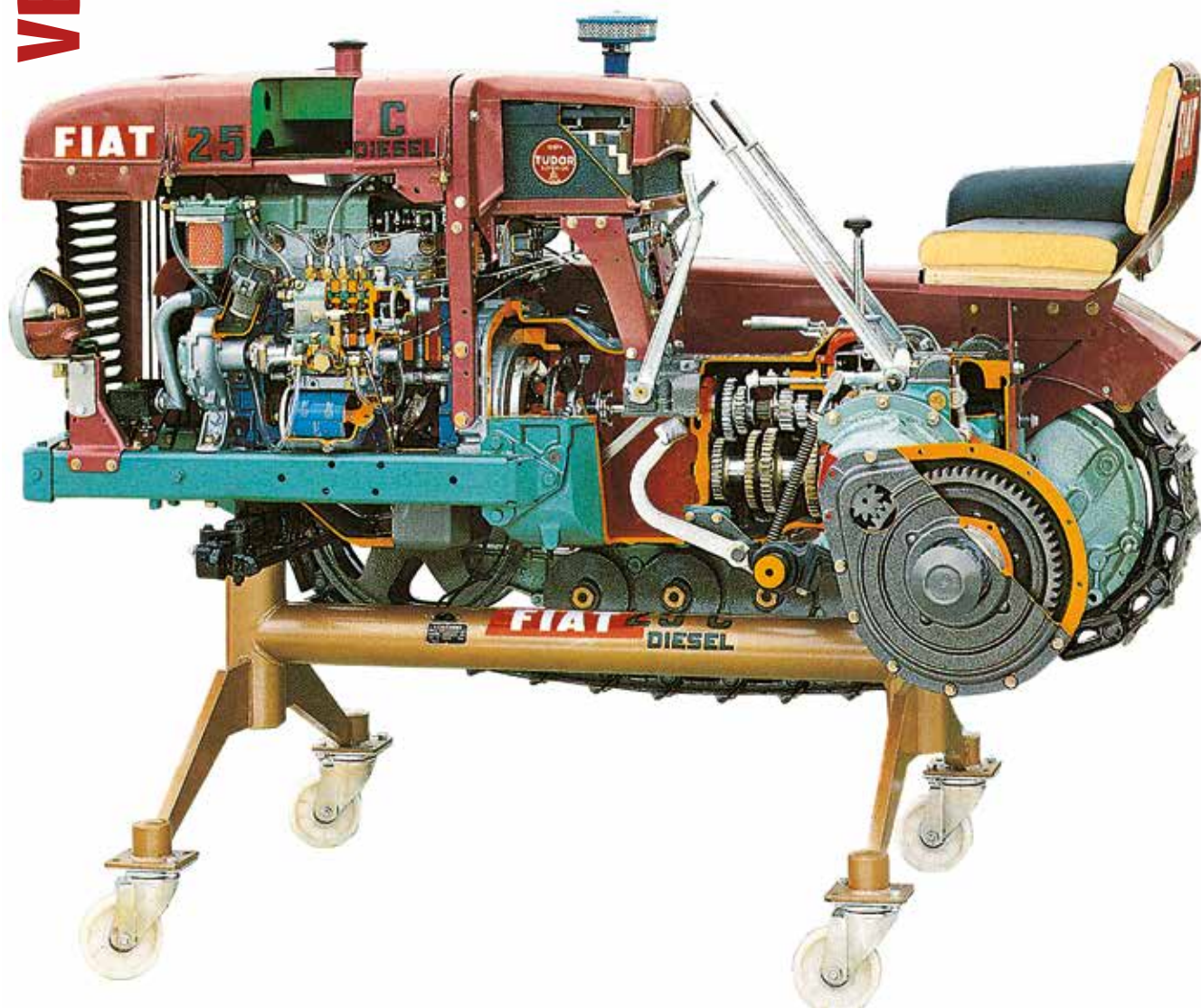
This cutaway model is carefully sectioned for training purposes, professionally painted with different colours to better differentiate the various parts, cross-sections, lubricating circuits, fuel system, cooling system etc. Many parts have been chromium, plated and galvanized for a longer life.

**VB 8200**

**Approx. weight and dim.:**

Cm:	220x172x180h
Net Weight:	kg 1030
Gross Weight:	kg 1250

## VB 8350 TRACKED TRACTOR WITH DIESEL ENGINE - FIAT 25C (on stand with wheels) - electrical



### VB 8350

#### Main technical specifications:

- 4 stroke-4 cylinders engine
- Displacement: 2000 cu. cm
- Indirect injection
- Water cooling system
- Overhead valves
- In-line injection pump
- Multiple-plate steering clutch
- Gearbox: 4 forward speeds + reverse

The engine operates electrically at 220 volts and runs at a reduced speed to let the student easily understand and observe the operation of the various mechanical parts.

This cutaway model is carefully sectioned for training purposes, professionally painted with different colours to better differentiate the various parts, cross-sections, lubricating circuits, fuel system, cooling system etc. Many parts have been chromium, plated and galvanized for a longer life.

### VB 8350

#### Approx. weight and dim.:

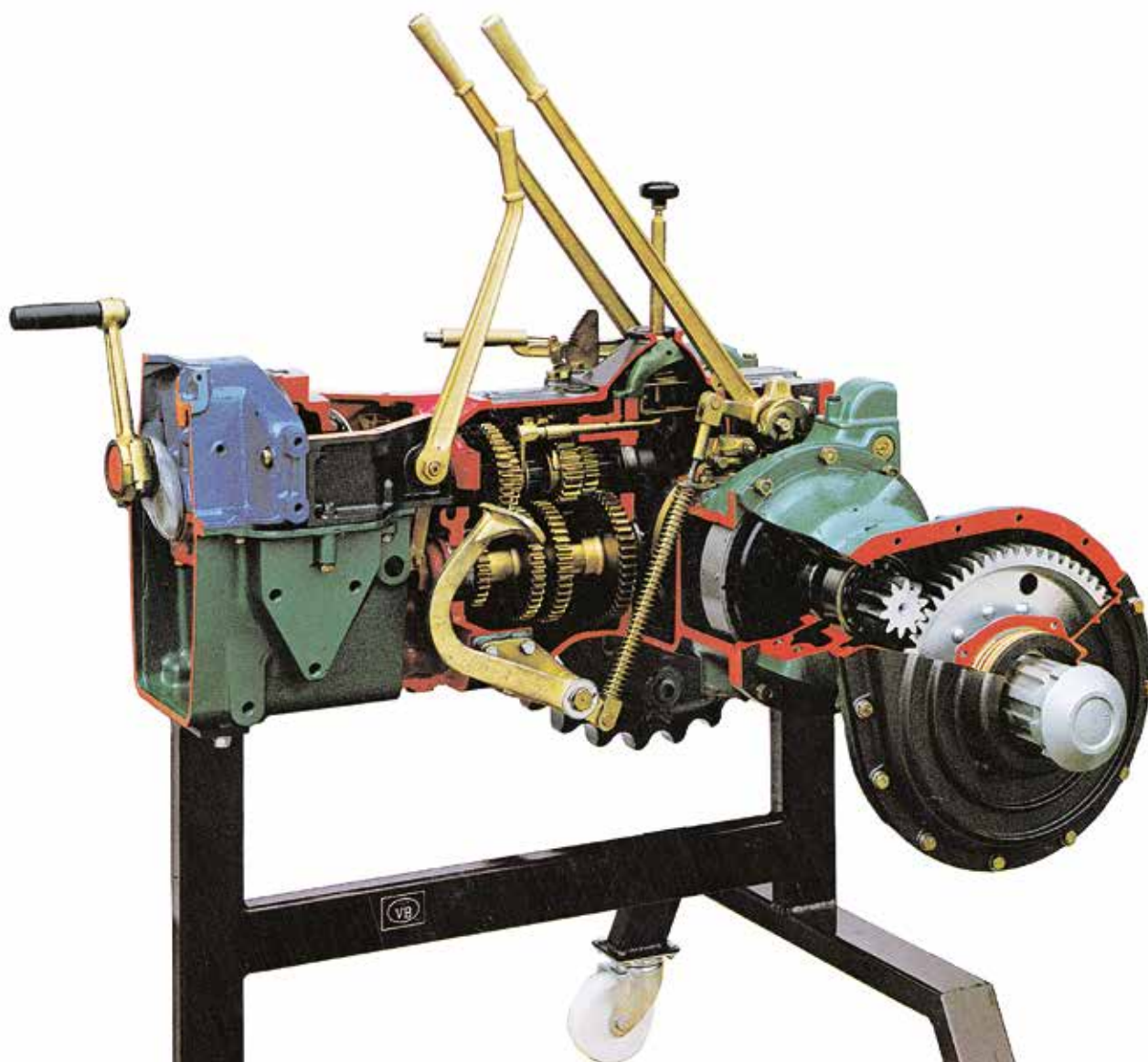
Cm:	230x132x180h
Net Weight:	kg 910
Gross Weight:	kg 1200



