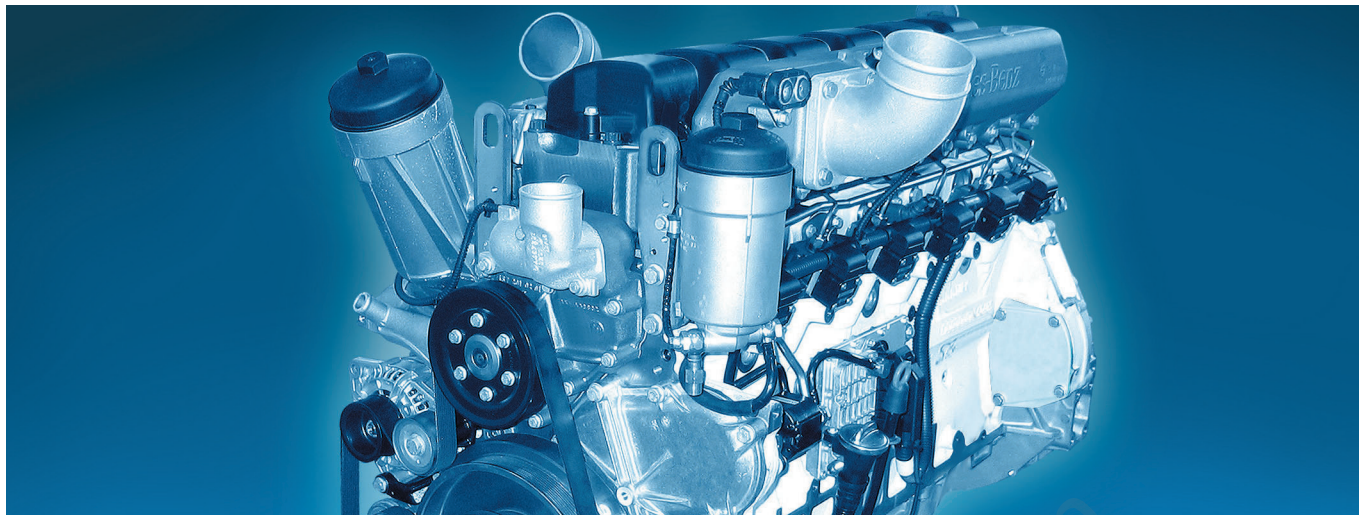




OM 460 LA

6-Cylinder In-line Diesel Engine

Workshop Manual



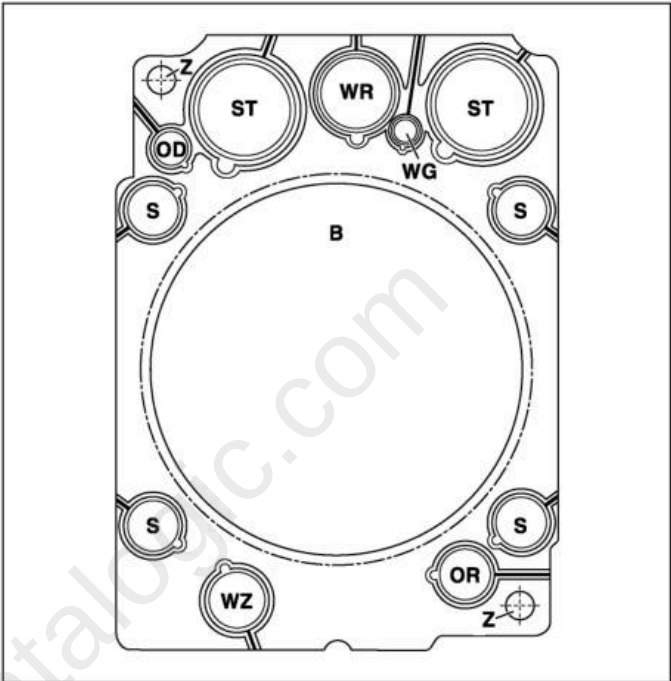
Mercedes-Benz

Commercially available tools (see Workshop Equipment Manual)

