



Introduction

When an engine oil brand change is made, ExxonMobil strongly recommends the change is made by the simple expedient of topping-off the system with the new oil brand.

Under these circumstances, the original oil brand is exponentially phased out from the oil system and replaced by the new oil. The rate at which this takes place is shown below. The amount of original oil brand can be determined directly from the vertical axis, knowing the engine oil consumption, system capacity (Quarts), and the hours that the engine operated during the top-off period.

The graph shown below, is calculated for an engine oil system of 40 US quarts capacity and for various oil consumption levels. It is shown on log/linear coordinates to enable the effect of the oil consumption levels to be demonstrated. To calculate the same consumption levels for a different capacity system, the x-axis should be multiplied by V/40, where V is the total engine oil system capacity in quarts.

Key Fact

When converting to a new oil, the percent concentration is equal to the percent of original oil from vertical-axis subtracted from 100%.

Phase Out Rate of the Original Oil – System Capacity Assumed to be 40 US Quarts