**VB 8360 TRACKED TRACTOR TRANSMISSION (on stand with wheels) - manual**

**VB 8370 WHEELED TRACTOR TRANSMISSION (on stand with wheels) - manual**

**VB 8360 - VB 8370**



### **VB 8360**

#### **Main technical specifications:**

- Clutch unit
- Gearbox
- Pinion gear – ring gear
- Steering clutch
- Final reducer

*The engine is operated manually through a crank handle.*

### **VB 8360**

#### **Approx. weight and dim.:**

Cm: 140x125x150h  
Net Weight: kg 450  
Gross Weight: kg 610

*This cutaway model is carefully sectioned for training purposes, professionally painted with different colours to better differentiate the various parts, cross-sections, lubricating circuits. Many parts have been chromium plated and galvanized for a longer life.*

### **VB 8370 WHEELED TRACTOR TRANSMISSION**

#### **Main technical specifications:**

- Clutch unit
- Gearbox
- Pinion gear – ring gear
- Differential units axle shafts with band brakes
- Final reducer

*The engine is operated manually through a crank handle.*

### **VB 8370**

#### **Approx. weight and dim.:**

Cm: 145x170x120h  
Net Weight: kg 480  
Gross Weight: kg 590

# VB 8380

## VB 8380 ENGINE POWERED CHAINSAW - manual



### Main technical features:

- 2 stroke engine with carburettor
- Centrifugal clutch
- Oil pump for chain lubrication
- Electronic ignition
- Safety system

*Operated manually through a crank handle.*

### VB 8380

#### Approx. weight and dim.:

Cm: 90x30x35h  
Net Weight: kg 5  
Gross Weight: kg 10

# VB 8390

## VB 8390 TRANSPLANTER (on stand with wheels) - electrical

For the transplant of seedlings of vegetables, flowers, tobacco, nursery plants etc. having bare or conical roots, pyramidal or cubic peat rootball.



### Main technical features:

- Support wheel
- Distributor
- Seat
- Plant cassette
- Ridging and transmission wheel
- Ploughshare
- Coupling for motor-cultivator

### VB 8390

#### Approx. weights and dim.:

Cm: 220x87x127h  
Net Weight: kg 160  
Gross Weight: kg 300

*Operated at 220V by means of gear-motor.*

*These cutaway items are carefully sectioned for training purposes, professionally painted with different colours to better differentiate the various parts.  
Many parts have been chromium, plated and galvanized for a longer life.*



## VB 8600 MOTOR CULTIVATOR (on stand with wheels) - electrical

Accurate section of a modern petrol motor cultivator with single-cylinder engine, air cooling, 6/10 HP approx.

### Main technical features:

- Petrol engine 4 strokes single cylinder
- Power: 6 Kw
- Recoil starter
- Dry clutch with manual control
- Gearbox MTC 3+2
- Reverse command by lever
- PTO
- Handlebars adjustable both in height and width
- Motor-stop safety device



The engine operates electrically at 220 volts and runs at a reduced speed to let the student easily understand and observe the operation of the various mechanical parts.

This cutaway model is carefully sectioned for training purposes, professionally painted with different colours to better differentiate the various parts, cross-sections, lubricating circuits, fuel system, cooling system etc.

Many parts have been chromium, plated and galvanized for a longer life.

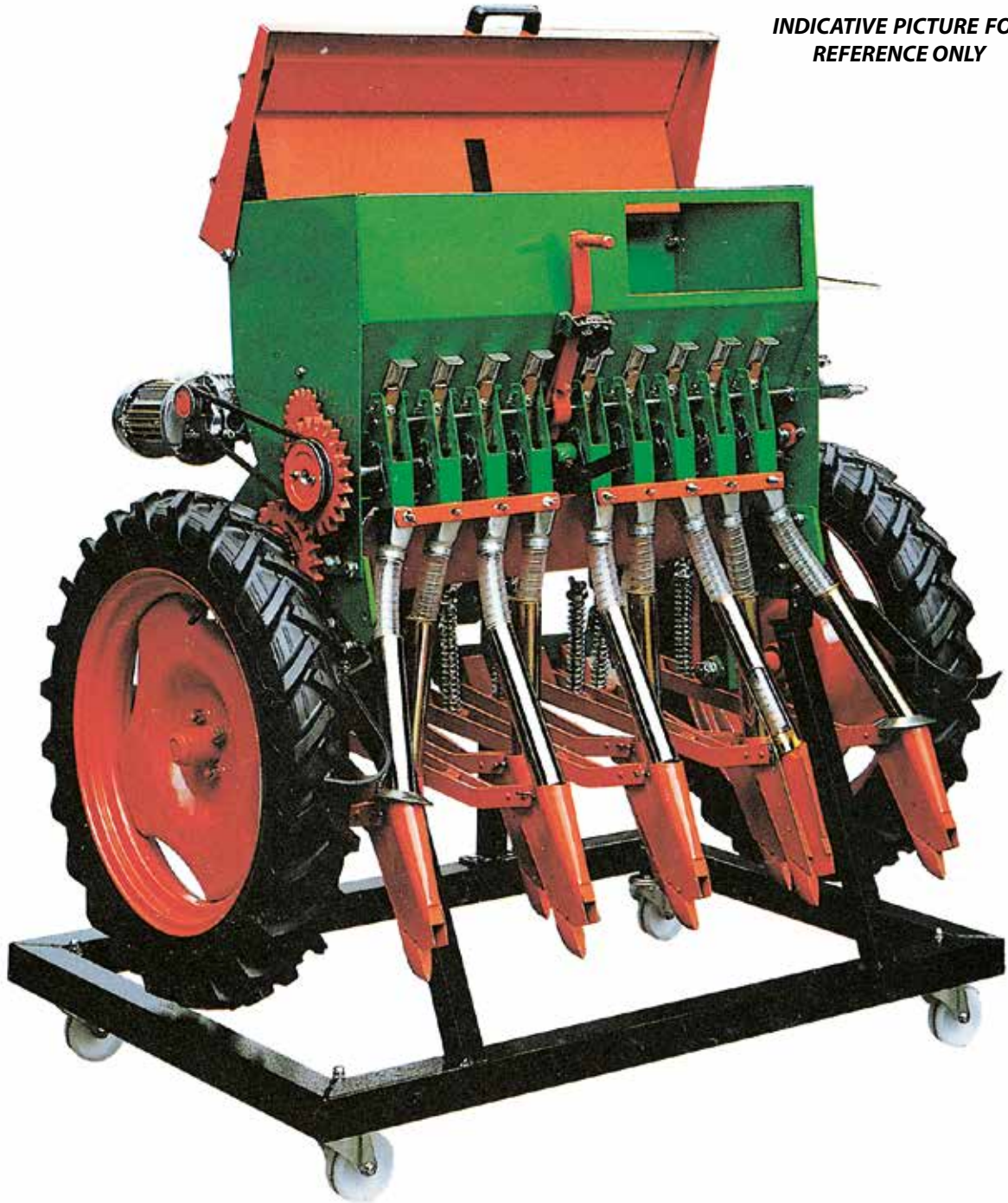
### VB 8600

#### Approx. weight and dim.:

Cm:	70x180x110h
Net Weight:	kg 100
Gross Weight:	kg 160

VB 8600

INDICATIVE PICTURE FOR  
REFERENCE ONLY



### VB 8610

*Accurate section of a towed universal seeder showing:*

- Seed hopper
- Distributor
- Inlet pipes
- Coulter

*The engine operates electrically at 220 volts and runs at a reduced speed to let the student easily understand and observe the operation of the various mechanical parts.*

*This cutaway model is carefully sectioned for training purposes, professionally painted with different colours to better differentiate the various parts.*

### VB 8610

#### **Approx. weight and dim.:**

Cm:	105x135x145h
Net Weight:	kg 200
Gross Weight:	kg 300



## VB 8620 ATOMIZER - electrical

### VB 8620

Accurate section of a real agricultural sprayer, used to spray crops with fungicides.



#### Main technical specification:

- Radial piston pump
- Fibreglass tank with filter
- Control unit
- Overdrive with fan
- Hydraulic stirrer
- Cardan shaft
- Adjustable nozzles

The engine operates electrically at 220 volts and runs at a reduced speed to let the student easily understand and observe the operation of the various mechanical parts.

This cutaway model is carefully sectioned for training purposes, professionally painted with different colours to better differentiate the various parts, cross-sections, lubricating circuits. Many parts have been chromium, plated and galvanized for a longer life.

#### VB 8620

##### Approx. weight and dim.:

Cm:	220x110x130h
Net Weight:	kg 220
Gross Weight:	kg 330

VB 8620

# VB 8640

## VB 8640 MANURE SPREADER (on stand with wheels) - electrical

Accurate section of a pulled manure spreader.

