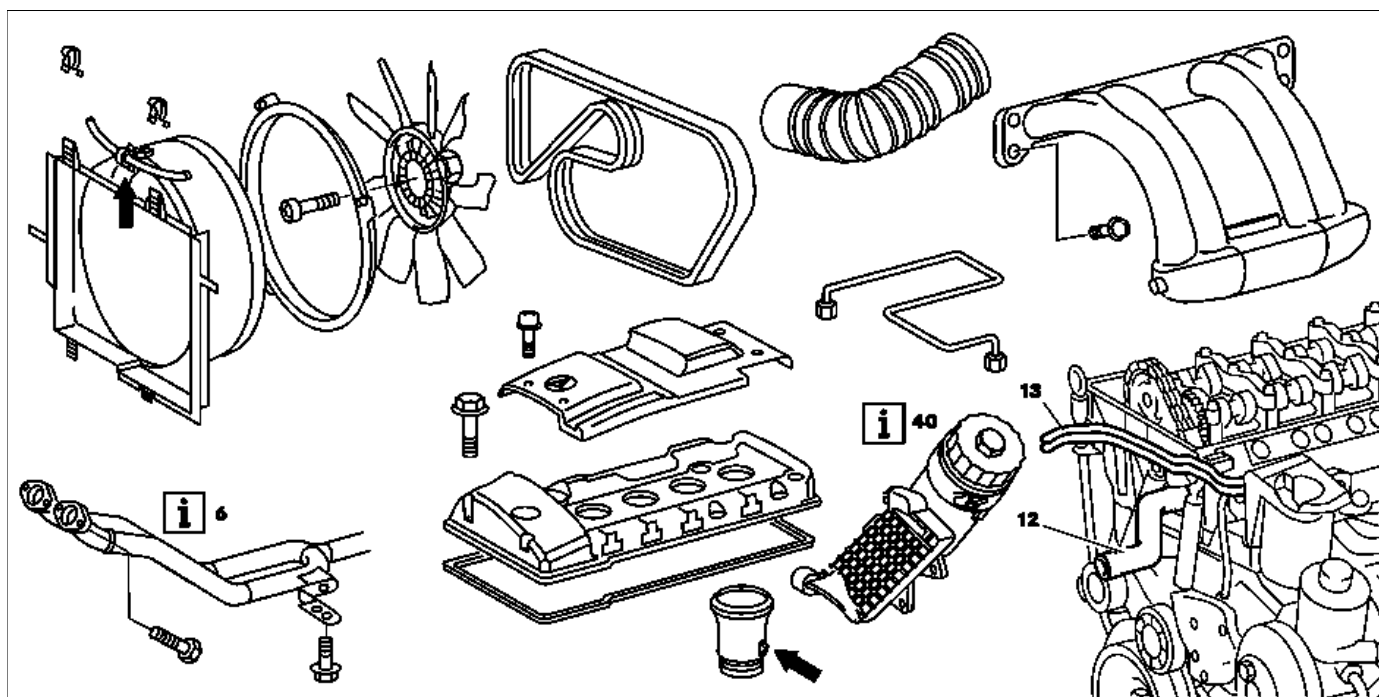


ENGINES 605, 606 in MODEL 124

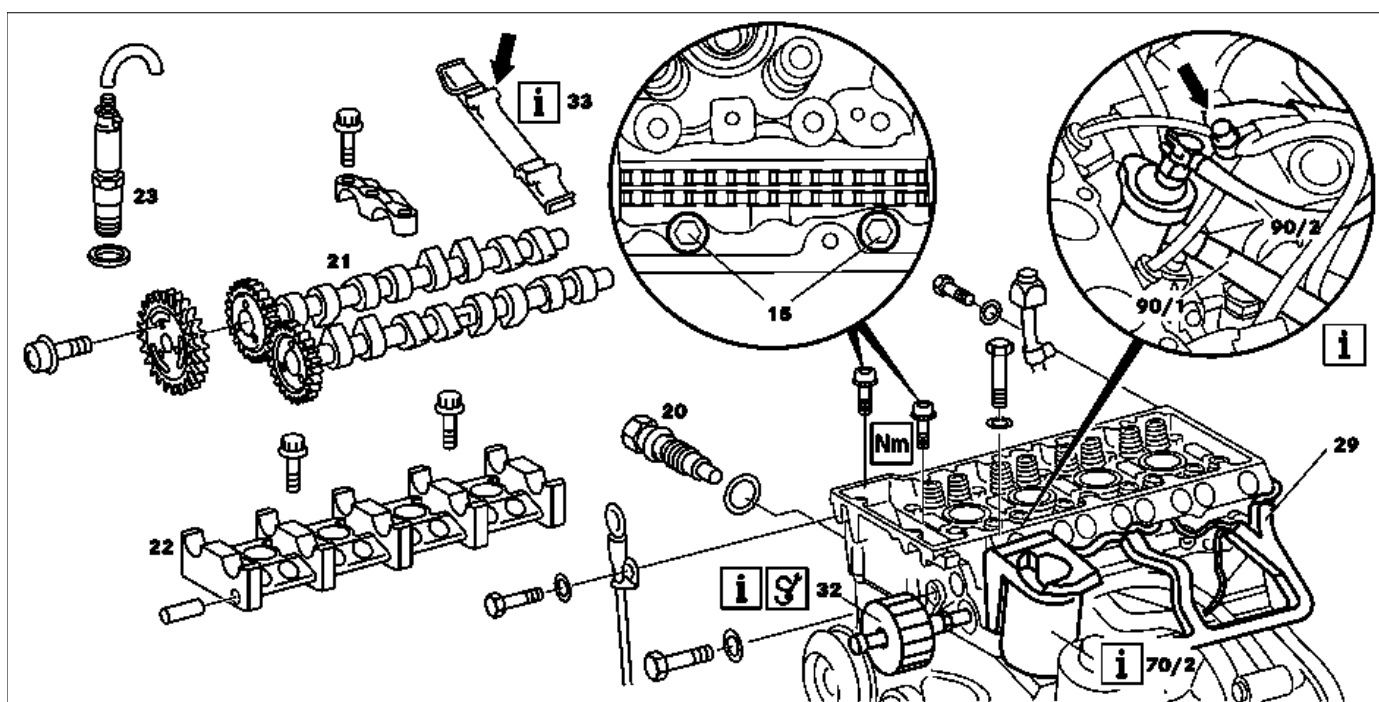
ENGINES 606.961 in MODEL 140

ENGINES 604, 605 in MODEL 202

ENGINES 604, 605, 606.912 /962 in MODEL 210

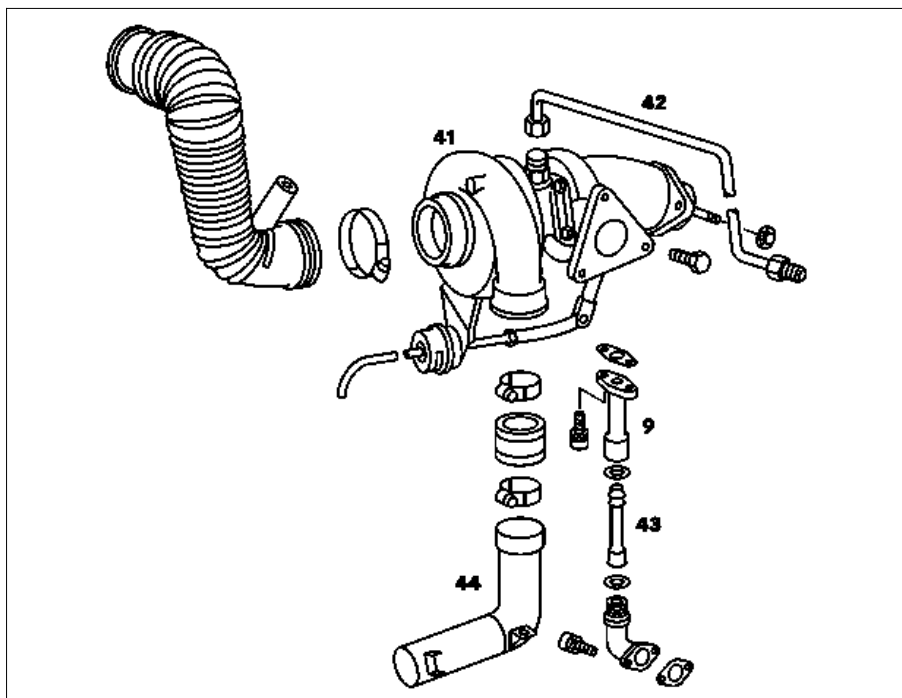


P01.30-0243-09




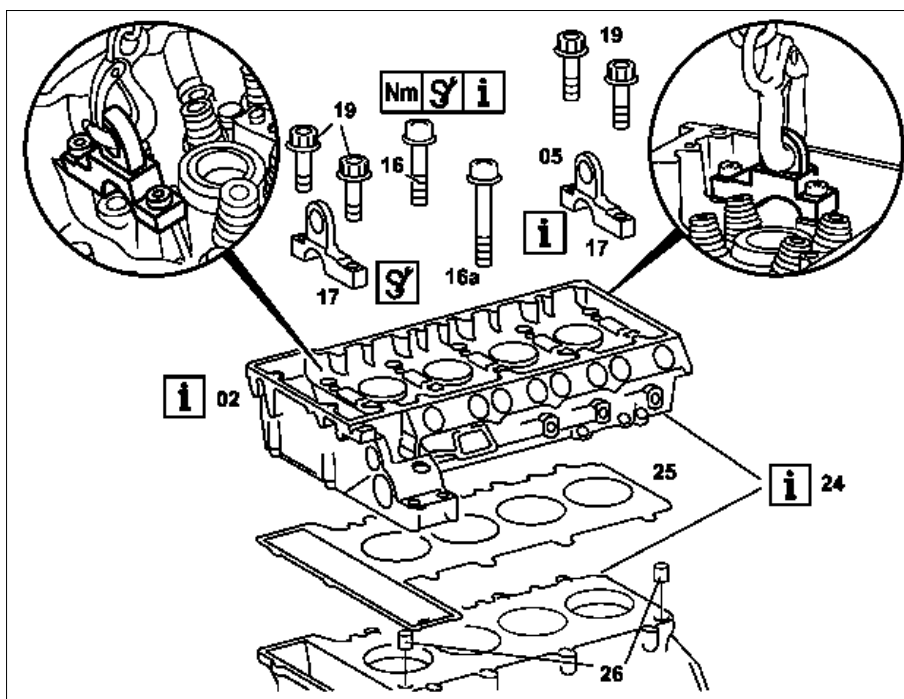
P01.30-0242-09

- 41 Turbocharger engine 605.960/962
606.961/962
42 Pressure oil line
43 Oil return line
44 Charge air pipe



P01.30-0241-06


- 02 Cylinder head
16 Collar bolt M10 B102
16a Collar bolt M10 B115
17  Bracket
19 Collar bolts M7x35 for fixing bracket in place
24 Cylinder head separating surfaces
25 Cylinder head gasket
26 Dowel sleeves




























P01.30-0287-06

Modification notes

1.3.95	Technical modification: Screw/bolts for attaching camshaft housing discontinued The camshaft housing must be bolted onto the cylinder head when performing repairs.	Step 15	BT05.20-P-0001-01A
1.10.96	Technical modification to cylinder head gasket Soft material gasket is replaced by gasket with metal layer	Step 26	BT01.30-P-0001-01A

	Remove/install		
1	Disconnect battery ground line		AR54.10-P-0003A
2	Remove engine compartment paneling		
3	Drain/fill in coolant		AR20.00-P-1142HW
4.1	Remove radiator	Engine 606.962	AR20.20-P-3865HB
5	Remove poly-V belt		AR13.22-P-1202HA
6	Remove cylinder head cover		AR01.20-P-5014HA
7.1	Remove intake manifold	Engine 604, 605.910/912, 606.910/912	AR09.20-P-1310H
8.2	Remove resonance intake manifold	Engine 606.912	AR09.20-P-1961H

9.3	Remove charge air manifold	Engine 605.960/962 Engine 606.961/962	AR09.41-P-1310H AR09.41-P-1310HA
