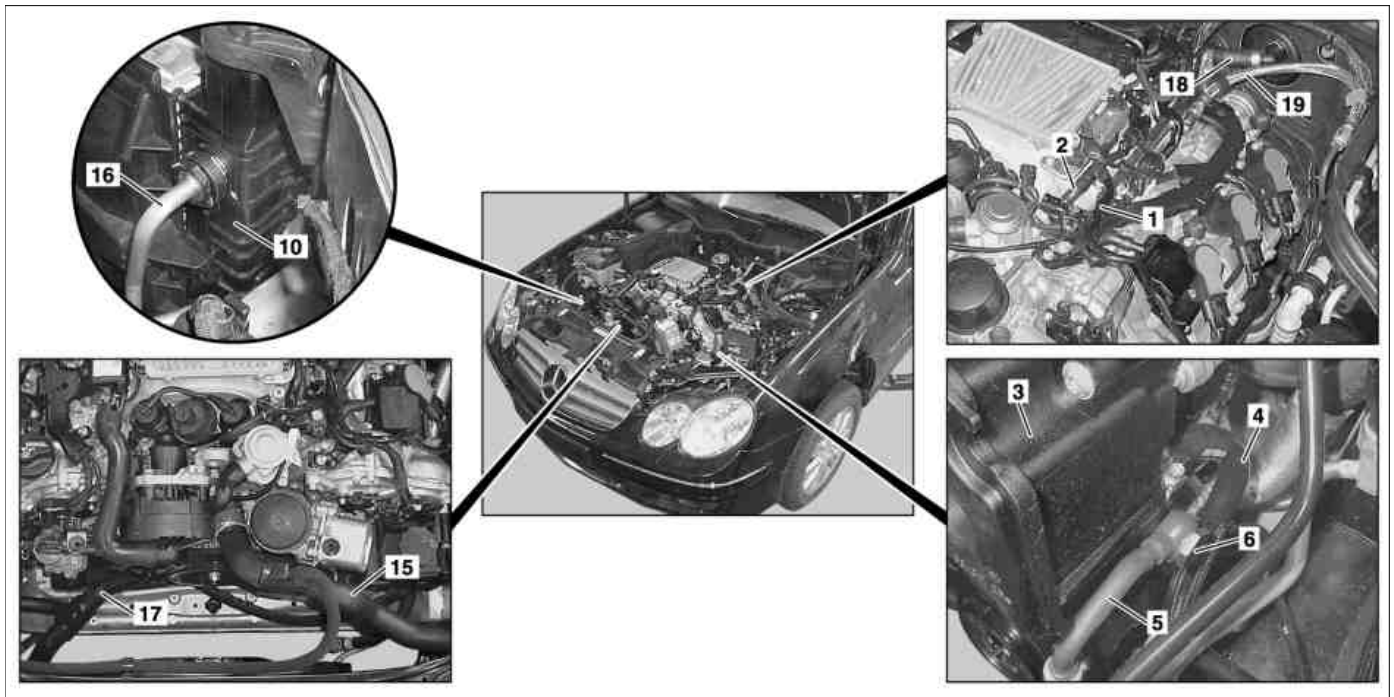


ENGINES 272.920 in MODEL 203.052 /252 /752

ENGINES 272.940 in MODEL 203.054 /254, 209.354 /454

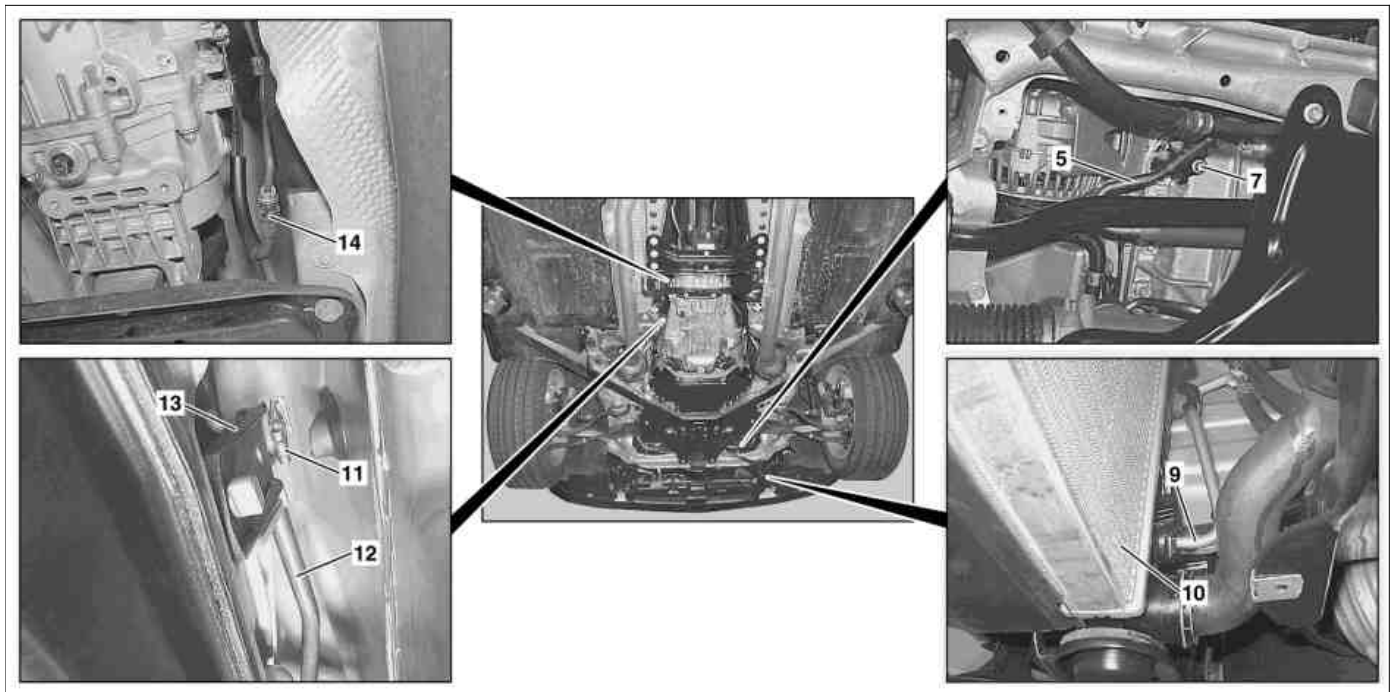
ENGINES 272.960 in MODEL 203.056 /256 /756, 209.356 /456

ENGINES 273 in MODEL 209



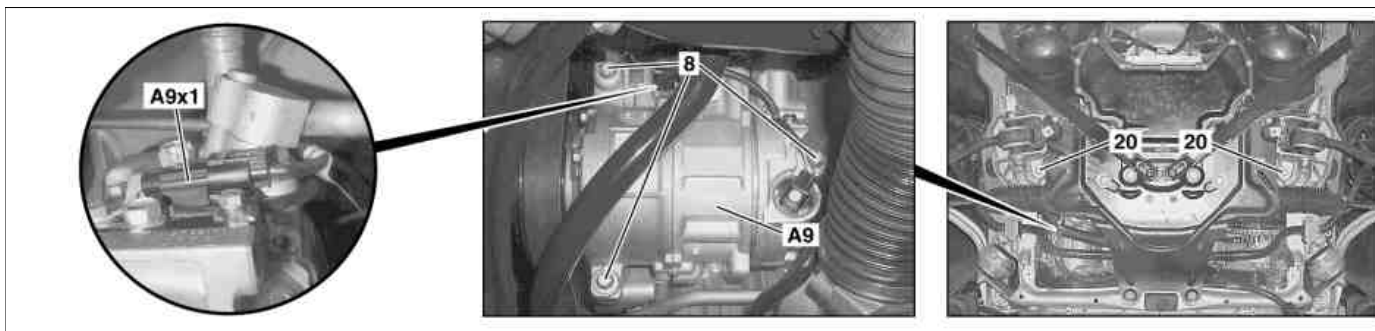
P01.10-2764-09

- | | | | | | |
|---|--|----|------------------------------|----|---------------------------------|
| 1 | Vacuum line | 4 | Power steering return line | 15 | Coolant hose |
| 2 | Crankcase ventilation system vacuum line | 5 | High pressure expansion hose | 16 | Automatic transmission oil line |
| 3 | Power steering expansion reservoir | 6 | Banjo bolt | 17 | Coolant hose |
| | | 10 | Radiator | 18 | Coolant hose |
| | | | | 19 | Fuel pipe |



P01.10-2765-09

- | | | | | | |
|---|---------------------------------|----|----------------|----|---------------------------------|
| 5 | High pressure expansion hose | 10 | Radiator | 13 | Range selector lever |
| 7 | Screw | 11 | Retaining clip | 14 | Clutch operation hydraulic line |
| 9 | Automatic transmission oil line | 12 | Shift rod | | |

