New Generation Cartridge Style Oil Filters

Prior to the mid 1950's virtually all engine oil filters were of the cartridge style. Changing the oil filter was a very messy job that could result in a good deal of oil leakage both in and around the area of the housing and on the mechanic or technician. The cartridge housing had to be thoroughly cleaned, which in some cases required removal of the housing. On many applications there were various internal housing components that also had to be cleaned and properly positioned when installing the new cartridge. Due to variations in housing designs, the installation of the filter and proper placement of the housing sealing gasket also required various installation techniques.

The introduction of the spin-on filter in the mid 50's solved many of the cartridge filter installation problems. It made the changing of the oil and filter more user friendly and allowed many vehicle owners to assume the responsibility of changing their own oil and filters. However, changing a spin-on oil filter today may still result in oil leakage to the surrounding area and onto the servicing technician.

Space has become a premium in the engine compartment of today's vehicles. As a result the oil filter can be very difficult to locate and change. In the late 1980's European original equipment manufacturers began reverting back to the cartridge style oil filter. We see this same trend beginning to appear in our North American produced vehicles.

This change from a spin-on filter to the new cartridge filter offers several advantages. The first and most obvious is filter disposal. The disposal cost of a cartridge filter is far less than that of a spin-on filter. This is also an attempt by the individual OE manufacturers to establish standardized oil filter cartridge sizes, thereby eliminating the number of different part numbers required to service a particular brand of vehicle. The new cartridge filter housing will also be located on the top or side of the engine compartment making them accessible from above without the need to raise the vehicle.

Today's cartridge style filter housings are designed with a screw on top cap and a single housing sealing gasket. The housings are also self draining enabling the filter housing to be drained back into the engine prior to the filter change-out. After the housing is drained the housing top is then unscrewed and the used filter cartridge and housing sealing gasket removed without any unnecessary oil

leakage. The new filter is then installed in the housing or fitted to the housing cap. The new sealing gasket is installed and the housing cap tightened per installation instructions. The used engine oil is then drained from the crankcase. New oil is added and the engine started to check for proper oil pressure or any possible oil leakage. The service is now complete.

There is also a variation to the complete cartridge replacement. The same style of housing is used but instead of replacing the complete cartridge only the used pleated paper media pack and sealing gasket are replaced. The media pack end caps as we know them today would be reusable and only the paper pack itself would be replaced.
The cartridge style filter is back and will be the oil filter configuration of the future.

For additional information, contact:

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