### The following parts are shown:

- Hopper
- Spreader disc with blades
- Bevel gear pair
- Spread control

The engine operates electrically at 220 volts and runs at a reduced speed to let the student easily understand and observe the operation of the various mechanical parts.



### VB 8640

#### Approx. weight and dim.:

Cm: 150x140x160h  
Net Weight: kg 135  
Gross Weight: kg 230

# VB 8650

## VB 8650 FERTILIZER - manual

Sectioned unit composed of a fertilizer and two irrigators of different types placed on suitable delivery pipes.

The fertilizer (fully sectioned) is complete with pressure gauge, gate valve, rubber hoses, etc., so that its real working principle is reproduced.



### VB 8650

#### Approx. weight and dim.:

Cm: 95x70x160h  
Net Weight: kg 55  
Gross Weight: kg 90

These cutaway items are carefully sectioned for training purposes, professionally painted with different colours to better differentiate the various parts, cross-sections, lubricating circuits. Many parts have been chromium, plated and galvanized for a longer life.





**VB 8660**

*This is a model of a wheat harvester machine. This model clearly shows the combine harvester main elements. Moreover, it has been sectioned in order to show the functioning principles of the internal parts.*

**The model shows:**

- Cabin
- Engine compartment
- Wheat tank
- Tailing elevator
- Shaking screen
- Fan
- Threshing drum
- Beater
- Conveyor
- Auger
- Grain auger
- Cutter
- Revolving wheel

*The engine operates electrically at 220 volts and runs at a reduced speed to let the student easily understand and observe the operation of the various mechanical parts.*

*This cutaway model is carefully sectioned for training purposes, professionally painted with different colours to better differentiate the various parts, cross-sections, lubricating circuits. Many parts have been chromium plated and galvanized for a longer life.*

**VB 8660**

**Approx. weight and dim.:**

Cm: 110x60x60h  
Net Weight: kg 30  
Gross Weight: kg 40

## VB 8661 MODEL OF PICK-UP BALER (on base) - electrical

This is a model of a pick-up baler which is a dragged agricultural machine. It is used for the collection of the forage which is also pressed into balers. The model clearly shows its main elements. Moreover, it has been sectioned in order to show the working principles of the internal parts.

### **This model is composed by 4 main parts:**

- The collecting device
- The woven-wire
- A piston system
- A tying system



*The engine operates electrically at 220 volts and runs at a reduced speed to let the student easily understand and observe the operation of the various mechanical parts.*

### **VB 8661**

#### **Approx. weight and dim.:**

Cm:	45x80x30h
Net Weight:	kg 15
Gross Weight:	kg 25

## VB 8662 GROUND HANDLING AGRICULTURAL MACHINE STEERING MODEL WITH MULTIPLE DISCS DRY CLUTCHES (on base) - electrical

This is a model of a steering of an agricultural machine for land motion with dry clutches (multiple discs). This model clearly shows the main elements.

### **Main technical specifications:**

- transversal axle supports
- dry clutches multiple discs
- band brake
- crown
- engine and conical pinion



*The engine operates electrically at 220 volts and runs at a reduced speed to let the student easily understand and observe the operation of the various mechanical parts.*

### **VB 8662**

#### **Approx. weight and dim.:**

Cm:	50x50x30h
Net Weight:	kg 18
Gross Weight:	kg 30



## VB 8663 DEEP-TRENCH SINGLE FURROW PLOUGH MODEL (on base) - static

### VB 8663

#### Approx. weight and dim.:

Cm: 50x35x20h

Net Weight: kg 2

Gross Weight: kg 5



## VB 8664 THREE-FURROW TRAILED PLOUGH MODEL (on base) - static

### VB 8664

#### Approx. weight and dim.:

Cm: 50x35x20h

Net Weight: kg 2

Gross Weight: kg 5



## VB 8665 THREE-FURROW MOUNTED PLOUGH MODEL (on base) - static

### VB 8665

#### Approx. weight and dim.:

Cm: 50x35x20h

Net Weight: kg 2

Gross Weight: kg 5

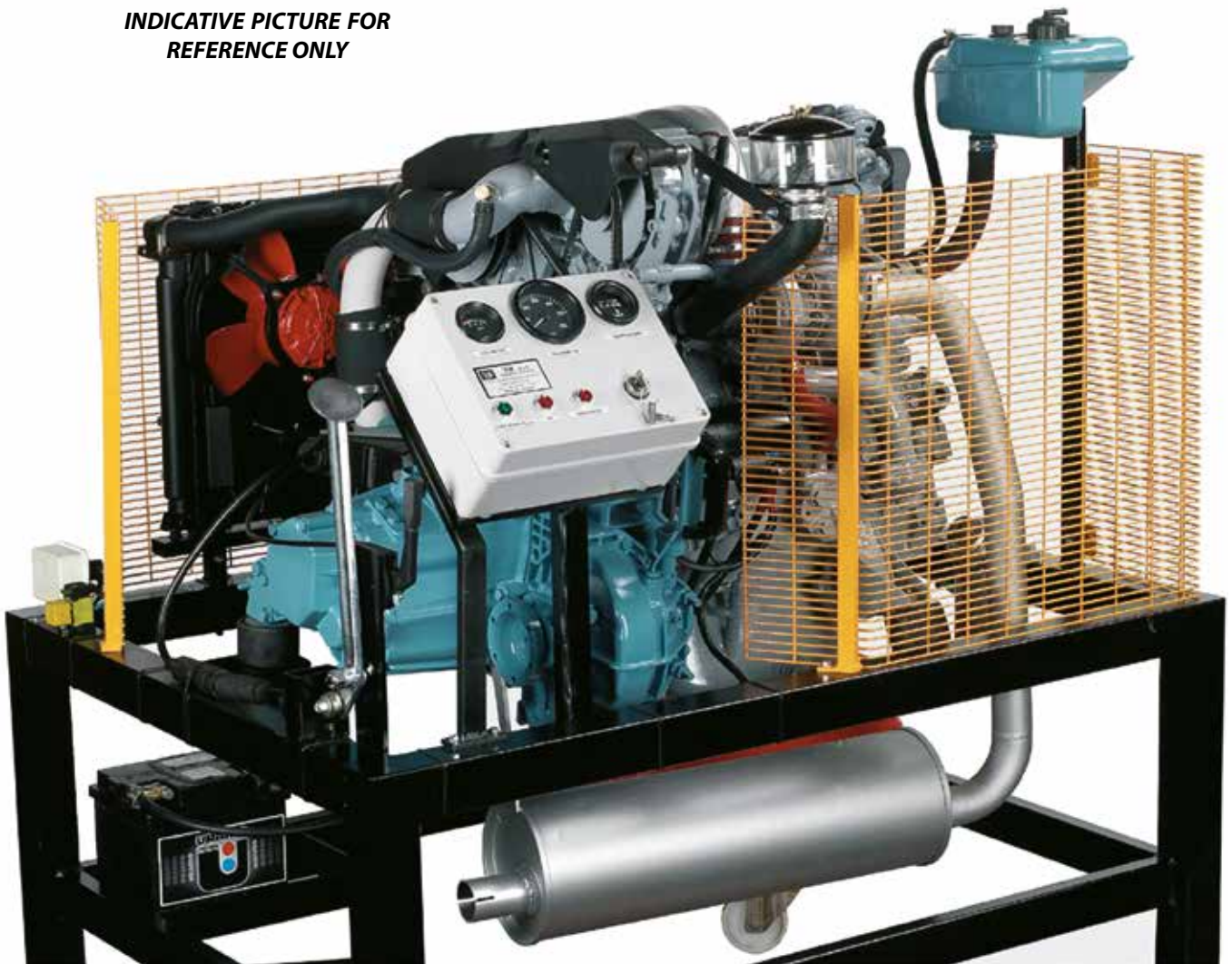


VB 8663

VB 8664

VB 8665

**INDICATIVE PICTURE FOR  
REFERENCE ONLY**



Engines in working conditions ready to be started, mounted on a strong steel painted stand with anti-vibration rubber caps. Each support is equipped with 4 nylon wheels with brake system.