10	Detach coolant hoses (12) at cylinder head	 Inspect condition of hose clamps and hoses, replace if necessary. 7 mm socket hexagon on flexible shaft for hose clamps with worm drive	
11.1	Detach vacuum lines (13) at cylinder head, mark if necessary	except 606.961/962	
12	Unbolt exhaust system (6) at exhaust manifold or turbocharger	 Exhaust manifold remains attached at cylinder head	
13	Remove chain tensioner (20)		AR05.10-P-7800HA
14	Remove slide rail (33) in cylinder head	 Installation: Install slide rail in such a way that the two mounting holes for the slide rail bolts point upwards (arrow) and the open side of the slide rail points counter to the direction of travel.	AR05.10-P-8432HA
15  BT	Remove camshaft housing (22) Screw/bolts for attaching camshaft housing to cylinder head omitted		AR05.20-P-6995HA BT05.20-P-0001-01A
16.1	Remove injection nozzles (23)	 If cylinder head is replaced	AR07.03-P-6830H
 Danger!	Risk of explosion caused by ignition of flammable products, risk of poisoning caused by inhaling fuel vapors or swallowing fuel as well as risk of injury to skin and eyes exposed to fuel.	No fire, sparks, open flames or smoking. Only pour fuels into suitable and appropriately marked containers. Wear protective clothing when handling fuel.	AS47.00-Z-0001-01A
17	Detach fuel lines	 Open fuel filler cap. Model 202: Detach fuel lines 90/1, 90/2 at the fuel preheater. Models 124, 140, 210: Disconnect the feed lines at the body and fit together with a section of hose.	
18	Disconnect engine wiring harness (29) at cylinder head		
19.1	Remove oil filter (40)	 On models fitted with oil-water heat exchanger at oil filter	AR18.20-P-3471HA
