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# KLONDIKE API CJ-4 Full Synthetic Heavy Duty Engine Oils: SAE 0W-30, 0W-40, 5W-40

### **PRODUCT DESCRIPTION**

KLONDIKE API CJ-4 Full Synthetic Heavy Duty Engine Oils are highly advanced, heavy duty, maximum performance engine oils recommended for modern naturally aspirated and turbocharged four-stroke diesel engines requiring oils meeting API CJ-4 and operating in extreme or challenging climatic conditions.

#### **APPLICATIONS**

KLONDIKE API CJ-4 Full Synthetic Heavy Duty Engine Oils are premium, mixed fleet motor oils recommended for use in naturally aspirated and turbocharged four-stroke diesel engines and four-stroke gasoline engines in which the API CJ-4 service category and respective SAE viscosity grade are recommended. It is fully compatible with previous API service categories, allowing its use in old and new engines operating in a wide range of service applications and climatic conditions.

KLONDIKE API CJ-4 Full Synthetic Heavy Duty Engine Oils also meet the requirements of Allison<sup>®</sup> C-4 for use in transmissions requiring fluids of this type.

Typical applications for KLONDIKE API CJ-4 Full Synthetic Heavy Duty Engine Oils include (but are not limited to):

- Current on-highway low emission heavy duty engine designs as well as in older engines operating on ultralow sulfur diesel fuel (ULSD).
- Current off-highway heavy duty engines in stationary or mobile equipment including those adapted for future emissions standards in construction, agriculture, marine, and mining applications.



OEM approvals of KLONDIKE SAE 5W-40 CJ-4 Full Synthetic Engine Oil



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## FEATURES AND BENEFITS

KLONDIKE API CJ-4 Full Synthetic Heavy Duty Engine Oils are engineered to deliver outstanding wear protection and fuel economy in modern diesel engines. Formulated with premium, full synthetic base oils and carefully balanced additive technology, these advanced engine oils deliver outstanding performance in service applications operating under high-load, high-stress conditions and in extreme climates. Full synthetic base oils minimize the co-efficient of friction between moving parts inside an engine, promoting energy conservation and potential fuel economy savings through reduced viscous drag, easier engine starts, and reduced need for idling.

KLONDIKE API CJ-4 Full Synthetic Heavy Duty Engine Oils contain field proven additive technology which delivers outstanding oxidation control, engine cleanliness, TBN and high viscosity retention for maximum service life. Metal anti-wear protection exceeds API CJ-4 standards and tough OEM specifications.

KLONDIKE API CJ-4 Full Synthetic Heavy Duty Engine Oils exceed the needs of current emmision control systems such as Exhaust Gas Recirculation (EGR), Diesel Particulate Filter (DPF), or Selective Catalytic Reduction (SCR).

KLONDIKE API CJ-4 Full Synthetic Heavy Duty Engine Oils are formulated with KLONDIKE's advanced Arctic Performance Technology to ensure maximum possible reliability and performance in extreme low temperature applications. Ultra-low pour points and outstanding fluidity promote equipment startup and minimized wear in these extreme conditions.

KLONDIKE API CJ-4 Full Synthetic Heavy Duty Engine Oils deliver value through the following benefits:

- **Full synthetic base oil** excellent low and high temperature performance characteristics.
- Engine efficiency keeps internal engine components clean, reduces oil consumption for long service life.
- **Outstanding anti-wear** wear protection exceeds API CJ-4 and tough OEM specifications.
- Emission compliant compliant with current emission control equipment. Promotes extended DPF life .
- Extended service life high TBN and viscosity retention supports extended service life.

# KLONDIKE API CJ-4 Full Synthetic Heavy Duty Engine Oils

## SPECIFICATIONS AND APPROVALS

KLONDIKE API CJ-4 Full Synthetic Heavy Duty Engine Oils meet the requirements of the following specifications and are recommended for use in:

- Allison<sup>®</sup> C-4
- API Service Categories CJ-4, CI-4 PLUS, CI-4, SN
- ACEA European Service Categories E9, E7
- Caterpillar<sup>®</sup> ECF-3, ECF-2
- Cummins<sup>®</sup> CES 20081, 20078, 20077
- Daimler MB 228.31, 228.3
- Detroit Diesel® Power Guard 93K218 and previous
- Deutz DQC 111-05

- FCA MS-10902 EcoDiesel (SAE 5W-40 Full Syn)
- Global DHD-1
- **JASO** DH-2
- Mack<sup>®</sup> EO-O Premium Plus and previous
- MAN M 3275, 3575
- MTU Type 2.1
- Renault<sup>®</sup> VI RLD-3
- Volvo<sup>®</sup> VDS-4, VDS-3

Other applicable uses may exist. Please contact KLONDIKE for more information.

# TYPICAL TECHNICAL PROPERTIES

PROPERTY	TEST METHOD	KLONDIKE		
		0W-30 FULL SYN	OW-40 FULL SYN	5W-40 FULL SYN
Specific @ 15.6°C	ASTM D4052	0.8451	0.8487	0.857
API Gravity	ASTM D287	35.94	35.23	33.57
Viscosity @ 40°C, cSt	ASTM D445	63.3	85.5	87.75
Viscosity @ 100°C, cSt	ASTM D445	11.65	14.75	14.8
Viscosity Index	ASTM D2270	182	186	177
CCS, cP	ASTM D5293	5600 (6200 max) @ -35°C	5900 (6200 max) @ -35°C	5000 (6600 max) @ -30°C
Pour Point, °C	ASTM D5950	-54	-51	-45
Flash Point, COC, °C	ASTM D92	220	220	220
TBN	ASTM D2896	10.0	10.0	10.0
Sulfated Ash, wt %	ASTM D874	0.99 max	0.99 max	0.99
Zinc, wt %	ASTM D5185	0.127	0.127	0.127
Calcium wt %	ASTM D5185	0.105	0.105	0.105

All stated physical properties are typical of standard production and may vary.

# KLONDIKE API CJ-4 Full Synthetic Heavy Duty Engine Oils

## HEALTH AND SAFETY

This product is not expected to have adverse health implications when used for its intended application. For detailed information on safe handling of this product, refer to its Material Safety Data Sheet (MSDS). To obtain an MSDS on this or any other KLONDIKE product, please visit www.klondikelubricants.com or call 1-877-293-4691. When disposing of used product, be responsible to the environment.

#### **BRAVING THE FORCE OF MOVEMENT**

KLONDIKE stands for robust, reliable, high quality products tailored to suit the requirements of the on- and off-road heavy duty, automotive and industrial markets. Our solutions span from trend-setting retail lubricants through small-batch custom formulations to large bulk orders ready for immediate delivery.

The extensive KLONDIKE product range includes premium oils, lubricants, greases, chemicals and specialty fluids formulated with virgin base oils and protective inhibitors. Designed to handle the most extreme climates and operating conditions, the KLONDIKE products protect and extend the life of your equipment, optimize performance and improve productivity while meeting and exceeding industry standards and specifications.

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