Number	Designation	Make (e. g.)	Order number
WH58.30-Z-1025-12A	Straightedge, 500 mm	Hahn und Kolb Borsigstr. 50 D-70469 Stuttgart www.hahn-kolb.de	37 550 050

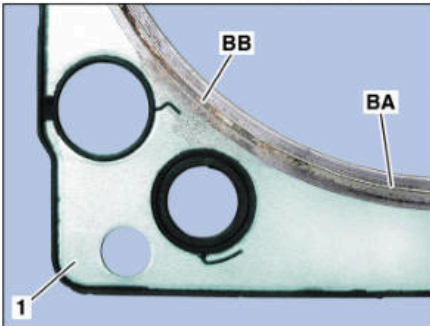
Assignment of bores in the cylinder head gasket

- B Combustion chamber bore
- OD Engine oil bore (pressure oil)
- OR Engine oil bore (oil return)
- S Cylinder head bolt bore
- ST Push rod bore
- WG Coolant bore (gas escape)
- WR Coolant bore (return)
- WZ Coolant bore (feed)
- Z Bore for fitted pins or centering sleeves



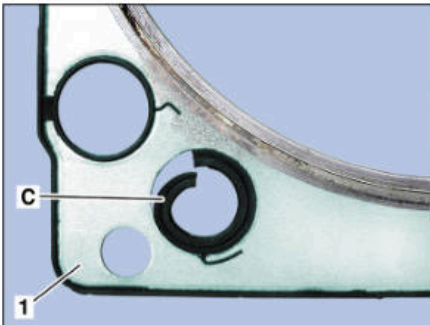
W01.30-1034-12

- 1 Check cylinder head gasket (1) at combustion chamber.
- i** Sealing surface (BA) at combustion chamber bore, the cylinder head gasket (1) was gas-tight. Sealing surface (BB) at combustion chamber bore, the cylinder head gasket (1) was not gas-tight.



W01.30-1039-71

- 2 Check cylinder head gasket (1) at sealing rings.
- i** A damaged sealing ring (elastomer) (C) in the engine oil bore or in the coolant bore is a result of a cylinder head gasket (1) that is not gas-tight. If the cylinder head gasket (1) is leaky, it is necessary to also consider the cylinder head and crankcase sealing surfaces.



