

### Issue no. 03/2018: Damaged oil filter paper

If during an oil change, the filter paper in the old oil filter insert is found to be deformed or damaged, there are several possible causes:

- The first and most common reason is noncompliance with proper maintenance and replacement intervals. The oil filter is worked too hard, reaches its maximum absorption limit, and collapses.
- The second possibility is continued operation at high engine temperatures. This makes the filter paper age faster and the impregnation layer become brittle. The result: the cellulose fibers break down, the paper tears, and the filter disintegrates.

- The third possible cause relates to carbon buildup in the engine. As a result, the oil pressure regulating valve can stick, thus damaging the filter (see also issue no. 04/2016).

Other circumstances can also result in damage to the filter paper, such as increased fuel input and a high biofuel content in the engine oil. An increase in short journeys and advanced engine wear can also lead to shorter replacement intervals.



Figure 1: Collapsed oil filter inserts



Figure 2: Disintegrated oil filter insert



Figure 3: Oil filter insert deformed/torn as a result of overheating

**IMPORTANT:** Besides complying with the manufacturer's specifications, oil and filter changes should always be adapted to suit the individual driving profile! The use of high-quality engine oil can also reduce the load on the oil filter significantly.

» See also issue no. 04/2016: Leaky oil filters: oil pressure regulating valve clogged