

[HAGGARD] Machine Id ONAN 1210981313

Component Genset

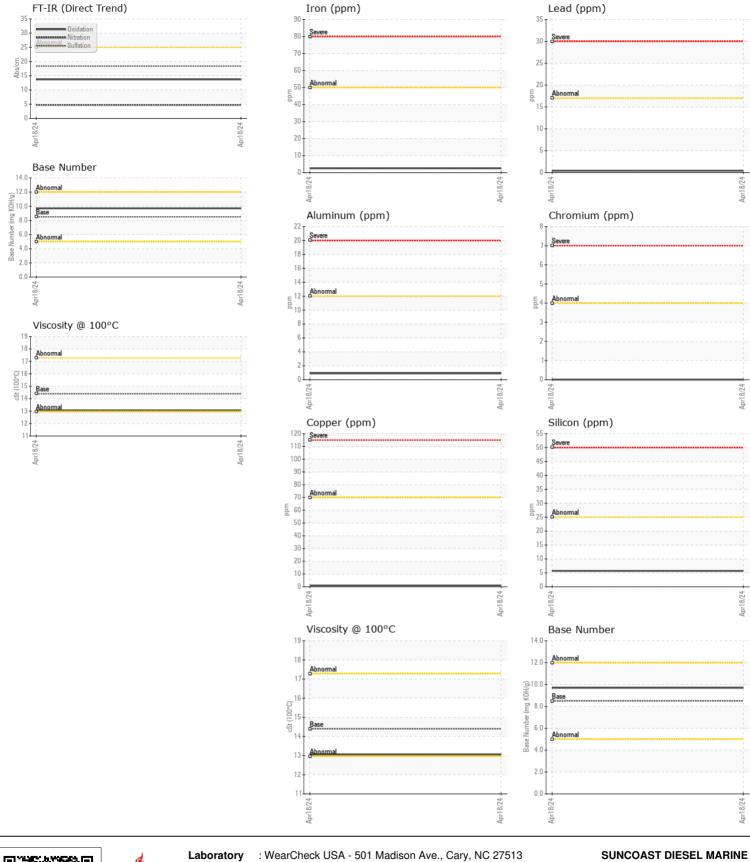
DIESEL ENGINE OIL SAE 15W40 (--- GAL)

RECOMMENDATION	Test	UOM	Method	Limit/Abn		History1	History2
Resample at the next service interval to monitor.	Sample Number		Client Info		VPA062947		
	Sample Date		Client Info		18 Apr 2024		
	Machine Age	hrs	Client Info		448		
	Oil Age	hrs	Client Info		0		
	Filter Age	hrs	Client Info		0		
	Oil Changed		Client Info		Not Changd		
	Filter Changed		Client Info		Not Changd		
	Sample Status				NORMAL		
WEAR All component wear rates are normal.	Iron	ppm	ASTM D5185m	>50	2		
	Chromium	ppm	ASTM D5185m	>4	0		
	Nickel	ppm	ASTM D5185m	>2	0		
	Titanium	ppm	ASTM D5185m		0		
	Silver	ppm	ASTM D5185m	>5	0		
	Aluminum	ppm	ASTM D5185m	>12	<1		
	Lead	ppm	ASTM D5185m		<1		
	Copper	ppm	ASTM D5185m		<1		
	Tin	ppm	ASTM D5185m		<1		
	Vanadium	ppm	ASTM D5185m	210	<1		
	White Metal	scalar	*Visual	NONE	NONE		
					NONE		
	Yellow Metal	scalar	*Visual	NONE	NONE		
CONTAMINATION There is no indication of any contamination in the oil.	Silicon	ppm	ASTM D5185m		6		
	Potassium	ppm	ASTM D5185m	>20	0		
	Fuel		WC Method	>4.0	<1.0		
	Water		WC Method	>0.1	NEG		
	Glycol		WC Method		NEG		
	Soot %	%	*ASTM D7844		0.1		
	Nitration	Abs/cm	*ASTM D7624	>20	4.7		
	Sulfation	Abs/.1mm	*ASTM D7415	>30	18.4		
	Silt	scalar	*Visual	NONE	NONE		
	Debris	scalar	*Visual	NONE	NONE		
	Sand/Dirt	scalar	*Visual	NONE	NONE		
	Appearance	scalar	*Visual	NORML	NORML		
	Odor	scalar	*Visual	NORML	NORML		
	Emulsified Water	scalar	*Visual	>0.1	NEG		
		Scala	v isuai	20.1			
FLUID CONDITION	Sodium	ppm	ASTM D5185m	>158	<1		
	Boron	ppm	ASTM D5185m	250	57		
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is acceptable for the time in service.	Barium	ppm	ASTM D5185m	10	0		
	Molybdenum	ppm	ASTM D5185m	100	63		
	Manganese	ppm	ASTM D5185m		0		
	Magnesium	ppm	ASTM D5185m	450	893		
	Calcium	ppm	ASTM D5185m		1133		
	Phosphorus	ppm	ASTM D5185m		1020		
	Zinc		ASTM D5185m		1201		
		ppm		1350			
	Sulfur	ppm	ASTM D5185m		3851		
	Oxidation	Abs/.1mm	*ASTM D7414		13.7		
	Base Number (BN)	mg KOH/g	ASTM D2896	8.5	9.7		

Visc @ 100°C cSt

ASTM D445 14.4

13.05



Sample No. : VPA062947 Received 6341 PORTER ROAD, SUITE 6 : 19 Apr 2024 Lab Number : 06155038 Tested SARASOTA, FL : 19 Apr 2024 Unique Number : 10990461 Diagnosed : 19 Apr 2024 - Doug Bogart US 34240 Test Package : MOB 1 (Additional Tests: TBN) Contact: JOSHUA Certificate L2367 To discuss this sample report, contact Customer Service at 1-800-237-1369. joshua@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: (941)342-0088

Contact/Location: JOSHUA ? - VP705283 Page 2 of 2