

Technical Information



Tasks of the motor oil



Background

A vehicle engine must always have sufficient lubrication. The protective lubricating film reduces the mechanical friction of the moving components and prevents metal from making contact with metal. Without oil, the engine would suffer serious damage within seconds. **The correct motor oil** must guarantee lubrication under all operating conditions and loads that occur in the engine. It should have the lowest possible viscosity in the extreme cold to facilitate starting and to reach all the important lubrication points in the engine as quickly as possible. At extremely high temperatures, on the other hand, the lubricating film must not rupture as this would destroy the engine.

Why is it necessary to change the motor oil?






A regular oil change increases the service life of the engine and transmission. Over time, the motor oil is consumed and soiled, for example due to thinning with fuel or condensation water, natural oil aging and mechanical abrasion.

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Motor oil in detail

The motor oil performs many tasks in the combustion engine that are critical for the vehicle to function smoothly. This includes:

-  **Lubrication**
The motor oil's most important task is the lubrication of the mechanical engine components. It is intended to reduce the friction between the moving components, thereby reducing wear to a minimum. The formation of a closed lubricating film is necessary to prevent engine damage due to metal-on-metal contact.
-  **Cooling**
Motor oil contributes to the cooling of engine components. It ensures heat dissipation in the engine to prevent overheating.
-  **Cleaning**
Motor oil is also tasked with cleaning the engine. Combustion residues, metallic abraded material and deposits are picked up by the oil and transported to the oil filter.
-  **Sealing**
Motor oil supports the sealing of the piston rings from the combustion chamber, thereby preventing pollutants from entering the engine.
-  **Corrosion inhibitor**
Motor oil forms a protective film on the metal surfaces. The influence of air is thus avoided and the engine is protected from the at times aggressive products of combustion.

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Why is it important to use the correct oil?

Every engine is different and therefore has different demands for the oil. When using the incorrect oil with the incorrect viscosity, the correct oil pressure cannot be built up which leads to engine damage. Additional negative consequences include loss of warranty, increasing fuel consumption, increased risk of breakdown, shorter engine service life and the destruction of the particulate filter and the catalytic converter.

Added value through the use of the correct motor oil:



Environmental protection

Modern oils limit the fuel consumption and the associated pollutant emissions. Additionally, modern motor oils are free of chlorine and heavy metals and can be easily treated and reused.



Safety

The lubrication of all engine components ensures reliable engine running and thus a higher level of safety in traffic.

Can motor oil help you save money?

What oil should be used when changing the oil? There are numerous suppliers with both cheap and expensive products. Naturally you wish to spend as little money as possible, leading you to purchase the cheap oil. This can end up costing you much more, however. The reason: The cheap oil does not meet all the manufacturer specifications and has lower performance reserves. It is therefore consumed more quickly and must be changed more frequently. High quality LIQUI MOLY motor oil, on the other hand, frequently exceeds the manufacturer specifications and extends the engine's service life.

Additives in the oil

The motor oil contains an individual additive package depending on the manufacturer specification. It is important that you use suitable oil for your vehicle as every engine has different demands for this. You can find the oil that you require under liqui-moly.to/oilguide

The specifications and approvals

can be found on the front of our products.



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