

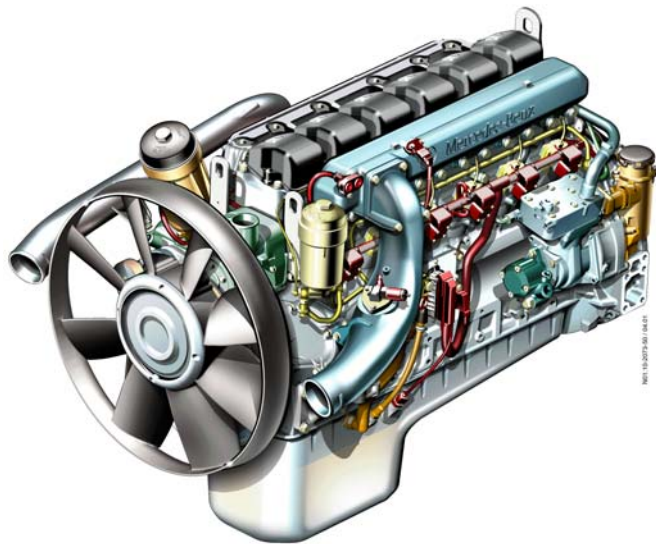
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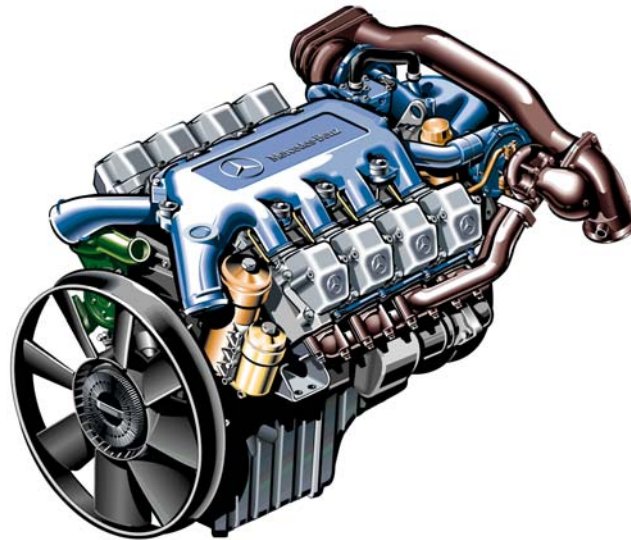
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OM 457 LA



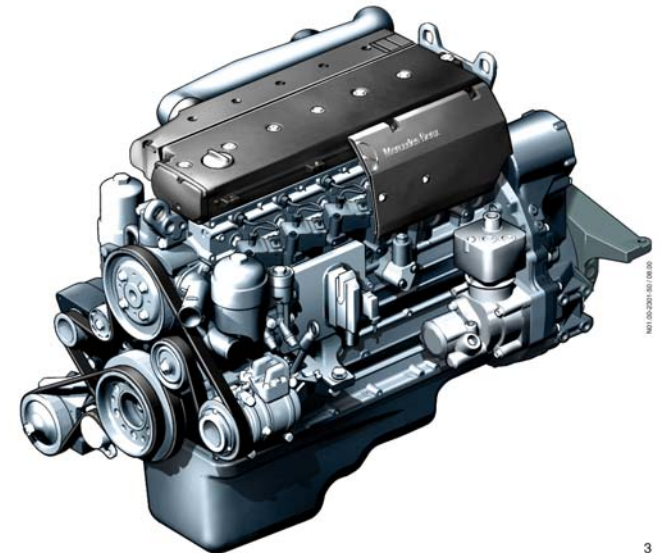
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OM 502 LA