20	Unbolt fuel filter (70/2) at cylinder head	 Place fuel filter to the side with lines connected	
21	Unscrew screw/bolts (15) for cylinder head at timing case cover		*BA01.40-P-1002-01A
22	Unbolt pressure oil line (42), oil return flow line (43), charge air pipe (44) at turbocharger (41)	Engine 605.960/962, 606.961/962  Installation: Replace gaskets and O-rings.	
23	Slacken cylinder head bolts (16, 16) in stages, unscrew	 Slacken cylinder head bolts in reverse order of tightening procedure once engine has cooled down.  Tightening procedure for cylinder head bolts  Installation: It is not necessary to re-tighten the cylinder head bolts.  Oil thread and head contact surface of cylinder head bolts, insert, tighten in stages 	*601589001000 AR01.30-P-5800-01HA *BA01.30-P-1002-01A
24	Check cylinder head bolts (16, 16a)		AR01.30-P-5800-03HA *BE01.30-P-1001-04A
25	Screw/bolt on bracket (17) for removing cylinder head	 Screw bracket onto first and last camshaft bearing (at exhaust side) using Screw/bolts (19) M7x35. 	*119589014000
26	Remove cylinder head (02)	 Installation: Lay new cylinder head gasket (25) onto crankcase.  When remounting the top, align with fitted bushings (26) for lining up the cylinder head.  If the crankcase has been machined, a repair size cylinder head gasket with a thickness of 1.85 mm must be installed, if necessary ↓ Measure piston projection  If timing case cover and cylinder head are removed at the same time, the setting of the injection pump is altered; check start of delivery, set if necessary ↓ Model 124 Model 140, 202, 210	AR03.10-P-7041-01A ra07016058300x AD07.00-P-1464B

