SHELL HELIX HX5 TECHNOLOGY

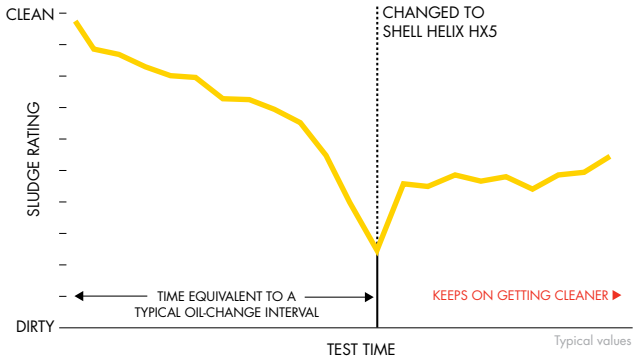
Shell HELIX Motor oils

DESIGNED TO MEET CHALLENGES

THE BENEFITS OF SHELL HELIX HX5

CLEANS AND PROTECTS

Shell Helix HX5 motor oil uses special active cleansing technology to help engines to operate efficiently for a smoother and quieter drive. In tests at an independent laboratory, Shell Helix HX5 oil removed 28% of the sludge from a gasoline engine. The engine was run with a mineral motor oil for a typical oil-change interval (280 hours), and sludge built up. The oil was then replaced with Shell Helix HX5, and the engine was run again for a similar period (216 hours – standard Sequence VG test). An immediate clean-up effect was seen with Shell Helix HX5, and the oil went on cleaning the engine for the entire test interval.



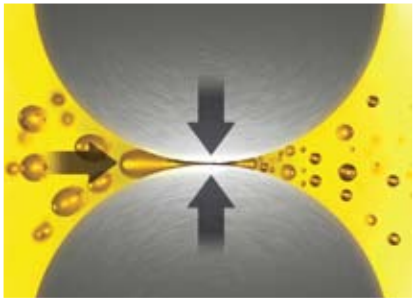
In perception trials, drivers felt their cars were smoother and quieter after a Shell Helix HX5 oil change. Drivers of a variety of vehicles in Kuala Lumpur, Malaysia, and Cali, Colombia, were asked about their driving experiences by independent research agencies. Then the oil in their cars was changed. In a blind test, nearly half of the 269 drivers whose cars received Shell Helix HX5 noticed that their cars were quieter. Typical responses included "The engine is smoother, faster and less noisy" and "The engine noise has diminished."

SHELL HELIX HX5 REMOVES UP TO 27% MORE SLUDGE THAN SHELL HELIX HX3

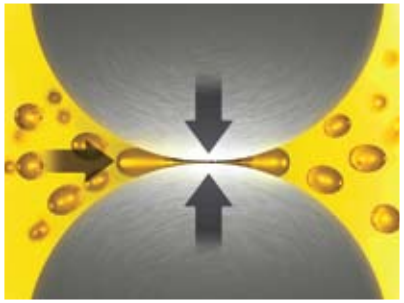
SHEAR STABILITY

Modern engines operate at high temperatures and have long service intervals. In the hot, stressful engine environment, the fast-moving parts can tear large molecules to pieces. This action, which is known as shearing, can cause the oil to get thinner and leave it less able to properly protect the engine components. If oils shear, they lose viscosity, and this can expose an engine to more friction and wear.

Shell Helix HX5 maintains its viscosity, which means that it goes on working throughout the oil-change interval.



SOME OILS: Large molecules can be torn apart by shearing forces. The oil's viscosity is reduced, and engine friction and wear can increase if the oil film gets too thin.



SHELL HELIX OILS: Large molecules resist being torn apart by shearing forces. Oil viscosity and engine protection are maintained.

SHELL HELIX HX5 PROVIDES UP TO 36% BETTER SHEAR STABILITY THAN SHELL HELIX HX3

OXIDATION STABILITY

High engine temperatures and contaminants can cause oil to break down chemically. This action is known as oxidation and causes oil to turn black. The hotter the engine runs, the faster the degradation rate. Oxidation can cause

- sticky black particles to form and coat engine parts
- oil thickening, which reduces engine efficiency and impedes start-up oil flow
- black sludge to form, which can block oil ducts and cause oil starvation to vital engine parts
- acids to form, which can corrode engine metals and lead to engine failure.

SHELL HELIX HX5 PROVIDES UP TO 69% MORE OXIDATION PROTECTION THAN SHELL HELIX HX3

SHELL HELIX HX5

PREMIUM MULTIGRADE MOTOR OIL

SPECIAL FEATURES	BENEFITS
Formulated with cleansing technology	Up to 20% more effective at removing sludge from dirty gasoline engines than a normal mineral oil
Good oxidation stability	Resists oil degradation throughout the oil-change interval
High-quality base oils	Reduce oil volatility and therefore oil consumption
Minimises vibration and engine noise	Smoother, quieter drive

Exceeds specifications: API SL; ACEA A2