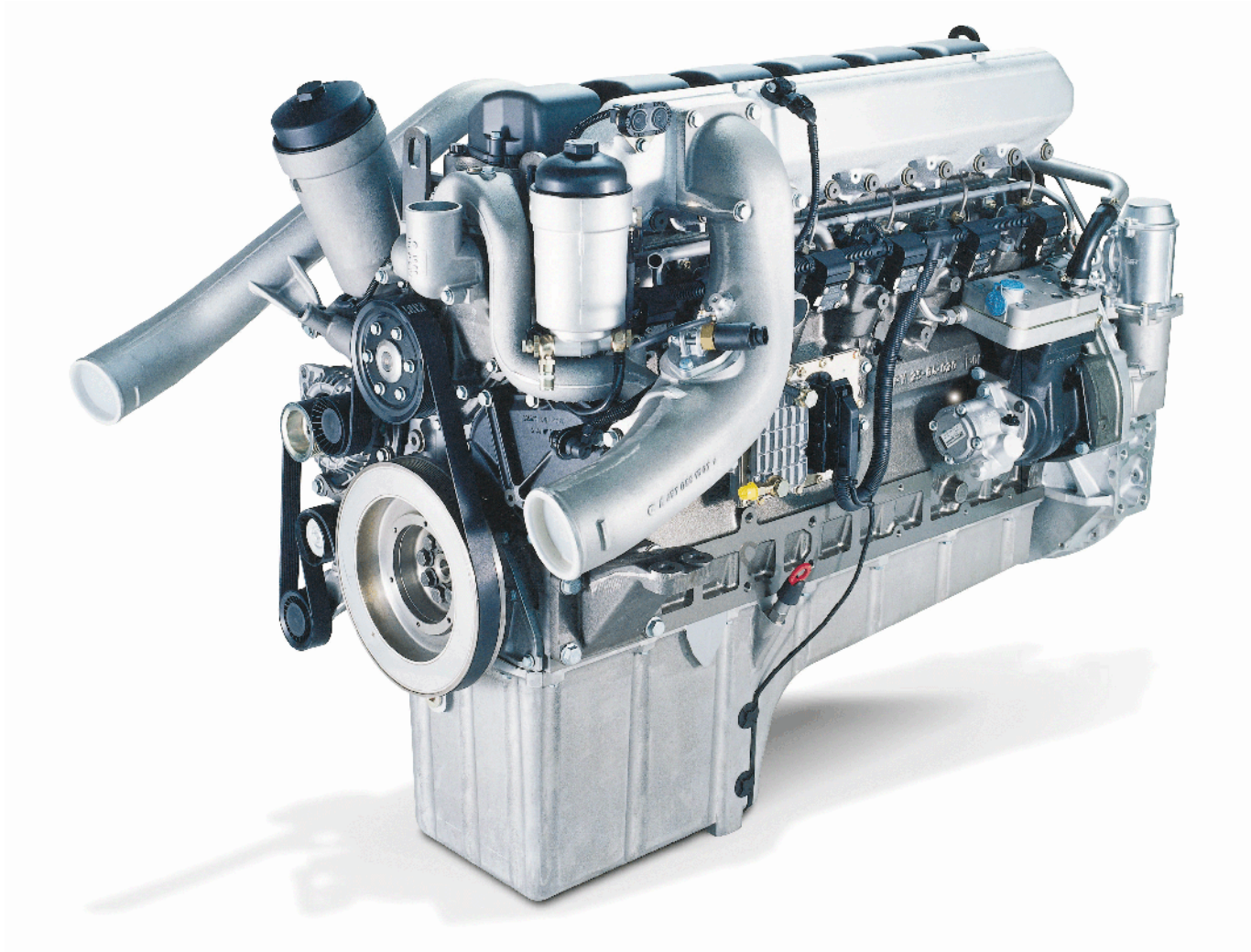


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OM 906 LA

