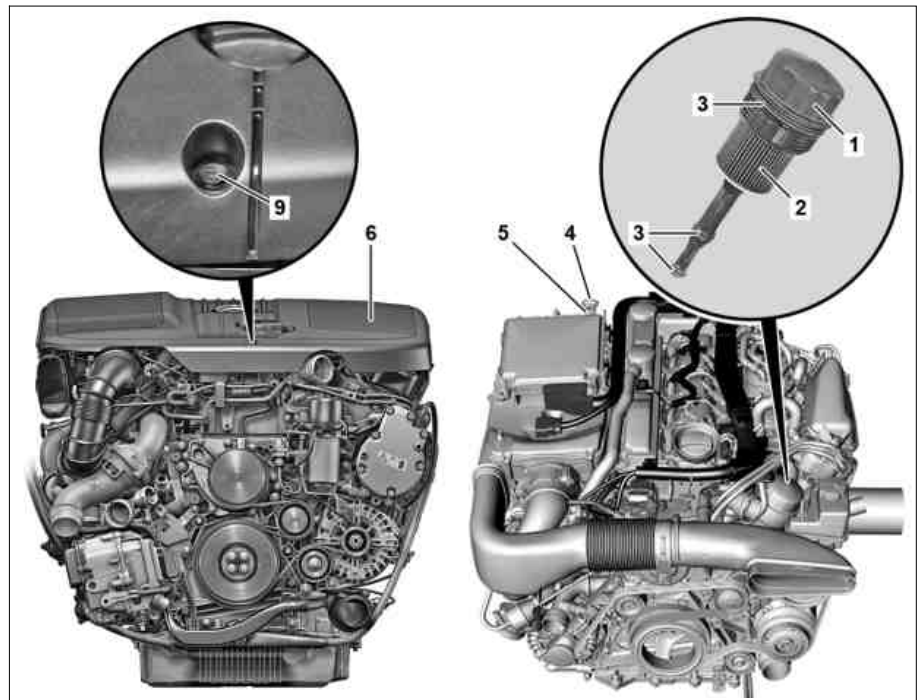














Engine 651 in model 166, 172, 204, 207, 212, 218, 221, 222
 Engine 651.### ## as of 014700 in model 117, 156, 176, 246


- 1 Oil filter screw-on cover
- 2 Oil filter element
- 3 Sealing rings
- 4 Oil dipstick
- 5 Oil measuring pipe
- 6 Engine cover
- 9 Rotary catch




P18.00-2374-06

| | | | |
|-------------------|--|--|--------------------|
| ⚠ Danger ! | Risk of injury to skin and eyes due to handling of engine oil. Risk of poisoning caused by swallowing engine oil | Wear protective gloves, protective clothing and safety glasses. Do not fill engine oil into beverage containers. | AS18.00-Z-0001-01A |
| ⚠ Danger ! | Risk of accident from vehicle starting off by itself when engine running. Risk of injury (bruises and burns) resulting from working on the engine while it is being started or when it is running. | Secure vehicle to prevent it from starting off by itself. Wear closed and snug-fitting work clothes. Do not touch hot or rotating parts. | AS00.00-Z-0005-01A |
| i | Notes on engine oil and filter changes | | AH18.00-P-0104-01A |
| ✖ | Remove | | |
| 1 | Allow engine to warm up | i Coolant temperature at least 80 °C. | |
| 2 | Pull oil dipstick (4) out of oil measuring pipe (5) and wipe with a lint-free cloth | i The oil dipstick (4) and oil measuring pipe (5) may be located at the front or rear of the engine, depending on the model series. | |
| WS | Suction off engine oil using oil measuring pipe (5) 000 588 05 82 00 Oil extraction sensor | | WS18.00-P-0027B |
| 4.1 | Remove engine cover (6) upwards | If no rotary catch (9) is present i Grab engine cover (6) on the left and right and remove upwards. | |
| 4.2 | Release rotary catch (9) and remove engine cover (6) | If rotary catch (9) is present i Unlock rotary catch (9) and release engine cover (6) from rear mount. | |
| 5 | Unhook subharness holders | MODEL 212 i Unhook holder and place subharness to one side to gain access to the oil filter cap (1). | |
| 6 | Remove oil filter threaded cap (1) | i Unscrew the oil filter threaded cap (1) (depending on the version) using a ⊞ socket wrench bit. ⊞ Wrench socket | *103589020900 |
| 7 | Remove oil filter threaded cap (1) | | |
| 8 | Replace oil filter element (2) | | |
| 9 | Replace sealing rings (3) | | |
| ⊞ | Install | | |

