

Press Release

Internal combustion engines require lubricant

Checking Oil Level as Important as Refueling

- Check around every 600 miles and before long journeys
- If you see red warning light, stop immediately
- Also risk of engine damage if wrong oil used

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An internal combustion engine needs engine oil just as much as it needs fuel to run. If there is insufficient oil, sooner or later there will be increased wear, thermal problems, malfunctions, and possibly massive engine damage, warn DEKRA's experts. Regularly checking the engine oil level in line with the manufacturer's specifications is just as essential as refueling.

"When it comes to checking the engine oil level, in essence nothing has changed over the years," says Harald Eder, automotive expert for technical damage analysis at expert organization DEKRA. "From a technical perspective, the rule of thumb of checking the engine oil level at least every 600 miles or before any long journeys still applies. Better to pull out the dipstick or check the on-board computer one time too many than once too little."

The engine oil ensures everything runs smoothly in the combustion engine: "It lubricates the moving parts, prevents excessive wear, cools the components, and reduces noise, ensuring that the unit actually works. Simply put, nothing works without oil," Eder states. "If parts such as the crank assembly and camshaft are not lubricated, they can run 'dry' and cause severe damage to the engine."

Utmost caution is advised when the red warning light for oil pressure (the oil can symbol) lights up while driving. This warning means that drivers should stop immediately, switch off the engine, and under no circumstances continue driving, as there are problems with the oil pressure (i.e., there is a definite risk of costly engine damage). Action is also required if the orange/yellow indicator lamp (the oil can with wavy line) comes on. In this case, check the oil level immediately and top up oil if necessary.

Not too much and not too little

To check the oil level, drivers should park their vehicle on a level surface, allow the engine to cool for one to two minutes, and measure the oil level with the oil at operating temperature. If the oil level is too low (below the minimum mark), engine oil must be topped up; otherwise, there is a risk of oil starvation and engine damage.

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An excessively high oil level (above the maximum mark) is just as bad. In this case, a garage should be contacted immediately to investigate the oil increase, as there is a risk of increased wear and damage to the engine, catalytic converter, and particulate filter. When refilling oil, then, it pays not to add too much. Eder recommends adding oil gradually: "Start with a quarter of a liter (i.e., around ¼ quart) and then measure to get a feel for the amount of oil you need."

It is equally important to adhere to the prescribed engine oil change intervals – if the oil remains in the engine too long, lubricity will be lost, leading to sludge and coking which increase wear and damage the catalytic converter. The oil should be changed in accordance with the manufacturer's specifications, with correct point in time often available from the on-board computer.

Choosing the right oil

When choosing an engine oil, do not be confused by the multitude of classifications and designations. In addition to the SAE class, which is based on the viscosity (i.e., the flow properties of the oil), there is the API classification from the American Petroleum Institute and the ACEA specification from the European Automobile Manufacturers' Association in addition to the automotive manufacturers' own standards.

"It is crucial for motorists to only refill with a product that has been approved by the automotive manufacturer for the engine in question," stresses the DEKRA expert. "Drivers who do not pay attention to this can expect to sustain engine damage and lose warranty claims." To find out which oil is the right one, drivers are best advised to contact their brand's authorized service center and refer to their vehicle's manual. These sources will also usually provide information on what to do if the recommended oil is not available, such as how an alternative oil has to be labeled and how much of it can be used.

About DEKRA

DEKRA has been active in the field of safety for almost 100 years. Founded in 1925 in Berlin as Deutscher Kraftfahrzeug-Überwachungs-Verein e.V., it is today one of the world's leading expert organizations. DEKRA SE is a subsidiary of DEKRA e.V. and manages the Group's operating business. In 2021, DEKRA generated sales totaling more than EUR 3.5 billion. The company currently employs almost 48,000 people in approximately 60 countries on all continents. With qualified and independent expert services, they work for safety on the road, at work and at home. These services range from vehicle inspection and expert appraisals to claims services, industrial and building inspections, safety consultancy, testing and certification of products and systems, as well as training courses and temporary work. The vision for the company's 100th birthday in 2025 is that DEKRA will be the global partner for a safe, secure and sustainable world. With a platinum rating from EcoVadis, DEKRA is now in the top one percent of sustainable businesses ranked.