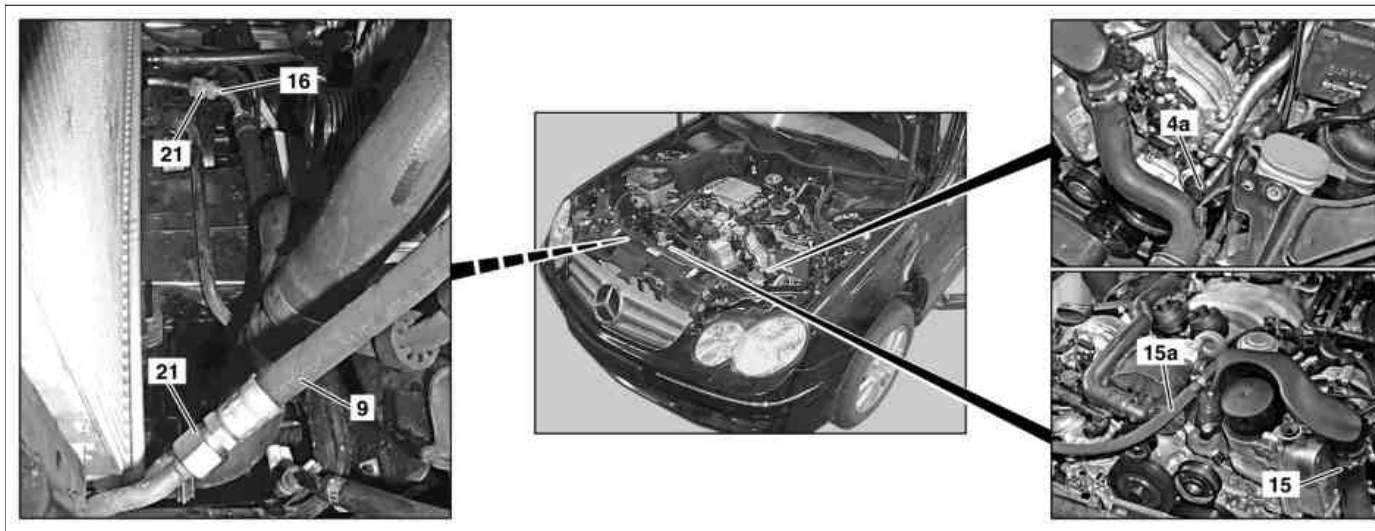


P01.10-2766-07

8 Bolt
20 Bolt

A9 Refrigerant compressor

A9x1 Refrigerant compressor connector



P01.10-2848-08

4a Power steering feed line
9 Automatic transmission oil line

15 Coolant hose
15a Coolant hose




















16 Automatic transmission oil line
21 Separation point

Modification notes

2.6.08	Installation note for replacing sealing rings of the automatic transmission oil lines - added	Step 20.2	
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	Remove/install		
Danger!	Risk of death caused by vehicle slipping or toppling off the lifting platform.	Align vehicle between columns of vehicle lift and position four support plates at vehicle lift support points specified by vehicle manufacturer.	AS00.00-Z-0010-01A
Danger!	Risk of explosion caused by fuel igniting, risk of poisoning caused by inhaling and swallowing fuel and risk of injury to eyes and skin caused by contact with 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
Danger!	Risk of injury to skin and eyes caused by scalding from contact with hot coolant spray. Risk of poisoning caused by swallowing coolant.	Do not open cooling system unless coolant temperature is below 90 °C. Open cap slowly and release the pressure. Do not pour coolant into beverage containers. Wear protective gloves, protective clothing and safety glasses.	AS20.00-Z-0001-01A
1	Disconnect ground line from battery	Model 203 Model 209	AR54.10-P-0003P AR54.10-P-0003Q AH54.10-P-0001-01A
	Notes on battery		
2	Remove air filter housing		AR09.10-P-1150QB
3	Remove hot film mass air flow sensor		AR07.07-P-1453QB
4	Remove air duct housing		AR09.20-P-0080QB
5	Unclip vacuum line (1) and detach from vacuum line (2)		
6	Disconnect brake booster vacuum line on intake manifold		
7	Remove electric fan		AR20.40-P-5000QB
8	Attach guard plate for radiator/condenser		