**Complete with:**

- Fuel tank
- Fuel filter
- Battery with relevant electric system
- Silencer
- Accelerator command
- Starting key
- Rpm counter
- Water temperature device
- Voltmeter
- Oil pressure indicator
- Alternator charger indicator
- Radiator with fan/electro-fan
- Coolant tank

- Mesh guards
- Diagnostic connector (where provided)
- Instruction manual
- Trouble-shooting device simulating 5 faults (upon request)

**Showing:**

- no-load operation
- fault simulation on request
- repair demonstrations
- assembly-disassembly

**Perfectly working overhauled engines.**

**FOR DETAILED DESCRIPTIONS, PLEASE SEE NEXT PAGE**



### **VB 9001 IAW-MARELLI MONOJETRONIC ELECTRONIC INJECTION - functioning**

---

- 4 cylinders FIAT engine
- 2 valves per cylinder
- Overhead camshaft (OHC)
- Electronic ignition
- Displacement: 1100 cu. Cm
- Gearbox: 5 speeds + reverse
- diagnostic connector

#### **Approx. weight and dim.:**

Cm: 115x120x140h  
Net weight: kg 250  
Gross weight: kg 330

### **VB 9002 BOSCH MONOMOTRONIC ELECTRONIC INJECTION - functioning**

---

- 4 cylinders FIAT/1400 cc engine
- 3 valves per cylinder
- Overhead camshaft (OHC)
- Electronic ignition
- Displacement: 1600 cu. Cm
- Gearbox: 5 speeds + reverse
- diagnostic connector

#### **Approx. weight and dim.:**

Cm: 130x140x140h  
Net weight: kg 280  
Gross weight: kg 350

### **VB 9005 IAW-MARELLI MULTI-POINT ELECTRONIC INJECTION - functioning**

---

- 4 cylinders FIAT engine
- 2 valves per cylinder
- Overhead camshaft (OHC)
- Electronic ignition
- Displacement: 1300 cu. Cm
- Gearbox: 5 speeds + reverse
- diagnostic connector

#### **Approx. weight and dim.:**

Cm: 115x120x140h  
Net weight: kg 250  
Gross weight: kg 330

### **VB 9007 LU-LE JETRONIC BOSCH MULTI-POINT ELECTRONIC INJECTION - functioning**

---

- 4 cylinders FIAT engine
- 2 valves per cylinder
- 2 Overhead camshaft (DOHC)
- Electronic ignition
- Displacement: 2000 cu. Cm
- Gearbox: 5 speeds + reverse
- diagnostic connector

#### **Approx. weight and dim.:**

Cm: 130x130x140h  
Net weight: kg 300  
Gross weight: kg 400

### **VB 9009 BOSCH MULTI-POINT MOTRONIC ELECTRONIC INJECTION - functioning**

---

- 4 cylinders FIAT engine
- 4 valves per cylinder
- 2 Overhead camshaft (DOHC)
- Electronic ignition
- Displacement: 1300 cu. Cm
- Gearbox: 5 speeds + reverse
- diagnostic connector

#### **Approx. weight and dim.:**

Cm: 130x130x140h  
Net weight: kg 300  
Gross weight: kg 400

### **VB 9011 CARBURETTOR - functioning**

---

- 4 cylinders FIAT engine
- Overhead camshaft (OHC)
- Electronic ignition
- Displacement: 1000/1500 cu. Cm

#### **Approx. weight and dim.:**

Cm: 115x120x140h  
Net weight: kg 240  
Gross weight: kg 340



**INDICATIVE PICTURE FOR REFERENCE ONLY**

**VB 9070 FIAT 2000/2500 CU.CM DIESEL ENGINE (indirect injection) - functioning**

- 4 cylinders, 4 strokes
- Indirect injection
- Overhead camshaft (OHC)
- Rotating injection pump
- Displacement: 1700/2500 cu. Cm
- Gearbox: 5 speeds + reverse

**Approx. weight and dim.:**

Cm: 140x75x110h  
 Net weight: kg 380  
 Gross weight: kg 460

**VB 9080 FIAT 2500 CU.CM TURBO DIESEL ENGINE (direct injection) - functioning**

- 4 cylinders 4 strokes
- Direct injection
- Overhead camshaft (OHC)
- Rotating injection pump
- Displacement: 2500 cu. Cm
- turbo-supercharger with relief valve
- Gearbox: 5 speeds + reverse

**Approx. weight and dim.:**

Cm: 140x75x110h  
 Net weight: kg 400  
 Gross weight: kg 480

**VB 9095 FIAT COMMON RAIL JTD UNIJET - functioning**

- 4 cylinders FIAT engine
- 2 valves per cylinder
- Overhead camshaft (OHC)
- Turbo-compressor
- Displacement: 1900 cu. Cm
- Gearbox: 5 speeds + reverse
- diagnostic socket
- on request: multi-jet, 1300 cc, DOHC, 4 valves per cylinder

**Approx. weight and dim.:**

Cm: 120x130x140h  
 Net weight: kg 350  
 Gross weight: kg 450



## CHASSIS TRAINER IN WORKING CONDITIONS

### Approx. weight and dim.:

Cm:	300x150x140h
Net weight:	kg 450
Gross weight:	kg 730



The chassis trainer is realized from a medium displacement vehicle which is particularly useful for the study of the main components, the repair operations and the diagnostic, by means of the OBD socket (VB 9100 and VB 9110). All the mechanical parts are carefully revised and assembled on a chassis produced by us. This chassis allows an easy display and the possibility of assemble and disassemble each part. Engine, gearbox, clutch, brakes, lubricating circuit, cooling system, injection, ignition, suspensions, electric system, exhaust, etc. ARE COMPLETELY FUNCTIONING.

The chassis is supplied with a stand with wheels in order to move it easily.

### **VB 9100 PETROL INJECTION CHASSIS TRAINER - functioning**

- Petrol engine 4 cyl. 4 strokes
- Displacement: 1242 cu.Cm
- Multipoint electronic injection
- electronic ignition
- gearbox: 5 speeds + reverse
- front drive
- catalytic silencer
- electric fuel pump
- depression servo-brake
- front disc brakes
- rear drum brakes
- McPherson front suspension
- Independent wheels rear suspension with oscillating arms
- Hand brake
- Tank
- Battery
- Radiator with electric fan
- Dashboard
- OBD socket

### **VB 9105 TURBO DIESEL CHASSIS TRAINER - functioning**

- Turbo diesel engine 4 cyl. 4 strokes
- Displacement: 1700 cu.Cm
- electronic ignition
- gearbox: 5 speeds + reverse
- front drive
- silencer
- Bosch VE injection pump
- depression servo-brake
- front disc brakes
- rear drum brakes
- McPherson front suspension
- Independent wheels rear suspension with oscillating arms
- Hand brake
- Tank
- Battery
- Radiator with electric fan
- Dashboard

### **VB 9110 COMMON-RAIL CHASSIS TRAINER - functioning**

- Common rail engine 4 cyl. 4 strokes
- Displacement: 1900 cu.Cm
- Direct injection
- electronic ignition
- gearbox: 5 speeds + reverse
- front drive
- catalytic silencer
- electric fuel pump
- depression servo-brake
- front disc brakes
- rear drum brakes
- McPherson front suspension
- Independent wheels rear suspension with oscillating arms
- Hand brake
- Tank
- Battery- Radiator with electric fan
- Dashboard
- OBD socket

## INDUSTRIAL FUNCTIONING ENGINES (on metallic table-stand support) – manual

SMALL INDUSTRIAL ENDOTHERMIC ENGINES VARIOUS TYPES.

Perfectly functioning engines on a metallic table-stand support with silent block, support for table fixing.  
Complete with tank, silencer, air filter, recoil and all the accessorizes.

### VB 8900 – SINGLE-CYLINDER 2 STROKE PETROL ENGINE AIR COOLED (on metallic table-stand support) - manual

---

#### VB 8900

##### Main technical specifications:

---

- displacement 46 cc
- power 1 hp at 5000 rpm
- recoil starting system
- consumption Kg 0,380 HPH
- electronic ignition
- forced air cooling system
- carburettor

#### VB 8900

##### Approx. weight and dim:

---

Cm: 45x45x50h  
Net Weight: kg 10  
Gross Weight: kg 20



-> For the same item, cutaway see item [VB 7450](#) at page 87

### VB 8910 – SINGLE-CYLINDER 4 STROKE PETROL ENGINE AIR COOLED (on metallic table-stand support) - manual

---

#### VB 8910

##### Main technical specifications:

---

- displacement 163 cc
- power 5,5 hp at 2500 rpm
- recoil starting system
- TCI transistorized magneto ignition
- forced air cooling system
- camshaft in the crankcase
- overhead valves

#### VB 8910

##### Approx. weight and dim:

---

Cm: 48x48x60h  
Net Weight: kg 20  
Gross Weight: kg 40



-> For the same item, cutaway see item [VB 5245](#) at page 85

### VB 8920 – SINGLE-CYLINDER 4 STROKE DIESEL ENGINE AIR COOLED (on metallic table-stand support) - manual

---

#### VB 8920

##### Main technical specifications:

---

- displacement 211 cc
- direct injection – in-line injection pump
- power 3,8 hp at 3000 rpm
- recoil ignition
- forced air cooling system
- camshaft in the crankcase
- overhead valves

#### VB 8920

##### Approx. weight and dim:

---

Cm: 50x50x60h  
Net Weight: kg 30  
Gross Weight: kg 50



-> For the same item, cutaway see item [VB 6120](#) at page 85

## VB 5245 SINGLE-CYLINDER 4 STROKE PETROL ENGINE AIR COOLED (on base) - manual

---

### VB 5245

#### Main technical specifications:

---

- displacement 160cc
- power 6 hp
- camshaft in the crankcase
- overhead valves
- rpm regulator
- oil pump
- carburettor
- air filter
- silencer
- tank



