

New automobile motor oil spec long overdue

GF-6 is still in the testing stage—and might not arrive until 2018.

THE INTERNATIONAL LUBRICANTS STANDARDIZATION AND APPROVAL COMMITTEE'S (ILSAC) newest specification for passenger car motor oils with spark-ignited engines (GF-6) is, to say the least, now seriously behind schedule. GF-1 was introduced in 1990. Historically, a new GF category has been issued about every five years. GF-5, the current specification, was issued in October 2010 and was originally scheduled to be replaced in early 2016.

Those of us who attended the 2015 Fuels and Lubes Conference and Exhibition in Singapore in March heard from many stakeholders on the subject. Teri Kowalski, principal engineer for Vehicle Regulation & Certification Engineering at the Toyota Technical Center, explained some of the reasons for the delay. She said, "While each new GF specification required some updating of the required tests, GF-6 will require replacement of four of the test sequences and at least two new tests, specifically to address concerns with timing chain wear and low-speed pre-ignition." While some uncertainty remains, it now appears the earliest introduction of GF-6 will be in January 2018.

In the meantime, automakers continue to improve their engines to increase efficiency and specific power output, with resulting greater demands on the oil. Angela Willis, lubricants manager for the Fuels and Lubricants department at General Motors (GM) Powertrain, described the approach her company has taken. "We have launched the second generation of dexos1™, the

GM global gasoline engine oil specification," she said. "This specification adds requirements to balance the need for increased fuel economy with the need to mitigate low-speed pre-ignition, oil aeration and the formation of turbo-charger deposits."

As previously mentioned in this column, the share of turbo-charged passenger car engines is increasing rapidly. Only about 2% of cars were turbo-charged in the year 2000. That increased to over 15% in 2014 and continues to climb.

In addition, to address the need for increased fuel economy, all automakers are investigating the addition of new, lower-viscosity grades of engine oils. While 5W-30 and 0W-20 are now widely available, newer grades with high-temperature viscosities of 5W-16, 0W-16 and lower are under consideration. Lower viscosity can mean greater efficiency, provided the engine is designed for the new lubricant. A word of caution is in order, however. Using a lower-viscosity oil in an engine designed for the higher viscosity can have unpredictable results.

This puts the average driver in something of a bind. With each automaker taking slightly different steps to ensure the availability of oils that meet the requirements of their individual engines, customers need to be aware that their choice of oils may be more restricted than in the past. The best advice is to always consult your owner's manual to be sure you are using the correct oil for your vehicle.



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