WF	Guard plate for radiator/condenser		WF58.50-P-0110-01A
9	Remove poly-V belt		AR13.22-P-1202QB
10	Suction off oil from expansion reservoir (3)		*210589007100
11	Detach feed line (4a) from power steering pump	Engine 273 	*003589033700
12	Detach return line (4) from expansion reservoir (3)	Engine 272 	*BA46.30-P-1004-01K
13	Detach high-pressure expansion hose (5) from power steering pump by unscrewing the banjo bolt (6)	Installation: Replace sealing ring. 	*BA46.30-P-1006-01K
14	Raise vehicle with vehicle lift		AR00.60-P-1000P
15	Detach lower engine compartment paneling		AR61.20-P-1105P
16	Drain coolant at radiator Notes on coolant		AR20.00-P-1142QB AH20.00-N-2080-01A
17	Drain engine oil Engine oil and filter change	Model 203, 209 with engine 272 Model 209 with engine 273	AP18.00-P-0101PIT AP18.00-P-0101RX
18	Detach high-pressure expansion hose (5) from oil pan by unscrewing bolt (7)	Engine 272 	*BA46.30-P-1009-01K
19	Remove coolant compressor (A9) from timing case cover and engine support; to do this unscrew the bolts (8)	Disconnect refrigerant compressor connector (A9x1) and attach refrigerant compressor (A9) with connected pipe system, laterally at bottom of engine compartment. 	*BA83.55-P-1001-01M
20.1	Detach oil lines (9, 16) from cooler (10)	Engine 272 with transmission 722.9 Seal connections; otherwise, the automatic transmission can get damaged due to contamination. Installation: Replace sealing rings. Pay attention to correct assembly of oil lines (9, 16) on cooler (10).	*129589009100
20.2	Disconnect oil lines (9, 16) to separation points (21)	Engine 273 with transmission 722.9 Seal connections; otherwise, the automatic transmission can get damaged due to contamination. Installation: Replace sealing rings. Pay attention to correct assembly of oil lines (9, 16) at the connecting points (21). 	*BA27.55-P-1001-01D *129589009100
21.1	Remove retaining clip (11) and detach shift rod (12) on range selector lever (13)	Transmission 722.9 Installation: Replace retaining clip (11).	
21.2	Detach center shifter console and shift rod on transmission	Transmission 716.6	AR26.60-P-0600-02V
22	Support transmission with transmission jack and transmission plate	Passenger car transmission platform http://gotis.aftersales.mercedes-benz.com Transmission jack http://gotis.aftersales.mercedes-benz.com	
23	Remove rear engine mount		AR22.10-P-1160QB
24	Remove rear engine crossmember	Engine 273 To detach propeller shaft bolts. 	*BA22.10-P-1005-03B
25	Remove propeller shaft from drive flange of transmission	Installation: Mount front propeller shaft on transmission 	AR41.10-P-0050-02EA AR41.10-P-0050-07EA *BA41.10-P-1001-01A *001589662100
26	Install rear engine crossmember	Engine 273 	*BA22.10-P-1005-03B

27	Lower telescopic lifter and allow transmission to lie on the rear engine crossmember		
 Danger!	Risk of poisoning caused by swallowing brake fluid. Risk of injury caused by brake fluid coming into contact with skin and eyes.	Only pour brake fluid into suitable and appropriately marked containers. Wear protective clothing and eye protection when handling brake fluid.	AS42.50-Z-0001-01A
28	Separate hydraulic line (14)	Transmission 716.6  Seal the connections.	*BA25.20-P-1002-01B *129589009100
	Brake fluid notes		AH42.50-P-0001-01A
29	Remove engine wiring harness to remove engine		AR01.00-P-2410-02QB
30	Remove catalytic converters		AR49.10-P-5531QB
31	Detach coolant hoses (15, 15a, 17, 18)	 Check coolant hoses (15, 15a, 17, 18) for condition, replace if necessary.	
32	Remove oil dipstick guide tube		AR18.40-P-3510QB
33	Release fuel pressure through service valve	 	AR07.03-P-1460-01VA *BA07.03-P-1004-01B *119589046300
34	Remove fuel line (19) from fuel distributor	 Seal connections.  	*BA07.03-P-1001-01B *129589009100
35	Disconnect engine mount from front axle carrier; to do this unscrew bolts (20)	 Model 203  Model 209	*BA22.10-P-1001-01S *BA22.10-P-1002-03B
36	Lift out engine together with transmission	 When lifting out engine ensure that steering coupling and refrigerant compressor (A9) are not damaged, no cables and lines are damaged and engine does not touch the partition wall.  Slightly raise engine equally at front and back, pull slightly forward, then lower back and lift out.	
37	Install in the reverse order		
38	Bleed clutch operating system	Transmission 716.6	AR25.20-P-0070P
39.1	Check oil level in manual transmission and correct if necessary	Transmission 716.6  Correct oil level = 10 mm below the bottom edge of the filler opening. Carry out measurement e. g. with a slanted hexagon socket wrench.  	*BA26.40-P-1003-01C *BA26.40-P-1004-01C
39.2	Check oil level in automatic transmission and correct if necessary	Transmission 722.9	AR27.00-P-0270W
40	Fill power steering pump and bleed	Vehicles with code (480) Level control at rear axle Vehicles without rear axle level control system	AR32.30-P-0630A AR46.30-P-0010P
 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 Carry out engine test run	Secure vehicle to prevent it from moving by itself. Wear closed and snug-fitting work clothes. Do not touch hot or rotating parts.  Check bolted connection of fuel line (19), connectors of oil lines (9, 16), high pressure expansion hose (5), return line (4), connectors of coolant hoses (15, 15a, 17, 18), exhaust system and oil drain screw for leaktightness.	AS00.00-Z-0005-01A
41			