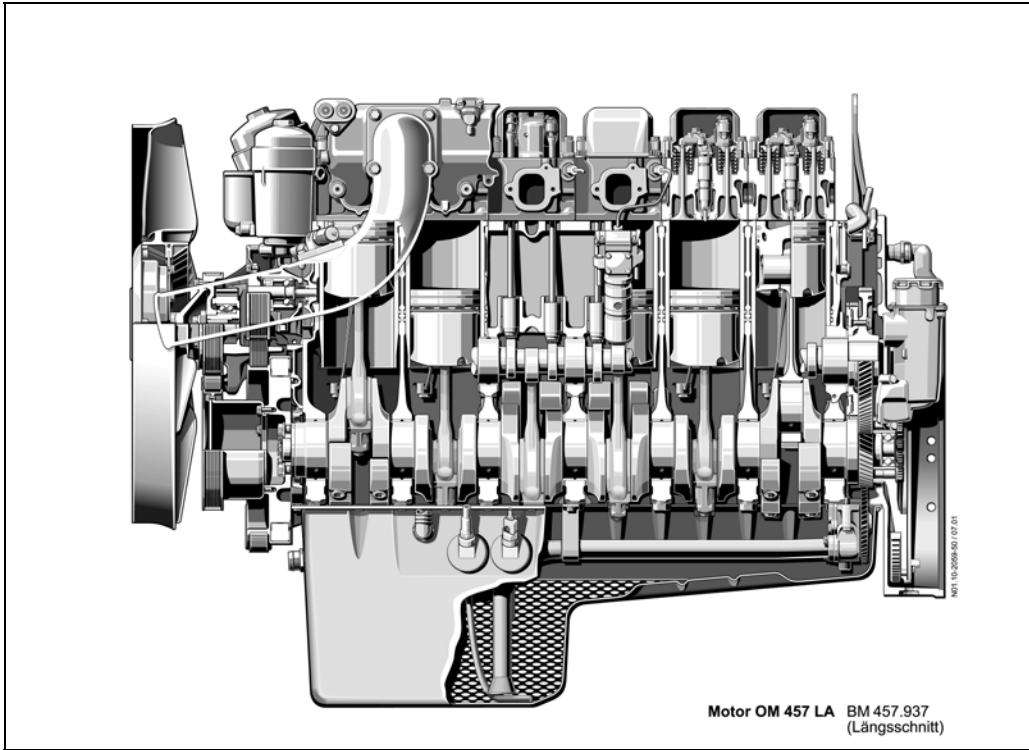


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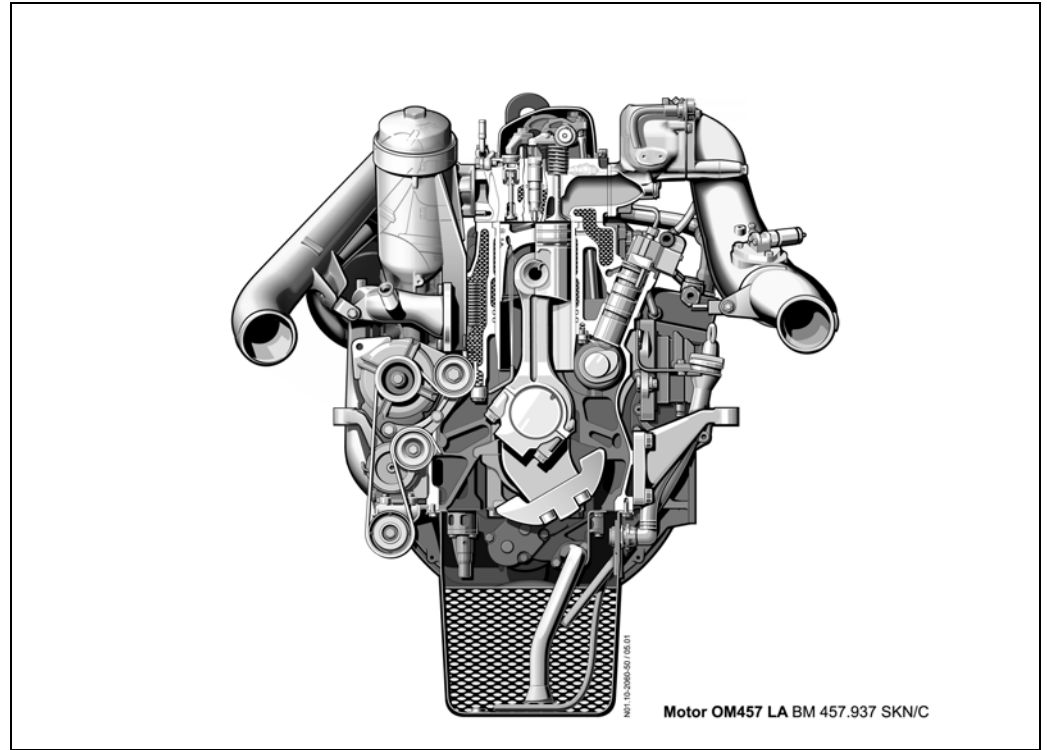


