

Komatsu Genuine Oil 15W-40 DH1

- New formulation
- Meets API CI-4 specification



Komatsu has introduced an improved heavy-duty diesel engine oil that meets the API CI-4 specification. This version of KGO EO 15W-40 is the first oil in Komatsu's lubricant portfolio to meet this specification in Malaysia.

The API CI-4 performance standard means the new product is also suitable for a wide range of construction equipment in the Malaysian market.

Komatsu multigrade heavy-duty engine oils are made from quality base stocks blended with a unique additive system and are designed to provide superior performance in all diesel engines operating on high- and low-sulphur fuels. Only Komatsu Genuine Oils are approved to meet Komatsu Engineering Standards.

ENGINE CLEANLINESS

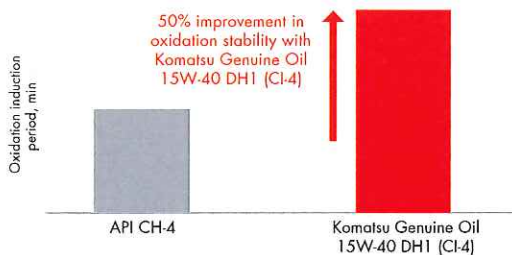
Maintaining cleanliness in an engine is crucial for engine operating efficiency and wear control. This level of cleanliness is achieved by using detergents to reduce piston deposits and soot dispersants to reduce sludge deposits in various parts of heavy-duty diesel engines.

The optimised detergent additive system in this Komatsu Genuine Oil 15W-40 DH-1 is designed to keep pistons cleaner than previous-generation Komatsu products.

OXIDATION AND DEPOSIT CONTROL

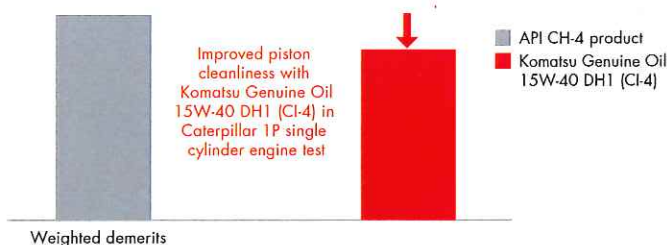
Komatsu Genuine Oil 15W-40 DH-1 helps to prevent oil thickening and the formation of harmful deposits in many areas of the engine, such as the oil sump and piston ring areas. The product's improved oxidation control is demonstrated in laboratory rig tests.

In the PDSC laboratory oxidation control test for ACEA heavy-duty diesel engine oil specifications, Komatsu KGO shows significantly longer induction periods, i.e., better oxidation control performance relative to an API CH-4 oil.



Oxidation induction period = time to onset of oxidation

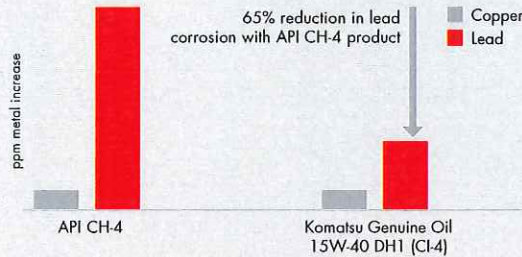
Komatsu KGO offers strong piston deposit control in engines with iron and aluminium pistons, which is demonstrated by the low levels of carbon and lacquer deposits in the industry-standard Caterpillar 1P test.



Weighted demerits = overall rating of piston cleanliness, i.e., carbon and lacquer deposits – a lower number is better

ACID AND CORROSION CONTROL

The superior acid and oxidation control in Komatsu KGO contribute to the control of chemical corrosion in engine bearings. Low bearing wear levels observed in real-world field trials demonstrate strong bearing corrosion control for Komatsu KGO. In the Cummins high-temperature corrosion bench test, Komatsu KGO demonstrated a 65% reduction in lead corrosion compared with a standard API CH-4 product.



SPECIFICATIONS AND APPROVALS

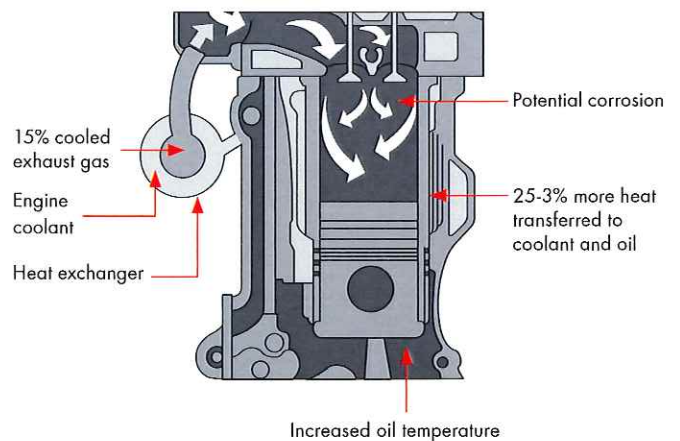
	Previous engine oil 15W-40 DH-1	NEW engine oil 15W-40 DH-1
API	CH-4/CG-4/CF-4/CF	CI-4/SJ
JASO	DH-1	DH-1
ACEA	E5, E3	E7
Cat	ECF-1A	ECF-2/ECF-1A
Cummins	20077/76/75/72/71	20078
Volvo	VDS-2	VDS-3



PROTECTION FOR ENGINES EQUIPPED WITH EGR

Exhaust gas recirculation (EGR) introduces some exhaust gas into the inlet air charge to reduce peak combustion temperatures. These gases contain acids (sulphurous and sulphuric) and soot particles that can have a detrimental effect on oil performance in terms of corrosion and soot-induced wear. EGR can lead to higher oil temperatures, which stress the oil further.

Komatsu KGO has been designed to lubricate in the performance-demanding environment of engines equipped with EGR to reduce oxides of nitrogen (NOx) and particulate (soot) emissions, i.e., US 2002 and many Euro 2, 3, 4 and 5 (Tier 2 and Tier 3) engines.



EGR increases heat transfer and potential corrosion, so the lubricant must prevent corrosion and oil oxidation

Komatsu KGO contains a specially optimised combination of performance additives and chemicals designed to provide the right level of engine cleanliness, wear and oxidation protection under the tough conditions in engines with EGR and in a wide range of vehicle types.