### VB 5245

#### Approx. weight and dim:

---

Cm: 48x48x50h  
Net Weight: kg 16  
Gross Weight: kg 25

## VB 6120 SINGLE-CYLINDER 4 STROKE DIESEL ENGINE AIR COOLED (on base) - manual

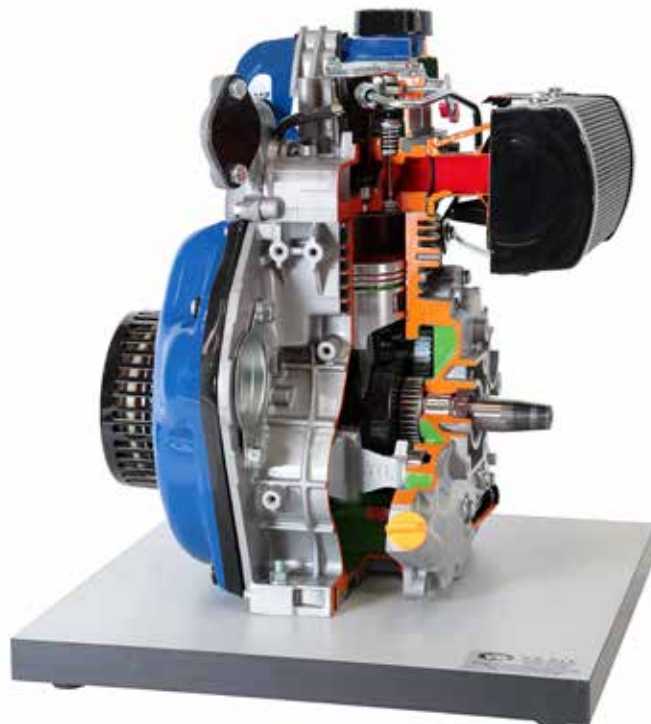
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### VB 6120

#### Main technical specifications:

---

- displacement 210cc
- power 4 hp direct injection
- camshaft in the crankcase
- overhead camshafts
- rpm regulator
- toroidal oil pump
- injection pump
- injector
- silencer



### VB 6120

#### Approx. weight and dim:

---

Cm: 48x48x50h  
Net Weight: kg 25  
Gross Weight: kg 35

VB 5245

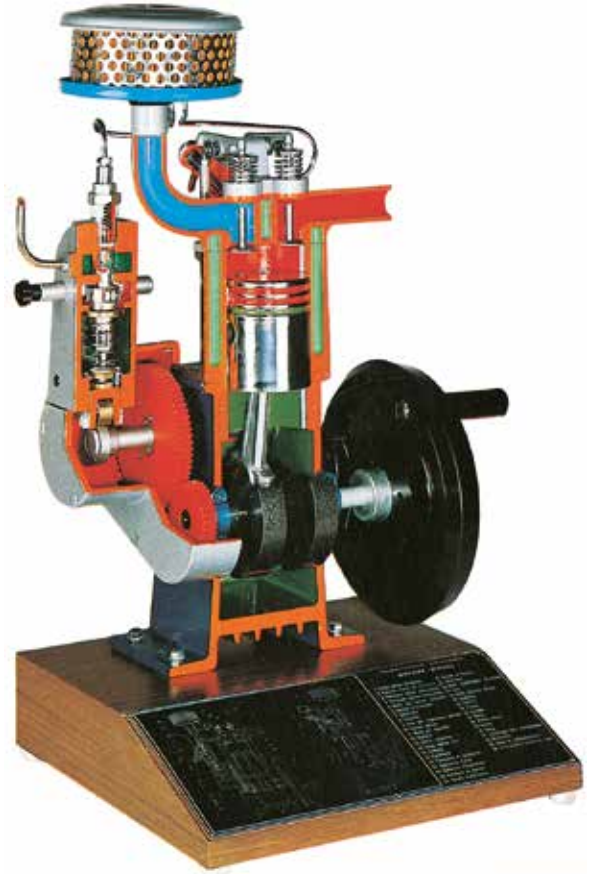
VB 6120



# VB 7000

## VB 7000 INDIRECT INJECTION 4 STROKE DIESEL ENGINE MODEL (on base) - manual

The most rational training model of a 4-stroke diesel engine sectioned for training purposes. Indirect injection, complete with injection pump, injector, pre-chamber, preheating glow plug, cooling system, distribution circuit, etc. Operated manually through a crank handle. In order to simulate the active stage of the cycle a small bulb lights up during the expansion phase.



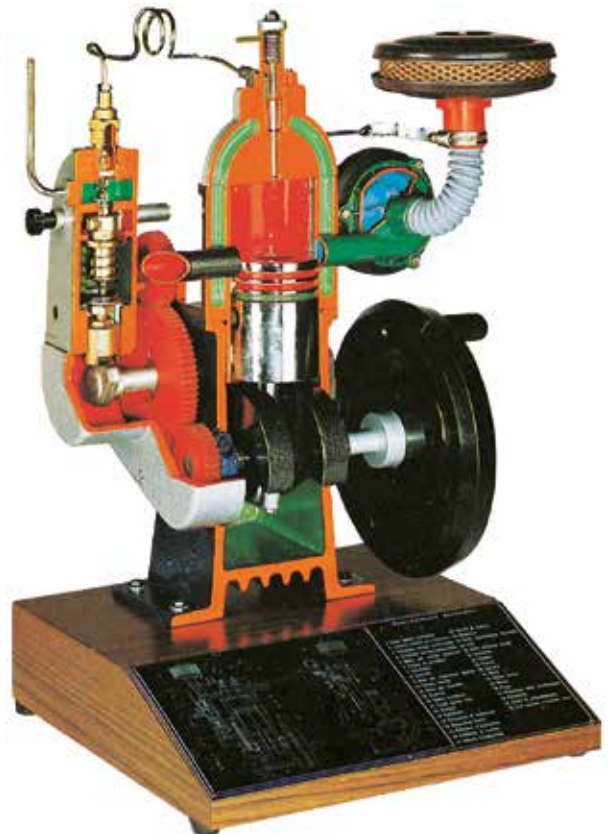
### Approx. weight and dim.:

Cm: 40x40x65h  
Net Weight: kg 10  
Gross Weight: kg 14

# VB 7100

## VB 7100 DIRECT INJECTION 2 STROKE DIESEL ENGINE MODEL (on base) - manual

The most rational training model of a 2-stroke diesel engine sectioned for training purposes. Direct injection, complete with injection pump, injector, volumetric compressor, cooling system, etc. Operated manually through a crank handle. In order to simulate the active stage of the cycle a small bulb lights up during the expansion phase.



### Approx. weight and dim.:

Cm: 40x40x65h  
Net Weight: kg 9  
Gross Weight: kg 13

These cutaway models are carefully sectioned for training purposes, professionally painted with different colours to better differentiate the various parts, cross-sections, lubricating circuits, fuel system, cooling system etc. Many parts have been chromium, plated and galvanized for a longer life.

## VB 7200 4 STROKE PETROL ENGINE MODEL (on base) - manual

The most rational training model of a 4-stroke petrol engine. Complete with sectioned carburettor and coil ignition, cooling system, distribution system, spark coil, etc. During the combustion phase a bulb lights up to simulate the mixture ignition.

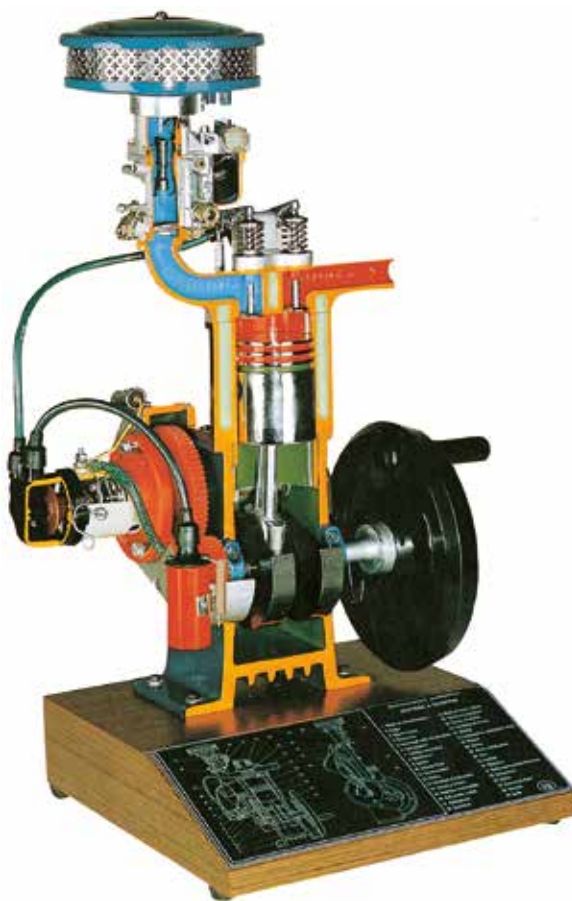
The engine is operated manually through a crank handle.