| | | | |
|--|--|---|--------------------------------------|
| 10 | Install oil filter threaded cap (1) |  Unscrew the oil filter threaded cap (1) (depending on the version) using  socket.  Threaded cap to oil filter housing  Wrench socket | *BA18.20-P-1001-01W *103589020900 |
| 11 | Remove engine oil extractor | | |
| 12 | Insert clean oil dipstick (4) into oil measuring pipe (5) | | |
| 13 | Pour in engine oil |  Use only approved engine oils. Engine damage can occur otherwise.  Engine oil | *BF18.00-P-1001-01Z |
|  | Check | | |
| 14 | Run engine until it is at operating temperature, and check for leaktightness |  Coolant temperature at least 80 °C. In the event of leakage: ↓ Determine and rectify cause, subject to separate repair order. | |
| 15 | Turn off engine | | |
| 16 | Check engine oil level using oil dipstick (4); correct if necessary |  Insert oil dipstick (4) into the oil measuring pipe (5) until the end stop and hold in for a duration of at least 3 seconds. | AP18.00-P-1811MP |
|  | Install | | |
| 17 | Fasten subharness in place using holders. | MODEL 212 | |
| 18.1 | Engage engine cover (6) | If no rotary catch (9) is present  Grab engine cover (6) on the left and right and engage. | |
| 18.2 | Install engine cover (6) and fasten with rotary catch (9) | If rotary catch (9) is present  Insert engine cover (6) into rear mounts and lock rotary catch (9). | |

 Oil filter

| Number | Designation | Engine 651 |
|--------------------|---------------------------------------|------------|
| BA18.20-P-1001-01W | Threaded cap to oil filter housing Nm | 25 |

 Engine lubrication system

| Number | Designation | | Engine 651.### ## as of 014700 in model 117 except code 474 (Diesel particulate filter) | Engine 651.### ## as of 014700 in model 117 with code 474 (Diesel particulate filter) | |
|--------------------|-------------|--|---|---|--------------------|
| BF18.00-P-1001-01Z | Engine oil | Filling capacity (oil and filter change) | Liter | 6,5 | 6,5 |
| | | Sheet | | BB00.40-P-0228-03A | - |
| | | Sheet | | BB00.40-P-0228-05A | - |
| | | Sheet | | BB00.40-P-0228-51A | BB00.40-P-0228-51A |
| | | Sheet | | BB00.40-P-0229-03A | - |
| | | Sheet | | BB00.40-P-0229-05A | - |
| | | Sheet | | BB00.40-P-0229-31A | BB00.40-P-0229-31A |
| | | Sheet | | BB00.40-P-0229-51A | BB00.40-P-0229-51A |
| | | Sheet | | BB00.40-P-0229-52A | BB00.40-P-0229-52A |

 Engine lubrication system

| Number | Designation | | | Engine 651.### ## as of 014700 in model 156 except code 474 (Diesel particulate filter) | Engine 651.### ## as of 014700 in model 156 with code 474 (Diesel particulate filter) |
|--------------------|-------------|--|-------|--|--|
| BF18.00-P-1001-01Z | Engine oil | Filling capacity (oil and filter change) | Liter | 6,5 | 6,5 |
| | | Sheet | | BB00.40-P-0228-03A | - |
| | | Sheet | | BB00.40-P-0228-05A | - |
| | | Sheet | | BB00.40-P-0228-51A | BB00.40-P-0228-51A |
| | | Sheet | | BB00.40-P-0229-03A | - |
| | | Sheet | | BB00.40-P-0229-05A | - |
| | | Sheet | | BB00.40-P-0229-31A | BB00.40-P-0229-31A |
| | | Sheet | | BB00.40-P-0229-51A | BB00.40-P-0229-51A |
| | | Sheet | | BB00.40-P-0229-52A | BB00.40-P-0229-52A |