 **Power steering pump**

Number	Designation	Engine 272 in model 203 except code 480	Engine 272, 273 in model 209

BA46.30-P-1004-01K	Hose clamp, hydraulic line to power steering pump expansion reservoir	Nm	3	3
BA46.30-P-1006-01K	Banjo bolt, high pressure expansion hose to power steering pump	Nm	45	45
BA46.30-P-1009-01K	Bolt, bracket for high pressure expansion hose to engine oil pan	Nm	10	10

Nm Refrigerant compressor

Number	Designation		Engine 272	Engine 273
BA83.55-P-1001-01M	Bolt, refrigerant compressor to timing case/crankcase/engine support	Nm	20	20

Nm Clutch actuation

Number	Designation		Transmission 716.6
BA25.20-P-1002-01B	Union nut for line for clutch operating system to hose	Nm	16

Nm Injectors, injection valves, lines

Number	Designation		Engine 272	Engine 273	
BA07.03-P-1001-01B	Union nut, fuel line to fuel distributor	Nm	20	20	
BA07.03-P-1004-01B	Protective cap on service valve	Plastic	Nm	2	-
		Metal	Nm	15	-

Nm Engine suspension, engine mounts, engine supports

Number	Designation		Engine 272 in model 203 except 4-MATIC
BA22.10-P-1001-01S	Bolt, front engine mount to front axle carrier	Nm	35

Nm Engine mount, engine support (engine side)

Number	Designation		Model 209
BA22.10-P-1002-03B	Bolt connecting front engine mount to front axle crossmember	Nm	35
BA22.10-P-1005-03B	Bolt, rear engine support to frame floor assembly	Nm	50

Nm Housing

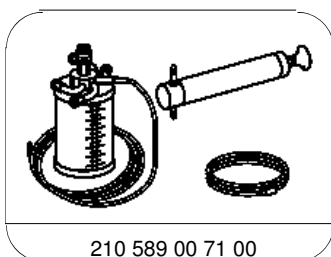
Number	Designation		Transmission 716.6
BA26.40-P-1003-01C	Oil filler plug	Nm	35
BA26.40-P-1004-01C	Oil drain screw	Nm	30

Nm Transmission oil cooling system

Number	Designation		Transmission 722.9
BA27.55-P-1001-01D	Union nut connecting transmission oil line to cooler	Nm	25

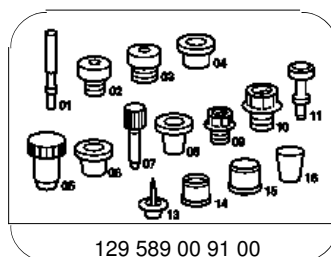
Nm Propeller shaft

Number	Designation		Model 203	Model 209
BA41.10-P-1001-01A	Self-locking nut, flexible coupling to transmission or front propeller shaft	M10 Nm	40	40
		M12 Nm	60	60



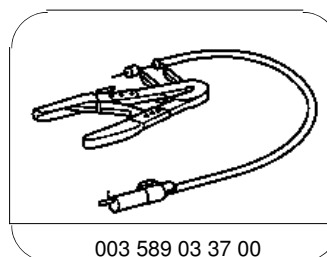
210 589 00 71 00

Hand pump



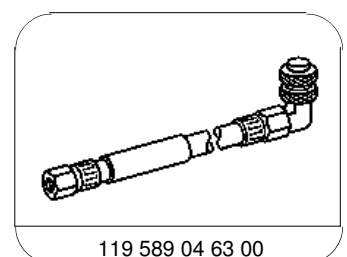
129 589 00 91 00

Set of stop plugs



003 589 03 37 00

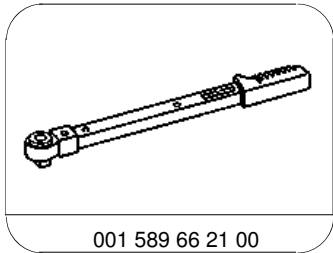
Hose clamp pliers



119 589 04 63 00

Pressure hose

Special tools



001 589 66 21 00

Torque wrench