### Approx. weight and dim.:

Cm: 40x40x70h

Net Weight: kg 10

Gross Weight: kg 14



VB 7200

## VB 7460 4 STROKE PETROL ENGINE MODEL WITH ELECTRONIC INJECTION MONOJETRONIC (on base) - manual

The most rational training model of a 4-stroke petrol engine. During the combustion phase a bulb lights up to simulate the mixture ignition.

### Main technical specifications:

- Mono-jetronic
- Lambda probe
- Coil single ignition
- Sensor

The engine is operated manually through a crank handle.

### Approx. weight and dim.:

Cm: 40x40x70h

Net Weight: kg 10

Gross Weight: kg 14



VB 7460

These cutaway models are carefully sectioned for training purposes, professionally painted with different colours to better differentiate the various parts, cross-sections, lubricating circuits, fuel system, cooling system etc. Many parts have been chromium, plated and galvanized for a longer life.

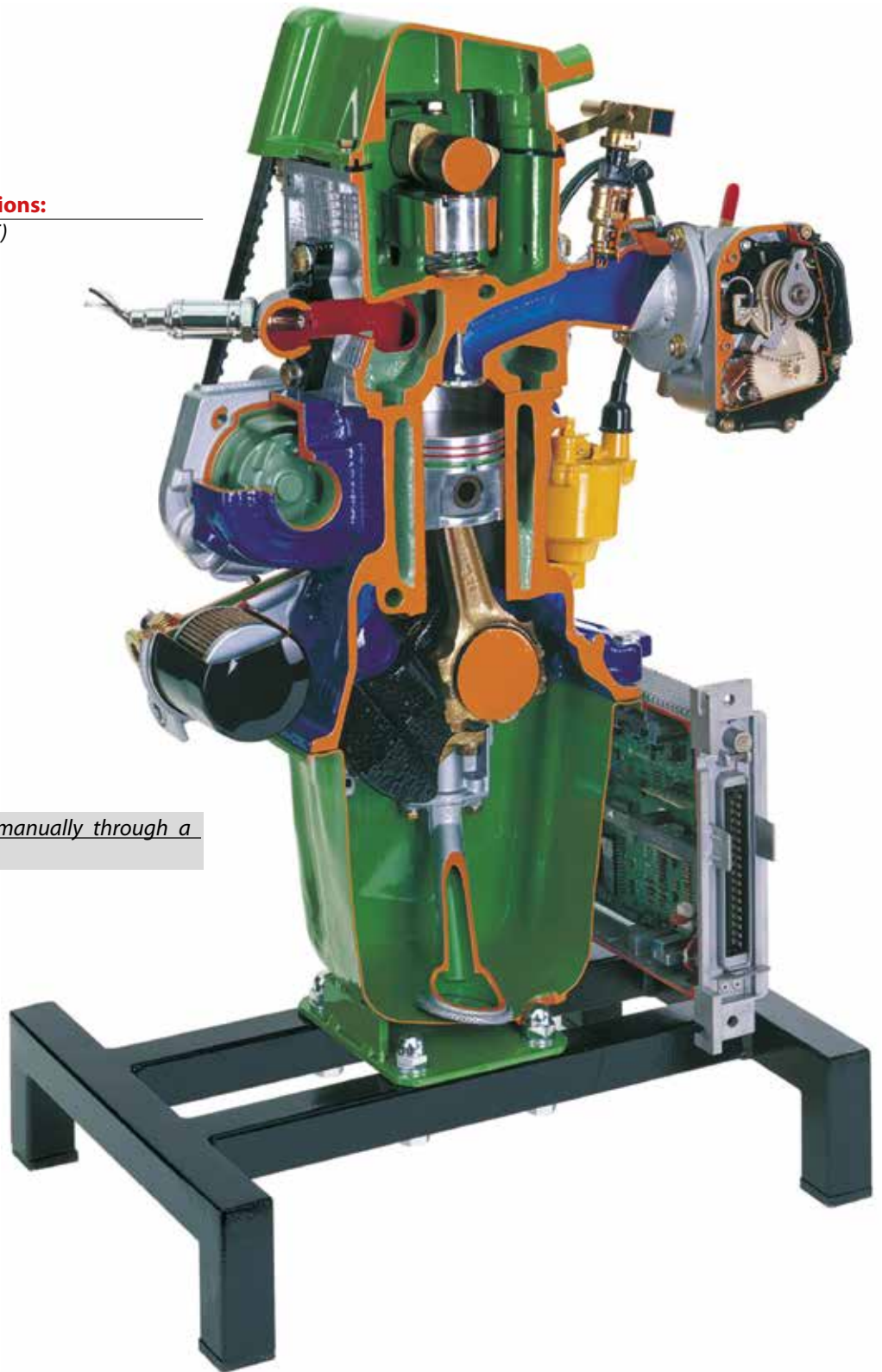
## VB 7490 MULTI-POINT ELECTRONIC INJECTION I.C. ENGINE MODEL (on a table support) - manual

Built using original parts, this single-cylinder model reunites all the main parts making up a modern petrol engine with multipoint electronic injection and ignition-integrated control unit. Special care has been taken with the cutaway views of the electro-injector, throttle body, control unit and LAMBDA probe.

### Main technical specifications:

- Overhead camshaft (OHC)
- Toothed belt timing
- Cartridge oil filter
- Centrifugal water pump
- Air temperature sensor
- Throttle potentiometer
- Idling adjustment motor
- Ignition coil
- LAMBDA probe

*The engine is operated manually through a crank handle.*



*This cutaway model is carefully sectioned for training purposes, professionally painted with different colours to better differentiate the various parts, cross-sections, lubricating circuits, fuel system, cooling system etc. Many parts have been chromium, plated and galvanized for a longer life.*

### VB 7490

#### Approx. weight and dim.:

Cm:	50x45x80h
Net Weight:	kg 21
Gross Weight:	kg 40



## VB 7450 2 STROKE PETROL ENGINE (on base) - manual

Accurate section of a real 2-Stroke engine, showing every detail, carburettor, ignition, etc.  
The suction-exhaust-transfer channels are especially highlighted so as to make it easy to learn the cycle.

### Main technical specifications:

- Piston displacement 46 cu. cm
- Air cooling system
- Electronic ignition
- Box carburettor

The engine is operated manually through a crank handle.

### Approx. weight and dim.:

Cm: 30x30x40h  
Net Weight: kg 8  
Gross Weight: kg 15



VB 7450

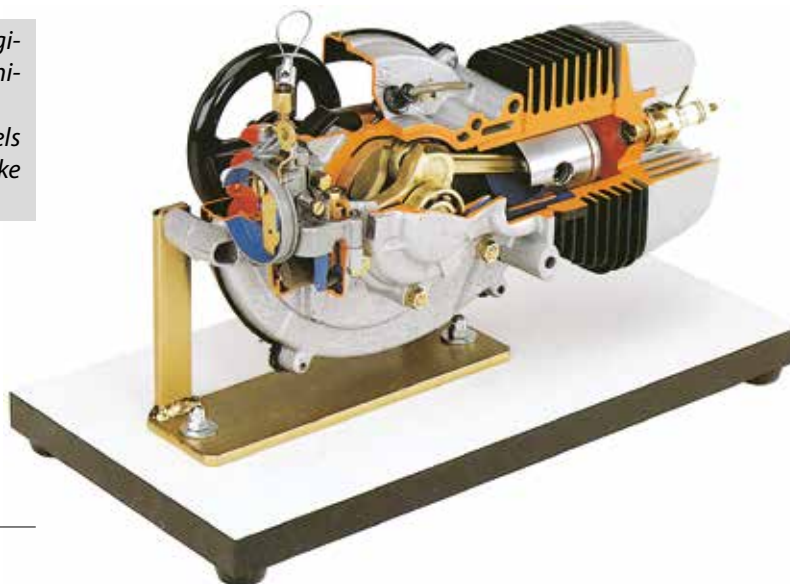
## VB 7400 2 STROKE MOTORCYCLE PETROL ENGINE (on base) - manual

Accurate section of a real 2-Stroke engine, cut in every detail, carburettor, ignition, etc.  
The suction-exhaust-transfer channels are especially highlighted so as to make it easy to learn the cycle.

### Main technical specifications:

- Piston displacement 48 cu. cm
- Air cooling
- Plug point and magnet flywheel ignition
- Box carburettor

The engine is operated manually through a crank handle.



