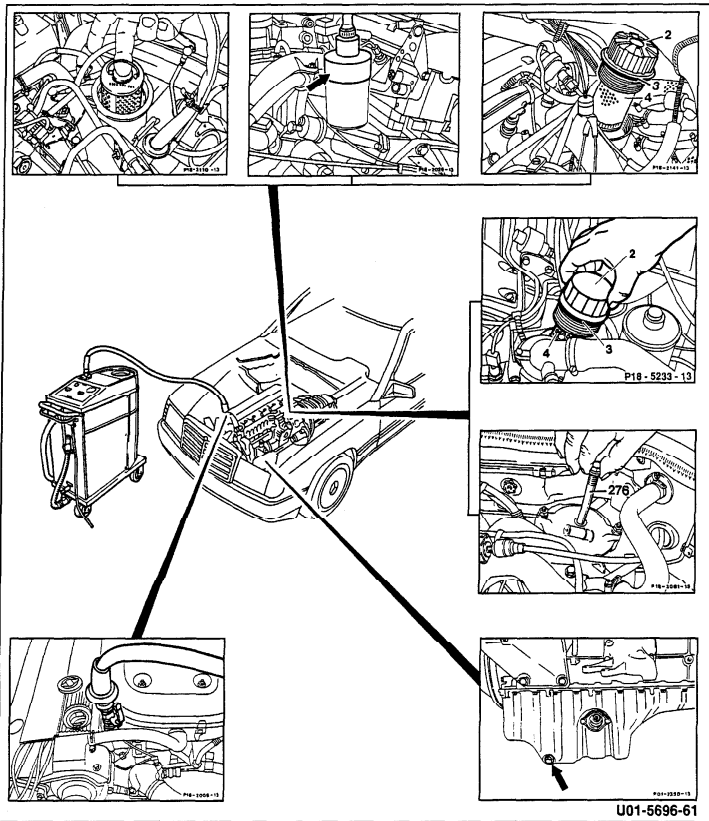


All models



**⚠ Note:**

Change oil only when engine is at operating temperature.

**Engine 104 In model 140**

Air cleaner ..... Remove, install (job 09-0015).

**Engine 119 in models 124, 129, 140**

Flexible air duct ..... Remove, install (step 1).

**Engine 120**

Left air cleaner housing ..... Remove, install (step 2).

**All engines**

Filter cartridge ..... Remove, install. Empty oil filter housing before draining oil (step 3).

Engine oil (with suction unit) ..... Remove through dipstick tube using suction unit. (step 4).

Engine oil (without suction unit) ..... Drain (step 5).

Engine oil ..... Fill according to quantities listed in table.

Leakage ..... Check with engine running.

Oil level ..... Check 2 minutes after shutting off engine at normal operating temperature

Oil capacity in liters (gasoline engines)

Engine	Model	Total capacity during oil and filter change	Oil dipstick identification	
			Oil dipstick color code	Identification on dipstick handle
104	124, 129, 202	7.5	-	10407
104	140	7.5	-	60322
111	202	5.8	-	11102
119	124, 129, 140	8	grey	-
120	129	9.5	red	12011
120	140	9.5	red	12010

Torque specifications (Nm) (gasoline engines)

Engine	Oil pan drain plug	Center bolt, oil filter cover	Cartridge	Threaded cover
104	25	-	-	20, 25 <sup>1)</sup>
111	25	-	-	25
119	40	20	-	-
120	40	-	-	20

<sup>1)</sup> Plastic cover

**Oil capacity in liters (Diesel engines)**

Engine	Model	Total capacity during oil and filter change	Oil dipstick identification		
			Oil dipstick color code round handle	Oil dipstick color code bottle opener shaped handle	Identification on dipstick handle
603.971	140	8.0	-	-	60324
606	124	7.0	-	-	60600

**Torque specifications (Nm) (Diesel engines)**

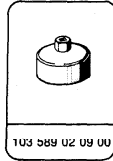
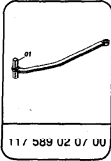
Engine	Center bolt, oil filter cover	Oil pan drain plug	Oil return tube in oil filter cover <sup>1)</sup>
603, 606	25	30 <sup>2)</sup> 25 <sup>3)</sup>	25

<sup>1)</sup> Engine 603 in models 124 and 140.

<sup>2)</sup> 12 x 1.5 x 13

<sup>3)</sup> 14 x 1.5 x 22

Special tools



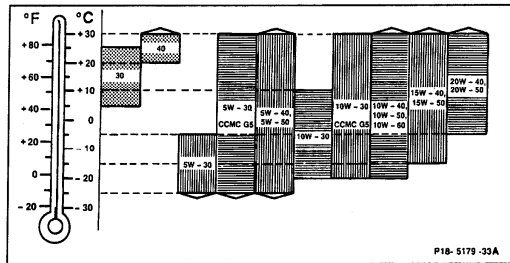
Special tool applications

Special tool	Engines
117 589 02 07 00	all
001 589 72 21 00	all
103 589 02 09 00	104, 111, 120


**Specified SAE viscosity classes during continuous ambient temperatures**

Following the SAE grades exactly according to the ambient air temperatures would result in frequent engine oil changes. The temperature ranges for the SAE grades should therefore be regarded as a guideline which may be exceeded for brief periods.

