

Machine Id **7CEXL0505AAB 22384456**

Component Diesel Engine

ROYAL OIL SUPREME ULTRA HD 15W40 (5 GAL)

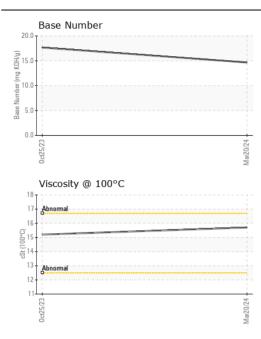
RUTAL OIL SUPREME ULTRA HD 15W40 (5 GA	↓∟)						
RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
Resample at the next service interval to monitor.	Sample Number		Client Info		RO06124382	RO06001149	
	Sample Date		Client Info		20 Mar 2024	25 Oct 2023	
	Machine Age	wks	Client Info		0	0	
	Oil Age	wks	Client Info		16	6	
	Filter Age	wks	Client Info		0	0	
	Oil Changed		Client Info		Changed	Changed	
	Filter Changed		Client Info		Changed	Changed	
	Sample Status				NORMAL	NORMAL	
WEAR	Iron	ppm	ASTM D5185m	>90	35	16	
All component wear rates are normal.	Chromium	ppm	ASTM D5185m	>20	2	2	
	Nickel	ppm	ASTM D5185m	>2	<1	<1	
	Titanium	ppm	ASTM D5185m	>2	0	0	
	Silver	ppm	ASTM D5185m		0	0	
	Aluminum	ppm	ASTM D5185m	>20	2	2	
	Lead	ppm	ASTM D5185m	>40	4	2	
	Copper	ppm	ASTM D5185m	>330	272	179	
	Tin	ppm	ASTM D5185m	>15	0	<1	
	Vanadium	ppm	ASTM D5185m		0	0	
	White Metal	scalar	*Visual	NONE	NONE	NONE	
	Yellow Metal	scalar	*Visual	NONE	NONE	NONE	
CONTAMINATION	Silicon	ppm	ASTM D5185m	>25	5	4	
	Potassium	ppm	ASTM D5185m	>20	0	2	
There is no indication of any contamination in the oil.	Fuel		WC Method	>3.0	<1.0	<1.0	
	Water		WC Method	>0.2	NEG	NEG	
	Glycol		WC Method		NEG	NEG	
	Soot %	%	*ASTM D7844	>6	1.3	0.8	
	Nitration	Abs/cm	*ASTM D7624	>20	12.2	10.0	
	Sulfation	Abs/.1mm	*ASTM D7415	>30	23.4	19.9	
	Silt	scalar	*Visual	NONE	NONE	NONE	
	Debris	scalar	*Visual	NONE	NONE	NONE	
	Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	
	Appearance	scalar	*Visual	NORML	NORML	NORML	
	Odor	scalar	*Visual	NORML	NORML	NORML	
	Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	
FLUID CONDITION	Sodium	ppm	ASTM D5185m		<1	2	
	Boron	ppm	ASTM D5185m		<1	0	
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.	Barium	ppm	ASTM D5185m		0	0	
	Molybdenum	ppm	ASTM D5185m		<1	0	
	Manganese	ppm	ASTM D5185m		0	<1	
	Magnesium	ppm	ASTM D5185m		24	22	
	Calcium	ppm	ASTM D5185m		5216	4647	
	Phosphorus	ppm	ASTM D5185m		1006	897	
	Zinc	ppm	ASTM D5185m		1216	1181	
	Sulfur	ppm	ASTM D5185m		4934	4219	
	Oxidation	Abs/.1mm	*ASTM D7414	>25	16.7	11.9	
	Base Number (BN)	mg KOH/g	ASTM D2896		14.66	17.66	

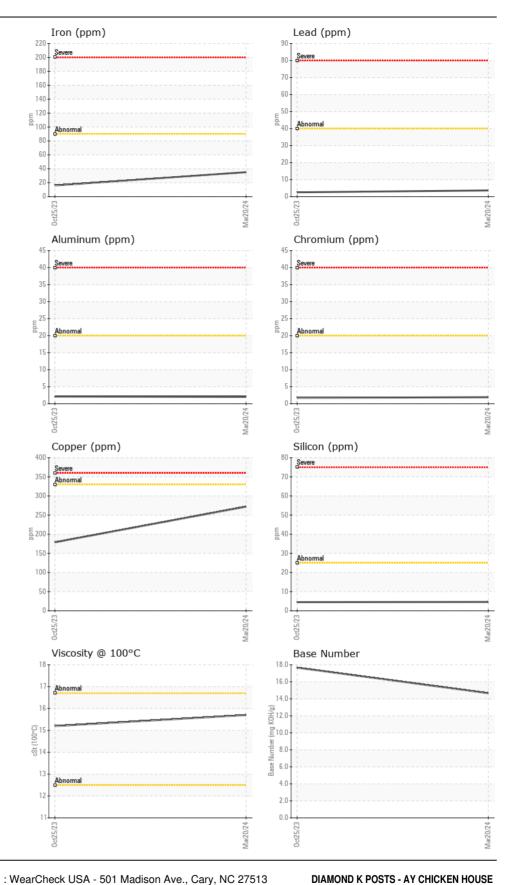
Visc @ 100°C cSt

ASTM D445

15.2

15.7







Sample No. : RO06124382 Received 19439 160TH ST : 20 Mar 2024 Lab Number : 06124382 : 21 Mar 2024 Tested DRAKESVILLE, IA Unique Number : 10938533 : 21 Mar 2024 - Wes Davis US 52552 Diagnosed Test Package : MOB 2 Contact: AARON Certificate L2367 To discuss this sample report, contact Customer Service at 1-800-237-1369. * - Denotes test methods that are outside of the ISO 17025 scope of accreditation. T:

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

Laboratory

Contact/Location: AARON ? - DIADRA

Page 2 of 2