



Technical Service Bulletin

Date: 7/01/2004

Product Description: All Synthetic Motor Oils

Subject: Break-In of New and Rebuilt Engines

DESCRIPTION:

Regarding the use of AMSOIL Synthetic Motor Oils in brand new or rebuilt four stroke gasoline or diesel engines, it is recommended to operate the engine up to its first normal drain interval with a petroleum motor oil.

There are a couple primary reasons for this recommendation:

1. New engines or engine components generate high wear metals to begin with and generally contain debris from machining and assembly. It is more beneficial to allow these wear metals to collect in an inexpensive motor oil than to circulate throughout the crankcase for extended periods in a synthetic motor oil. By operating the vehicle to its first drain interval with a petroleum oil, these wear metals and manufacturing debris collect in the oil and are then flushed out of the crankcase when drained. This allows for a much cleaner operating environment for the synthetic lubricant.
2. Within the first miles of operation, if there are any defects in the assembly or workmanship of the engine components, then they may be corrected before installing the more expensive synthetic motor oil. Occasionally, rebuilt engines may have re-machined components or materials which can sometimes be mismatched. These problems will develop in a fairly short period of time. If excessive oil consumption or any other problem is noted, this should be corrected prior to changing to AMSOIL Synthetic Oil.

RACING APPLICATIONS:

For racing applications, a synthetic motor oil can be installed right away. These engines are frequently disassembled and rebuilt under more exacting conditions and require the improved wear protection of a synthetic motor oil. Extended drains are rare due to contaminants such as fuel dilution and dirt entry are common, therefore we would recommend oil analysis to determine serviceability of the lubricant.

TWO-CYCLE APPLICATIONS:

Breaking in of a new two-cycle engine, it should be noted that break-in is the wearing of the mating surfaces. AMSOIL recommends the use of our two-cycle oils during the break-in period, however, because our oils do a good job at preventing wear, the break-in process may take longer. Follow the manufacturer's recommendations for mix ratios and equipment operation during break-in.

Submitted By: DW

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Page 1 of 1