



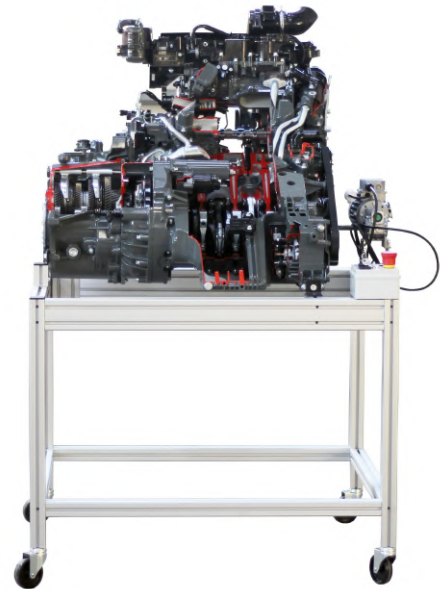
# TURBO DIESEL ENGINE WITH GEARBOX CUTAWAY

A1

Product number  
AEMBA170



Mercedes A-Class Turbo Diesel Engine with Gearbox is a 1700 cc, 4-cylinder, 4-stroke, common rail turbo diesel engine with direct injection. It features a DOHC, 16 valves, a timing chain, and a functional 5-speed gearbox with reverse. Key components, including the air mass flow sensor, oil pump, clutch, differential, and water cooling system, are sectioned for visibility and painted in distinct colors. Operates electrically at 220 volts at a reduced speed for safe observation of engine and transmission mechanics.



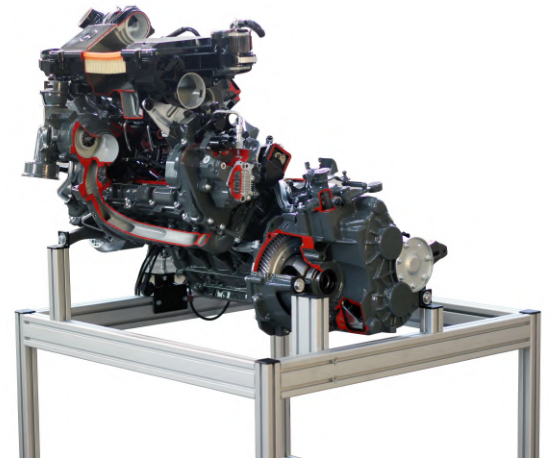
## Features

- Fully sectioned Mercedes A-Class 1700 cc, 4-cylinder turbo diesel engine with 16 valves and DOHC.
- Direct injection system with a common rail for efficient fuel delivery and combustion.
- Includes an air mass flow sensor, intake manifold, alternator, oil pump, and timing chain.
- Functional gearbox with 5 forward speeds and reverse, paired with a differential.
- Operates at 220 volts, running at reduced speed for safe mechanical demonstration.
- Professionally painted and color-coded components for clarity in training.
- Chromed and galvanized finishes on critical parts for long-lasting durability.
- Mounted on a wheeled stand for ease of movement and flexible classroom use.



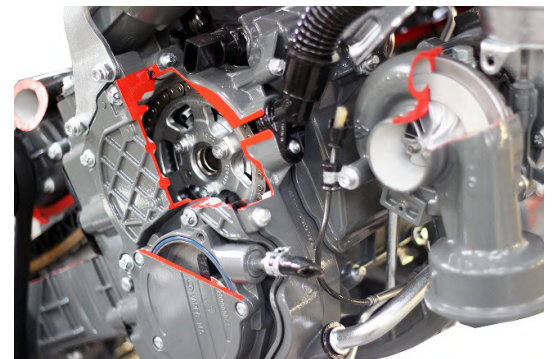
## Value for Students

- Practical exploration of a turbo diesel engine with DOHC, teaching modern fuel delivery, combustion processes, and power output.
- Learning of intake, exhaust, and timing systems through visible components such as the air filter, intake manifold, and timing chain.
- Demonstrates transmission principles with a fully functional gearbox and differential, offering insights into torque transfer and vehicle mobility.
- Teaches practical diagnostics by allowing observation of cooling and lubrication circuits, crucial for understanding thermal management in engines.



## Value for Instructors

- Simply view of diesel engine operation and transmission through a clear, sectioned design with color-coded components.
- Safe learning with reduced-speed operation, enabling direct observation without risk.
- Durable teaching tool with chromed and galvanized parts, ensuring longevity during repeated use.
- Supports diverse teaching, from basic engine functionality and structure to advanced mechanical systems diagnostics.
- Mobile and space saving stand, allows concurrent use by multiple students, promoting collaborative learning and practical training opportunities.



## Specifications

- Dimensions: 1100 x 1100 x 1500 mm (43.3 x 43.3 x 59 in)
- Weight: 200 kg (441 lb)
- Electrical operation: 220V (110V US) at reduced speed.
- Product number: AEMBA170