W01.30-1040-71

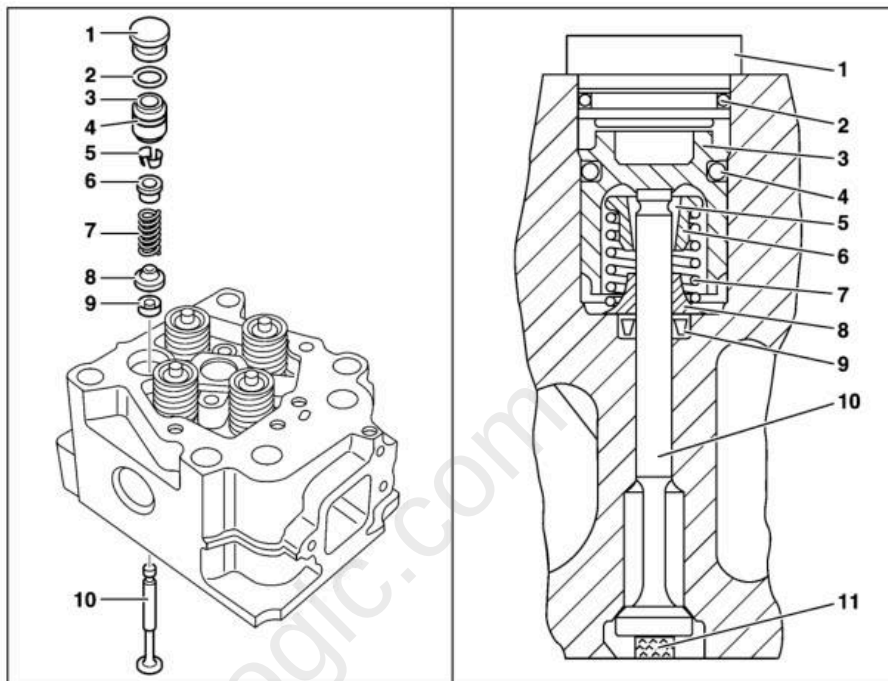
AR01.50-G-1000CH

Remove/install constant-speed throttle

7.6.04

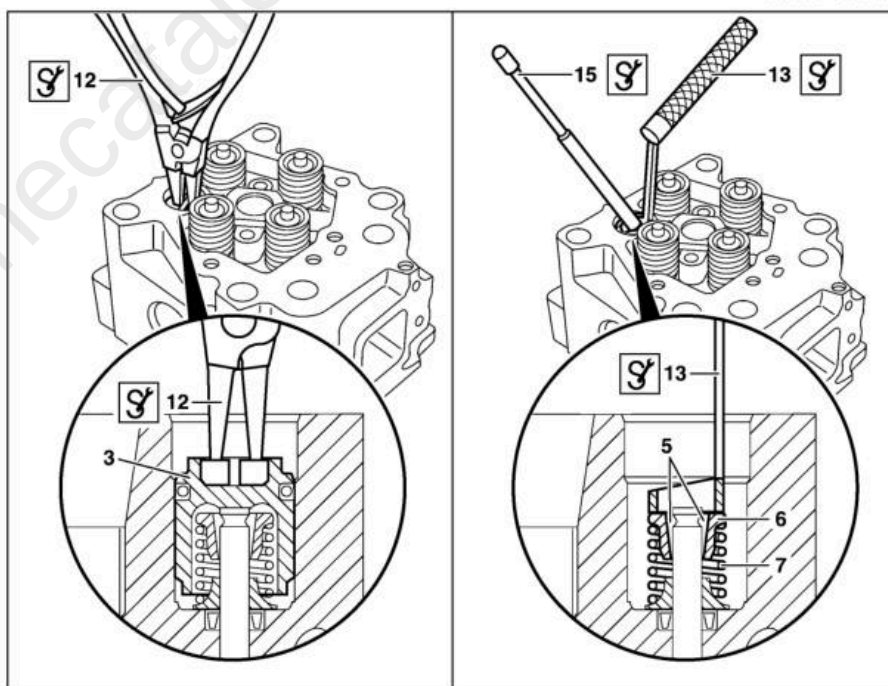
MODEL 000.001 with ENGINE 457.960

- 1 Cap
- 2 O-ring
- 3 Pistons
- 4 Piston sealing ring
- 5 Locking wedge
- 6 Spring cup
- 7 Spring
- 8 Spring guide
- 9 Gasket
- 10 Valve
- 11 Spacer



A01.50-0001-06

- 3 Pistons
- 5 Locking wedge
- 6 Spring cup
- 7 Spring
- 12 Pliers
- 13 Spring disk compressor
- 15 Magnetic pin



