

Lubrication Performance of Multi-Level Gear Oil in a Gasoline Engine

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Abstract : A vehicle gasoline engine converts gasoline into power so that the car can move, and lubricants are important for engines and also gear boxes. Manufacturers have produced numbers of engine oils, and gear oils for engines and gear boxes to SAE International Standards. Some products not only can improve the lubrication of both the engine and gear box but also can raise power of vehicle this can be easily seen in the advertisement declared by the manufacturers. To observe the lubrication performance, a multi-leveled (heavy duty) gear oil was added to a gasoline engine as the oil in the vehicle. The oil was checked at about every 10,000 kilometers. The engine was detailed disassembled, cleaned, and parts were measured. The wear of components of the engine parts were checked and recorded finally. Based on the experiment results, some gear oil seems possible to be used as engine oil in particular vehicles. Vehicle owners should change oil periodically in about every 6,000 miles (or 10,000 kilometers). Used car owners may change engine oil in even longer distance.

Keywords : multi-level gear oil, engine oil, viscosity, abrasion

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