

Machine Id ONAN E140667002 Component Genset							
DIESEL ENGINE OIL SAE 15W40 (GAL)							
RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
	Sample Number		Client Info		VPA050978	VPA039592	
Resample at the next service interval to monitor.	Sample Date		Client Info		01 Feb 2024	21 Nov 2022	
	Machine Age	hrs	Client Info		1254	815	
	Oil Age	hrs	Client Info		0	0	
	Filter Age	hrs	Client Info		0	0	
	Oil Changed		Client Info		N/A	N/A	
	Filter Changed		Client Info		N/A	N/A	
	Sample Status				NORMAL	NORMAL	
WEAR	Iron	ppm	ASTM D5185m	>50	15	13	
	Chromium	ppm	ASTM D5185m	>4	1	<1	
All component wear rates are normal.	Nickel	ppm	ASTM D5185m	>2	<1	0	
	Titanium	ppm	ASTM D5185m		<1	0	
	Silver	ppm	ASTM D5185m	>5	0	<1	
	Aluminum	ppm	ASTM D5185m	>12	3	1	
	Lead	ppm	ASTM D5185m		0	<1	
	Copper	ppm	ASTM D5185m	>70	4	<1	
	Tin	ppm	ASTM D5185m	>15	0	<1	
	Vanadium	ppm	ASTM D5185m		<1	0	
	White Metal	scalar	*Visual	NONE	NONE	NONE	
	Yellow Metal	scalar	*Visual	NONE	NONE	NONE	
CONTAMINATION There is no indication of any contamination in the oil.	Silicon	ppm	ASTM D5185m	>25	4	7	
	Potassium	ppm	ASTM D5185m	>20	3	7	
	Fuel		WC Method	>4.0	<1.0	<1.0	
	Water		WC Method	>0.1	NEG	NEG	
	Glycol		WC Method		NEG	NEG	
	Soot %	%	*ASTM D7844		0.2	0.1	
	Nitration	Abs/cm	*ASTM D7624		6.1	6.4	
	Sulfation	Abs/.1mm	*ASTM D7415		18.2	21.1	
	Silt	scalar	*Visual	NONE	NONE	NONE	
	Debris	scalar	*Visual	NONE	NONE	NONE	
	Sand/Dirt		*Visual	NONE	NONE	NONE	
	Appearance		*Visual	NORML	NORML	NORML	
	Odor	scalar	*Visual	NORML	NORML	NORML	
	Emulsified Water	scalar	*Visual	>0.1	NEG	NEG	
FLUID CONDITION	Sodium	ppm	ASTM D5185m		<1	5	
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.	Boron	ppm	ASTM D5185m		24	189	
	Barium	ppm	ASTM D5185m		0	0	
	Molybdenum	ppm	ASTM D5185m	100	50	3	
	Manganese	ppm	ASTM D5185m		0	<1	
	Magnesium	ppm	ASTM D5185m		751	44	
	Calcium	ppm	ASTM D5185m		1124	2193	
	Phosphorus	ppm	ASTM D5185m		953	977	
	Zinc	ppm	ASTM D5185m	1350	1109	1162	

3102

14.0

9.3

13.9

ASTM D445 14.4

ppm ASTM D5185m 4250

Abs/.1mm *ASTM D7414 >25

Base Number (BN) mg KOH/g ASTM D2896 8.5

Sulfur

Oxidation

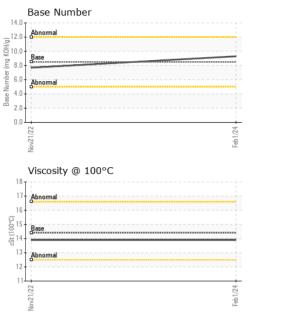
Visc @ 100°C cSt

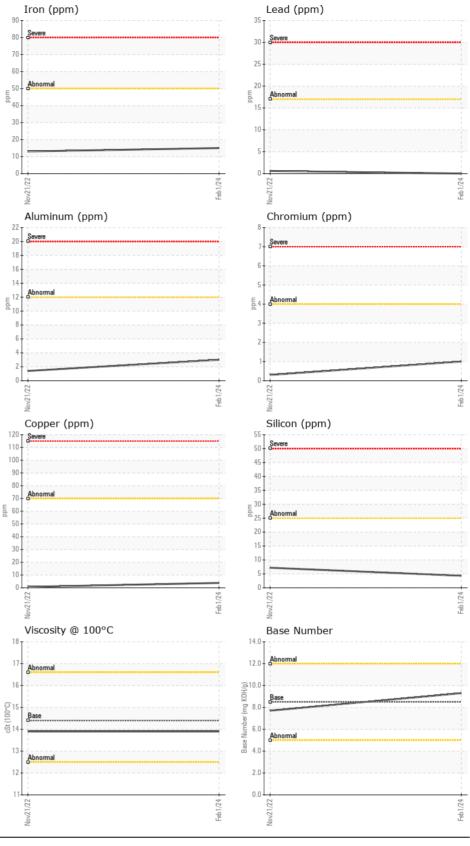
3996 ----

17.2

7.7

13.9





SUNCOAST DIESEL MARINE Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513 Sample No. : VPA050978 Received 6341 PORTER ROAD, SUITE 6 : 13 Feb 2024 Lab Number : 06086813 Tested : 13 Feb 2024 SARASOTA, FL Unique Number : 10874258 : 14 Feb 2024 - Sean Felton US 34240 Diagnosed Test Package : MOB 1 (Additional Tests: TBN) Contact: SERVICE MANAGER Certificate L2367 To discuss this sample report, contact Customer Service at 1-800-237-1369. info@suncoastdmi.com * - Denotes test methods that are outside of the ISO 17025 scope of accreditation. T: (941)342-0033 Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012) F:

Contact/Location: SERVICE MANAGER - VP705283