Engine 457 LA

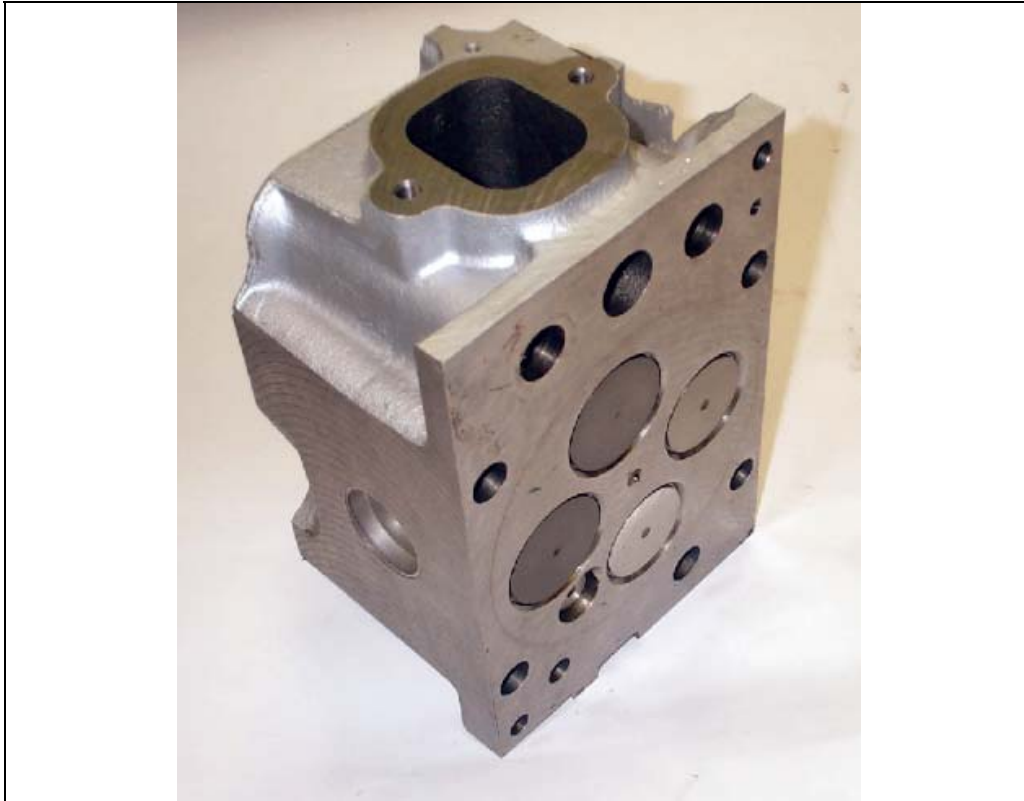
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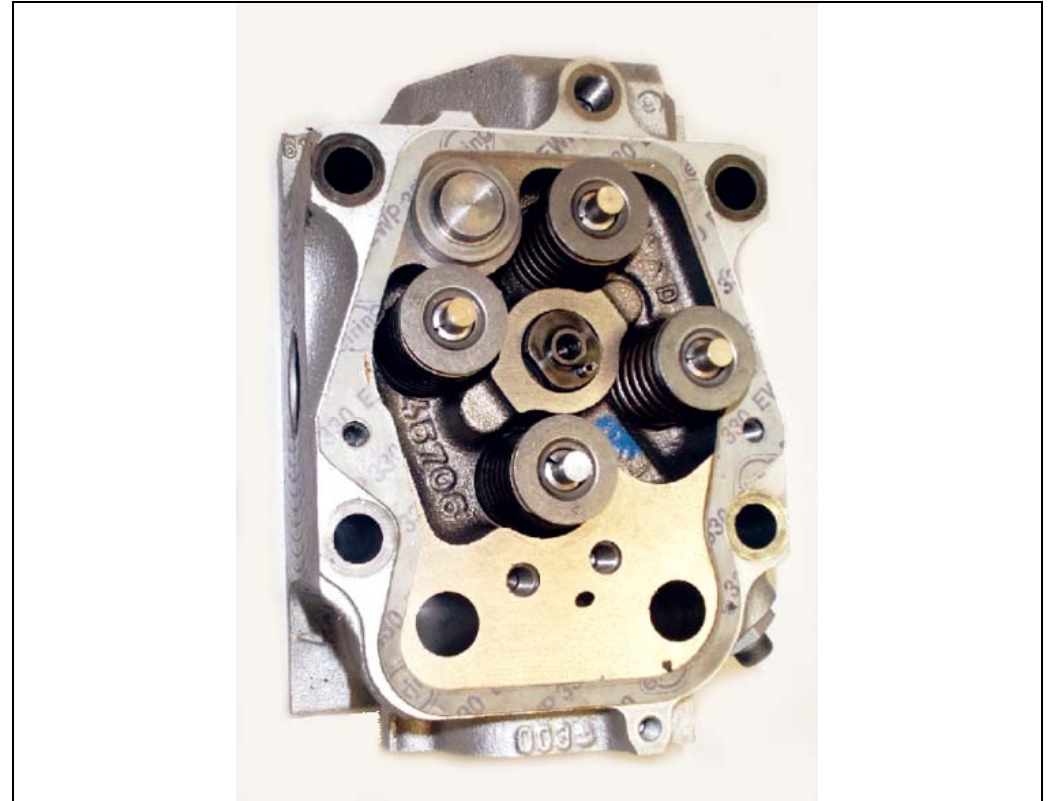
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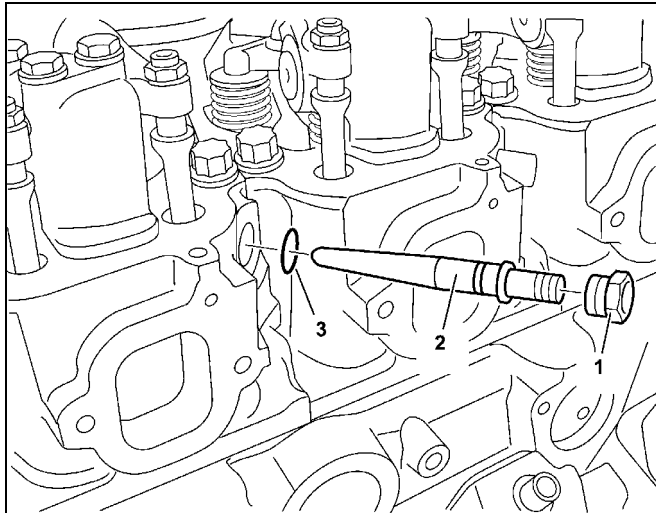


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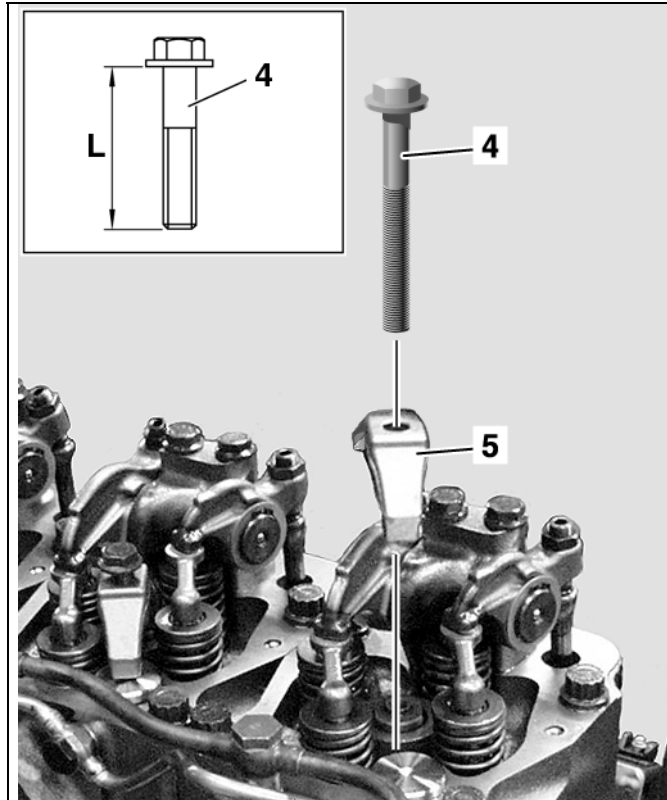