### Approx. weight and dim.:

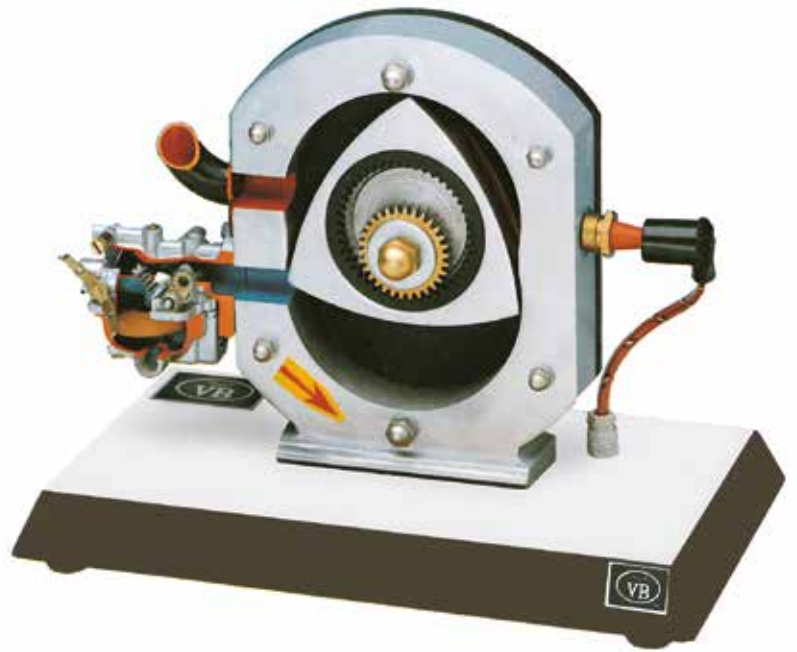
Cm: 24x42x28h  
Net Weight: kg 6  
Gross Weight: kg 10

VB 7400

These cutaway models are carefully sectioned for training purposes, professionally painted with different colours to better differentiate the various parts, cross-sections, lubricating circuits, fuel system, cooling system etc. Many parts have been chromium, plated and galvanized for a longer life.

# VB 7500

## VB 7500 WANKEL ENGINE MODEL (on base) - manual



Rotating engine model, true to the original and complete with cutaway carburettor. The rotor (triangular piston), operated by the driving shaft, rotates inside the stator thus clearly showing the different phases. During the compression phase a small bulb lights up to simulate the petrol ignition. Light metal construction.

*The engine is operated manually through a crank handle.*

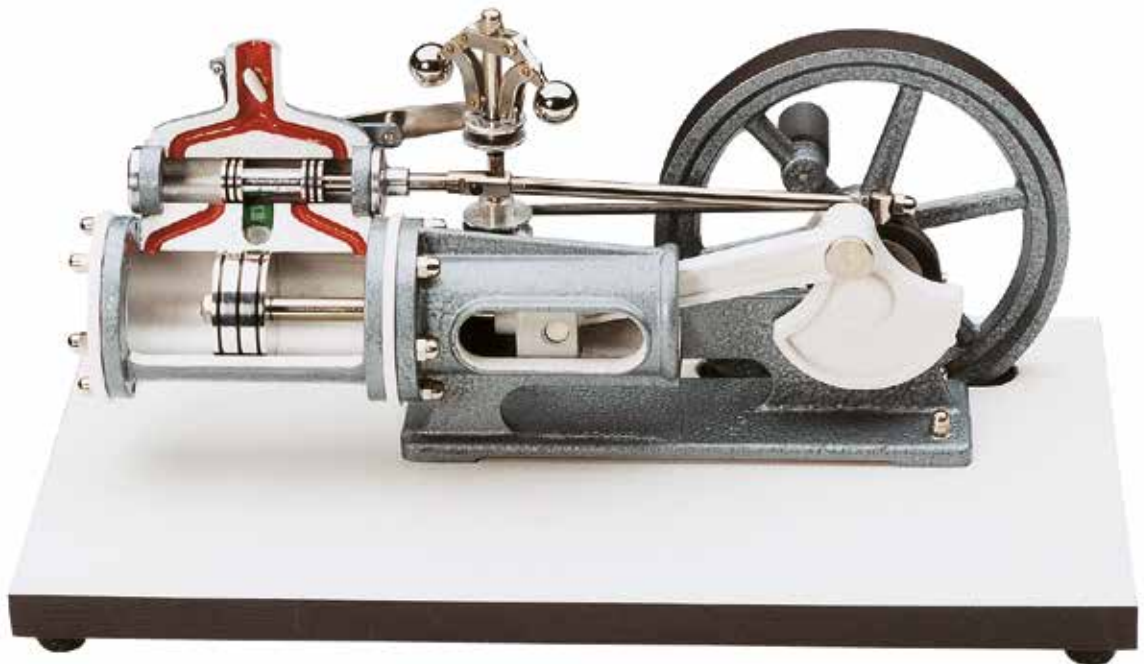
### VB 7500

#### Approx. weight and dim.:

Cm: 20x40x30h  
Net Weight: kg 6  
Gross Weight: kg 7

# VB 9220

## VB 9220 STEAM ENGINE MODEL (on base) - manual



Educational model of a modern horizontal steam engine with piston valve control. The model can be put in motion by turning the flywheel, thus showing the manner of operation of the engine and of the built-on centrifugal governor.

### VB 9220

#### Approx. weight and dim.:

Cm: 36x22x24h  
Net Weight: kg 3  
Gross Weight: kg 8

## VB 9200 TURBO JET ENGINE MODEL (on base) - electrical

This super-model of a modern two-wave turbine shows in detail the construction and the operating system of such a motor. Low-pressure and high-pressure compressor, low-pressure and high-pressure turbine are readily recognisable, as also are the combustion chambers with the injection nozzles and starting plugs.

These can be readily seen thanks to the section cut housing. The turbines can be set in motion with the built-in electro-motor.

### VB 9200

#### Approx. weight and dim.:

Cm: 70x28x45h

Net Weight: kg 13

Gross weight: Kg 30



## VB 9210 TURBO JET ENGINE MODEL WITH HIGH-PRESSURE COMPRESSOR (on base) - electrical

This super-model of a modern two-wave turbine shows in detail the construction and the operating system of such a motor. High-pressure compressor, high pressure turbine are readily recognisable, as well as the combustion chambers with the injection nozzles and starting plugs. These can be easily seen thanks to the section cut housing. The turbines can be set in motion by means of the built-in electro-motor.

