

## Automotive Gasoline Engine Oil and Oil Filter Service Intervals

Manufacturers of engine filtration products design and manufacture their products to meet the performance requirements of original equipment manufacturers (OEM). Careful analysis of the existing OEM product is made to verify that their product meets the desired performance in efficiency and capacity. Through this analysis and verification, aftermarket filter manufacturers ensure that the consumer will not have to modify his or her service intervals, as recommended by the equipment manufacturer, when using their aftermarket product.

Service intervals or service indicators are utilized by engine manufacturers to efficiently protect the engine. Several factors are considered in making service interval recommendations. These factors include oil breakdown, temperature, driving habits and environment conditions. A vehicle driven 60 mph (100km/h) during long trips on the highway in 75°F (24°C) weather may sustain much longer service intervals than the same vehicle operated in stop and go conditions or in heavy load conditions.

Some automotive manufacturers specify two different service intervals, one for "Normal" driving conditions and one for "Severe" driving conditions. The intervals for "Normal" driving conditions average 6,000 miles (10,000 km), while the intervals recommended for "Severe" driving conditions average 3,000 miles (5,000 km). In reality "Normal" driving conditions are very uncommon. The majority of automotive vehicles today are operated in conditions that warrant the use of "Severe" driving condition service intervals as defined by the vehicle manufacturer (TSB-94-1). Such conditions would include any one of the following: operation in temperatures below 50°F (10°C), short trips, stop-and-go driving, trailer towing or dusty conditions. Therefore, most consumers qualify for the "Severe" driving conditions and should use 3,000 mile (5,000 km) service intervals to best maintain their vehicle.

Many consumers desire to reduce costs by increasing their engine oil and oil filter service intervals. This should only be done with careful consideration. The consumer should verify that they are using an oil that meets their manufacturer's recommendations. They should then determine the service interval that best suits their driving conditions through oil analysis. A sample of oil drawn from the engine after a regular service interval [3,000 mile (5,000 km)] should be analyzed

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to begin. For example, if the analysis indicates that the oil is still in good condition with little to no sign of wear in the engine, then the service interval could be extended by 20%. This process should be repeated until the ultimate service interval is determined based on the component wear rates provided by the oil analysis. A word of caution: "Any change in driving conditions will necessitate re-evaluation of the extended service interval." Please see TSB 98-1 for more information on extending oil and filter service intervals.

In summary, filter manufacturers do not specify the service intervals for their filters. Their products are designed to meet the requirements of the original equipment manufacturers. Any deviation from the original equipment manufacturers recommendations regarding service intervals should be carefully evaluated to ensure that an interval is used that best meets the demands of the individual's driving conditions.

FMC provides selected service intervals as a public service. FMC assumes no responsibility whatsoever for the accuracy of the intervals, or for any harm or damage, which may occur if those service intervals, are utilized. Every vehicle manufacturer recommends appropriate service intervals, and these may vary based upon the individual use of the vehicle. Vehicle owners should use those suggested intervals, along with other available information, including but not limited to the intervals noted here, in making their own decisions about the appropriate intervals for their vehicle.

### FOR ADDITIONAL INFORMATION, CONTACT:

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