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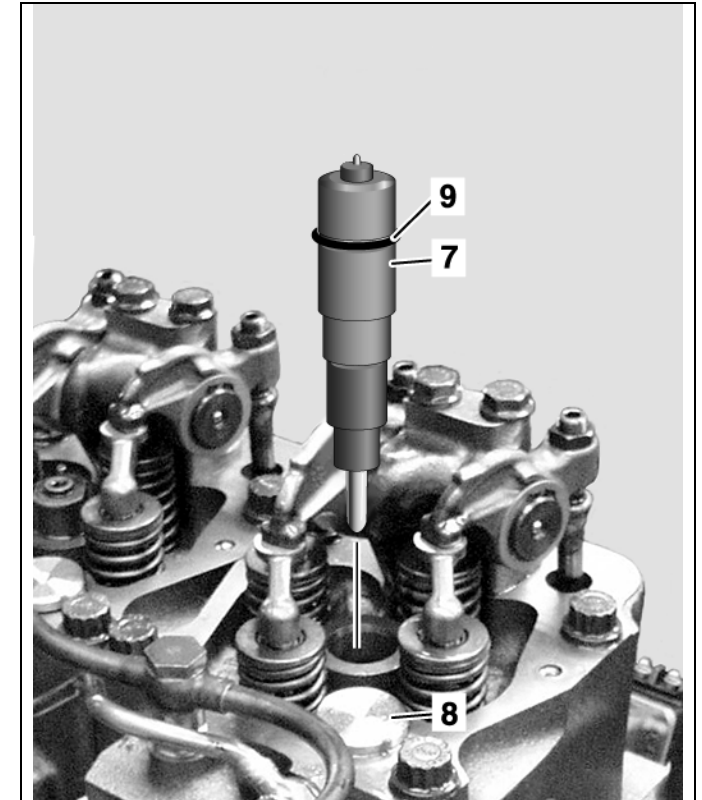
The six individual cylinder heads are of cast iron, each fixed to the crankcase with four stretch-shank bolts. The package of design and technology measures already present in the BR 500 engine model series has been carried over for the cylinder heads of this model series, in order to meet the EURO III Standards. The 6-hole injection nozzles are located centrally in the combustion chamber. Two intake and outlet valves are arranged symmetrically around each of these, so that the optimal conditions are present for gas exchange that is rapid and as complete as possible. This has a positive effect on fuel consumption and exhaust gas composition. The valves are controlled from the camshaft through pairs of push rods, rocker arms and valve bridges.



W07.03-1014-11



W07.03-1015-02



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- ⇒ Outstanding **power output and torque characteristics** over the whole rpm range
- ⇒ Dynamic start-off characteristics and pulling power
- ⇒ Attractive power/weight ratio
- ⇒ Low **fuel consumption**
- ⇒ Enormous **potential**: the V6 engines meet the requirements of the highly popular 400 HP Class
- ⇒ High-pressure direct injection, **pump-line-nozzle system** with peak pressures up to 1,800 bar.
- ⇒ **Electronic engine control (MR)** with electronic system fixed to the engine, and extensive engine protection functions
- ⇒ Direct injection with centrally positioned **6-hole injection nozzle**.
- ⇒ **4-valve technology**
- ⇒ Useful engine brake rpm well over rated rpm, up to **2400 rpm**
- ⇒ Meets the emission legislation of **EURO 3 and EUROMOT/EPA Level 2**
- ⇒ Turbocharger with charge air cooling
- ⇒ V8 with 2 turbochargers
- ⇒ **Viscous fan clutch, electromagnetic fan clutch and high-speed fan drive** on the most powerful engines
- ⇒ Rated engine speed **1,800 rpm or 2000 rpm**
- ⇒ Low maintenance requirement
- ⇒ Long maintenance intervals
- ⇒ Engine oil and fuel filter located at the front, for easy maintenance
- ⇒ Maintenance-free belt drive
- ⇒ Can run on FAME / RME (rape methyl ester) or biodiesel, and engine oil changes are halved
- ⇒ High reliability and long runtime
- ⇒ Low number of component variants, as many parts are the same on both 6 and 8 cylinder engines
- ⇒ Rear engine power take-off ex works