### VB 9210

#### Approx. weight and dim.:

Cm: 60x40x40h

Net weight: Kg 10

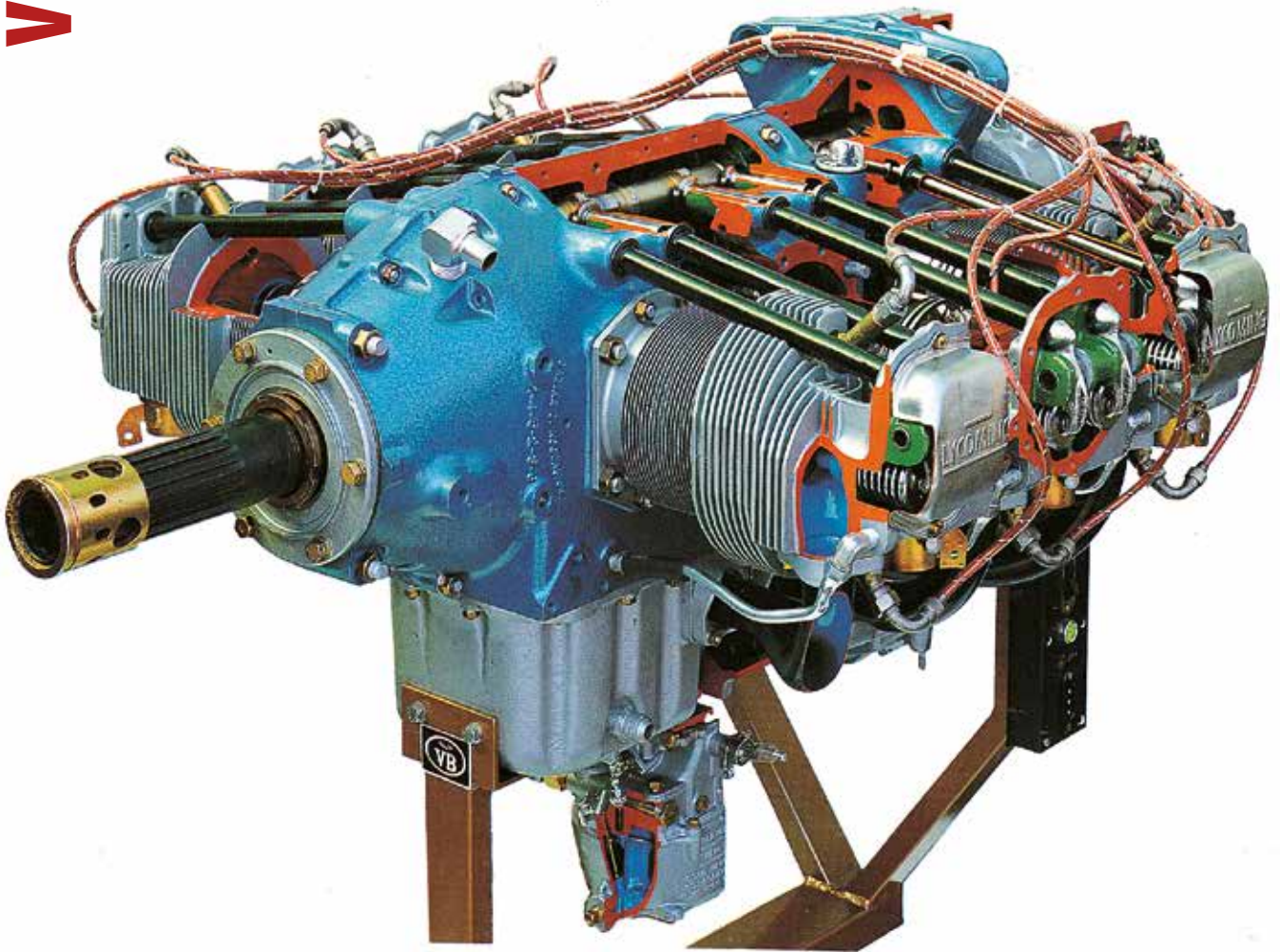
Gross weight: Kg 20



VB 9200

VB 9210





### VB 9260

#### Main technical specifications:

- Lycoming/Piaggio/Continental 4/6-opposed cylinders engine;
- Air cooling system
- Gear distribution with camshaft in the crankcase
- Ignition with magneto
- Single-body carburettor

The engine operates electrically at 220 volts and runs at a reduced speed to let the student easily understand and observe the operation of the various mechanical parts.

This cutaway model is carefully sectioned for training purposes, professionally painted with different colours to better differentiate the various parts, cross-sections, lubricating circuits, fuel system, cooling system etc. Many parts have been chromium, plated and galvanized for a longer life.

### VB 9260

#### Approx. weight and dim.:

Cm:	140x110x150h
Net Weight:	kg 190
Gross Weight:	kg 280

## VB 9280 RADIAL ENGINE (on stand with wheels) - electrical

This kind of engine was largely used in aeronautic before the introduction of reaction engines. As it is mechanically simple and sturdy, it is used for tanks, hovercrafts, etc.

**INDICATIVE PICTURE FOR  
REFERENCE ONLY**



### **Main technical specifications:**

- *Driving shaft with integral master rod and moving connection rods*
- *Air cooling system*
- *Double ignition (2 spark plugs per cylinder and 2 magnetos)*

*The engine operates electrically at 220 volts and runs at a reduced speed to let the student easily understand and observe the operation of the various mechanical parts.*

*This cutaway model is carefully sectioned for training purposes, professionally painted with different colours to better differentiate the various parts, cross-sections, lubricating circuits, fuel system, cooling system etc. Many parts have been chromium, plated and galvanized for a longer life.*

### **VB 9280**

#### **Approx. weight and dim.:**

Cm:	150x140x180h
Net Weight:	kg 700
Gross Weight:	kg 850

**VB 9280**

## GENERAL SALES CONDITIONS

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### ORDERS

Orders are valid and binding for VB only after the receipt of written confirmation by the Customer, within 48 hours after verbal order. Order must be complete with the description of all elements, and, when necessary, with drawings to define them in a complete and unequivocal way. Any wrong interpretation or imperfection of the a.m. elements caused by an unclear order, shall give no right to any replacement, refund or discount whatsoever.

### MATERIALS

The samples shown are indicative only and they are not binding, considering the normal variation of the kinds of materials available on the market. All materials used, even first choice ones, are to be intended as commercial standard quality. As for painted materials, a retouch is to be considered as normal.

### PRICES

Pricelist agreed further to changes, are to be intended in € (Euro) and net of any discount; if not otherwise specified prices are considered for goods EXW our facilities.

### DELIVERY TERMS

The delivery terms run from the date of receipt of the order complete with the description of all necessary elements; they can be extended due to Force Majeure reasons, including lack of raw materials, energy supply, or because of mechanical breakdowns, lack of labour due to strikes, diseases, etc. If the delay is longer than 90 days, this gives right to the termination of the contract, but gives no right to any indemnity whatsoever.

### SHIPMENT

Goods are shipped at the Buyer's risk even if sold free destination.

In case of shipment by truck, VB declines any liability for possible damages to third parties or things which may be attributed to the carrier.

### PACKAGE

Returns of packaging are not accepted. If otherwise agreed, their return is to be intended free of charge or reimbursed at cost.

### COMMISSIONING

Commissioning assistance is excluded, except when expressly agreed in writing: in this case all expenses are at the Buyer's charge.

### PAYMENT

If not otherwise agreed, payments must be made at our offices in Mordano within the fixed terms. The non-payment on maturity, even if only partial, gives right to draw on the debtor, at the debtor's change, plus 20% yearly interest; furthermore it gives right to VB to suspend or cancel every supply on hand or to require the payment in advance. All suppliers are to be intended regulated by the conditional sale agreement till complete payment. VB shall be at same owner of the goods supplied and, in case of non-payment, even if partial, VB shall withdraw all supplies, and also keep the accounts already paid by the customer as partial cover. The invoice, even if formally received, does not involve the extinction of any obligation, in case it is covered by drafts or others.

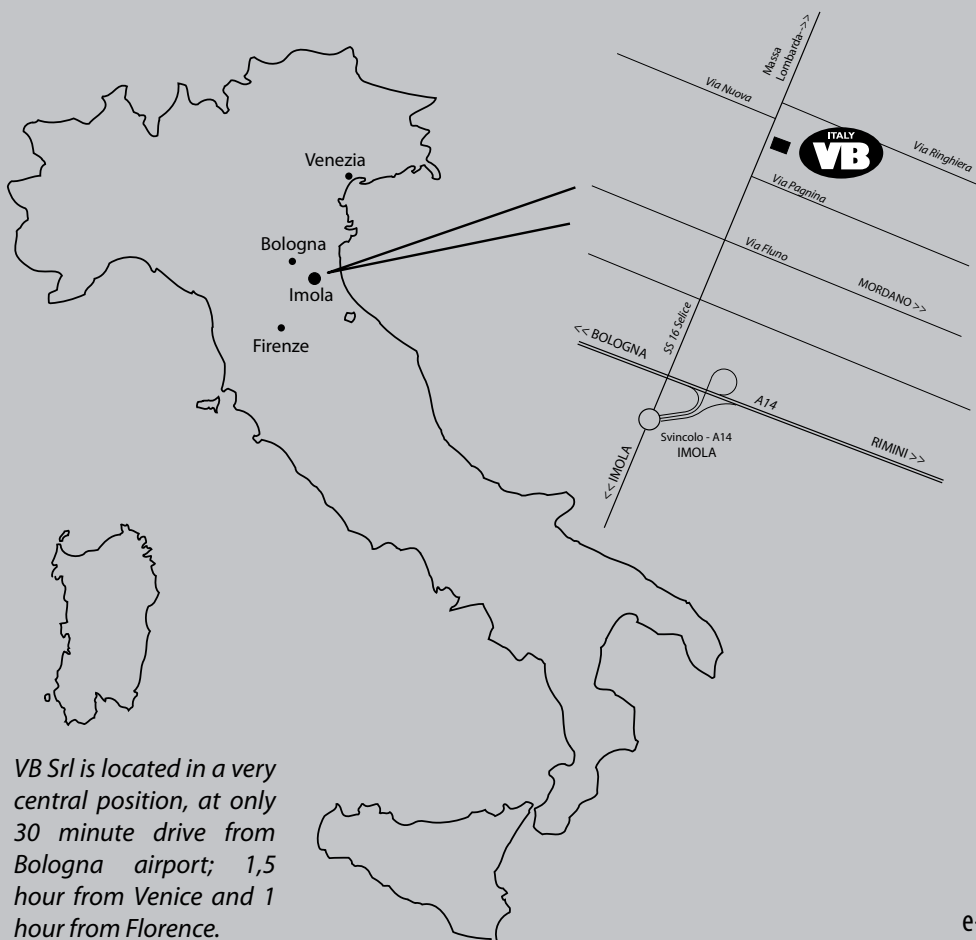
### CLAIMS

All claims must be done in writing by registered letter within 8 days from receipt of the goods. VB, if the claim is well founded, shall provide for the replacement of the pieces; any refund is excluded.

### JURISDICTION

Any judicial dispute shall fall within the cognizance of Imola or Bologna Law-Court. VB has the right to previously submit the dispute to a Board of three Arbitrators, one to be appointed by VB, one by the Customer and the third by both of them or by the lower Court judge of Imola; in case of disagreement the above mentioned Board shall deliver a final Judgement.





*VB Srl is located in a very central position, at only 30 minute drive from Bologna airport; 1,5 hour from Venice and 1 hour from Florence.*

## **VB s.r.l.**

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