

## Engine all

### Information on avoiding damage

⚠ The components and the areas surrounding them as well as any openings to the oil circuit opened up when changing the engine oil and filters must be free of dirt. For all work, use only clean tools and clean, lint-free rags.

Otherwise, even the smallest dirt particles in the oil circuit may damage the turbocharger or engine.

⚠ Do not remove any soiling with compressed air.

Otherwise, components (for example, the hot film mass air flow sensor) could be damaged or contamination could enter the engine, ancillary assemblies and detachable parts without being noticed.

⚠ Any oil that drips from components or tools must be collected. Otherwise dripping oil can lead to irreversible soiling of the vehicle or damage, e.g. to the poly-V belt or to the environment.

### Oil change method for vehicles without AMG engine

It is preferable to extract the engine oil with a suction unit when changing the oil on engines equipped with an oil dipstick tube. This ensures that the most-efficient procedure is used during the service.

It is still permissible to drain the engine oil where necessary, including on engines equipped with an oil dipstick tube.

New seals are to be used on the drain screws. If a seal is not available as a replacement part, the complete drain screw and its seal must be replaced.

The engine oil can be **extracted** immediately after switching off the engine. It may be necessary to use a specific MB engine oil extraction probe for each specific engine.

i Extract or drain engine oil only when the engine is at operating temperature, i.e. coolant temperature min. 80 °C.

Other work can be performed while the engine is warming up.

⚠ It must be ensured that the extraction procedure is not stopped until at least 5 minutes after switching off the engine and the used oil filter has been removed, because only then will the engine oil have flowed back completely into the oil pan. If necessary, the extraction procedure must be started several times before the 5 minutes have expired.

Otherwise, the engine oil is not completely extracted. Any oil left in the engine may cause overfilling when the specified oil filling capacity is added afterwards, thereby causing damage to the engine, exhaust aftertreatment system or pollute the environment.

### Oil filter/oil filter cartridge change

⚠ Wait approx. 8 min after loosening the oil filter or the oil filter cartridge until the oil has dripped into the oil filter housing, or remove the oil filter or oil filter cartridge carefully using rags.

Otherwise the engine can be contaminated.

⚠ Only use the engine oils according to the Specifications for Service Products (MBBeVo) which are specified for the engine in question, the maintenance interval and the operating temperature range or viscosity grade. Only oil filters approved by Mercedes-Benz are permissible. Otherwise, the engine or the exhaust aftertreatment system may be damaged.

⚠ During the first engine start after an engine oil and filter change the engine rpm may not be increased until 10 seconds have elapsed since starting the engine.

Otherwise, the exhaust gas turbocharger or the engine may be damaged.

⚠ Country-specific regulations for handling fresh and used engine oil as well as waste containing oil, along with handling and application instructions for the approved extraction, collection and filling device manufacturers must be observed.

Otherwise, the devices or vehicles may be damaged or the environment polluted.

### Oil change method for vehicles with AMG engine

The engine oil should always be drained. New seals are to be used on the drain screws. If a seal is not available as a replacement part, the complete drain screw and its seal must be replaced.

The engine oil can be **drained off** immediately after switching off the engine.

i AMG engine without dry sump lubrication

Drain engine oil only when the engine is at operating temperature, i.e. coolant temperature min. 80 °C.

⚠ AMG engine without dry sump lubrication

It must be ensured that the draining-off procedure is not stopped until at least 5 minutes after the engine has been switched off and the used oil filter has been removed, because only then has the engine oil flowed to the drain opening.

Otherwise, the engine oil is not completely drained off. Any oil left in the engine may cause overfilling when the specified oil filling capacity is added afterwards, thereby causing damage to the engine, exhaust aftertreatment system or pollute the environment.

i AMG engine 159, 178 with dry sump lubrication

Drain off engine oil only when the engine is at operating temperature, i.e. engine oil temperature >100 °C (oil cooler thermostat open).

i AMG engine 178 with dry sump lubrication

After an engine oil temperature of >100 °C is reached, the engine must be allowed to idle in transmission mode "C" for at least 30 s before being switched off.

⚠ AMG engine 159, 178 with dry sump lubrication

The drain plug or screw on the oil reservoir must then be unscrewed within 3 min after the engine is switched off.

It must be ensured that the draining-off procedure is not stopped until at least 15 minutes after the engine has been switched off, the used oil filter has been removed and the drain openings have been opened, because only then has the engine oil flowed to the drain openings.

Otherwise, the engine oil is not completely drained off. Any oil left in the engine may cause overfilling when the specified oil filling capacity is added afterwards, thereby causing damage to the engine, exhaust aftertreatment system or pollute the environment.

i Make sure that no used oil seals are left in the oil filter housing or on the oil filter mounting pedestal.

Generally, a new oil filter with new seals or a new oil filter cartridge must be installed. Apply light coating of grease to rubber seals before installation.

Install new oil filter or new oil filter cartridge only after the oil has drained from the oil filter housing.