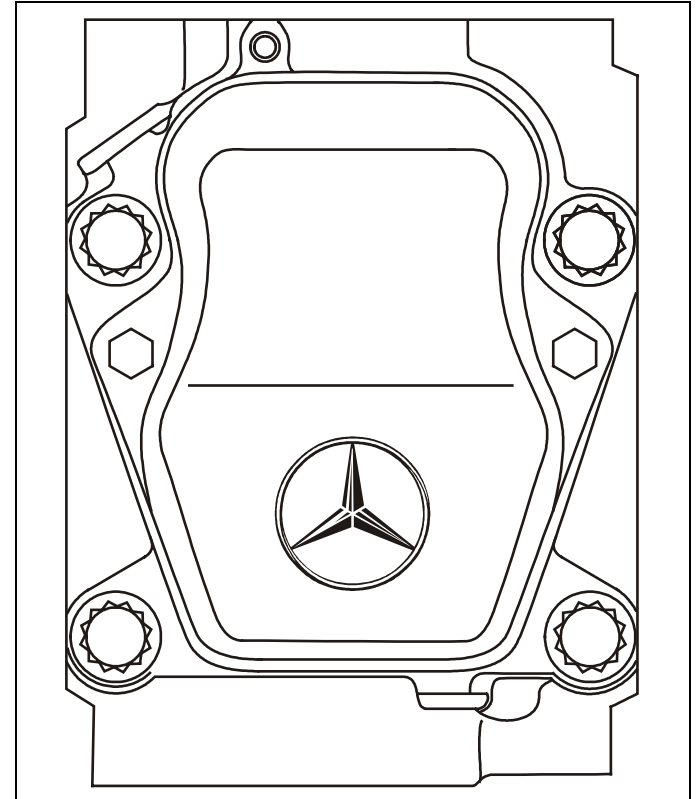
The individual cylinder heads are made of high-quality molybdenum/cast iron alloy. Each has four stretch-thread bolts (M18x2), with which it is bolted to the crankcase.

The optimal position for the injection nozzle is the vertical position at the center of the combustion chamber.

This ideal arrangement can only be achieved by using multi-valve technology.

This consists in arranging the valves in pairs (2 intake, 2 exhaust) around the injection nozzle.

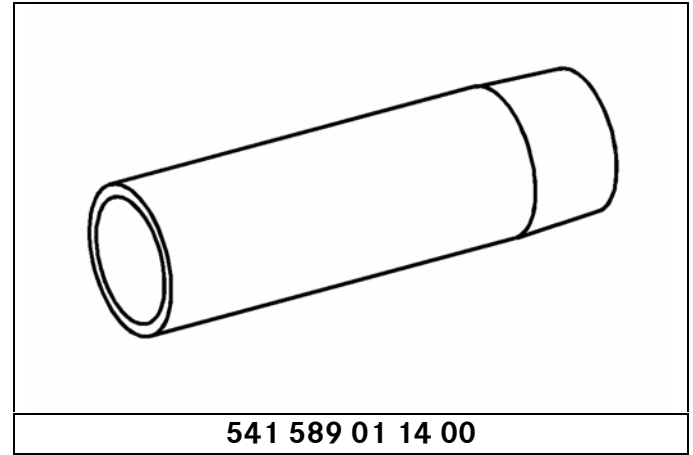
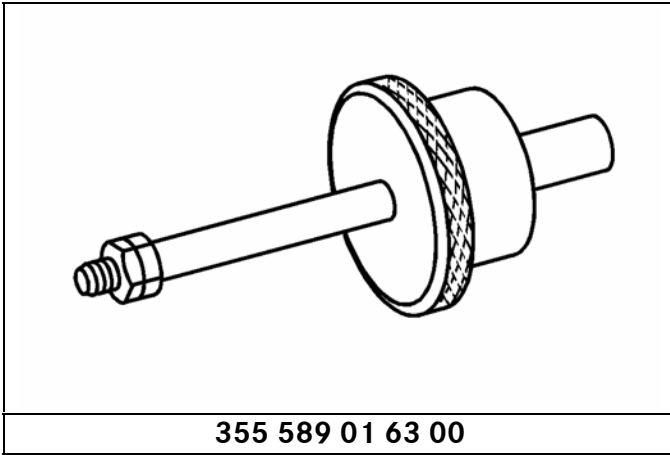
A fifth valve is required for the constant throttle or the decompression valve/engine brake. In both cases, these are linked to the exhaust port through an exactly adjusted hole.