A01.50-0002-06

machinecatalogic.com

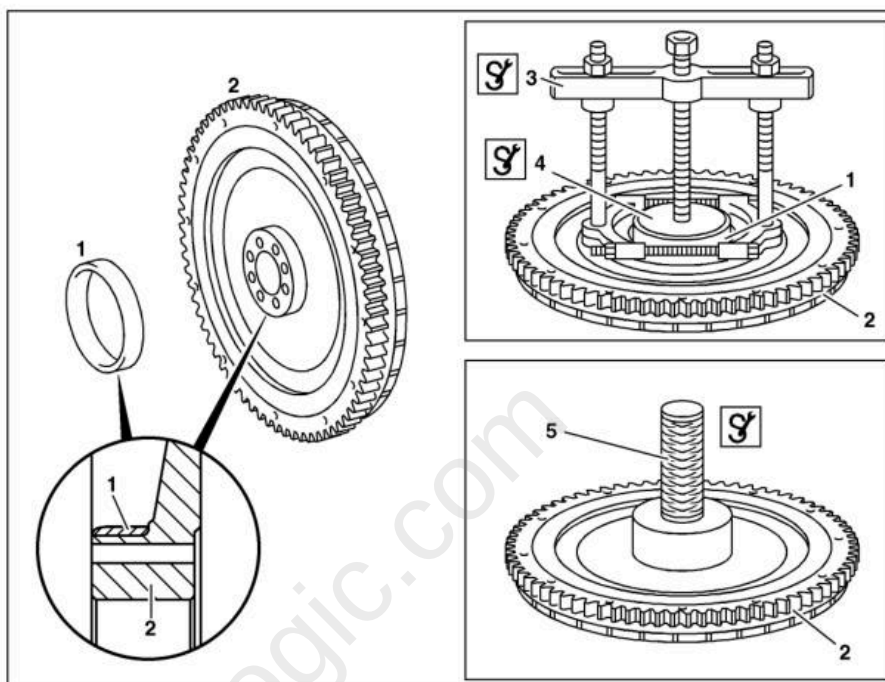
AR03.30-G-8350CH

Remove/install race on flywheel

13.7.04

MODEL 000.001 with ENGINE 457.960

- 1 Race
- 2 Flywheel
- 3  Puller
- 4  Thrust piece
- 5  Drift



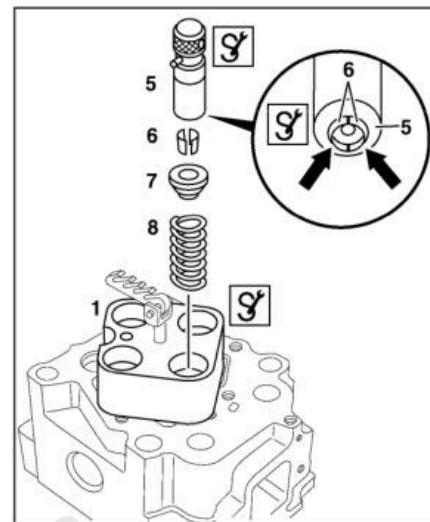
W03.30-0016-06

	Remove		
1	Remove flywheel (2)		Page 95
2	Pull off race (1) at flywheel (2)	 	000 589 45 33 00 312 589 00 15 00
	Install		
 Danger!	Risk of injury to skin and eyes caused by handling hot or glowing objects.	Wear safety gloves, protective clothing and safety glasses, if necessary.	Page 80
3	Heat new race (1) and insert into the drift (5)	 Max. temperature 200 °C. The rounded edge of the race (1) should point toward the drift (5).   	403 589 03 15 00 WH58.30-Z-1007-08A WH58.30-Z-1010-08A WH58.30-Z-1002-28A
4	Install race (1) at flywheel (2)		403 589 03 15 00
5	Install new crankshaft radial sealing ring with spring expander in timing case	 The inner diameter of the crankshaft radial sealing ring with spring expander is larger than that of the crankshaft radial sealing ring without spring expander.	Page 85
6	Install flywheel (2)		Page 95

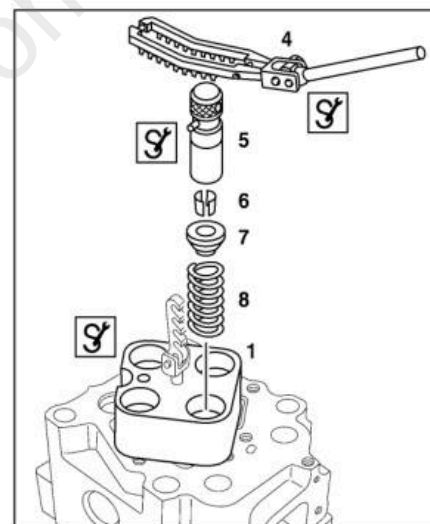
- 8 Carefully release tension on valve spring with  thrust fork (4) and remove  thrust fork (4)
- 9  Remove assembly cartridge (5) with removed cone elements (6) from  assembly cartridge guide
- 10 Pull knurled bolt out of  assembly cartridge (5) and remove cone elements (6)
- 11 Remove valve spring plate (7) and valve spring (8)
- 12 Check valve spring plate (7) and cone elements (6) for wear, replace if necessary