 BT	Technical modification to cylinder head gasket	Load regulator gotis://H_00.12_04.0	BT01.30-P-0001-01A
27	Clean contact surfaces (24) and threaded holes	 Blow out threaded holes, free of oil and water, inspect contact surfaces, if necessary Machine crankcase contact surface Check/face-grind cylinder head contact surfaces	↓ AR01.40-P-9133B AR01.30-P-7162B
28.1	Remove oil from cooling and heating system	If oil residues in cooling and heating system	AR20.00-P-1250A
29	Install in the reverse order		
30	Inspect cooling system for leaks		AR20.00-P-1010HA
 Danger!	Risk of accident caused by vehicle starting off by itself when engine is running. Risk of injury caused by contusions and burns during starting procedure or when working near the engine as it is running Check for leaks with engine running	Secure vehicle to prevent it from moving by itself. Wear closed and snug-fitting work clothes. Do not touch hot or rotating parts.	AS00.00-Z-0005-01A
31			
32	Read/erase fault memory.	Stored faults possibly caused by previous simulation or by cables disconnected in the process of installation or testing must be processed and erased in the DTC memories once all work is completed.	AD00.00-P-1000AZ

Cylinder head/cylinder head bolts

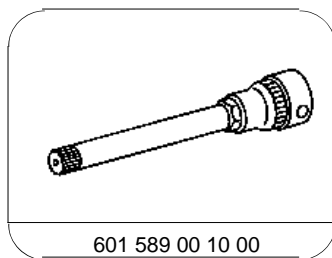
Number	Designation	Engine 604, 605, 606
BE01.30-P-1001-04A	Cylinder head bolt	Thread diameter M 10
		Length (L) when new mm 102/115
		Max. length (L) mm 104/117
	See picture	AR01.30-P-5800-03HA

Cylinder head tightening torques

Number	Designation	Engine 604, 605, 606
BA01.30-P-1002-01A	Screw/bolt for cylinder head M10	Stage 1 Nm 15
		Stage 2 Nm 35
		Stage 3 \angle° 90
		Settling time min 10
		Stage 4 \angle° 90
		See picture AR01.30-P-5800-01HA

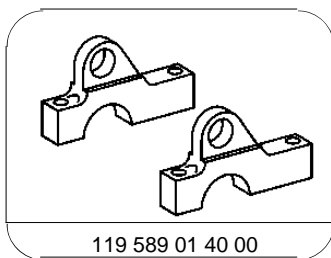
Crankcase, timing case cover, end cover

Number	Designation	Engine 604, 605, 606
BA01.40-P-1002-01A	Screw/bolt, cylinder head to timing case cover Nm	25



601 589 00 10 00

Screwdriver bit



119 589 01 40 00

Retaining clip

Repair materials

Number	Designation	Order number
BR00.45-Z-1009-01A	Sealant Loctite 574, 50 ml	A 001 989 89 20 10
BR00.45-Z-1012-01A	Sealant, Omnifit FD 3041	A 002 989 47 20 10