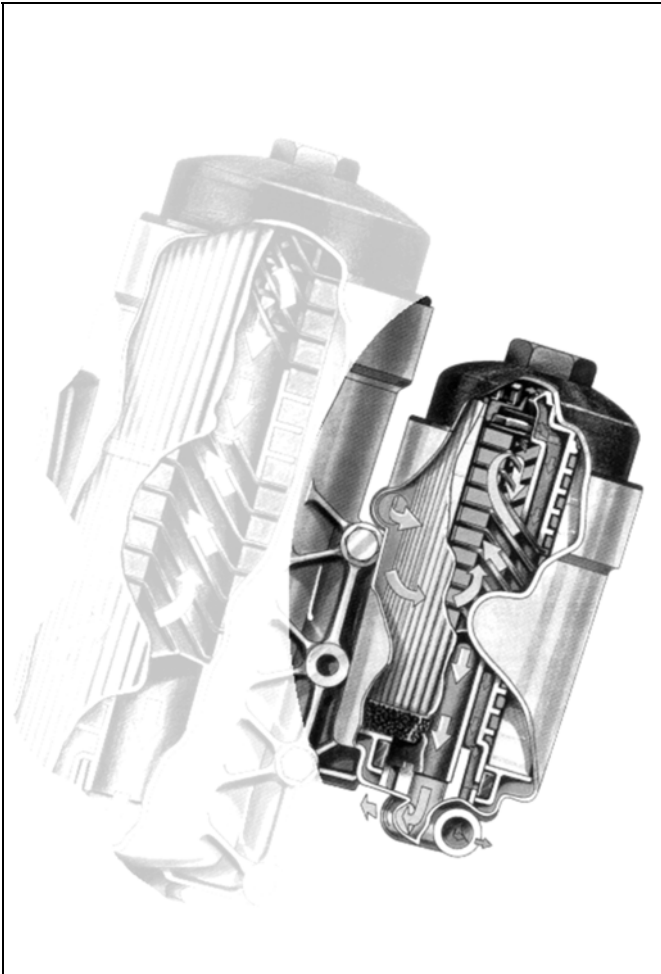
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	To remove	
1.	Risk of explosion due to gas ignition, risk of poisoning by inhaling or absorbing fuel, or risk of injury to skin and eyes through contact with fuel.	Fire, sparks, naked flames, smoking are forbidden. Only store fuel in suitable and appropriately marked containers. Wear protective clothing if handling fuel.
2.	Remove the cylinder head cover	
3.	Remove leak fuel line (2) from cylinder head	
4.	Remove injection line (1)	
5.	Unscrew pressure screw (3) and remove pressure pipe connection (5).	
6.	Remove retaining clip (9)	
7.	Fit the adapter (12) and extractor (13) to the inside thread (M 8) of nozzle holder combination (6)	Adapter: 904 589 00 63 00 Extractor: 355 589 01 63 00
8.	Take out the nozzle holder combination (6)	The nozzle holder combination should not be disassembled. If worn or faulty, the nozzle holder combination must be replaced.
9.	Remove the adapter (12) and extractor (13) from nozzle holder combination (6)	
10.	Take out the sealing ring (10)	

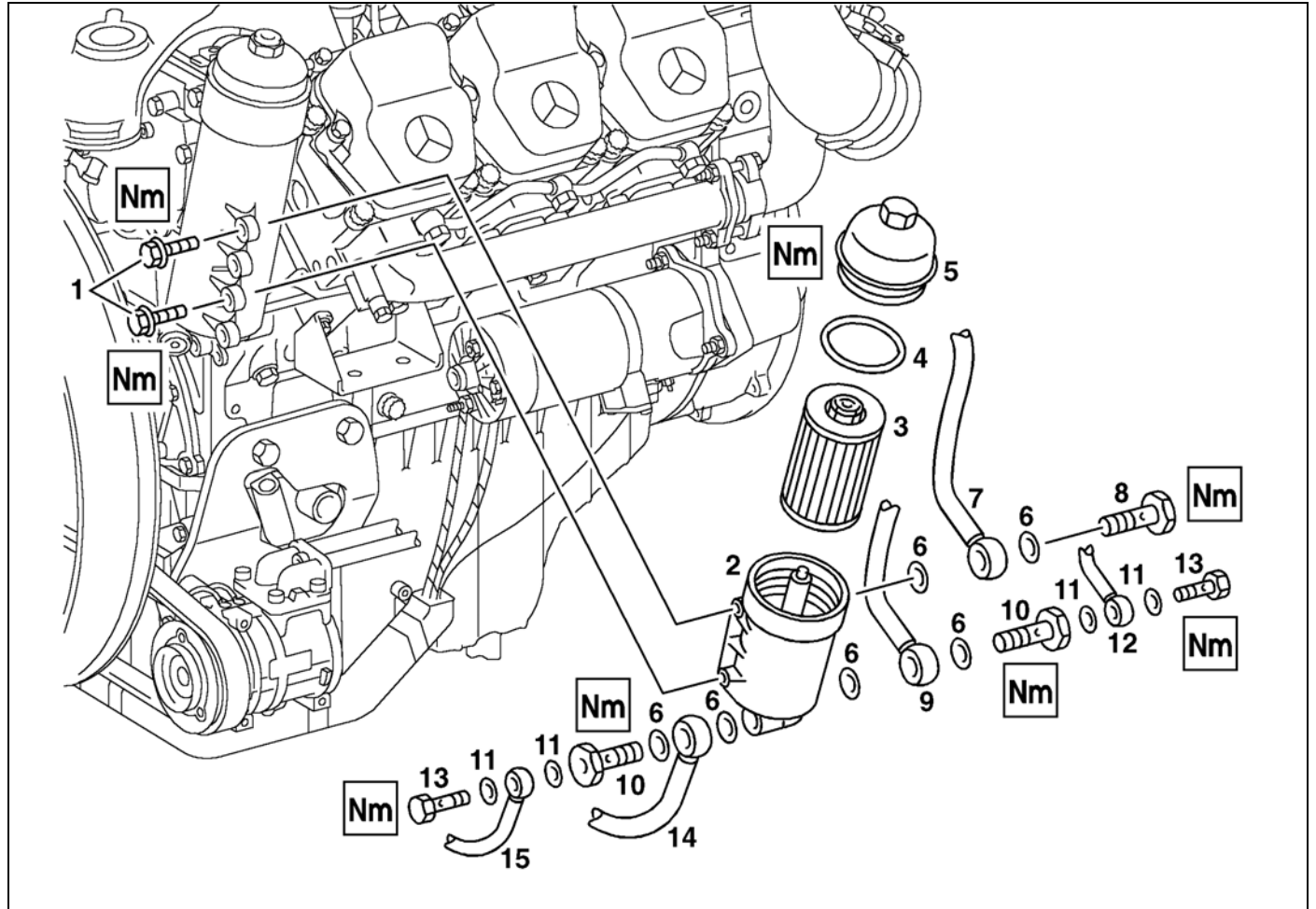
	To install	
1.	Measure the shank length of screw (8).	i If the maximum shank length is exceeded, replace the screw. MB Standard 10105 screws are generally to be replaced by screws with an MB Part No. on the screw head.
2.	Insert a new O-ring (7) at nozzle holder combination (6)	i Grease the O-ring.
3.1	Place the new O-ring (10.1) at nozzle holder combination (6)	i Up to engine End Number 197928 Note the installation location and thickness of the sealing ring: the smaller ring surface should point towards the nozzle holder combination. Grease the sealing ring.