Installation

- 13 Pull knurled bolt out of assembly cartridge (5) and insert cone elements (6) into guide. Slowly relieve tension on knurled bolt
 Observe installation position of cone elements (6) in relation to inner gap tips (arrows)
- 14 Insert valve spring (8) and valve spring plate (7) into  assembly cartridge guide
- 15  Position assembly cartridge (5) on valve spring plate (7) with cone elements (6) installed and press valve spring (8) together with  thrust fork (4), simultaneously pull up knurled bolt on  assembly cartridge until cone elements (6) fall downward and catch in the groove in the valve stem.
- 16 Slowly release tension on valve spring (8) and remove  assembly cartridge (5) upward from  assembly cartridge guide
-  Repeat steps 13 to 16 on all valve springs
- 17 Check whether cone elements (6) arrest securely, if necessary repeat steps 5 to 8 and 14 to 16



G05.30-3112-02

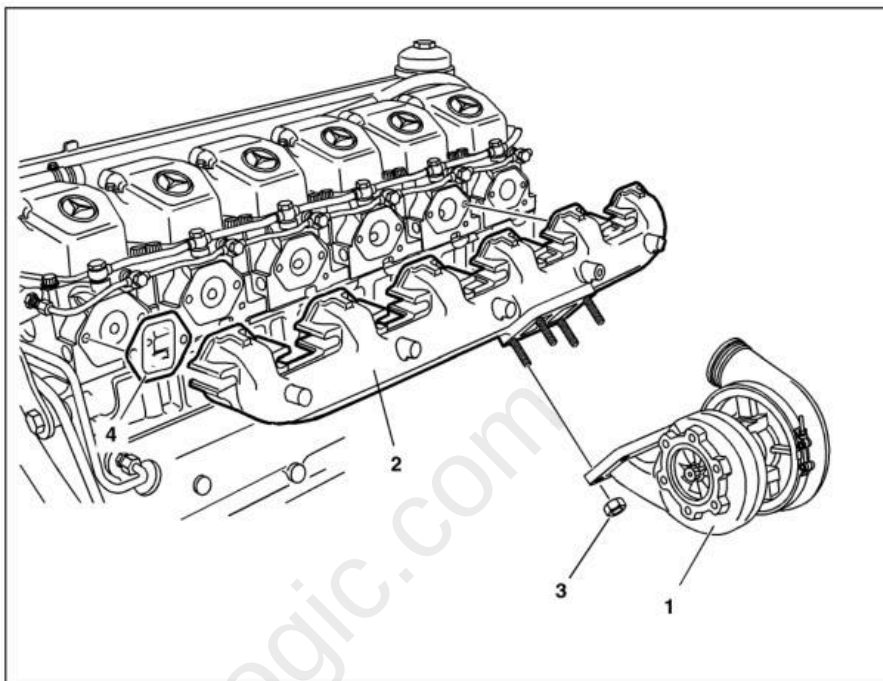


G05.30-3113-02

AR09.40-G-6020CH	Remove/install exhaust gas turbocharger	5.7.04
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MODEL 000.001 with ENGINE 457.960

- 1 Exhaust gas turbocharger
- 2 Exhaust manifold
- 3 Nut
- 4 Gasket



W09.40-1041-06

	Removal, installation		
1	Remove exhaust manifold (2) with engine brake flap fittings and exhaust gas turbocharger (1)	Installation: Replace seal (4)	Page 171
2	Remove engine brake flap fittings from exhaust gas turbocharger (1)		Page 175
3	Remove exhaust gas turbocharger (1) from exhaust manifold (2)	Plug holes on exhaust gas turbocharger (1) with caps, otherwise dirt can damage the exhaust gas turbocharger (1). Installation: Replace nuts (3) 	BA09.40-N-1004-01N
4	Reinstall in opposite order		

Turbocharger

Number	Designation	Engine
BA09.40-N-1004-01N	Nut for turbocharger on exhaust manifold	457.960
		Nm 50

