SHELL HELIX HX3 TECHNOLOGY

Shell HELIX Motor oils

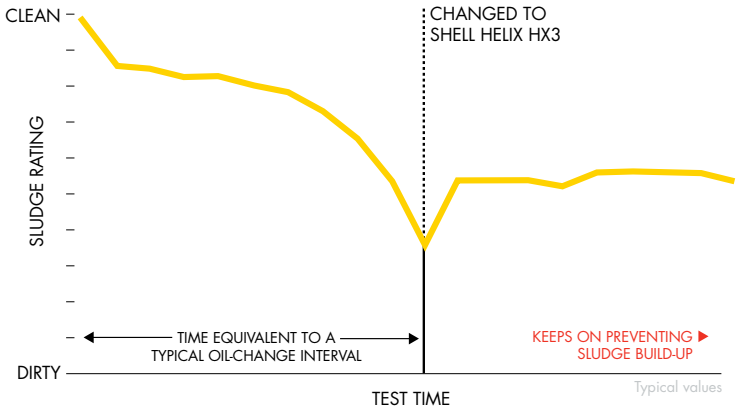
DESIGNED TO MEET CHALLENGES

THE BENEFITS OF SHELL HELIX HX3

CLEANS AND PROTECTS

Shell Helix HX3 motor oil delivers immediate clean-up action and prevents the build-up of dirt and sludge in older engines. Shell Helix HX3 locks away harmful dirt and deposits, thus enabling it to get to the engine surfaces, where it works hard to protect engines from wear and helps to prolong engine life.

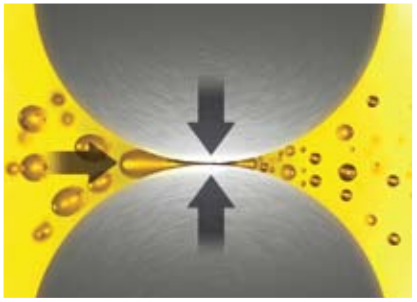
In tests at an independent laboratory, Shell Helix HX3 (SG or SJ) oil removed 26% of the sludge from a gasoline engine. The engine was run with normal motor oil for a typical oil-change interval (240 hours), and sludge built up. The oil was then replaced with Shell Helix HX3 (SG or SJ), and the engine was run again for a similar period (216 hours – standard Sequence VG test). An immediate clean-up effect was seen with Shell Helix HX3, and the oil prevented dirt build-up for the entire test interval.



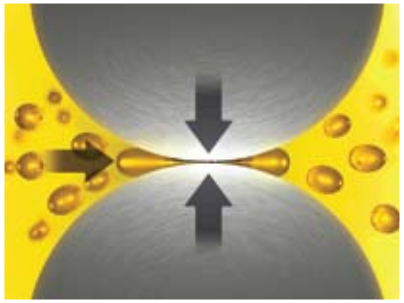
SHEAR STABILITY

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 HX3 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.

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 HX3 is formulated to resist oxidation so that it goes on performing for the entire oil-change interval.

SHELL HELIX HX3

MULTIGRADE MOTOR OIL

SPECIAL FEATURES	BENEFITS
Formulated with cleansing technology	Helps to stop dirt and sludge building up and therefore to protect and prolong the life of the engine
Oxidation resistance	Resists oil degradation throughout the oil-change interval
Multigrade viscosity	Easier cold starting compared with monograde oils
Higher viscosity	Reduces oil consumption

Exceeds specifications: API SF, SG or SJ