Location of the fuel filter bowl



N47.20-2033-02



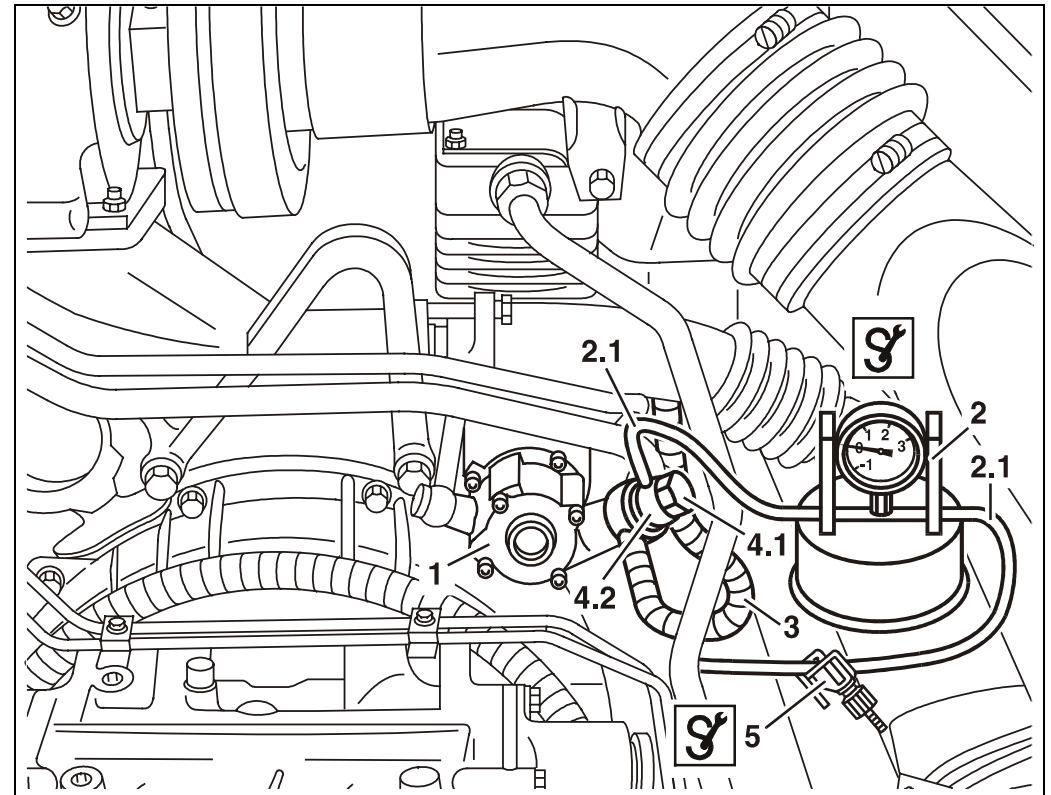
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The fuel filter bowl is fixed to the oil filter housing, but has its own feed lines that can be removed separately.

Testing the fuel intake pressure at the fuel feed pump

- Attach the tester (2) with test line (2.1) and fuel feed line (3) to fuel feed pump (1).
- Unclip the free test line (2.1) with clamp (5). Put the tester (2) at the frame and fasten.

- 1 Fuel feed pump
- 2 Tester 617 589 04 21 00
- 2.1 Test lines
- 3 Fuel feed line
- 4.1 Double banjo bolt M16 x 1.5, 50 Nm
- 4.2 Banjo union
- 5 Clamp 000 589 40 37 00



W07.15-0123-11

Testing		
4.	Connect the tester/gauge to the low pressure fuel system	Fuel intake pressure before the fuel feed pump