

Extending the Life of Engine Oils: Opportunities and Challenges

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Abstract

Introduction. There are many reasons to find technical solutions for increasing the life of engine oils in vehicles. The primary motivation is to satisfy customer demand. Major simplifications have been made in all aspects of automotive maintenance, including engine oil change intervals. However, oil changes remain the primary customer maintenance requirement. Because of this, all current General Motors passenger car maintenance schedules are built upon engine oil change requirements. Extending oil change intervals will have an immediate impact on customer convenience through reduced maintenance and cost. Extending oil life will also result in reduced demand for petroleum resources. GM's current Engine Oil Life System already saves an estimated seven million gallons of oil per year and our customers \$150M per year when compared to typical industry-standard fixed oil drain intervals. Another major concern is the environmental impact of improperly disposed used engine oil. Extending oil life will proportionately lessen this environmental risk.