Gasoline engines and Diesel engines 603, 606.



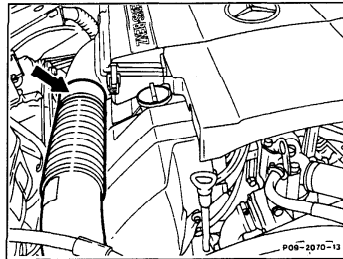
Procedure

 **Note:**  
Change oil only when engine is at operating temperature.

Engine 119 in model 124, 129, 140

1. Remove flexible air duct (arrow).

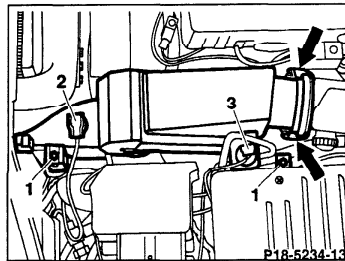
Engine 119



Engine 120

2. Remove left air filter housing by loosening clips (arrows), removing nuts (1), and pulling off intake air temperature sensors (2) and purge valve (3).

Engine 120 shown in model 129



### 3. Removing/Installing oil filter cartridge

#### Engines 104, 111, 120

Prior to suctioning or draining of engine oil, unscrew screw cover (2) with special tool 103 589 02 09 00.

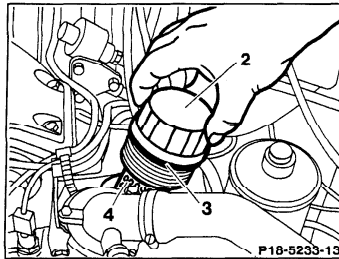
Remove threaded cover (2) with oil filter element (4).

#### Installation note:

Replace seal (3). Insert filter cartridge (4) into oil filter housing. Install cover (2).

#### Torque values:

Aluminum cover	20 Nm
Plastic cover	25 Nm.



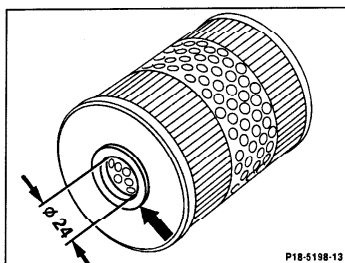
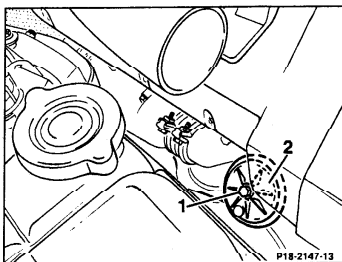
Engine 111



**Engine 119**

Drain oil filter prior to suctioning or draining engine oil. For this purpose, loosen center screw (1) and remove together with oil filter cover.

Engine 119



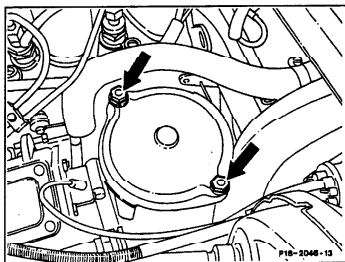
**Engines 603, 606**

Drain oil filter prior to suctioning or draining engine oil. Remove the nuts (arrows) and then the cover.

On vehicle with air-to-oil coolers (turbo engines), it is not necessary to drain the oil from the oil cooler.

**Installation note:**

Replace filter cartridge and rubber sealing ring.

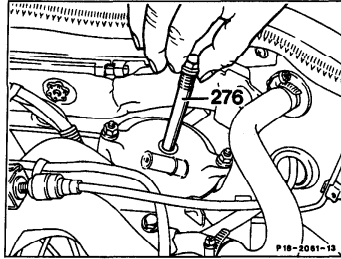


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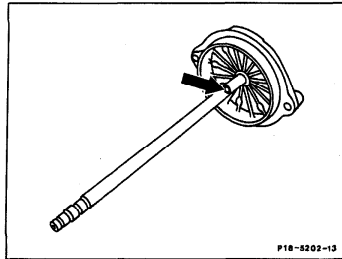
## Engine oil and filter change

### With two-piece oil filter cover

Unscrew return pipe (276) and remove. Unscrew oil filter cover retaining nuts and remove cover.

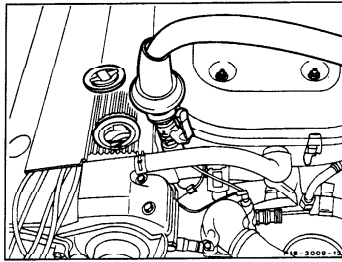


Check the oil port on the oil tube for foreign matter (arrow). If it is blocked, remove the foreign matter by hand. Then blow through the oil port with compressed air; air must noticeably come out of the bottom of oil tube. If the oil port is not open or if no air comes out, replace oil filter cap and oil tube.



4. Removing old oil

Suction engine oil via dipstick tube with engine at operating temperature.



5. Draining old oil

First remove engine compartment lower panel (job 6190 or 9490), and reinstall upon completion of maintenance jobs.

Remove drain plug from oil pan (arrow).

**Installation note:**

Replace drain plug seal ring. Refer to chart for correct torque value.