3	Remove suction hose (3) from cylinder head compressor fittings (2)	 Check suction hose (3) and hose clamps for condition, replace if necessary. 	BA13.30-N-1005-01J
4	Remove control line (5)	 Installation: Replace sealing rings. 	BA13.30-N-1006-01J
5	Remove coolant lines (4) from cylinder head compressor (2)	 Catch coolant running out.  Installation: Replace sealing rings. 	BA13.30-N-1002-01J
6	Remove coolant lines (1)	 Catch coolant running out.  Installation: Replace sealing rings.  	BA13.30-N-1002-01J BA13.30-N-1008-01J
7	Remove cylinder head compressor (2)	 Control valve (7) can fall out when lifting the cylinder head compressors (2)  Installation: Lift coolant lines (4) for installing cylinder head compressor (2) 	BA13.30-N-1007-01J
8	Remove inlet valve disk (8)	 Installation: Ensure that control valve (7) does not fall out, otherwise compressor can be damaged  Installation: Replace inlet valve disk (8). Lay inlet valve disk (8) on cylinder head compressor (2) and install cylinder head compressor (2) on compressor housing. Observe installation position of inlet valve disk (8) in relation to roll pin (arrow) in intermediate valve plate	
9	Clean sealing surfaces		
10	Reinstall in opposite order		
11	Check coolant level and correct		
12	Crank the engine	 Allow to idle until service brake pressure is reached, then shut off engine	
13	Check compressor (2), coolant lines and compressed air line (6) for leakage	 Visual inspection.	

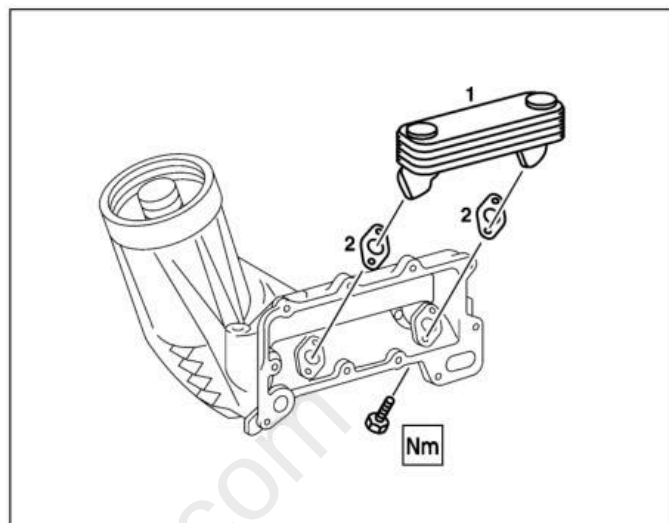
 Compressor (compressed air system)

Number	Designation	Engine 457.960
BA13.30-N-1002-01J	Banjo bolt, coolant line to compressor	M16x1.5 Nm 40
		M14X1.51 Nm 35
BA13.30-N-1004-01J	Fittings, compressed air line to compressor	Nm 80
BA13.30-N-1005-01J	Fittings, intake line to compressor	Nm 80
BA13.30-N-1006-01J	Banjo bolt, control line to compressor	Nm 15
BA13.30-N-1007-01J	Bolt, cylinder head to compressor-crankcase	1st stage Nm 25
		2nd stage 4° 90
BA13.30-N-1008-01J	Fittings, coolant lines to compressor	30

AR18.30-G-6840CH	Remove/install oil/water heat exchanger	8.7.04
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MODEL 000.001 with ENGINE 457.960

- 1 Oil/water heat exchanger
2 Gasket



G18.30-3109-11

	Removal, installation		
1	Remove oil filter housing		Page 201
2	Remove oil/water heat exchanger (1)	Replace oil/water heat exchanger (1) in the event of outer damage and engine abrasion in engine oil 	BA18.30-N-1001-01P
3	Remove gasket (2)	Installation: Clean sealing surfaces and replace gasket (2). Do not use emery paper for cleaning	
4	Reinstall in opposite order		

Oil cooler

Number	Designation	Engine
BA18.30-N-1001-01P	Bolt, oil/water heat exchanger to oil cooler housing	Nm 25

Full Version Available

Mercedes-Benz OM 460 LA Engine Service Manual

Mercedes-Benz OM 460 LA engine service manual with remove/install repair procedures for lubrication, cooling and fuel components. Instant PDF download.

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