 Engine lubrication system

| Number | Designation | | | Engine 651 in model 166, 172, 204, 207, 212, 218, 221 except code 474 (Diesel particulate filter) | Engine 651 in model 166, 172, 204, 207, 212, 218, 221 with code 474 (Diesel particulate filter) |
|--------------------|-------------|--|-------|---|---|
| BF18.00-P-1001-01Z | Engine oil | Filling capacity (oil and filter change) | Liter | 6,5 | 6,5 |
| | | Sheet | | BB00.40-P-0228-05A | - |
| | | Sheet | | BB00.40-P-0228-31A | - |
| | | Sheet | | BB00.40-P-0228-51A | BB00.40-P-0228-51A |
| | | Sheet | | BB00.40-P-0229-03A | - |
| | | Sheet | | BB00.40-P-0229-05A | - |
| | | Sheet | | BB00.40-P-0229-31A | BB00.40-P-0229-31A |
| | | Sheet | | BB00.40-P-0229-51A | BB00.40-P-0229-51A |
| | | Sheet | | BB00.40-P-0229-52A | BB00.40-P-0229-52A |

 Engine lubrication system

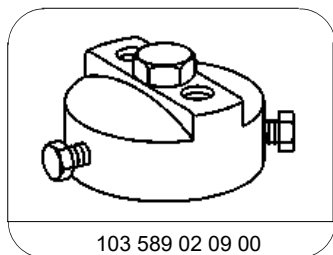
| Number | Designation | | | Engine 651.### ## as of 014700 in model 176 except code 474 (Diesel particulate filter) | Engine 651.### ## as of 014700 in model 176 with code 474 (Diesel particulate filter) |
|--------------------|-------------|--|-------|--|--|
| BF18.00-P-1001-01Z | Engine oil | Filling capacity (oil and filter change) | Liter | 6,5 | 6,5 |
| | | Sheet | | BB00.40-P-0228-03A | - |
| | | Sheet | | BB00.40-P-0228-05A | - |
| | | Sheet | | BB00.40-P-0228-51A | BB00.40-P-0228-51A |
| | | Sheet | | BB00.40-P-0229-03A | - |
| | | Sheet | | BB00.40-P-0229-05A | - |
| | | Sheet | | BB00.40-P-0229-31A | BB00.40-P-0229-31A |
| | | Sheet | | BB00.40-P-0229-51A | BB00.40-P-0229-51A |
| | | Sheet | | BB00.40-P-0229-52A | BB00.40-P-0229-52A |

 Engine lubrication system

| Number | Designation | | | Engine 651 in model 222 except code 474 (Diesel particulate filter) | Engine 651 in model 222 with code 474 (Diesel particulate filter) |
|--------------------|-------------|--|-------|---|---|
| BF18.00-P-1001-01Z | Engine oil | Filling capacity (oil and filter change) | Liter | 6,5 | 6,5 |
| | | Sheet | | BB00.40-P-0228-03A | - |
| | | Sheet | | BB00.40-P-0228-05A | - |
| | | Sheet | | BB00.40-P-0228-51A | BB00.40-P-0228-51A |
| | | Sheet | | BB00.40-P-0229-03A | - |
| | | Sheet | | BB00.40-P-0229-05A | - |
| | | Sheet | | BB00.40-P-0229-31A | BB00.40-P-0229-31A |
| | | Sheet | | BB00.40-P-0229-51A | BB00.40-P-0229-51A |
| | | Sheet | | BB00.40-P-0229-52A | BB00.40-P-0229-52A |

 Engine lubrication system

| Number | Designation | | | Engine 651.### ## as of 014700 in model 246 except code 474 (Diesel particulate filter) | Engine 651.### ## as of 014700 in model 246 with code 474 (Diesel particulate filter) |
|--------------------|-------------|--|-------|---|---|
| BF18.00-P-1001-01Z | Engine oil | Filling capacity (oil and filter change) | Liter | 6,5 | 6,5 |
| | | Sheet | | BB00.40-P-0228-03A | - |
| | | Sheet | | BB00.40-P-0228-05A | - |
| | | Sheet | | BB00.40-P-0228-51A | BB00.40-P-0228-51A |
| | | Sheet | | BB00.40-P-0229-03A | - |
| | | Sheet | | BB00.40-P-0229-05A | - |
| | | Sheet | | BB00.40-P-0229-31A | BB00.40-P-0229-31A |
| | | Sheet | | BB00.40-P-0229-51A | BB00.40-P-0229-51A |
| | | Sheet | | BB00.40-P-0229-52A | BB00.40-P-0229-52A |



103 589 02 09 00

Wrench socket