

The Risks of using Non-Genuine Oil Filters

Filters are often the first purchase for an engine owner and a regular purchase for the service provider. The use of non-genuine oil filters frequently leads to additional sales of parts used to repair and overhaul engines. Demonstration of the value of Perkins® filters is a cornerstone of any Perkins engine support business.

This document outlines the risks of using non-genuine oil filters and why high-quality, genuine Perkins filters are best for your engine.

Traditional oil filters are spin-on style, in a metal canister. This means you cannot see inside and are unable to judge the quality. To show the risks of non-genuine filters, we cut a non-genuine filter apart.



Genuine Perkins oil filter e.g. part number 2654407

- ✓ Modern filter design uses the latest filter media technology
- ✓ High number of folds. Filter media fills the canister from the top to bottom, maximising filter surface area
- ✓ Robust nylon centre tube is resistant to collapse under high oil pressure
- ✓ Strong glue attaches media to metal end cap, to prevent leaks past the filter media
- ✓ Effective bypass valve ensures oil bypasses only at heavy loads and engine start-up

Non-genuine oil filter sample—our findings

- × 10% shorter filter element means less media and reduced filtration capacity
- × 30% fewer media folds on this filter means less media and reduced filtration
- × Metal centre tube provides opportunity for swarf to break off and wear sensitive components.
- × More liable to collapse under high start-up oil pressures
- × Weak glue between media and end-cap. Heat cycling creates glue failure, allowing oil to leak past the filter, so unfiltered oil circulates around the engine
- × Weak bypass spring. More liable to open too often allowing oil to bypass the filter, so oil is filtered less frequently

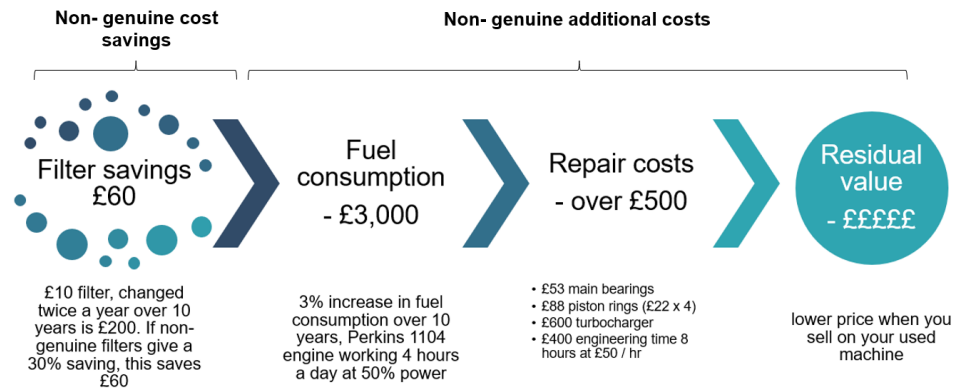


Genuine Perkins oil filters helps your engine oil do its job lubricating and cooling your Perkins engine and protecting your engine from wear.

Risks of using non-genuine oil filters

- ✗ Lower filtration capability, in this case with **45% less filter media, using this non-genuine oil filter**
- ✗ Potential for **reduced filter life capacity**, filter could block before the end of service life
- ✗ Reduced service interval means the engine must be serviced more frequently, incurring **additional filter and labour costs**
- ✗ Increased **risk of wear damage** to piston rings, bearings and other cylinder components, requiring replacement
- ✗ Wear damage to rings and bearings can lead to **increased fuel consumption and increased emissions**
- ✗ Increased potential for **oil starvation damage to sensitive components** such as turbochargers

What is the estimated potential cost*?



*based on estimates

Example of counterfeit oil filters

Issues include cardboard end caps, as seen with the grey ends to the filters below



More information on filters can be found at www.perkins.com/filters