



HCT AUTOMOTIVE



PETROL DOHC ENGINE CUTAWAY EDUCATIONAL TRAINER

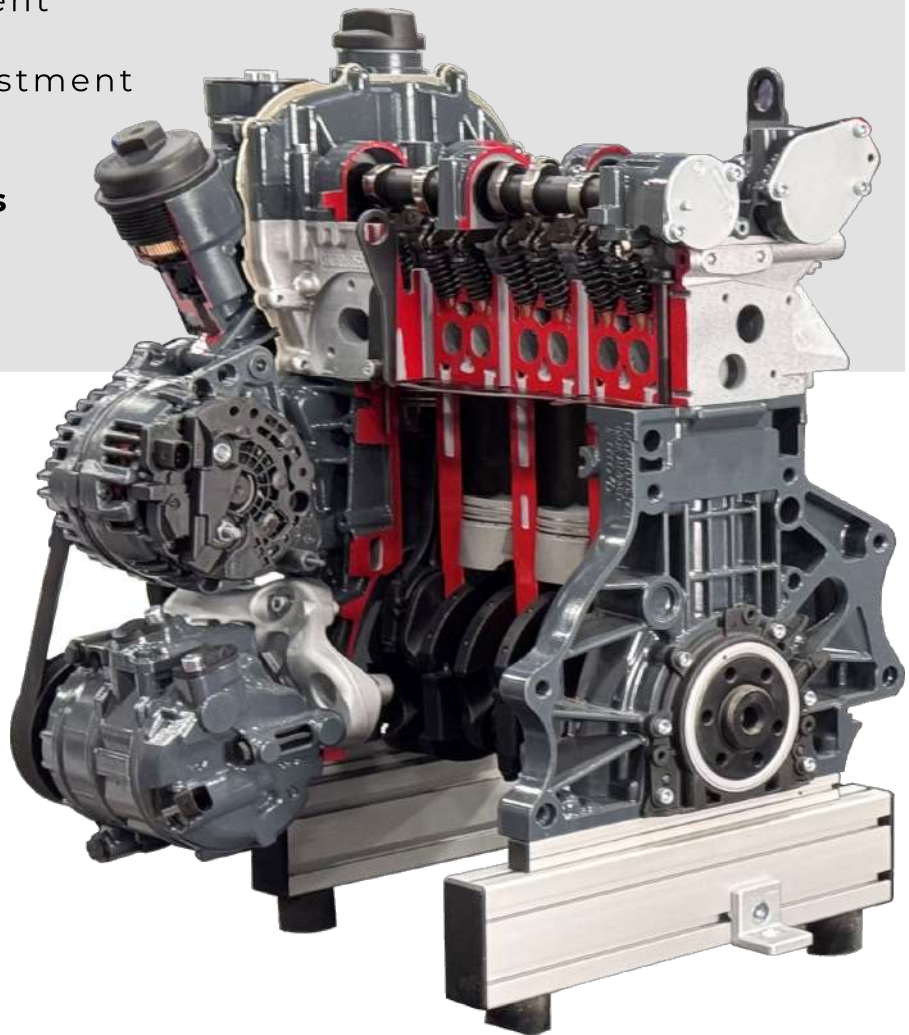
A1

Product number
IVDB03



Features

- Engine **chain replacement** procedures
- **Auxiliary drive belt** replacement
- **Camshaft alignment** and adjustment with tools
- Use of **specialized repair tools**
- **30+** other **practical tasks**

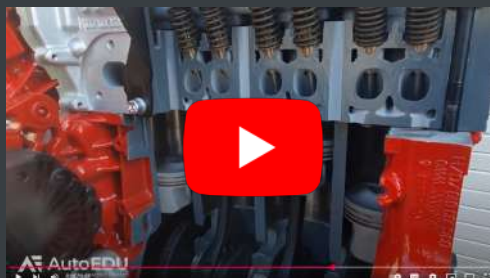


Visible components

- Engine block
- Engine head
- Crankshaft mechanism
- Crankshaft
- Pistons
- Connecting rods
- Rings
- Thrust bearings (inserts)
- Alternator
- AC compressor

Product Overview Video

A short video demonstrating the trainer's design, components, and key functions.





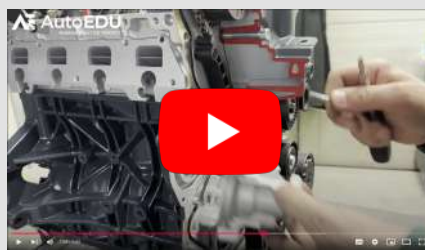
Practical Task Examples (Video-Supported)

The trainer supports over 30 practical tasks for technical training.
Example tasks with available video instructions:

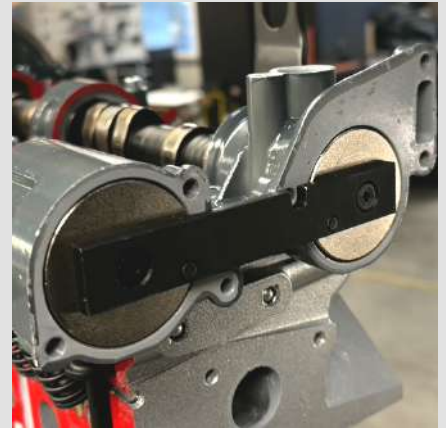
**Auxiliary belt replacement —
tensioner release, belt removal,
installation.**



**Water pump replacement —
removal, inspection, installation.**



**Timing chain replacement —
disassembly, chain installation,
camshaft alignment.**



Proven in SkillsUSA Events

This trainer was showcased at SkillsUSA 2025 events, where it was used in live demonstrations and practical challenges.

Proven performance in real training environments, supported by positive feedback from instructors, students, and event organizers.





Features

- Engine **chain replacement** procedures.
- Practice **loosening tensioner, removing** and **replacing auxiliary belt**, inspecting auxiliary components.
- Auxiliary belt system with tensioner, alternator, cooling pump, and AC compressor.
- Set and check **Top Dead Center (TDC)**.
- Perform **camshaft alignment and adjustment** with tools.
- Learn **auxiliary pulleys, cooling pump, alternator, AC compressor removing** and **changing** techniques.
- Cross-section view of **engine block, cylinder head, crankshaft, pistons, camshaft, valves, and rocker arms**.
- Manual crank rotation to **observe piston, valve, and camshaft movement**.
- Visible **lubrication** and **cooling system** channels.

Specifications

- Dimensions: 800 x 600 x 1200 mm (31.50 in x 23.62 in x 47.24 in)
- Weight: approx. 150 kg (330 lb)
- Visible Components: Engine block, engine head, crankshaft, pistons, connecting rods, camshaft, valves, timing chain, tensioners, alternator, AC compressor
- **Included specialist tool set for timing chain replacement**
- Bolt torque should be 3 times lower than OEM manual specs.
- Product number: IVDB03

